



**WELLINGTON**  
SHIRE COUNCIL  
*The Heart of Gippsland*

## **Council Meeting Agenda**

**Meeting to be held at**

**Port of Sale Business Centre**

**Foster Street, Sale**

**Tuesday 6 September 2016, commencing at 1pm**

**or join Wellington on the Web:  
[www.wellington.vic.gov.au](http://www.wellington.vic.gov.au)**

# ORDINARY MEETING OF COUNCIL – 6 SEPTEMBER 2016

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## Council Meeting Information

*Members of the Public Gallery should note that the Council records and publishes Council meetings via Webcast to enhance the accessibility of Council meetings to the broader Wellington community. These recordings are also archived and may be published on Council's Website for viewing by the public or used for publicity or information purposes. At the appropriate times during the meeting, members of the gallery may address the Council at which time their image, comments or submissions will be recorded.*

*Members of the public who are not in attendance at the Council meeting but who wish to communicate with the Council via the webcasting chat room should lodge their questions or comments early in the meeting to ensure that their submissions can be dealt with at the end of the meeting.*

*Please could gallery visitors and Councillors ensure that mobile phones and other electronic devices are turned off or in silent mode for the duration of the meeting.*





## **A - PROCEDURAL**



### **STATEMENT OF ACKNOWLEDGEMENT**

*“We acknowledge the traditional custodians  
of this land the Gunaikurnai people,  
and pay respects to their elders past and present”*



### **PRAYER**

*“Almighty God, we ask your blessing upon the Wellington  
Shire Council, its Councillors, officers, staff and their families.  
We pray for your guidance in our decisions so that the  
true good of the Wellington Shire Council may result to  
the benefit of all residents and community groups.”*

*Amen*



## A - PROCEDURAL

### A4 CONFIRMATION OF MINUTES OF PREVIOUS COUNCIL MEETING/S

**ITEM A4****ADOPTION OF MINUTES OF PREVIOUS MEETING/S**

ACTION OFFICER:

GENERAL MANAGER CORPORATE SERVICES

DATE:

6 SEPTEMBER 2016

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**OBJECTIVE**

To adopt the minutes of the Ordinary Council Meeting of 16 August 2016 as tabled.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

*That Council adopt the minutes and resolutions of the Ordinary Council Meeting of 16 August 2016 as tabled.*

**CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.



## **A - PROCEDURAL**

### **A5 BUSINESS ARISING FROM PREVIOUS MEETING/S**



## A - PROCEDURAL

### A6 ACCEPTANCE OF LATE ITEMS



## **A - PROCEDURAL**

### **A7 NOTICE/S OF MOTION**



## **A - PROCEDURAL**

### **A8 RECEIVING OF PETITIONS OR JOINT LETTERS**

**ITEM A8(1)**

**OUTSTANDING PETITIONS**

ACTION OFFICER

GOVERNANCE

DATE:

6 SEPTEMBER 2016

---

ITEM	FROM MEETING	COMMENTS	ACTION BY



**ITEM A8(2)****RECEIPT OF PETITION – OBJECTION TO RE-OPENING  
BRADY’S BRIDGE TO TRAFFIC**

ACTION OFFICER

GOVERNANCE

DATE:

6 SEPTEMBER 2016

Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
		✓							

**OBJECTIVE**

To present Council with a petition in relation to the objection to re-opening Brady’s Bridge to traffic.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

*That Council receive the attached petition in relation to the objection to re-opening Brady’s Bridge to traffic.*

**BACKGROUND**

A petition containing 16 signatures has been received by Council.

A copy of the petition is attached for Council information.

**LEGISLATIVE IMPACT**

Section L6.59 of Wellington Shire Council Processes of Municipal Government (Meetings and Common Seal) Local Law No 1 provides for petitions and joint letters:

“A petition or joint letter presented to the Council must lay on the table for a period determined by the Council but not exceeding the next two Council Meetings. No motion, other than to receive the petition or joint letter may be accepted by the Chairperson, unless the Council unanimously agrees to deal with it earlier.”

Dear Tom,

We, the undersigned residents of Stephenson Street Sale and Maxfield's Road, would like to submit our strong objection to the proposal to re-open Brady's Bridge to traffic.

Notification was received from the Wellington Shire stating that Council was seeking application to rebuild the Brady's Bridge as a pedestrian footbridge, had there been mention of application to re-open the bridge to traffic the undersigned would have attended to voice their concerns.

A new pedestrian footbridge would be a welcome upgrade by the residents of our area as well as the many Sale residents who enjoy the peaceful serenity of Maxfield's Road and Stephenson Street on their family walks and bicycle rides with their children and dogs without the hazard of excessive vehicles, opening the bridge to traffic would increase the volume of vehicular traffic to a predicted 300 vehicles per day compromising the safety of these family outings.

In making the decision to apply to re-open the bridge to traffic we wonder if the Council has taken into consideration the environmental impact on the State Wildlife Wetlands Reserve and its inhabitants? Comments such as the one below taken from a review of the Wetlands will no longer be applicable.

*Hardly common... Picturesque... Poise for a moment amidst the serenity of the common... you can hear a chorus of birdlife... it is an exceptional place. There is a huge range of birdlife... wonderful boardwalks to enjoy the area to it's full potential. (Taken from [www.tourismwellington.com.au](http://www.tourismwellington.com.au))*

The noise of these vehicles will drown out the chorus of birdlife, the dust and the unavoidable damage to the unsealed road alone will ruin the serenity and the picturesque drive to access the wetlands and while the local wildlife spend an incredible amount of time in our yards and on our roads, how many deaths would occur with an increase to 300 vehicles per day.

We are a small rural community on the outskirts of town who value their serenity and privacy, this would be severely compromised with an increase of this proportion of traffic - being in an area with Council Heritage Overlay our fences are designed as a low and open - allowing any passer-by full vision into our properties, opening the doorway for burglary and theft.

Our humble little street is unsealed and suffers from lack of council maintenance on a regular basis - corrugated and dusty but peaceful and private, enjoyed by a multitude of pedestrian based Sale residents as well as ourselves for the simple fact that it is not a thoroughfare for transients to disrespect and destroy but used to access the wonderful wildlife refuge and our homes.

In addition to applying for funding to build a bridge to accommodate vehicular traffic the Council would also need to seek funding for the upgrade of Stephenson Street to a sealed access road with a pedestrian footpath to ensure the safety of our families and recreational users of our road. As the undersigned strongly object to the re-opening of the bridge to traffic we would find the Council responsible for providing the upgrade & maintenance of the road rather than becoming our responsibility to fund as ratepayers.

If the argument to open the bridge to vehicles is for use during flooding we would like to ensure the Council is aware to the fact that the corner of Maxfield's Road and Stephenson Street is one of the main flood points and would deny access to the bridge during a flood even if it was open to vehicles.

In summary there is no benefit to re-opening Brady's Bridge to vehicular traffic but the downfalls are plenty not only to the local residents and wildlife but the recreational visitors to our area.

We thank you for your consideration of our objection and hope that the Council considers the detrimental damage to both residents and the environment that would result with the re-opening of Brady's Bridge to vehicular traffic.

Please see the below signatory sheet acknowledging individual objectors names and contact details.

NAME	ADDRESS	CONTACT
Dona wills		
Janelle Whitehill		
DARREN WHITEHILL		
Nicole Light		
June Light		
Brad Light		
Jemiel Wjer		
Cath Duck		
THEO STREIBER		
ROW FLIPPER		
KRIS SAGIELKA		
PAUL GIBBES		
Michelle Irwin		
Colin Irwin		
Rob Duck		
DARREN LINTHANE		

**ITEM 8A (3)****RESPONSE TO PETITION: REMOVAL OF HANDRAIL ON  
GANGWAY NEXT TO MCLOUGHLIN'S BEACH BOAT RAMP**

DIVISION

BUILT &amp; NATURAL ENVIRONMENT

ACTION OFFICER

GENERAL MANAGER BUILT &amp; NATURAL ENVIRONMENT

DATE:

6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓	✓				✓	✓			

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION*****That:***

- 1. Council not agree to the request to remove and relocate the handrail on the gangway next to the McLoughlins Beach Boat Ramp; and***
- 2. Council authorise the Chief Executive Officer to continue developing works to install bollards to provide a safe independent barrier that removes the risk of boats floating under the gangway; and***
- 3. The Chief Executive Officer write to the head petitioner advising that works will progress to install bollards as recommended by Gippsland Ports.***

**OBJECTIVE**

To consider and respond to the petition received by Council at its meeting of 16 August 2016.

**BACKGROUND**

Council received a petition at its meeting of 16 August 2016 requesting Council remove the hand rail on the gangway and relocate the handrail under the gangway as:-

- The handrail impedes the boaters from fending their boats away from the gangway
- The handrail impedes boaters from pushing their boats over towards their boat trailer
- The handrail needs to be relocated under the gangway so smaller boats don't find their way under the gangway causing high risk of injury to people or their boats.

On 8 August 2016 officers wrote to a member of the McLoughlins Beach Residents and Ratepayers association who had previously raised concerns with the gangway. Key information in that correspondence included the following: -

- Existing handrails are an essential component of the gangway structure and removal of the northern handrail will compromise its structural integrity.
- An additional barrier connected below the gangway on one side may create significant side impact forces, provide contact issues from boats, water flow and capture debris during floods and likely require upgrade of the gangway fixings.

- Council has consulted with Gippsland Ports in order to determine the most appropriate solution to identified risk of boats being caught under the gangway.
- Gippsland Ports has responded to Council and has proposed the installation of piles between the boat ramp and the gangway which will provide an independent barrier without impeding water flow or needing to modify the gangway.
- Council has engaged Gippsland Ports to provide a works proposal, cost plan and timing for implementing works. Council will advise MBRRRA when the works are to be undertaken as soon as that timing is known.



Photo of the gangway and handrails

Council officers have been working with Gippsland Ports to resolve this issue for some time.

Gippsland Ports has recommended installation of bollards at 1500mm centres to prevent boats being swept under the gangway under certain tidal and wind conditions as the preferred solution. Gippsland Ports has indicated this independent installation does not require alteration of the gangway or its fixings and protects the structural integrity of the gangway.

Gippsland Ports have advised that they have sub-contractors currently undertaking works in Port Albert that have the appropriate skills and equipment required to undertake piling works at Mcloughlin's Beach. Officers are progressing quotations from the Gippsland Ports sub-contractors and other suitable contractors to ensure best value for Council in implementing works.

Works can progress on the installation of bollards as soon as quotations are finalised.

Since receiving this petition concerns have been raised by the local angling club supporting the retention of the handrails as they believe the removal of the handrail may create a safety risk for pedestrians and boaters on the moving gangway.

## OPTIONS

1. Undertake substantial modifications to the gangway including fixing point upgrade and structural alterations to remove the northern handrail and install bollards at 1500 centres independent of the gangway to reduce the identified risk to boaters.
2. Progress engagement of suitably qualified and skilled contractors to install bollards that provide a safe independent barrier that removes the identified risk of boats floating under the gangway.
3. Not modify the current gangway or add bollards for protection but provide signage warning of possible risks for boaters during certain tidal and wind conditions.

## PROPOSAL

Council authorise the Chief Executive Officer to continue developing works to install bollards to provide a safe independent barrier that removes the risk of boats floating under the gangway; and write to the head petitioner advising that works will progress to install bollards as detailed.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest”

## FINANCIAL IMPACT

Funding for works will be sourced from Councils Boating facilities budgets. Installation of bollards as suggested are estimated cost to be in excess of \$10,000. Redesign and modifications to gangway would require significant work and still require bollards to be installed. Cost of this option would be in excess of the above bollards estimate. Upon receipt of an alternate design and estimate quotations would need to be sourced for this work.

## COUNCIL PLAN IMPACT

The Council Plan 2013-2017 Theme 4 Infrastructure states the following strategic objective and related strategies:

Strategic Objective

*“Assets and infrastructure that meet current and future community needs.”*

Strategy 4.2

*“Ensure assets are managed, maintained and renewed to meet service needs.”*

David Morcom CEO  
Wellington Shire Council



**Re; Petition to remove hand rail on the gangway next to boat ramp.**

Dear David,

Please accept this petition on behalf of boaters that use the boat ramp at McLoughlins Beach.

The basis of the petition is to inform the Wellington Shire Council, that there are many boaters that find the current design of the south gangway is causing serious safety issues and making it very difficult for boaters to launch and retrieve their boats to and from their trailers.

This proposal can be engineered as not to severely compromise the gangway's structural integrity. The abutments can be engineered so that compound loads on the abutment fixings will not be impacted on by boats bumping along the structure.

I hope the boaters have successfully stated the importance of this issue.

Yours sincerely

A handwritten signature in cursive script that reads "John Maxwell".

John Maxwell



WELLINGTON  
SHIRE COUNCIL  
10 AUG 2016  
RECEIVED

# Petition

**TO THE CEO DAVID MORCOM Wellington Shire Council**

**RE: REMOVE HANDRAIL ON SOUTH GANGWAY at MCLOUGHLINS BEACH BOAT RAMP**

We the under signed, as boat owners that use the boat ramp at McLoughlins Beach, support the request that the Wellington Shire Council removes the handrail on the south gangway and relocates the handrail under the gangway. (Refer to diagram)

- The handrail impedes boaters from fending their boats away from the gangway.
- The handrail impedes boaters from pushing their boats over towards their boat trailers.
- The handrail needs to be relocated under the gangway so that small boats don't find their way under the gangway causing a HIGH risk of injury to people or damage to boats.

	Print Name	Print Address	Signature
1	John Marshall		[Signature]
2	Away Mackie		[Signature]
3	liz Calton		[Signature]
4	Jess Hiskop		[Signature]
5	Vicky Blair		[Signature]
6	Dean Boynes		[Signature]
7	PHIL KELLY		[Signature]
8	ANTHONY ELLI		[Signature]
9	JOHN MCKENZIE		[Signature]
10	Bruce SHARPE		[Signature]
11	ANDREW ROSATO		[Signature]
12	ROB BRAZ		[Signature]



MCCLOUGHLINS: start of the Ninety Mile Beach

	Print Name	Print Address	Signature
13	LAURIE MAXWELL		
14	R. LEITCH		
15	A. WOODS		
16	D. PURVES		
17	G. LAWRENCE		
18	L. CHAMMAN		
19	A. LIPMAN		
20	D. FAIRIE		
21	A. MCLAREN		
22	C. GORSON		
23	M. SPERNS		
24	DANIEL FROST		
25	Michael Allgood		
26	Kevin Kelly		
27	MARIE HENDERSON		
28	Bill Laurry		
29	TONY HINIART		
30	KEN ARMSTEAD		
31	RON HERRMENS		
32	CHRIS GOLDSBROUGH		
33	Clint Falzon		
34	CAVIN BYRNE		
35	RYAN WARE		
36	RUSSELL DIPPEN		

MCCLOUGHLINS: start of the Ninety Mile Beach

	Print Name	Print Address	Signature
37	Ray Oardly		<i>[Signature]</i>
38	John Ware		<i>[Signature]</i>
39	TRAVIS TATNOLD		<i>[Signature]</i>
40	DAVE GOODEN		<i>[Signature]</i>
41	GARY MILLS		<i>[Signature]</i>
42	Domenic Palermo		<i>[Signature]</i>
43	Paul Drake		<i>[Signature]</i>
44	DAVID FIRE		<i>[Signature]</i>
45	Robin Dean		<i>[Signature]</i>
46	Kaylene Evans		<i>[Signature]</i>
47	FRED THOMPSON		<i>[Signature]</i>
48	Andrew James		<i>[Signature]</i>
49	Michael Muscarella		<i>[Signature]</i>
50	Aiden Lomenan		<i>[Signature]</i>
51	JONNY CARULLO		<i>[Signature]</i>
52	RAY REED		<i>[Signature]</i>
53	TAN BLUMQUIST		<i>[Signature]</i>
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WELLINGTON  
SHIRE COUNCIL  
10 AUG 2016  
RECEIVED





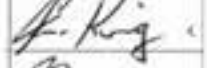


# Petition

TO THE CEO DAVID MORCOM Wellington Shire Council

RE: REMOVE HANDRAIL ON SOUTH GANGWAY at MCLOUGHLINS BEACH BOAT RAMP

We the under signed, as boat owners that use the boat ramp at McLoughlins Beach, support the request that the Wellington Shire Council removes the handrail on the south gangway and relocates the handrail under the gangway. (Refer to diagram)

- The handrail impedes boaters from fending their boats away from the gangway.
- The handrail impedes boaters from pushing their boats over towards their boat trailers.
- The handrail needs to be relocated under the gangway so that small boats don't find their way under the gangway causing a HIGH risk of injury to people or damage to boats.

	Print Name	Print Address	Signature
1	TONY DELLAFORTUNA		
2	Joe Keenan		
3	Ben Barnes		
4	Jake Harde		
5	Jeffrey W		
6	Karen Flavel		
7	LON RATNER		
8	David Thompson		
9	JIM TWOMEY		
10	F Zuehlke		
11	IAN KING		
12	SHANE NEBROWICZ		

MCLOUGHLINS: start of the Ninety Mile Beach

	Print Name	Print Address	Signature
13	PETER RUFF		
14	TREVOR MOOREY		
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## **A - PROCEDURAL**

### **A9 INVITED ADDRESSES, PRESENTATIONS OR ACKNOWLEDGEMENTS**



## **A - PROCEDURAL**

### **A10 QUESTIONS ON NOTICE**



# **B –REPORT**

# **DELEGATES**



## C1 - REPORT

# CHIEF EXECUTIVE OFFICER





## C2 - REPORT

# GENERAL MANAGER CORPORATE SERVICES

**ITEM C2.1****ASSEMBLY OF COUNCILLORS**

DIVISION: CORPORATE SERVICES

ACTION OFFICER: GENERAL MANAGER CORPORATE SERVICES

DATE: 6 SEPTMEBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
		✓		✓					

**OBJECTIVE**

To report on all assembly of Councillor records received during the period 16 August 2016 to 30 August 2016.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council note and receive the attached Assembly of Councillor records received during the period 16 August 2016 to 30 August 2016.***

**BACKGROUND**

Section 80A of the *Local Government Act 1989* requires a written record be kept of all assemblies of Councillors, stating the names of all Councillors and Council staff attending, the matters considered and any conflict of interest disclosures made by a Councillor. These records must be reported, as soon as practicable, at an ordinary meeting of the Council and recorded in the minutes.

Below is a summary of all assembly of Councillor records received during the period 16 August 2016 to 30 August 2016.

**Assembly of Councillors summary of reports received during the period 16 August 2016 to 30 August 2016**

<b>Date</b>	<b>Matters considered</b>	<b>Councillors and officers in attendance</b>
16 August 2016	Councillors' Diary Meeting	Councillor Crossley, Councillor McCubbin, Councillor Davine, Councillor Wenger, Councillor Hole, David Morcom, Chief Executive Officer, Leah Schuback, Executive Assistant
16 August 2016	Kalbar Mineral Sands Project NBN Co Ltd Rollout Update North Sale Draft Design Response Monthly Planning Update (Verbal Update) Rosedale and Seaspray Flood Study Update Port Albert Boating Parking Facilities Community Engagement Strategy Amendment C90: Rezoning of Precincts and 11 Longford Development Plan	Councillor Crossley, Councillor McCubbin, Councillor Rossetti, Councillor Wenger, Councillor Davine, Councillor Duncan (Item 3-8), Councillor Hole David Morcom, Chief Executive Officer, Arthur Skipitaris, General Manager Corporate Services, Chris Hastie, General Manager Built & Natural Environment, Glenys Butler, General Manager Community & Culture, John Websdale, General Manager Development, Sharyn Bolitho, Manager Economic Development (Items 1 & 2), Sabine Provily, Strategic Planner (Items 1 & 8), Josh Clydesdale, Manager Land Use Planning (Items 3, 4, 5 & 8), Barry Hearsey, Coordinator Strategic Planning (Items 3, 4, 5 & 8), Michelle Nichols, Coordinator Statutory Planning (Item 4), John Tatterson, Manager Built Environment (Item 6), Catherine Vassiliou, Coordinator Social Planning & Policy (Item 7), Anna Larkin, Community Engagement Officer (Item 7)
23 August 2016	SLUPP Agenda	Councillor McCubbin, Councillor Wenger, Chris Hastie, General Manager Built & Natural Environment, Dean Morahan, Manager Assets & Projects, Sharyn Bolitho, Manager Economic Development, Barry Hearsey, Coordinator Strategic Planning, Ben Proctor, Strategic Planner, Sam Pye, Coordinator Infrastructure Development, Josh Clydesdale, Manager Land Use Planning, Sabine Provily, Strategic Planner

## ASSEMBLY OF COUNCILLORS

---

1. **DATE OF MEETING:** 16 August 2016

2. **ATTENDEES:**

**Councillors:**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
Cr Crossley	✓		Cr McCubbin	✓	
Cr Rossetti		✓	Cr Mclvor		✓
Cr Cleary		✓	Cr Wenger	✓	
Cr Davine	✓		Cr Hole	✓	
Cr Duncan		✓			

**Officers In Attendance:**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
D Morcom, CEO	✓		G Butler, Acting CEO		✓
C Hastie, GMB&NE		✓	J Websdale , GMD		✓
A Skipitaris, GMCS		✓			

**Others in attendance:**

Name	Item No.	Name	Item No.
Leah Schuback	1		

3. **MATTERS/ITEMS CONSIDERED AT THE MEETING**

1. Councillors' Diary Meeting

4. **CONFLICT OF INTEREST DISCLOSURES MADE BY COUNCILLORS:**

Nil

## ASSEMBLY OF COUNCILLORS

**1. DATE OF MEETING:** 16 August 2016

**2. ATTENDEES:**

**Councillors:**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
Cr Crossley	✓		Cr McCubbin	✓	
Cr Rossetti	✓		Cr Mclvor		✓
Cr Cleary ( <i>leave</i> )		✓	Cr Wenger	✓	
Cr Davine	✓		Cr Hole	✓	
Cr Duncan ( <i>item 3 - 8</i> )	✓				

**Officers in Attendance:**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
D Morcom, CEO	✓		G Butler, GMCC	✓	
A Skipitaris, GMCS	✓		John Websdale GMD	✓	
C Hastie, GMBNE	✓				

**Others in attendance:**

Name	Item No.
Sharyn Bolitho, Elizabeth Radcliffe, Chris Cook, Neil O'Loughlin	1
Sharyn Bolitho, Sabine Provily	2
Josh Clydesdale, Barry Hearsey, Chris De Silva, Celia Konstas	3
Josh Clydesdale, Barry Hearsey, Michelle Nichols	4
Josh Clydesdale, Barry Hearsey, Adam Dunn (WG Catchment Mgt. Authority)	5
John Tatterson	6
Catherine Vassiliou, Anna Larkin	7
Josh Clydesdale, Barry Hearsey, Sabine Provily	8

**3. MATTERS / ITEMS CONSIDERED AT THE MEETING:**

1. Kalbar Mineral Sands Project
2. NBN CO Ltd Rollout Update
3. North Sale Draft Design Response
4. Monthly Planning Update (Verbal Update)
5. Rosedale and Seaspray Flood Study Update
6. Port Albert Boating and Parking Facilities
7. Community Engagement Strategy
8. Amendment C90: Rezoning of Precincts 3 and 11 – Longford Development Plan

**4. CONFLICT OF INTEREST DISCLOSURES MADE BY COUNCILLORS:**

Item 3 North Sale Draft Design Report - Cr Davine declared a Conflict of Interest due to an Indirect Interest by Close Association and left the chamber.

## ASSEMBLY OF COUNCILLORS

---

1. **DATE OF MEETING:** 23 August 2016

2. **ATTENDEES**

**Councillors**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
Cr Crossley		✓	Cr McCubbin	✓	
Cr Rossetti		✓	Cr Mclvor		✓
Cr Cleary		✓	Cr Wenger	✓	
Cr Davine		✓	Cr Hole		✓
Cr Duncan		✓			

**Officers in Attendance**

Name	In attendance		Name	In attendance	
	Yes	No		Yes	No
D Morcom, CEO		✓	G Butler, GML		✓
A Skipitaris, GMCS		✓	J Websdale , GMD		✓
C Hastie, GMB&NE	✓				

**Others in attendance**

Name	Item No.	Name	Item No.
Dean Monahan	✓	Sam Pye	
Sharyn Bolitho	✓	Josh Clydesdale	
Barry Hearsey	✓	Sabine Provily	✓
Ben Proctor	✓		

3. **MATTERS/ITEMS CONSIDERED AT THE MEETING:**

1. SLUPP Agenda - 23 August 2016

4. **CONFLICT OF INTEREST DISCLOSURES MADE BY COUNCILLORS:**

Nil

## ITEM C2.2

## APPROVAL IN PRINCIPLE OF DRAFT 2015/2016 FINANCIAL AND PERFORMANCE STATEMENTS

DIVISION: CORPORATE SERVICES  
ACTION OFFICER: MANAGER CORPORATE FINANCE  
DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
		✓		✓					

### OBJECTIVE

For Council to approve in principle the draft 2015/2016 Financial and Performance Statements as attached and authorise two Councillors to certify these statements upon completion of the Auditor-General's review.

### PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

#### RECOMMENDATION

***That Council approve, in principle, the Draft 2015/2016 Financial and Performance Statements as attached and authorise Councillors Cleary and Duncan to certify the statements in their final form.***

### BACKGROUND

Section 131 of the *Local Government Act 1989* requires Council to prepare an annual report for submission to the Minister for Local Government by 30 September of each year.

The annual report must contain the following:

- A report of operations of the Council;
- An audited Performance Statement;
- Audited Financial Statements

Council must pass a resolution giving its approval in principle to the Financial Statements and the Performance Statement so that Officers can submit these to the Auditor-General.

The Chief Executive Officer, Principal Accounting Officer and two Councillors appointed by Council must certify the statements, once amendments or changes requested by the Auditor-General have been made.

Council's Audit Committee has reviewed the draft Financial and Performance Statements and formally recommends that Council approve the statements in principle.

The in principle approval of the statements in early September 2016 will enable the draft statements to be reviewed and certified by the Auditor-General prior to 30 September 2016. This will enable Council to meet its legislative requirement of submitting the 2015/2016 Annual Report to the Minister for Local Government by 30 September 2016.

## **OPTIONS**

That Council:

1. Approve in principle the Draft 2015/2016 Financial and Performance Statements as attached, and authorise two Councillors to certify the statements in their final form; or
2. Not approve in principle the Draft 2015/2016 Financial and Performance Statements, as attached, at this time.

## **PROPOSAL**

That Council approve, in principle, the Draft 2015/2016 Financial and Performance Statements as attached, and authorise Councillors Cleary and Duncan to certify the statements in their final form.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **LEGISLATIVE IMPACT**

Section 132(2) of the *Local Government Act 1989* requires Council to pass a resolution giving approval in principle to the Financial and Performance Statements prior to submitting the statements to the Auditor-General.

## **COUNCIL PLAN IMPACT**

The Council Plan 2013-17 Theme 2 Organisational states the following strategic objective and related strategy:

Strategic Objective

*"An organisation that is responsive, flexible, honest, accountable and consistent."*

Strategy 2.2

*"Maintain processes and systems to ensure sound financial management."*



# **ANNUAL FINANCIAL REPORT**

## **FOR THE YEAR ENDED 30 JUNE 2016**



**Wellington Shire Council  
Financial Report  
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COMPREHENSIVE INCOME STATEMENT  
FOR THE YEAR ENDED 30 JUNE 2016

	NOTE	2016 \$'000	2015 \$'000
<b>Income</b>			
Rates and charges	3	51,690	49,392
Statutory fees and fines	4	466	566
User fees	5	6,410	6,113
Grants - operating	6	8,046	21,156
Grants - capital	6	6,744	5,076
Contributions - monetary	7	350	339
Contributions - non monetary	7	5,934	1,589
Net gain(loss) on disposal of property, infrastructure, plant and equipment	8	243	(177)
Other income	9	3,405	3,002
<b>Total income</b>		<b>83,288</b>	<b>87,056</b>
<b>Expenses</b>			
Employee costs	10	23,748	22,906
Materials and services	11	25,195	27,175
Bad and doubtful debts	12	70	107
Depreciation and amortisation	13	21,102	22,491
Borrowing costs	14	649	769
Other expenses	15	1,323	1,570
<b>Total expenses</b>		<b>72,087</b>	<b>75,018</b>
<b>Surplus for the year</b>		<b>11,201</b>	<b>12,038</b>
<b>Other comprehensive income</b>			
Net asset revaluation increment	27(a)	3,119	8,000
<b>Total comprehensive result</b>		<b>14,320</b>	<b>20,038</b>

The above comprehensive income statement should be read in conjunction with the accompanying notes.

**BALANCE SHEET**  
**AS AT 30 JUNE 2016**

	Note	2016 \$'000	2015 \$'000
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents	16	4,102	25,096
Trade and other receivables	17	6,224	5,963
Other financial assets	18	40,442	19,262
Non-current assets classified as held for sale	19	218	-
Other assets	20	974	2,327
<b>Total Current Assets</b>		<b>51,960</b>	<b>52,648</b>
<b>Non-current assets</b>			
Trade and other receivables	17	1,427	1,486
Property, infrastructure, plant and equipment	21	899,169	887,890
Intangible assets	22	649	901
<b>Total non-current assets</b>		<b>901,245</b>	<b>890,277</b>
<b>Total assets</b>		<b>953,205</b>	<b>942,925</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables	23	4,678	6,103
Trust funds and deposits	24	629	769
Provisions	25	6,785	6,532
Interest-bearing loans and borrowings	26	1,481	2,990
<b>Total current liabilities</b>		<b>13,573</b>	<b>16,394</b>
<b>Non-current liabilities</b>			
Provisions	25	2,117	1,855
Interest-bearing loans and borrowings	26	8,656	10,137
<b>Total non-current liabilities</b>		<b>10,773</b>	<b>11,992</b>
<b>Total liabilities</b>		<b>24,346</b>	<b>28,386</b>
<b>Net assets</b>		<b>928,859</b>	<b>914,539</b>
<b>Equity</b>			
Accumulated surplus		314,775	301,682
Reserves	27	614,084	612,857
<b>Total Equity</b>		<b>928,859</b>	<b>914,539</b>

The above balance sheet should be read with the accompanying notes

STATEMENT OF CHANGES IN EQUITY  
FOR THE YEAR ENDED 30 JUNE 2016

	Note	Total \$'000	Accumulated Surplus \$'000	Asset Revaluation Reserve \$'000	Other Reserves \$'000
<b>2016</b>					
Balance at beginning of the financial year		914,539	301,682	605,809	7,048
Surplus(deficit) for the year		11,201	11,201	-	-
Net asset revaluation increment(decrement)	27(a)	3,119	-	3,119	-
Transfer from asset revaluation reserve to accumulated surplus	35	-	1,543	(1,543)	-
Transfers to other reserves	27(b)	-	(2,025)	-	2,025
Transfers from other reserves	27(b)	-	2,374	-	(2,374)
<b>Balance at end of the financial year</b>		<b>928,859</b>	<b>314,775</b>	<b>607,385</b>	<b>6,699</b>

		Total \$'000	Accumulated Surplus \$'000	Asset Revaluation Reserve \$'000	Other Reserves \$'000
<b>2015</b>					
Balance at beginning of the financial year		893,853	286,409	600,519	6,925
Effects of correction of errors	1(x)	648	803	(155)	-
Surplus for the year		12,038	12,038	-	-
Net asset revaluation increment(decrement)	27(a)	8,000	-	8,000	-
Transfer from asset revaluation reserve to accumulated surplus	35	-	2,555	(2,555)	-
Transfers to other reserves	27(b)	-	(1,553)	-	1,553
Transfers from other reserves	27(b)	-	1,430	-	(1,430)
<b>Balance at end of the financial year</b>		<b>914,539</b>	<b>301,682</b>	<b>605,809</b>	<b>7,048</b>

The above statement of changes in equity should be read with the accompanying notes

STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED 30 JUNE 2016

		2016	2015
		Inflows/ (Outflows)	Inflows/ (Outflows)
	Note	\$'000	\$'000
<b>Cash flows from operating activities</b>			
Rates and Charges		51,269	48,619
Statutory fees and fines		466	566
User fees		6,668	5,937
Grants - operating		8,569	21,510
Grants - capital		7,370	5,327
Contributions -monetary		460	463
Interest received		1,256	1,251
Trust Funds and deposits taken		7,738	7,372
Other receipts		1,738	1,752
Goods and Services Tax Collected	1(i)	789	774
Goods and Services Tax Refunds from the Australian Taxation Office	1(i)	3,929	4,092
Employees costs		(23,590)	(22,390)
Material and services		(26,691)	(26,835)
Trust Funds and deposits repaid		(7,789)	(7,286)
Other payments		(643)	(730)
Goods and Services Tax Paid to Suppliers	1(i)	(4,718)	(4,865)
<b>Net cash provided by operating activities</b>	<b>28</b>	<b>26,821</b>	<b>35,557</b>
<b>Cash flows from investing activities</b>			
Payments for property, infrastructure, plant and equipment	21	(23,981)	(24,381)
Proceeds from sale of property, infrastructure, plant and equipment	8	988	613
Payments for investments		(132,971)	(89,154)
Proceeds from sale of investments		111,791	69,892
<b>Net cash used in investing activities</b>		<b>(44,173)</b>	<b>(43,030)</b>
<b>Cash flows from financing activities</b>			
Finance costs		(652)	(773)
Repayment of borrowings		(2,990)	(2,847)
<b>Net cash provided by/(used in) financing activities</b>		<b>(3,642)</b>	<b>(3,620)</b>
Net increase/(decrease) in cash and cash equivalents		(20,994)	(11,093)
Cash and cash equivalents at the beginning of the financial year		25,096	36,189
<b>Cash and cash equivalents at the end of the financial year</b>		<b>4,102</b>	<b>25,096</b>
Financing arrangements	29		
Restrictions on cash assets	16		

The above cash flow statement should be read with the accompanying notes

STATEMENT OF CAPITAL WORKS  
FOR THE YEAR ENDED 30 JUNE 2016

	Note	2016 \$'000	2015 \$'000
<b>Property</b>			
Land		185	-
Land improvements		46	12
<b>Total land</b>		<u>231</u>	<u>12</u>
Buildings		2,028	8,070
<b>Total buildings</b>		<u>2,028</u>	<u>8,070</u>
<b>Total property</b>		<u>2,259</u>	<u>8,082</u>
<b>Plant and equipment</b>			
Plant, machinery and equipment		2,837	1,555
Furniture and Fittings		203	1,007
Computers and telecommunications		67	601
Library Books		196	240
Art Works		50	72
<b>Total plant and equipment</b>		<u>3,353</u>	<u>3,475</u>
<b>Infrastructure</b>			
Roads		9,493	7,550
Bridges		1,515	708
Footpaths and cycleways		587	1,587
Drainage		132	132
Recreational, leisure and community facilities		1,711	646
Waste management		538	68
Parks, open space and streetscapes		1,781	952
Aerodromes		175	86
Off street car parks		101	49
Other infrastructure		2,139	1,016
<b>Total infrastructure</b>		<u>18,172</u>	<u>12,794</u>
<b>Total capital works expenditure</b>		<u>23,784</u>	<u>24,351</u>
<b>Represented by:</b>			
New asset expenditure		453	-
Asset renewal expenditure		16,659	15,381
Asset expansion expenditure		822	1,546
Asset upgrade expenditure		5,850	7,424
<b>Total capital works expenditure</b>		<u>23,784</u>	<u>24,351</u>

The above Statement of Capital Works should be read in conjunction with the accompanying notes.  
The Statement of Capital Works includes work in progress and excludes intangibles



Notes to the Financial Report  
For the Year Ended 30 June 2016

INTRODUCTION

Wellington Shire Council was established by an Order of the Governor in Council on 2 December 1994. The Council's main office is located at 18-20 Desaily Street, Sale 3850.

STATEMENT OF COMPLIANCE

These financial statements are a general purpose financial report that consists of a Comprehensive Income Statement, Balance Sheet, Statement of Changes in Equity, Statement of Cash Flows, Statement of Capital Works and notes accompanying these financial statements. The general purpose financial report complies with Australian Accounting Standards (AAS's), other authoritative pronouncements of the Australian Accounting Standards Board, the Local Government Act 1989, and the Local Government (Planning and Reporting) Regulations 2014.

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of accounting

The accrual basis of accounting has been used in the preparation of these financial statements, whereby assets, liabilities, equity, income and expenses are recognised in the reporting period to which they relate, regardless of when cash is received or paid.

Judgements, estimates and assumptions are required to be made about the carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and associated judgements are based on professional judgement derived from historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

Revisions to accounting estimates are recognised in the period in which the estimate is revised and also in future periods that are affected by the revision. Judgements and assumptions made by management in the application of AAS's that have significant effects on the financial statements and estimates relate to:

- the fair value of land, buildings, infrastructure, plant and equipment (refer to note 1(e))
- the determination of depreciation for buildings, infrastructure, plant and equipment (refer to note 1(k))
- the determination of employee provisions (refer to note 1(p))

Unless otherwise stated, all accounting policies are consistent with those applied in the prior year. Where appropriate, comparative figures have been amended to accord with current presentation, and disclosure has been made of any material changes to comparatives.

(b) Change in accounting policies

There have been no changes in accounting policies from the previous period.

(c) Committees of management

All entities controlled by Council that have material revenues, expenses, assets or liabilities, such as committees of management, have been included in this financial report. Any transactions between these entities and Council have been eliminated in full.

(d) Revenue recognition

Income is recognised when the Council obtains control of the contribution or the right to receive the contribution, it is probable that the economic benefits comprising the contribution will flow to the Council and the amount of the contribution can be measured reliably.

Rates and Charges

Annual rates and charges are recognised as revenues when Council issues annual rates notices. Supplementary rates are recognised when a valuation and reassessment is completed and a supplementary rates notice issued.

Statutory fees and fines

Statutory fees and fines (including parking fees and fines) are recognised as revenue when the service has been provided, the payment is received, or when the penalty has been applied, whichever first occurs.



Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(d) Revenue recognition (cont'd)

User fees

User fees are recognised as revenue when the service has been provided or the payment is received, whichever first occurs.

Grants

Grant income is recognised when Council obtains control of the contribution. This is normally obtained upon their receipt (or acquittal) or upon earlier notification that a grant has been secured, and are valued at their fair value at the date of transfer.

Where grants or contributions recognised as revenues during the financial year were obtained on condition that they be expended in a particular manner or used over a particular period and those conditions were undischarged at balance date, the unused grant or contribution is disclosed in notes 6 and 7. The note also discloses the amount of unused grant or contribution from prior years that was expended on Council's operations during the current year.

Contributions

Monetary and non monetary contributions are recognised as revenue when Council obtains control over the contributed asset.

Sale of property, infrastructure, plant and equipment

The profit or loss on sale of an asset is determined when control of the asset has irrevocably passed to the buyer.

Interest

Interest is recognised as it is earned.

Other income

Other income is measured at the fair value of the consideration received or receivable and is recognised when Council gains control over the right to receive the income.

(e) Fair value measurement

Council measures certain assets and liabilities at fair value where required or permitted by Australian Accounting Standards. AASB 13 Fair value measurement, aims to improve consistency and reduce complexity by providing a definition of fair value and a single source of fair value measurement and disclosure requirements for use across Australian Accounting Standards.

AASB 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value under AASB 13 is an exit price regardless of whether that price is directly observable or estimated using another valuation technique.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within a fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities

Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable, and

Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For the purpose of fair value disclosures, Council has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

In addition, Council determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

(f) Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits at call, and other highly liquid investments with original maturities of 90 days or less, net of outstanding bank overdrafts.

(g) Trade and other receivables

Receivables are carried at amortised cost using the effective interest rate method. A provision for doubtful debts is recognised when there is objective evidence that an impairment has occurred.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONTD)

(h) **Other financial assets**

Other financial assets are valued at fair value, being market value, at balance date. Term deposits are measured at amortised cost. Any unrealised gains and losses on holdings at balance date are recognised as either a revenue or expense.

(i) **Non-current assets classified as held for sale**

A non-current asset classified as held for sale (including disposal groups) is measured at the lower of its carrying amount and fair value less costs to sell, and is not subject to depreciation. Non-current assets, disposal groups and related liabilities and assets are treated as current and classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset's sale (or disposal group sale) is expected to be completed within 12 months from the date of classification.

(j) **Recognition and measurement of property, plant and equipment, infrastructure, intangibles**

**Acquisition**

The purchase method of accounting is used for all acquisitions of assets, being the fair value of assets provided as consideration at the date of acquisition plus any incidental costs attributable to the acquisition. Fair value is the amount for which the asset could be exchanged between knowledgeable willing parties in an arm's length transaction.

Where assets are constructed by Council, cost includes all materials used in construction, direct labour, borrowing costs incurred during construction, and an appropriate share of directly attributable variable and fixed overheads.

In accordance with Council's policy, the threshold limits detailed in Note 1(k) have been applied when recognising assets within an applicable asset class and unless otherwise stated are consistent with the prior year.

**Revaluation**

Subsequent to the initial recognition of assets, non-current physical assets, other than plant and equipment, are measured at their fair value, being the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. At balance date, the Council reviewed the carrying value of the individual classes of assets measured at fair value to ensure that each asset materially approximated its fair value. Where the carrying value materially differed from the fair value at balance date, the class of asset was revalued.

Fair value valuations are determined in accordance with a valuation hierarchy. Changes to the valuation hierarchy will only occur if an external change in the restrictions or limitations of use on an asset result in changes to the permissible or practical highest and best use of the asset. Further details regarding the fair value hierarchy are disclosed at Note 21, Property, infrastructure, plant and equipment.

In addition, Council undertakes a formal revaluation of land, buildings, and infrastructure assets on a regular basis ranging from two to five years. The valuation is performed either by experienced council officers or independent experts.

Where the assets are revalued, the revaluation increments are credited directly to the asset revaluation reserve except to the extent that an increment reverses a prior year decrement for that class of asset that had been recognised as an expense in which case the increment is recognised as revenue up to the amount of the expense. Revaluation decrements are recognised as an expense except where prior increments are included in the asset revaluation reserve for that class of asset in which case the decrement is taken to the reserve to the extent of the remaining increments. Within the same class of assets, revaluation increments and decrements within the year are offset.

**Land**

As at 30 June 2016 Land assets were revalued, resulting in a credit to the Asset Revaluation Reserve of \$1.17 million.

**Art Gallery Works**

Art Gallery works were revalued at 30 June 2016, resulting in a credit to the Asset Revaluation Reserve of \$1.38 million.

**Buildings and Structures**

As at 1 July 2015 Building and structures assets were revalued by APV Valuers and Asset Management Pty Ltd, Public Artwork by Charles Nodrum, Playgrounds and skate parks by Ray Hutchison & Associates and BMX Tracks by Krussco Pty Ltd. This process resulted in a credit to the Asset Revaluation Reserve of \$0.58 million, an amount additional to the management adjustment made in the prior financial year, due to the changes in data integrity and asset standard lives since the interim revaluation.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONTD)

(j) Recognition and measurement of property, plant and equipment, infrastructure, intangibles (conf'd)

*Prior Year Newly Recognised/Derecognised Adjustments*

During the year, as part of a continuous improvement focus, Council is able to use technology that allows better identification of assets 'as built'. In addition, information flow from officers in the field conveys more accurate data to Asset Managers as variances are discovered. These variances resulted in assets being recognised and derecognised in the Council's asset register and are deemed to be prior year errors which have been retrospectively adjusted to equity against prior year opening balances.

A third balance sheet has not been presented to disclose these prior year errors as they were considered not material to the comparative amounts included within the Balance Sheet.

	Actual	Prior year adjustments		Reclassified	Restated Actual
	2015	Newly recognised	Derecognised		2015
	\$'000	\$'000	\$'000	\$'000	\$'000
Roads	493,245	141	(25)		493,361
Bridges	58,011		(107)		57,904
Footpaths	24,093	33			24,126
Drainage	69,343	570			69,913
Land	78,668	10			78,678
Landfill Improvements*	666				666
Land under Roads	17,079				17,079
Buildings	75,785				75,785
Recreational, Leisure and Community	15,213	24			15,237
Waste Management	2,896				2,896
Parks Open Space and Streetscapes	16,988	6			16,994
Aerodromes	9,385				9,385
Off Street Car Parks	2,857				2,857
Other Infrastructure	5,365				5,365
Art Gallery	2,003		(4)		1,999
Plant, Machinery and Equipment	5,658				5,658
Fabrics, Fittings and Furniture	1,400				1,400
Computers and Telecommunications	778				778
Library Books	1,528				1,528
Work in Progress	6,301				6,301
<b>Property, Infrastructure, Plant and Equipment</b>	<b>887,242</b>	<b>784</b>	<b>(136)</b>	<b>-</b>	<b>887,890</b>

\*The total effect of the correction of prior year errors for 'newly recognised' and 'derecognised' assets above was \$648,000 - refer Note 1(x). The associated effect on the Accumulated Surplus (\$784,000) and Asset Revaluation Reserve (-\$136,000) are disclosed in the Statement of Changes of Equity.

*Land under roads*

Council recognises land under roads it controls at fair value.

(k) Depreciation and amortisation of property, infrastructure, plant and equipment and intangibles

Buildings, land improvements, plant and equipment, infrastructure, and other assets having limited useful lives are systematically depreciated over their useful lives to the Council in a manner which reflects consumption of the service potential embodied in those assets. Estimates of remaining useful lives and residual values are made on a regular basis with major asset classes reassessed annually. Depreciation rates and methods are reviewed annually.

Notes to the Financial Report  
For the Year Ended 30 June 2016

a) Depreciation and amortisation of property, infrastructure, plant and equipment and intangibles (cont'd)

Where assets have separate identifiable components that are subject to regular replacement, these components are assigned distinct useful lives and residual values and a separate depreciation rate is determined for each component.

Road earthworks are not depreciated on the basis that they are assessed as not having a limited useful life.

Straight line depreciation is charged based on the residual useful life as determined each year.

Depreciation periods used are listed below and are consistent with the prior year unless otherwise stated.

ASSET TYPE	Depreciation Period	Threshold Limit \$
<b>Property</b>		
Land	-	All
Land improvements	5	All
<b>Buildings</b>		
Heritage Buildings	20-100 years	>\$10,000
Buildings	20-100 years	>\$10,000
<b>Plant and Equipment</b>		
Plant, Machinery and Equipment	3-15 years	>\$0,000
Furniture, Fittings and Furnish	10 years	>\$1,000
Computers and Telecommunications	3 years	>\$1,000
Library Books	10 years	All
<b>Infrastructure</b>		
Road Pavements and Seals		
- Pavements Sealed	100 years	All
- Pavements Gravel (Local Access A and above)	15	All
- Pavements Gravel (Local Access B and C)	20	All
- Seals - Urban and Rural	15	All
- Asphalt Urban and Rural	30	All
Road Substructure	Indefinite	All
Road Kerb, Channel and Minor		
- Road Kerb and Channel	70	All
- Road Minor Culverts and	100	All
Bridges		
- Concrete		
- Deck and Substructure	100	All
- Floodways and Major Culverts	100	All
- Timber		
- Deck and Substructure	80	All
- Floodways and Major Culverts	100	All
Footpaths and Cycleways		
- Asphalt / Bitumen	15	All
- Concrete / Paved	80	All
- Gravel / Sand	10	All
- Unconstructed	100	All
Drainage		
- Pump Wells	20	All
- Other Drainage	20 - 100	All
- Open Drain - Earth Retention	Indefinite	All
Recreational, Leisure and Community Facilities	10 - 100 years	>\$5,000
Waste Management	20 - 100 years	>\$5,000
Parks, Open Space and	50 - 120 years	>\$5,000
Off Street Car Parks	30 - 100 years	>\$5,000
Aerodromes	20 - 120 years	>\$5,000
<b>Intangible Assets</b>		
Landfill Airspace	5 - 38 years	All
Software	3-10 years	>\$1,000

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(f) Repairs and Maintenance

Routine maintenance, repair costs, and minor renewal costs are expensed as incurred. Where the repair relates to the replacement of a component of an asset and the cost exceeds the capitalisation threshold the cost is capitalised and depreciated. The carrying value of the replaced asset is expensed.

(g) Impairment of assets

At each reporting date, the Council reviews the carrying value of its assets to determine whether there is any indication that these assets have been impaired. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the comprehensive income statement, unless the asset is carried at the revalued amount in which case, the impairment loss is recognised directly against the revaluation surplus in respect of the same class of asset to the extent that the impairment loss does not exceed the amount in the revaluation surplus for that same class of asset.

(h) Trust funds and deposits

Amounts received as deposits and retention amounts controlled by Council are recognised as trust funds until they are returned, transferred in accordance with the purpose of the receipt, or forfeited (refer to Note 24).

(i) Borrowings

Borrowings are initially measured at fair value, being the cost of the interest-bearing liabilities, net of transaction costs. The measurement basis subsequent to initial recognition depends on whether the Council has categorised its interest-bearing liabilities as either financial liabilities designated at fair value through the profit and loss, or financial liabilities at amortised cost. Any difference between the initial recognised amount and the redemption value is recognised in net result over the period of the borrowing using the effective interest method. The classification depends on the nature and purpose of the interest-bearing liabilities. The Council determines the classification of its interest-bearing liabilities at initial recognition.

Borrowing costs

Borrowing costs are recognised as an expense in the period in which they are incurred, except where they are capitalised as part of a qualifying asset constructed by Council. Except where specific borrowings are obtained for the purpose of specific asset acquisition, the weighted average interest rate applicable to borrowings at balance date, excluding borrowings associated with superannuation, is used to determine the borrowing costs to be capitalised.

Borrowing costs include interest on bank overdrafts, interest on borrowings and finance lease charges.

(j) Employee costs and benefits

The calculation of employee costs and benefits include all relevant on-costs and are calculated as follows at reporting date:

Wages and salaries and annual leave

Liabilities for wages and salaries, including non-monetary benefits, annual leave and accumulated sick leave expected to be wholly settled within 12 months of the reporting date are recognised in the provision for employee benefits in respect of employee services up to the reporting date, classified as current liabilities and measured at their nominal values.

Liabilities that are not expected to be wholly settled within 12 months of the reporting date are recognised in the provision for employee benefits as current liabilities, measured at present value of the amounts expected to be paid when the liabilities are settled using the remuneration rate expected to apply at the time of settlement.



Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONTD)

**80 Employee costs and benefits (cont'd)**

**Long service leave**

Liability for long service leave (LSL) is recognised in the provision for employee benefits.

Current Liability - unconditional LSL is disclosed as a current liability even when the council does not expect to settle the liability within 12 months because it will not have the unconditional right to defer settlement of the entitlement should an employee take leave within 12 months.

The components of this current liability are measured at:

- present value - component that is not expected to be wholly settled within 12 months.
- nominal value - component that is expected to be wholly settled within 12 months.

**Classification of employee costs**

Non-current liability - conditional LSL that has been accrued, where an employee is yet to reach a qualifying term of employment, is disclosed as a non-current liability. There is an unconditional right to defer settlement of the entitlement until the employee has completed the requisite years of service.

This non-current LSL liability is measured at present value.

**Sick Leave Gratuity**

A former entity of Wellington Shire Council had established a sick leave gratuity scheme which ceased at the end of September 1991. Under the scheme, sick leave is payable to all ex-Shire employees and is not to exceed existing benefits as at the end of September 1991, using remuneration rates current at the time of leaving. The employees are entitled to the sick leave gratuity upon their leaving the organisation. The amount provided for appears as a non-current liability.

**81 Provision for Doubtful Debts**

Council has extensive legal powers for the recovery of rates and property related debts such as general rates and special rates and charges, therefore any provision is on the basis of the outstanding amount exceeding the realisable recovery amount.

Included in the Provision for Doubtful Debts is an amount relating to land in the 90 Mile Beach inappropriate subdivision. Council has a significant number of rateable properties in this area for which provision has been made for a total amount outstanding of \$2,188,056 (2015 \$2,465,928). A provision has been established as these properties are unable to be sold in order for Council to recover the debt.

**82 Landfill rehabilitation provision**

Under Environment Protection Authority (EPA) legislation Council is obligated to restore licensed landfill sites to a particular standard. Current projections have been taken into account in determining when the 3 licensed landfills at Kilmory, Longford and Maffra will cease operation and the timing of restoration work. The forecast lives of these sites are based on current estimates of remaining capacity and the forecast rate of infill. The provision for landfill restoration has been calculated based on the present value of the expected cost of works to be undertaken. The expected cost of works is based on current understanding of work required to reinstate the site to a suitable standard, acceptable to the EPA. Accordingly, the estimation of the provision required is dependent on the accuracy of the forecast timing of the work, the volume of work required and related costs.

**(c) Leases**

**Finance leases**

Leases of assets where substantially all the risks and rewards incidental to ownership of the asset are transferred to the Council are classified as finance leases. Finance leases are capitalised, recording an asset and a liability at the lower of the fair value of the asset and the present value of the minimum lease payments, including any guaranteed residual value. Lease payments are allocated between the reduction of the lease liability and the interest expense. Leased assets are depreciated on a straight line basis over their estimated useful lives to the Council where it is likely that the Council will obtain ownership of the asset or over the term of the lease, whichever is the shorter. At balance date Council did not have any finance leases.

**Operating leases**

Lease payments for operating leases are required by the accounting standard to be recognised on a straight line basis, rather than expensed in the years in which they are incurred.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 1 SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(k) Leases (cont'd)

Leasehold improvements

Leasehold improvements are recognised at cost and are amortised over the unexpired period of the lease or the estimated useful life of the improvement, whichever is the shorter. At balance date, Council had no lease hold improvements.

(l) Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the balance sheet are shown inclusive of GST.

We are unable to accurately split the Goods and Services Tax between the different line items of the Statement of Cash Flows, as this would be impracticable due to the functionality of the financial system. Therefore the cash flows resulting from the Goods and Services Tax have been shown as separate line items in the Statement of Cash Flows.

(m) Financial guarantees

Financial guarantee contracts are not recognised as a liability in the balance sheet unless the lender has exercised their right to call on the guarantee or Council has other reasons to believe that it is probable that that right will be exercised. Details of guarantees that Council has provided, that are not recognised in the balance sheet are disclosed at Note 33 Contingent Assets and Liabilities.

(n) Contingent assets and contingent liabilities and commitments

Contingent assets and contingent liabilities are not recognised in the Balance Sheet, but are disclosed by way of a note and, if quantifiable, are measured at nominal value. Contingent assets and liabilities are presented inclusive of GST receivable or payable respectively.

Commitments are not recognised in the Balance Sheet. Commitments are disclosed at their nominal value by way of note and presented inclusive of the GST payable.

(o) Pending accounting standards

The following Australian Accounting Standards have been issued and are applicable to the Council but not yet effective. They have not been adopted in preparation of the financial statements at reporting date.

Proouncement	What's new?	Impact/Action	Transition	Effective Date
AASB 15 'Revenue from Contracts with Customers' and AASB 2014-5 Amendments to Australian Accounting Standards arising from AASB 15	AASB 15 replaced the previous revenue standards: AASB 118 Revenue and AASB 111 Construction Contracts. AASB establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flow arising from an entity's contracts with customers, with revenue recognised as 'performance obligations' are satisfied.	As there is inadequate information available, Council believes that it is too early to assess the impact of the pending standard change.	The standard requires retrospective implementation.	1 January 2018
AASB 16 'Leases'	AASB 16 brings all leases onto the balance sheet of the lessee by recognising a 'right of use' asset and a lease liability.	As there is inadequate information available, Council believes that it is too early to assess the impact of the pending standard change.	Early adoption is permitted if AASB 15 'Revenue from Contracts with Customers' is applied.	1 January 2019

(p) Effects of corrections of errors on prior year

These include:

Newly recognised assets (Note 1(i))	\$'000
Demrecognised assets (Note 1(i))	794
Total effects of correction of errors	<u>(136)</u>
	<u>658</u>

Rounding

(q) Unless otherwise stated, amounts in the financial report have been rounded to the nearest thousand dollars. Figures in the financial statement may not equate due to rounding.

Notes to the Financial  
For the Year Ended 30 June 2016

**NOTE 2 BUDGET COMPARISON**

The budget comparison notes compare Council's financial plan, expressed through its annual budget, with actual performance. The Local Government (Planning and Reporting) Regulations 2014 requires explanation of any material variances. Council has adopted a materiality threshold of the lower of 10 percent or \$600,000 where further explanation is warranted. Explanations have not been provided for variations below the materiality threshold unless the variance is considered to be material because of its nature.

The budget figures detailed below are those adopted by Council on 16 June 2015. The Budget was based on assumptions that were relevant at the time of adoption of the Budget. Council sets guidelines and parameters for revenue and expense targets in this budget in order to meet Council's planning and financial performance targets for both the short and long term. The budget did not reflect any changes to equity resulting from asset revaluations, as their impacts were not considered predictable.

These notes are prepared to meet the requirements of the Local Government Act 1989 and the Local Government (Planning and Reporting) Regulations 2014.

**a) Income and Expenditure**

	*Budget 2016 \$'000	Actual 2016 \$'000	Variance 2016 \$'000 Ref
<b>Income</b>			
Rates and charges	51,373	51,690	317
Statutory fees and fines	525	466	(59) 1
User fees	5,813	5,410	(403) 2
Grants - operating	12,647	8,046	(4,601) 3
Grants - capital	5,710	6,744	1,034 4
Contributions - monetary	485	350	(135) 5
Contributions - non monetary	-	5,934	5,934 6
Net gain/(loss) on disposal of property, infrastructure, plant and equipment	236	243	7
Other income	2,492	3,405	913 7
<b>Total income</b>	<b>80,282</b>	<b>83,288</b>	<b>3,006</b>
<b>Expenses</b>			
Employee costs	24,327	23,748	579
Materials and services	30,400	25,195	5,205 8
Bad and doubtful debts	111	70	41 9
Depreciation and amortisation	22,150	21,102	1,048 10
Borrowing costs	731	649	82 11
Other expenses	674	1,323	(649) 12
<b>Total expenses</b>	<b>78,398</b>	<b>72,087</b>	<b>6,311</b>
<b>Surplus/(deficit) for the year</b>	<b>1,884</b>	<b>11,201</b>	<b>9,317</b>

\*The Budget 2016 figures have been reclassified in order to comply with the Local Government Model Financial Report disclosure requirements.



Notes to the Financial  
For the Year Ended 30 June 2016

NOTE 2 BUDGET COMPARISON (CONT'D)

(i) Explanation of material variations

Variance Ref	Item	Explanation
1	Statutory Fees & Fines	Income from infringements has fallen short of budget (\$96k), this income is unpredictable and based on community behaviour. Income from registration fees and permits has also fallen short of budget (\$19k), this income is unpredictable and based on the number of customer requests. Planning and land information certificate fees have exceeded budget \$58k.
2	User Fees	Fees raised from commercial tipping were higher than anticipated \$231k due to the larger volume of waste processed during the year 2015/16. A combined services initiative between Wellington Shire Council and East Gippsland Shire has generated additional income \$163k as Council is reimbursed for the information technology service it has provided.
3	Grants - operating	On 30 June 2015 the Commonwealth Government remitted an advance payment of 50% of Council's 2015/16 Financial Assistance Grant allocation, resulting in an unexpected receipt of \$6.07 million. The revenue was recognised upon receipt in 2014/15 after the budget for 2015/16 was already finalised.
4	Grants - capital	Capital grants are higher than budgeted due to an increase allocation of funding from the Roads to Recovery Program, although a significant portion of this funding will be carried forward to 2016/17, net increase which has been received in 2015/16 is \$1.05 million. In addition, some grant funding originally expected to be received in 1/17 has been received in 2015/16, including Gippsland Regional Sports Complex Stage 2 \$290k and Charles Street Boat Ramp \$350k. The next instalment for the Port of Sale Cultural Hub and Precinct Redevelopment of (\$500k) budgeted to be received in 2015/16, will now be received in 2016/17. The Marfield Bridge Renewal grant application for (\$285k) was unsuccessful.
5	Contributions - monetary	Delays in residential street construction of sealed roads, kerbs, and channels planned for 2015/16 have subsequently delayed associated owners contributions (\$300k) until 2016/17. Unbudgeted contributions received from other councils for the GLGN shared services business case \$77k is offset by associated expenditure.
6	Contributions - non monetary	Non monetary contributions for 2015/16 consisted mainly of infrastructure assets contributed by developers for new subdivisions (\$5.78 million). Council also recognised gifted and donated assets relating to land acquired under the Wellington Coast Subdivision Strategy Voluntary Assistance Scheme \$153k.
7	Other Income	Adjustments to non cash entries for newly recognised infrastructure assets equate to \$411k. Interest on short term investments has exceeded budget \$256k mainly due to the receipt of grants in advance and the timing of expenditure during the year. Higher than expected turn over commission and lease capital adjustments from caravan parks \$150k, and unanticipated insurance recovery for heritage assets \$140k, are partially offset by lower than expected donations towards capital projects (\$250k).
8	Materials & Services	Deferral of the rehabilitation of Kilmory and Longford landfill to 2016/17 and 2017/18 are due to further acceptance of lower risk ratings by EPA resulting in a \$2.33m underspend. The majority of the contribution to the Princess Highway/Cobains Road Intersection Upgrade \$1.48m has been delayed to 2016/17. Savings in utilities charges \$350k is mainly due to the replacement of street lighting with LED luminaries which are more energy efficient and are cheaper to substitute. Savings were also seen in insurances \$147k.
9	Bad & Doubtful Debts	The amount provided for the provision of local laws doubtful debts is \$28k lower than budgeted.
10	Depreciation and amortisation	Depreciation and amortisation (non cash) is lower due to the impact of the building assets revaluation in 2015/16. The forecast has been revised to reflect the estimated full year impact on building depreciation which is partly offset by an increase in drainage depreciation.
11	Borrowing costs	Borrowing costs were lower than expected due planned borrowings of \$1.80 million to fund the Princess Highway - Cobains Road intersection upgrade being lowered to \$1.30 million and deferred to 2016/17, and planned borrowings of \$1.17 million for the Sale Livestock Exchange Upgrade not being relied upon.
12	Other Expenses	During the year, Council wrote off assets found to be the property of an external party (\$229k). In addition a number of assets which were no longer maintained by Council were derecognised (\$96k). NPV rate and cost changes in the calculation of the landfill rehabilitation provision has resulted in a \$329k (non cash) adjustment.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 2 BUDGET COMPARISON (CONT'D)

b) Capital Works

	Budget 2016 \$'000	Actual 2016 \$'000	Variance 2016 \$'000	Ref
<b>Property</b>				
Land	-	185	(185)	1
Land improvements	60	46	14	
<b>Total Land</b>	<b>60</b>	<b>231</b>	<b>(171)</b>	
Buildings	4,471	2,028	2,443	2
<b>Total Buildings</b>	<b>4,471</b>	<b>2,028</b>	<b>2,443</b>	
<b>Total Property</b>	<b>4,531</b>	<b>2,259</b>	<b>2,272</b>	
<b>Plant and Equipment</b>				
Plant, machinery and equipment	2,525	2,837	(312)	3
Fidures, fittings and furniture	156	203	(47)	
Computers and telecommunications*	122	67	55	
Library books	229	196	33	
Art Works	27	50	(23)	
<b>Total Plant and Equipment</b>	<b>3,059</b>	<b>3,353</b>	<b>(294)</b>	
<b>Infrastructure</b>				
Roads	9,215	9,493	(278)	4
Bridges	2,471	1,515	956	5
Footpaths and cycleways	1,154	587	567	6
Drainage	305	132	173	
Recreational, leisure and community facilities	2,438	1,711	726	7
Waste management	690	538	152	
Parks, open space and streetscapes	3,550	1,781	1,769	8
Aerodromes	250	175	75	
Off street car parks	200	101	99	
Other infrastructure	2,627	2,139	(488)	
<b>Total Infrastructure</b>	<b>22,298</b>	<b>18,172</b>	<b>4,126</b>	
<b>Total Capital Works Expenditure</b>	<b>29,888</b>	<b>23,784</b>	<b>6,104</b>	
<b>Represented by:</b>				
New asset expenditure	305	453	(148)	
Asset renewal expenditure	20,702	16,659	4,043	
Asset expansion expenditure	506	822	(316)	
Asset upgrade expenditure	8,375	5,850	2,525	
<b>Total Capital Works Expenditure</b>	<b>29,888</b>	<b>23,784</b>	<b>6,104</b>	

\* This budget comparison excludes intangibles

NOTE 2 BUDGET COMPARISON (CONTD)

(i) Explanation of material variations

Variance Ref	Item	Explanation
1	Land	Unexpected purchase of land funded from the Asset Improvement Reserve.
2	Buildings	The Port of Sale Cultural Hub Redevelopment Project (\$2.63 million) was delayed due to design and community consultation issues, this is a multi year project. The Construction contract is to be awarded in August 2016. Final works were completed on the Yarram District Hub \$196k and the Desailly Street - Corporate Headquarters \$66k, these funds were carried forward from the previous financial year.
3	Plant, machinery and equipment	The purchase of two trucks were delayed in 2014/15 due to extended delivery times, these items were both purchased in 2015/16 with carried forward funds.
4	Roads	An additional \$1.05 million of Roads to Recovery grant funding was received in late 2015, several projects were brought forward from future programs to utilise these funds. While Cunningham Street Reconstruction (\$631k) has commenced, the Simpson and Pearson Street residential street construction scheme was adopted by Council in April 2016, construction is planned to commence in October 2016. These projects are Special Charge Schemes which have a long lead time due to statutory requirements and require stakeholder engagement and approval. The annual reseals program delivered (\$479k) in savings after completion of the programmed works. Brewers Hill Road reconstruction in Maffra (\$202k) was delayed due to wet weather hampering progress and an additional Roads to Recovery funding allocation increasing the original scope of the project.
5	Bridges	The funding application for Maxfields footbridge (\$570k) was unsuccessful and therefore the project did not commence, another application will be made for in 2016/2017. The Park Street Bridge (\$250k) was delayed, this is an auxiliary project to the Port of Sale Cultural Hub Redevelopment and commencement is dependent upon the commencement of the overall precinct development.
6	Footpaths and cycleways	Within the Footpaths and Shared Paths annual program (\$333k), expenses for the Queens Street Roundabout in Maffra was combined with the larger project and moved to Roads. The remaining underspend is minor works on service authority pit lid realignments for Taverville Road, Port Albert to be completed early 2016/17. The New Shared Paths program (\$248k) was a combination of a few small projects which were all completed below the cost originally estimated.
7	Recreational, leisure and community facilities	The Stephenson Park Power Supply upgrade (\$278k) is a multi year project. The project required extensive consultation with the various user groups to scope up the electricity supply requirements to equitably contribute to ongoing supply charges. The successful electrical contractor installing the lights underestimated the procurement time to obtain and erect the light towers and lights and the project will overrun by two months. Regional Aquatic Complex - 25M Pool Heating project (\$242k) was delayed and rescope in accordance with the Aquatic Strategy which was completed in December 2015. Gordon Street Recreation Reserve Clubrooms Redevelopment (\$199k) had design issues which delayed commencement.
8	Parks, open space and streetscapes	The Sale CBD Infrastructure Renewal Program (\$750k) was made up of two key projects. Macarthur Street, where no tenders were received the first time this package was advertised and had to be re-tendered. The Desailly, Cunninghame, Macalister Street package of works was tendered in May without a successful contractor being appointed. It will now be re-advertised. Commercial Road Streetscape Improvements are ongoing, the annual budget allocation was 75% spent, with the remainder (\$355k) now expected to be spent in 2016/17. It was delayed due to extensive consultation with the community prior to advertising and awarding a contract. Resedale Streetscape project (\$350k) also required extensive consultation with the community and will be advertised in August 2016. A contract for the Water Bore & Irrigation project at the Cameron Sporting Complex (\$178k) was awarded to enable works to be completed December 2015. The contractor performed poorly. The bore was not able to achieve anticipated flow rates and as a result the bore is being reworked.

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016	2015
	\$'000	\$'000
<b>NOTE 3 RATES AND CHARGES</b>		
Council uses Capital Improved Value (CIV) as the basis of valuation of all properties within the municipal district. The CIV of a property is its total land and improvements value.		
The valuation base used to calculate general rates for 2015/2016 was \$9.135 million (2014/2015 \$8,995 million). The 2015/2016 general rate in the CIV dollar was 0.005382 (2014/2015, 0.005182) and farm rate 0.0041290 (2014/2015, 0.004148).		
General Rates	46,408	44,573
Waste management charge	3,256	3,130
Service rates and charges	1,343	1,343
Supplementary rates and rate adjustments	517	870
Cultural and recreational	74	77
<b>TOTAL RATES AND CHARGES</b>	<b>51,598</b>	<b>49,993</b>
The date of the latest general revaluation of land for rating purposes within the municipal district was 1 January 2016, and the valuation was first applied in the rating year commencing 1 July 2016.		
<b>NOTE 4 STATUTORY FEES AND FINES</b>		
Planning fees	227	220
Land and Building Information certificates	116	98
Infringements and costs	66	156
Permits	57	69
<b>TOTAL STATUTORY FEES AND FINES</b>	<b>466</b>	<b>543</b>
<b>NOTE 5 USER FEES</b>		
Waste management services	2,483	2,404
Leisure centres	2,091	2,116
Registration and other permits	735	607
Entertainment Centres	301	378
Other fees and charges	484	343
Emergency Management Works	101	100
Caravan Parks	74	98
Animal Services	81	72
<b>TOTAL USER FEES</b>	<b>6,418</b>	<b>6,118</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016	2015
	\$'000	\$'000
<b>NOTE 4 GRANTS</b>		
Grants were received in respect of the following:		
<b>Summary of grants</b>		
Commonwealth funded grants	10,550	20,150
State funded grants	4,240	6,082
<b>TOTAL GRANTS</b>	<b>14,790</b>	<b>26,232</b>
<b>Operating Grants</b>		
<b>Recurrent - Commonwealth Government</b>		
Victoria Grants Commission	5,952	10,270
Roads to recovery	95	-
<b>Recurrent - State Government</b>		
Property Valuation	344	30
Libraries	309	302
Rural access and Transport connection	223	223
Municipal emergency	210	148
Cultural Services	208	221
Parks and Environmental services	95	84
State emergency services	75	75
School crossing supervisors	69	77
Environmental health	60	74
Fire Service Property Levy	55	53
Senior citizens	54	51
Community support programs	35	40
Other	19	14
Economic Development	-	10
<b>Total recurrent operating grants</b>	<b>7,803</b>	<b>19,673</b>
<b>Non Recurrent - State Government</b>		
Community support programs	122	3
Community and Recreation facilities upgrade	118	308
Other	21	-
Environmental health	23	23
Economic Development and Tourism	17	15
Municipal emergency	9	135
Natural disaster funding	(77)	490
Parks and Environmental services	-	11
Wellington coastal subdivision strategy	-	500
<b>Total non-recurrent operating grants</b>	<b>343</b>	<b>1,483</b>
<b>Total operating grants</b>	<b>8,146</b>	<b>21,156</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>NOTE 6 GRANTS (CONTD)</b>		
<b>Capital Grants</b>		
Recurrent - Commonwealth Government		
Roads to recovery	4,503	1,627
<b>Total recurrent capital grants</b>	<u>4,503</u>	<u>1,627</u>
Non-recurrent - State Government		
Other Infrastructure	663	550
Recreational leisure and community facilities	470	619
Bridges	432	-
Recreational leisure and streetscapes	434	456
Footpaths and cycleways	84	188
Waste Management	84	21
Parks, open space and streetscapes	33	119
Plant, machinery and equipment	24	2
Library Books	12	10
Buildings	-	1,484
Roads	5	-
<b>Total non-recurrent capital grants</b>	<u>2,341</u>	<u>3,449</u>
<b>Total capital grants</b>	<u>6,744</u>	<u>5,076</u>
<b>Unspent grants received on condition that they be spent in a specific manner</b>		
Balance at start of year	6,292	6,278
Received during the financial year and remained unspent at balance sheet date	1,380	2,868
Received in prior years and spent during the financial year	(1,738)	(2,904)
<b>Balance at year end</b>	<u>5,934</u>	<u>6,242</u>
<b>NOTE 7 CONTRIBUTIONS</b>		
Monetary	350	330
Non-monetary	5,934	1,588
<b>TOTAL CONTRIBUTIONS</b>	<u>6,284</u>	<u>1,918</u>
<i>Contributions of non-monetary assets were received in relation to the following asset classes:</i>		
Land	153	447
Land under roads	50	12
Buildings	-	189
Infrastructure	5,731	937
Art Works	-	4
	<u>5,934</u>	<u>1,588</u>
<b>Unspent monetary contributions received on condition that they be spent in a specific manner</b>		
Balance at start of year	167	228
Received during the financial year and remained unspent at balance sheet date	47	46
Received in prior years and spent during the financial year	(87)	(105)
<b>Balance at year end</b>	<u>117</u>	<u>167</u>
<b>NOTE 8 NET GAIN/(LOSS) ON DISPOSAL OF PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT</b>		
<b>Disposal of Plant and Equipment</b>		
Proceeds of Sale	988	613
Written down value of assets disposed	(745)	(790)
<b>TOTAL NET GAIN/(LOSS) ON DISPOSAL OF PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT</b>	<u>243</u>	<u>(177)</u>



Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>NOTE 9 OTHER INCOME</b>		
Interest on Investments	1,256	1,251
Other rent	831	902
Recognition of Assets	411	-
Donations	325	510
Interest on Debtors	317	320
Insurance Recovery	190	118
Miscellaneous Income	35	186
<b>TOTAL OTHER INCOME</b>	<b>3,405</b>	<b>3,987</b>
<b>NOTE 10(a) EMPLOYEE COSTS</b>		
Wages and salaries	18,218	18,843
Superannuation	1,800	1,872
Casual staff	1,435	1,166
WorkCover	541	418
Other	367	389
Fringe benefits tax	227	219
<b>TOTAL EMPLOYEE COSTS</b>	<b>23,748</b>	<b>22,908</b>
<b>NOTE 10(b) Superannuation</b>		
Council made contributions to the following funds:		
<b>Defined benefit fund</b>		
Employer contributions to Local Authorities Superannuation Fund (Vision Super)	232	225
Employer contributions - other funds	-	-
	<b>232</b>	<b>225</b>
Employer contributions payable at reporting date	-	-
<b>Accumulation funds</b>		
Employer contributions to Local Authorities Superannuation Fund (Vision Super)	1,198	1,092
Employer contributions - other funds	534	520
	<b>1,732</b>	<b>1,612</b>
Employer contributions payable at reporting date	-	-
Refer to note 22 for further information relating to Council's superannuation obligations		

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016	2015
	\$'000	\$'000
<b>NOTE 11 MATERIALS AND SERVICES</b>		
Contractors	11,317	12,438
Materials	6,774	7,075
Contributions	2,985	3,173
Utility Payments	1,537	2,176
Insurances	904	951
Authority Fees	940	894
Consultants	250	392
Legal Expenses	88	76
<b>TOTAL MATERIALS AND SERVICES</b>	<b>25,195</b>	<b>27,175</b>
<b>NOTE 12 BAD AND DOUBTFUL DEBTS</b>		
Rates Debtors	70	87
Other Debtors	(2)	2
Infringements	2	18
<b>TOTAL BAD AND DOUBTFUL DEBTS</b>	<b>70</b>	<b>107</b>
<b>NOTE 13 DEPRECIATION AND AMORTISATION</b>		
Infrastructure	15,198	14,577
Property	3,317	5,069
Plant and Equipment	2,253	2,117
<b>Total depreciation</b>	<b>20,768</b>	<b>22,163</b>
Intangible assets	334	328
<b>TOTAL DEPRECIATION AND AMORTISATION</b>	<b>21,102</b>	<b>22,491</b>
<i>Refer to note 21 and 22 for a more detailed breakdown of depreciation and amortisation charges</i>		
<b>NOTE 14 BORROWING COSTS</b>		
Interest - Borrowings	649	789
<b>TOTAL BORROWING COSTS</b>	<b>649</b>	<b>789</b>
<b>NOTE 15 OTHER EXPENSES</b>		
Auditors' remuneration - VAGO - audit of the financial statements, performance statement and grant acquittals	51	47
Auditors' remuneration - Internal	26	36
Councillors' allowances	291	283
Operating lease rentals	273	290
Work in progress/asset written off	256	36
Landfill remediation	330	94
Derecognition of assets	96	779
<b>TOTAL OTHER EXPENSES</b>	<b>1,323</b>	<b>1,579</b>



Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>NOTE 16 CASH AND CASH EQUIVALENTS</b>		
Cash on hand	5	5
Cash at bank	1,290	6,336
Term deposits	2,847	18,755
<b>TOTAL CASH AND CASH EQUIVALENTS</b>	<b>4,102</b>	<b>25,096</b>

Council's cash and cash equivalents are subject to external restrictions that limit amounts available for discretionary use. These include:

Trust funds and deposits (Note 24)	629	709
Unexpended grants and contributions (Note 6 & 7)	1,427	2,914
Prior years unexpended grants and contributions (Note 6 & 7)	4,603	3,733
Other non discretionary reserves (Note 27(b))	1,041	845
Total restricted funds	7,700	8,201
Total unrestricted cash and cash equivalents	(3,598)	16,895

**Intended allocations**

Although not externally restricted the following amounts have been allocated for specific future purposes by Council:

Cash held to fund carried forward capital works/operating projects	6,108	4,319
Cash held in relation to the Victoria Grants Commission advance to fund general operations and roads works	-	6,073
Discretionary reserves (Note 27(b))	5,658	6,203
Total funds subject to intended allocations	11,766	16,595

In addition to the total cash of \$4.1 million Council has \$40.4 million of funds invested in longer term deposits (greater than 90 days) which therefore must be recognised as other financial assets. These funds are available to fund any cover amounts required for discretionary use as they fall due.

**NOTE 17 TRADE AND OTHER RECEIVABLES**

**Current**

Rates debtors	2,962	2,167
Government grants	1,555	1,790
Other debtors	604	706
Provision for doubtful debts - other debtors	-	(1)
Waste management	429	451
Special charge schemes	7	54
Net GST receivable	667	796
Total current trade and other receivables	6,224	5,963

**Non-current**

Rates debtors - refer Note 1(c)	3,255	3,633
Provision for doubtful debts - rate debtors refer Note 1(c)	(2,188)	(2,496)
Special charge schemes	232	295
Provision for doubtful debts - special charge scheme	(2)	(2)
Other debtors	35	52
Provision for doubtful debts - other debtors	(5)	(26)
Total non-current trade and other receivables	1,427	1,485
<b>TOTAL TRADE AND OTHER RECEIVABLES</b>	<b>7,651</b>	<b>7,448</b>

**NOTE 17 TRADE AND OTHER RECEIVABLES (CONT'D)**

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>a) Ageing of Receivables</b>		
At balance date other debtors representing financial assets were past due but not impaired. These amounts relate to a number of independent customers for whom there is no recent history of default. The ageing of the Council's trade & other receivables (excluding statutory receivables) was:		
Current (not yet due)	2,735	3,080
Past due by up to 30 days	22	216
Past due between 31 and 180 days	12	4
Past due between 181 and 365 days	-	-
Past due by more than 1 year	-	10
Total trade & other receivables	<u>2,769</u>	<u>3,310</u>
<b>b) Movement in provisions for doubtful debts</b>		
Balance at the beginning of the year	1	7
New Provisions recognised during the year	-	1
Amounts already provided for and written off as uncollectible	-	(7)
Amounts provided for but recovered during the year	(1)	-
Balance at end of year	<u>-</u>	<u>1</u>
<b>c) Ageing of individually impaired Receivables</b>		
At balance date, other debtors representing financial assets with a nominal value of Nil (2015: Nil) were impaired.		
<b>NOTE 18 OTHER FINANCIAL ASSETS</b>		
Term Deposits	40,442	19,262
<b>TOTAL OTHER FINANCIAL ASSETS</b>	<u>40,442</u>	<u>19,262</u>
<b>NOTE 19 NON CURRENT ASSETS CLASSIFIED AS HELD FOR SALE</b>		
Cost of acquisition	218	-
<b>TOTAL NON CURRENT ASSETS CLASSIFIED AS HELD FOR SALE</b>	<u>218</u>	<u>-</u>
<b>NOTE 20 OTHER ASSETS</b>		
Prepayments	355	341
Accrued income	619	1,986
<b>TOTAL OTHER ASSETS</b>	<u>974</u>	<u>2,327</u>

NOTE 21 (a) PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT

Summary of property, infrastructure, plant and equipment

	At Fair Value 30 June 2016	Accumulated Depreciation	WDV 30 June 2016	At Fair Value 30 June 2015	Accumulated Depreciation	WDV 30 June 2015
Land	98,340	964	97,376	98,513	500	98,013
Buildings	126,361	49,935	76,426	126,348	50,583	75,765
Plant and Equipment	24,845	11,758	13,087	22,868	11,605	11,263
Infrastructure	1,057,757	353,284	704,473	1,037,699	339,051	698,648
Work in progress	7,507	-	7,507	6,301	-	6,301
	<u>1,314,810</u>	<u>415,641</u>	<u>899,169</u>	<u>1,291,229</u>	<u>402,339</u>	<u>888,890</u>

Summary of Work in Progress

	Opening WP	Additions	Transfers	Write Offs	Closing WP
Buildings	4,272	4,218	(3,791)	(8)	4,781
Plant and Equipment	112	181	(51)	-	242
Infrastructure	1,917	2,369	(1,573)	(229)	2,484
Total	<u>6,301</u>	<u>6,768</u>	<u>(5,315)</u>	<u>(237)</u>	<u>7,507</u>

## NOTE 21 (a)

## PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT (CONT'D)

## Land and Buildings

	Land - specialised \$'000	Land - non specialised \$'000	Land Improvements \$'000	Land Under Roads \$'000	Total Land \$'000	Buildings - specialised \$'000	Buildings - non specialised \$'000	Total Buildings \$'000	Work in Progress \$'000	Total Property \$'000
Fair Value 1 July 2015	78,968	-	1,166	17,079	96,913	126,348	-	126,348	4,272	227,533
Accumulated Depreciation at 1 July 2015	-	-	(500)	-	(500)	(50,584)	-	(50,584)	-	(51,084)
	<u>78,968</u>	<u>-</u>	<u>666</u>	<u>17,079</u>	<u>96,413</u>	<u>75,764</u>	<u>-</u>	<u>75,764</u>	<u>4,272</u>	<u>176,469</u>
<b>Movements in Fair Value</b>										
Acquisition of assets	196	68	-	76	340	640	117	757	4,218	5,315
Revaluation increments/decrements	1,154	13	-	-	1,167	110	-	110	-	1,277
Fair value of assets Disposed	-	-	-	-	-	(1,490)	-	(1,490)	(8)	(1,500)
Transfers	(109)	-	-	29	(80)	844	-	844	(3,791)	(3,133)
	<u>1,241</u>	<u>81</u>	<u>-</u>	<u>105</u>	<u>1,427</u>	<u>(104)</u>	<u>117</u>	<u>13</u>	<u>509</u>	<u>1,948</u>
<b>Movement in Accumulated Depreciation</b>										
Depreciation and amortisation	-	-	(164)	-	(164)	(3,153)	-	(3,153)	-	(3,217)
Accum Depn Revaluation increments/decrements	-	-	-	-	-	2,210	-	2,210	-	2,210
Accumulated depreciation of disposals	-	-	-	-	-	908	-	908	-	908
Transfers	-	-	-	-	-	(684)	-	(684)	-	(684)
	<u>-</u>	<u>-</u>	<u>(164)</u>	<u>-</u>	<u>(164)</u>	<u>(649)</u>	<u>-</u>	<u>(649)</u>	<u>-</u>	<u>(653)</u>
At fair value 30 June 2016	79,909	81	1,166	17,184	98,340	126,244	117	126,361	4,781	229,602
Accumulated depreciation at 30 June 2016	-	-	(664)	-	(664)	(49,935)	-	(49,935)	-	(50,599)
	<u>79,909</u>	<u>81</u>	<u>502</u>	<u>17,184</u>	<u>97,676</u>	<u>76,309</u>	<u>117</u>	<u>76,426</u>	<u>4,781</u>	<u>179,003</u>

NOTE 21 (a)

PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT (CONT'D)

Plant and Equipment

	Plant Machinery and Equipment	Fixtures Fittings and Furniture	Computers and Telecomms	Library Books	Art Works	Work in Progress	Total Plant and Equipment
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fair Value 1 July 2015	10,745	2,908	4,300	3,207	1,999	112	23,000
Accumulated Depreciation at 1 July 2015	(5,087)	(1,208)	(3,531)	(1,779)	-	-	(11,605)
	5,658	1,400	778	1,528	1,999	112	11,475
<b>Movements in Fair Value</b>							
Acquisition of assets	2,828	30	144	187	50	182	3,430
Revaluation increments/decrements	-	-	-	-	1,378	-	1,378
Fair value of assets Disposed	(2,571)	-	-	(250)	-	-	(2,830)
Transfers	-	61	-	-	-	(51)	10
	287	100	144	(62)	1,428	131	2,908
<b>Movement in Accumulated Depreciation</b>							
Depreciation and amortisation	(1,433)	(250)	(300)	(201)	-	-	(2,253)
Accumulated depreciation of disposals	1,841	-	-	250	-	-	2,100
	408	(250)	(300)	(2)	-	-	(152)
At fair value 30 June 2016	11,012	2,708	4,453	3,245	3,427	243	25,088
Accumulated depreciation at 30 June 2016	(4,679)	(1,458)	(3,840)	(1,781)	-	-	(11,758)
	6,333	1,250	613	1,464	3,427	243	13,330

NOTE 21 (a)

PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT (CONT'D)

Infrastructure

	Roads	Bridges	Footpaths and cycleways	Drainage	Recreational, leisure and Community	Waste Management	Parks open space and streetscapes	Aerodromes	Off street car parks	Other infrastructure	Work in Progress	Total Infrastructure
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fair Value 1 July 2015	700,117	92,101	38,300	104,695	37,437	4,795	26,490	14,593	4,216	14,947	1,917	1,039,617
Accumulated Depreciation at 1 July 2015	(206,754)	(34,197)	(14,173)	(34,783)	(22,201)	(1,869)	(9,495)	(5,208)	(1,359)	(9,582)	-	(339,659)
	493,363	57,904	24,126	69,912	15,236	2,926	16,995	9,385	2,857	5,365	1,917	699,958
<b>Movements in Fair Value</b>												
Acquisition of assets	9,639	1,323	1,150	3,560	341	81	511	169	-	2,328	2,369	21,481
Revaluation increments/decrements	-	-	-	-	159	(287)	40	-	-	175	-	87
Fair value of assets Disposed	(923)	(1,500)	(132)	(73)	(212)	-	(21)	-	-	(79)	(228)	(3,169)
Transfers	1,996	2	237	43	806	-	45	-	-	1,235	(1,972)	2,221
	10,712	(115)	1,256	3,530	624	(206)	575	169	-	3,679	567	20,621
<b>Movement in Accumulated Depreciation</b>												
Depreciation and amortisation	(10,052)	(1,004)	(871)	(1,106)	(904)	(115)	(927)	(246)	(70)	(373)	-	(15,198)
Accum Depn Revaluation increments/decrements	-	-	-	-	(1,241)	176	(88)	(387)	(25)	(382)	-	(3,818)
Accumulated depreciation of disposals	843	1,500	132	132	877	27	21	-	-	47	-	3,379
Transfers	-	-	-	4	-	-	-	-	-	-	-	4
	(9,209)	496	(739)	(1,030)	(1,168)	88	(995)	(643)	(95)	(608)	-	(12,433)
At fair value 30 June 2016	710,429	91,526	38,564	108,225	36,361	4,589	27,085	14,762	4,216	18,620	2,484	1,060,241
Accumulated depreciation at 30 June 2016	(215,963)	(33,701)	(14,912)	(35,812)	(23,369)	(1,811)	(10,180)	(5,851)	(1,454)	(10,190)	-	(353,289)
	494,466	58,165	24,652	72,412	14,992	2,778	16,905	8,911	2,762	8,430	2,484	706,952

Notes to the Financial Report  
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NOTE 21(b) PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT (CONTD)

Valuation of land and buildings

Valuation of buildings were undertaken by a qualified independent valuer APV Valuers & Asset Management - Lachlan Black Registered Valuer No 2913 and Damon Griggs Registered Valuer No 3204. Valuation of land was undertaken by a qualified independent valuer Jonathan Barnett Registered Valuer No 63207.

The valuation of land and buildings is at fair value, being market value based on highest and best use permitted by relevant land planning provisions. Where land use is restricted through existing planning provisions the valuation is reduced to reflect this limitation. This adjustment is an unobservable input in the valuation. The adjustment has no impact on the comprehensive income statement.

Specialised land is valued at fair value using site values adjusted for englobe (undeveloped and/or unserviced) characteristics, access rights and private interests of other parties and entitlements of infrastructure assets and services. This adjustment is an unobservable input in the valuation. The adjustment has no impact on the comprehensive income statement.

Any significant movements in the unobservable inputs for land and land under roads will have a significant impact on the fair value of these assets.

Details of the Council's land and buildings and information about the fair value hierarchy as at 30 June 2016 are as follows:

	Level 1	Level 2	Level 3
Specialised Land	-	-	79,909
Land Under Roads	-	-	17,184
Land Improvements	-	-	502
Buildings	-	2,458	73,968
<b>Total</b>	<b>-</b>	<b>2,458</b>	<b>171,563</b>

Valuation of infrastructure

Valuation of infrastructure assets (roads, bridges, footpaths and cycleways and drainage) has been determined in accordance with a valuation undertaken by Council Officer Mr Chris Hasle B. Eng. (Civil), Goert Mgt.

Valuation of infrastructure assets (recreational, leisure and community facilities, waste management, parks, open space and streetscapes, aerodromes and other infrastructure) has been determined in accordance with an independent valuation undertaken by APV Valuers & Asset Management - Lachlan Black Registered Valuer No 2913 and Damon Griggs Registered Valuer No 3204.

The valuation is at fair value based on replacement cost less accumulated depreciation as at the date of valuation.

Details of the Council's infrastructure and information about the fair value hierarchy as at 30 June 2016 are as follows:

	Level 1	Level 2	Level 3
Roads	-	-	404,486
Bridges	-	-	58,165
Footpaths and Cycleways	-	-	24,652
Drainage	-	-	72,412
Recreational, leisure and community facilities	-	316	14,676
Waste Management	-	5	2,773
Parks, open space and streetscapes	-	317	18,588
Aerodromes	-	18	8,893
Off street car parking	-	-	2,762
Other Infrastructure	-	3,184	5,248
<b>Total</b>	<b>-</b>	<b>3,840</b>	<b>700,634</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 21(b) PROPERTY, INFRASTRUCTURE, PLANT AND EQUIPMENT (CONT'D)

*Description of significant unobservable inputs into level 3 valuations*

**Specialised land and land under roads** is valued using a market based direct comparison technique. Significant unobservable inputs include the extent and impact of restriction of use and the market cost of land per square metre. The extent and impact of restrictions on use varies and results in a reduction to surrounding land values between 5% and 95%. The market value of land varies significantly depending on the location of the land and the current market conditions. Currently land values range between \$0.03 and \$18,147.97 per square metre and land under roads values range between \$0.15 and \$1.03 per square metre.

**Specialised buildings** are valued using a depreciated replacement cost technique. Significant unobservable inputs include the current replacement cost and remaining useful lives of buildings. Current replacement costs are comprised of a square metre basis ranging from \$357 to \$4,437 per square metre. The remaining useful lives of buildings are determined on the basis of the current condition of buildings and vary from 1 year to 100 years. Replacement cost is sensitive to changes in market conditions, with any increase or decrease in cost flowing through to the valuation. Useful lives of buildings are sensitive to changes in expectations or requirements that could either shorten or extend the useful lives of buildings.

**Infrastructure assets** are valued based on the depreciated replacement cost. Significant unobservable inputs include the current replacement cost and remaining useful lives of infrastructure. The remaining useful lives of infrastructure assets are determined on the basis of the current condition of the asset and vary from 10 years to indefinite. Replacement cost is sensitive to changes in market conditions, with any increase or decrease in cost flowing through to the valuation. Useful lives of infrastructure are sensitive to changes in use, expectations or requirements that could either shorten or extend the useful lives of infrastructure assets.

	2016	2015
	\$'000	\$'000
<b>Reconciliation of specialised land</b>		
Off Street Car Parks	5,559	4,630
Aerodromes	2,899	3,051
Parks/Open Space/Streetscapes	40,636	39,561
Recreation, Leisure & Community Facilities	27,383	28,023
Drainage	793	753
Waste Management	1,606	1,484
Other Infrastructure - Piers/Jetties/Caravan Parks/Markets/Saleyard	1,033	1,158
<b>Total specialised land</b>	<b>79,908</b>	<b>78,668</b>



Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016	2015
	\$'000	\$'000
<b>NOTE 22 INTANGIBLE ASSETS</b>		
Water rights	9	14
Software	188	317
Landfill air space	452	570
<b>TOTAL INTANGIBLE ASSETS</b>	<b>649</b>	<b>901</b>

	Water Right	Software	Landfill	Total
	\$'000	\$'000	\$'000	\$'000
<b>Gross Carrying amount</b>				
Balance at 1 July 2014	-	1,255	1,942	3,197
Additions	17	53	40	110
Assets written off	-	-	(503)	(503)
Balance at 1 July 2015	17	1,308	1,479	2,804
Additions	-	82	-	82
Balance at 30 June 2016	<b>17</b>	<b>1,390</b>	<b>1,479</b>	<b>2,886</b>
<b>Accumulated amortisation and impairment</b>				
Balance at 1 July 2014	-	789	1,302	2,071
Amortisation expense	3	222	103	328
Assets written off	-	-	(496)	(496)
Balance at 1 July 2015	3	991	909	1,903
Amortisation expense	5	211	118	334
Balance at 30 June 2016	<b>8</b>	<b>1,202</b>	<b>1,027</b>	<b>2,237</b>
Net book value at 30 June 2015	<b>14</b>	<b>317</b>	<b>570</b>	<b>901</b>
Net book value at 30 June 2016	<b>9</b>	<b>188</b>	<b>452</b>	<b>649</b>

**NOTE 23 TRADE AND OTHER PAYABLES**

Trade Payables	4,532	5,030
Accrued Employee Expenses	146	173
<b>TOTAL TRADE AND OTHER PAYABLES</b>	<b>4,678</b>	<b>5,103</b>

**NOTE 24 TRUST FUNDS AND DEPOSITS**

Trust monies are held for the following purposes:

Refundable deposits	307	184
Fire Services Property Levy	179	280
Retention amounts	87	135
Other trust funds and deposits	56	170
<b>TOTAL TRUST FUNDS AND DEPOSITS</b>	<b>629</b>	<b>769</b>

*Purpose and nature of items*

**Refundable deposits** - Deposits are taken by council as a form of surety in a number of circumstances, including in relation to building works, tender deposits, contract deposits, subdivision deposits and the use of civic facilities.

**Fire Services Property Levy** - Council is the collection agent for fire services property levy on behalf of the State Government. Council remits amounts received on a quarterly basis. Amounts disclosed here will be remitted to the state government in line with that process.

**Retention Amounts** - Council has a contractual right to retain certain amounts until a contractor has met certain requirements or a related warrant or defect period has elapsed. Subject to the satisfactory completion of the contractual obligations, or the elapsing of time, these amounts will be paid to the relevant contractor in line with Council's contractual obligations.

**Other Trust funds and deposits** - Council holds in trust tickets sales for shows performed by third parties held at the entertainment centre which are on forwarded to performer on completion of the show.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 25 PROVISIONS

	Employee \$'000	Landfill restoration \$'000	Total \$'000
<b>2016</b>			
Balance at beginning of the financial year	6,226	2,161	8,387
Additional Provisions	2,172	-	2,172
Amounts used	(2,236)	-	(2,236)
Increase in the discounted amount arising because of time and the effect of any change in the discount rate	251	328	579
Balance at the end of the financial year	<u>6,413</u>	<u>2,489</u>	<u>8,902</u>
<b>2015</b>			
Balance at beginning of the financial year	5,758	2,027	7,785
Additional Provisions	2,295	40	2,295
Amounts used	(1,993)	-	(1,993)
Increase in the discounted amount arising because of time and the effect of any change in the discount rate	205	94	299
Balance at the end of the financial year	<u>6,226</u>	<u>2,161</u>	<u>8,387</u>
		<b>2016</b>	<b>2015</b>
		<b>\$'000</b>	<b>\$'000</b>
<b>(a) Employee Provisions</b>			
Current provisions expected to be wholly settled within 12 months			
Annual Leave		1,359	1,369
Long Service Leave		471	341
		<u>1,830</u>	<u>1,710</u>
Current provisions expected to be settled after 12 months			
Annual Leave		400	340
Long Service Leave		3,691	3,024
		<u>4,091</u>	<u>4,264</u>
Total current provisions		<u>5,921</u>	<u>5,974</u>
<b>(a) Employee Provisions (cont'd)</b>			
<b>Non Current</b>			
Long Service Leave		491	251
Sick Leave Gratuity		1	1
Total non-current provisions		<u>492</u>	<u>252</u>
Aggregate Carrying amount of Employee Benefits			
Current		5,921	5,974
Non-Current		492	252
Total aggregate carrying amounts of employee provisions		<u>6,413</u>	<u>6,226</u>
<b>(b) Landfill Restoration</b>			
Current		864	558
Non-current		1,625	1,603
		<u>2,489</u>	<u>2,161</u>

Refer to Note 1(j) for further information on Landfill restoration provision.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 26 INTEREST-BEARING LOANS AND BORROWINGS	2016	2015
	\$'000	\$'000
Current		
Borrowings - secured	1,481	2,990
Non-current		
Borrowings - secured	8,656	10,137
<b>TOTAL INTEREST-BEARING LOANS AND BORROWINGS</b>	<b><u>10,137</u></b>	<b><u>13,127</u></b>
a) The maturity profile for Council's borrowings is:		
Not later than one year	1,481	2,990
Later than one year and not later than five years	4,630	5,822
Later than five years	4,026	4,315
	<u>10,137</u>	<u>13,127</u>
b) Aggregate carrying amount of interest-bearing loans and borrowings:		
Current	1,481	2,990
Non-current	8,656	10,137
	<u>10,137</u>	<u>13,127</u>

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 27 RESERVES

	Balance at beginning of reporting period \$'000	Increment (decrement) \$'000	Balance at end of reporting period \$'000
<b>(a) Asset revaluation reserves</b>			
<b>2016</b>			
<b>Property</b>			
Land	73,119	1,063	74,202
Buildings and Structures	71,832	123	71,955
	144,951	1,206	146,157
<b>Infrastructure</b>			
Road	401,836	(74)	401,762
Footpaths	2,738	(33)	2,705
Drainage	36,121	(28)	36,093
Bridges	19,040	(874)	18,166
	459,735	(1,009)	458,726
<b>Other</b>			
Art Gallery Stock	1,123	1,378	2,501
<b>TOTAL ASSET REVALUATION RESERVES</b>	<b>605,869</b>	<b>1,575</b>	<b>607,384</b>
<b>2015</b>			
<b>Property</b>			
Land	73,414	(295)	73,119
Buildings and Structures	71,544	288	71,832
	144,958	(7)	144,951
<b>Infrastructure</b>			
Road	402,442	(606)	401,836
Footpaths	2,758	(20)	2,738
Drainage	29,208	6,913	36,121
Bridges	19,875	(835)	19,040
	454,283	5,462	459,735
<b>Other</b>			
Art Gallery Stock	1,123	-	1,123
<b>TOTAL ASSET REVALUATION RESERVES</b>	<b>600,364</b>	<b>5,445</b>	<b>605,809</b>

The asset revaluation reserve is used to record the increase/(net) value of Council's assets over time.

	Balance at beginning of reporting period \$'000	Transfer from accumulated surplus \$'000	Transfer to accumulated surplus \$'000	Balance at end of reporting period \$'000
<b>(b) Other reserves</b>				
<b>2016</b>				
<b>Discretionary Reserves</b>				
Asset Improvement	253	45	253	45
Plant Replacement	1,474	603	1,334	743
Waste Management	4,476	1,000	606	4,870
<b>Total Discretionary Reserves</b>	<b>6,203</b>	<b>1,648</b>	<b>2,193</b>	<b>5,658</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 27 RESERVES (CONTD)

	Balance at beginning of reporting period \$'000	Transfer from accumulated surplus \$'000	Transfer to accumulated surplus \$'000	Balance at end of reporting period \$'000
<b>(b) Other reserves</b>				
<b>2016</b>				
<b>Non Discretionary Reserves</b>				
Recreational Land	276	108	29	355
Art Gallery Acquisition	-	7	5	2
Art Gallery Contribution	1	34	-	35
Leased Property Improvements	568	226	147	643
<b>Total Non Discretionary Reserves</b>	<b>846</b>	<b>377</b>	<b>181</b>	<b>1,041</b>
<b>TOTAL OTHER RESERVES</b>	<b>7,048</b>	<b>2,825</b>	<b>2,374</b>	<b>6,689</b>
<b>2015</b>				
<b>Discretionary Reserves</b>				
Asset Improvement	688	-	435	253
Plant Replacement	1,448	500	474	1,474
Waste Management	3,689	902	115	4,476
<b>Total Discretionary Reserves</b>	<b>5,825</b>	<b>1,402</b>	<b>1,024</b>	<b>6,203</b>
<b>Non Discretionary Reserves</b>				
Recreational Land	335	89	148	276
Art Gallery Acquisition	-	14	14	-
Art Gallery Contribution	33	-	32	1
Leased Property Improvements	732	48	212	568
<b>Total Non Discretionary Reserves</b>	<b>1,100</b>	<b>151</b>	<b>406</b>	<b>845</b>
<b>TOTAL OTHER RESERVES</b>	<b>6,925</b>	<b>1,553</b>	<b>1,430</b>	<b>7,048</b>

**Purpose of Reserves**

**Discretionary Reserves**

**Asset Improvement**

Reserve to fund capital improvements.

**Plant Replacement**

Reserve is to fund future purchases of major plant and equipment.

**Waste Management**

Reserve is to fund the establishment of recycling and transfer stations, rehabilitation of landfills and monitoring of existing and closed landfills, and an increase in landfill capacity in the future.

**Non-Discretionary Reserves**

**Recreational Land**

Reserve to fund future open space facilities as per Section 18 of Subdivision Act.

**Art Gallery Acquisition**

Reserve is to fund future approved art gallery acquisitions.

**Art Gallery Contributions**

Reserve is to fund future specific major art gallery exhibitions.

**Leased Property Improvements**

Reserve to fund future works on leased properties in accordance with Crown Land Act.

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>NOTE 28 RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES TO SURPLUS(DEFICIT)</b>		
Surplus for the period	11,201	12,038
Depreciation and Amortisation	21,102	22,491
(Profit)/loss on disposal of property, infrastructure, plant and equipment	(243)	177
Contributors- Non-monetary	(5,934)	(1,589)
Borrowing costs	652	772
Other	(59)	735
<b>Change in assets and liabilities</b>		
Decrease in trade and other receivables	(201)	439
Increase in Other Assets	1,352	(656)
Decrease in trade and other payables	(1,511)	500
Increase in other liabilities	(51)	51
Increase in Provisions	513	601
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<b><u>26,821</u></b>	<b><u>35,557</u></b>
<b>NOTE 29 FINANCING ARRANGEMENTS</b>		
Bank overdraft	200	200
Credit Card facilities	120	120
<b>Total Facilities</b>	<b><u>320</u></b>	<b><u>320</u></b>
Used facilities	29	32
<b>Unused facilities</b>	<b><u>229</u></b>	<b><u>232</u></b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 30 COMMITMENTS

The Council has entered into the following

	Not later than 1 year	Later than 1 year and not later than 2 years	Later than 2 years and not later than 5 years	Later than 5 years	Total
<b>2016</b>					
Operating	\$'000	\$'000	\$'000	\$'000	\$'000
Waste management	4,477	4,477	4,477	-	13,431
Animal pound & shelter service	242	242	464	-	958
North Sale outline development plan	58	-	-	-	58
Liter Kits	187	-	-	-	187
Maternal and Child Health	952	-	-	-	952
L to P Project	125	125	125	-	375
Software Maintenance	254	21	-	-	275
<b>TOTAL</b>	<b>6,305</b>	<b>4,865</b>	<b>5,055</b>	<b>-</b>	<b>16,256</b>

	Not later than 1 year	Later than 1 year and not later than 2 years	Later than 2 years and not later than 5 years	Later than 5 years	Total
<b>2016</b>					
Capital	\$'000	\$'000	\$'000	\$'000	\$'000
Bridges	1	-	-	-	1
Buildings	452	-	-	-	452
Footpaths & Cycleways	14	-	-	-	14
Lands Improvements	114	-	-	-	114
Other Infrastructure	101	-	-	-	101
Parks, open space and streetscapes	445	-	-	-	445
Plant, Machinery & Equipment	39	-	-	-	39
Recreational leisure and community facilities	451	-	-	-	451
Roads	2,027	-	-	-	2,027
Waste Management	91	-	-	-	91
<b>TOTAL</b>	<b>3,735</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,735</b>

	Not later than 1 year	Later than 1 year and not later than 2 years	Later than 2 years and not later than 5 years	Later than 5 years	Total
<b>2015</b>					
Operating	\$'000	\$'000	\$'000	\$'000	\$'000
Waste Management	4,432	4,432	9,905	-	17,731
Tourist Information Centre	175	175	-	-	350
Software Maintenance	274	274	21	-	569
Animal Pound and Shelter Service	237	237	710	-	1,184
Valuation Contract	388	-	-	-	388
North Sale outline development plan	57	-	-	-	57
Litermaking	80	-	-	-	80
Maternal and Child Health	940	863	-	-	1,812
L to P Project	125	125	251	-	501
<b>TOTAL</b>	<b>6,636</b>	<b>6,167</b>	<b>9,847</b>	<b>-</b>	<b>22,652</b>

	Not later than 1 year	Later than 1 year and not later than 2 years	Later than 2 years and not later than 5 years	Later than 5 years	Total
<b>2015</b>					
Capital	\$'000	\$'000	\$'000	\$'000	\$'000
Buildings	1,629	-	-	-	1,629
Footpaths & Cycleways	42	-	-	-	42
Plant, Machinery & Equipment	950	-	-	-	950
Roads	817	-	-	-	817
<b>TOTAL</b>	<b>2,548</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,548</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016 \$'000	2015 \$'000
<b>NOTE 31 OPERATING LEASES</b>		
<b>(a) Operating lease commitments</b>		
At the reporting date, the Council had the following obligations under non-cancellable operating leases for the lease of equipment and land and buildings for use within Council's activities (these obligations are not recognised as liabilities):		
Not later than one year	261	253
Later than one year and not later than five years	739	1,356
Later than five years	27	31
	<u>1,027</u>	<u>1,640</u>
<b>(b) Operating lease receivables</b>		
The Council had entered into a commercial property sublease for a portion of it unused office space in the Port of Sale Business Centre. This property was sublet as an operating lease and has now expired.		
Future minimum rentals receivable under non-cancellable operating leases are as follows:		
Not later than one year	-	6
	<u>-</u>	<u>6</u>



Notes to the Financial Report  
For the Year Ended 30 June 2016

**NOTE 32 SUPERANNUATION**

The Wellington Shire Council makes the majority of its employer superannuation contributions in respect of its employees to the Local Authorities Superannuation Fund (the Fund). This Fund has two categories of membership, accumulation and defined benefit, each of which is funded differently. Obligations for contributions to the Fund are recognised as an expense in the Comprehensive Income Statement when they are made or due.

**Accumulation**

The Fund's accumulation categories, Vision MySuper/Vision Super Saver, receives both employer and employee contributions on a progressive basis. Employer contributions are normally based on a fixed percentage of employee earnings (for the year ended 30 June 2016, this was 9.5% as required under Superannuation Guarantee legislation).

**Defined Benefit**

Wellington Shire Council does not use defined benefit accounting for its defined benefit obligations under the Fund's Defined Benefit category. This is because the Fund's Defined Benefit category is a pooled multi-employer sponsored plan.

There is no proportional split of the defined benefit liabilities, assets or costs between the participating employers as the defined benefit obligation is a floating obligation between the participating employers and the only time that the aggregate obligation is allocated to specific employers is when a call is made. As a result, the level of participations of Wellington Shire Council in the Fund cannot be measured as a percentage compared with other participating employers. Therefore, the Fund Actuary is unable to allocate benefit liabilities, assets and costs between employers for the purposes of AASB 119.

**Funding arrangements**

Wellington Shire Council makes employer contributions to the Defined Benefit category of the Fund at rates determined by the Trustee on the advice of the Fund's Actuary.

As at 30 June 2015, an interim actuarial investigation was held as the Fund provides lifetime pensions in the Defined Benefit category. The vested benefit index (VBI) of the Defined Benefit category of which Council is a contributing employer was 105.8%. To determine the VBI, the fund Actuary used the following long - term assumptions:

Net investment returns 7.0% pa  
Salary inflation 4.25% pa  
Price inflation (CPI) 2.75% pa.

Vision Super has advised that the VBI at 30 June 2016 was 102.0%. The VBI is to be used as the primary funding indicator. Because the VBI was above 100%, the 2015 interim actuarial investigation determined the Defined Benefit category was in a satisfactory financial position and that no change was necessary to the Defined Benefit category's funding arrangements from prior years.

**Employer contributions**

**Regular contributions**

On the basis of the results of the 2015 interim actuarial investigation conducted by the Fund Actuary, Council makes employer contributions to the Fund's Defined Benefit category at rates determined by the Fund's Trustee. For the year ended 30 June 2016, this rate was 9.5% of members' salaries (9.5% in 2014/2015). This rate will increase in line with any increase to the contribution rate. In addition, Council reimburses the Fund to cover the excess of the benefits paid as a consequence of retrenchment above the funded resignation or retirement benefit.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 32 SUPERANNUATION (Cont.)

**Funding calls**

If the Defined Benefit category is in an unsatisfactory financial position at an actuarial investigation or the Defined Benefit category's VBI is below its shortfall limit at any time other than the date of the actuarial investigation, the Defined Benefit category has a shortfall for the purposes of SPS 160 and the Fund is required to put a plan in place so that the shortfall is fully funded within three years of the shortfall occurring. The Fund monitors its VBI on a quarterly basis and the Fund has set its shortfall limit at 97%.

In the event that the Fund Actuary determines that there is a shortfall based on the above requirement, the Fund's participating employers (including Council) are required to make an employer contribution to cover the shortfall. Using the agreed methodology, the shortfall amount is apportioned between the participating employers based on the pre-1 July 1993 and post-30 June 1993 service liabilities of the Fund's Defined Benefit category, together with the employer's payroll at 30 June 1993 and at the date the shortfall has been calculated.

Due to the nature of the contractual obligations between the participating employers and the Fund, and that the Fund includes lifetime pensioners and their reversionary beneficiaries, it is unlikely that the Fund will be wound up. If there is a surplus in the Fund, the surplus cannot be returned to the participating employers. In the event that a participating employer is wound-up, the defined benefit obligations of that employer will be transferred to that employer's successor.

**2015 Interim actuarial investigation surplus amounts**

The Fund's interim actuarial investigation as at 30 June 2015 identified the following in the defined benefit category of which Council is a contributing employer:

- A VBI surplus of \$130.8 million; and
- A total service liability surplus of \$239 million.

The VBI surplus means that the market value of the fund's assets supporting the defined benefit obligations exceed the vested benefits that the defined benefit members would have been entitled to if they had all exited on 30 June 2015. The total service liability surplus means that the current value of the assets in the Fund's Defined Benefit category plus expected future contributions exceeds the value of expected future benefits and expenses. Council was notified of the 30 June 2015 VBI during August 2015.

**Future superannuation contributions**

The expected contributions to be paid to the Defined Benefit category of Vision Super for the year ending 30 June 2017 is \$368,620.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 33 CONTINGENT LIABILITIES AND ASSETS

**Contingent Liabilities**

**Defined Benefit Superannuation Fund**

Wellington Shire Council has obligations under a defined benefit superannuation scheme that may result in the need to make additional contributions to the scheme, matters relating to this potential obligation are outlined in Note 32. As a result of the volatility in financial markets the likelihood of making such contributions in future periods exists. At this point in time it is not known if additional contributions will be required, their timing or potential amount.

**Landfill Restoration**

Council operates 3 licensed landfills at Kilmory, Longford and Maffra and will be required to carry out site rehabilitation works in the future. Council currently has a provision for landfill restoration (refer Note 25 (b)) which is a best estimate at this time. Depending on the exact requirements of the Environment Protection Authority (EPA) Council may have a further liability but at this point the exact amount is unknown. The risk level for the Longford landfill has been determined by the EPA but potential costs are yet to be determined.

**Legal Matters**

Wellington Shire Council is presently involved in several confidential legal matters, which are being conducted through Council's solicitors.

As these matters are yet to be finalised, and the financial outcomes are unable to be reliably measured, no allowance for these contingencies has been made in the financial statements.

**Guarantees for loans to other entities**

Council has also guaranteed a loan taken out by a community group, to undertake significant capital works to the Club's facilities that are located on Council land.

Council's estimated liability with respect to contingent items is as follows:

	2016	2015
	\$'000	\$'000
Bank Guarantees	934	934
Loan Guarantees	30	36
<b>Total Bank Guarantees</b>	<b>964</b>	<b>970</b>

**Contingent Assets**

Non cash contributions expected to be received in respect of subdivision and gifted assets are as follows:

Developer Contributions	2,061	2,455
<b>Total Contingent Assets</b>	<b>2,061</b>	<b>2,455</b>

Notes to the Financial Report  
For the Year Ended 30 June 2016

**NOTE 34 FINANCIAL INSTRUMENTS**

**(a) Objectives and policies**

The Council's principal financial instruments comprise cash assets, term deposits, receivables (excluding statutory receivables), payables (excluding statutory payables) and bank borrowings. Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised, in respect of each class of financial asset, financial liability and equity instrument is disclosed in Note 1 of the financial statements. Risk management is carried out by senior management under policies approved by the Council. These policies include identification and analysis of the risk exposure to Council and appropriate procedures, controls and risk minimisation.

**(b) Market risk**

Market risk is the risk that the fair value or future cash flows of our financial instruments will fluctuate because of changes in market prices. The Council's exposures to market risk is primarily through interest rate risk with only insignificant exposure to other price risks and no exposure to foreign currency risk.

**Interest rate risk**

Interest rate risk refers to the risk that the value of a financial instrument or cash flows associated with the instrument will fluctuate due to changes in market interest rates. Council does not hold any interest bearing financial instruments that are measured at fair value, and therefore has no exposure to fair value interest rate risk. Cash flow interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Council has minimal exposure to cash flow interest rate risk through its cash and deposits that are at floating rate.

Investment of surplus funds is made with approved financial institutions under the Local Government Act 1989. We manage interest rate risk by adopting an investment policy that ensures:

- diversification of investment product,
- monitoring of return on investment,
- benchmarking of returns and comparison with budget.

There has been no significant change in the Council's exposure, or its objectives, policies and processes for managing interest rate risk or the methods used to measure this risk from the previous reporting period.

Interest rate movements have not been sufficiently significant during the year to have an impact on the Council's year end result.

**(c) Credit risk**

Credit risk is the risk that a contracting entity will not complete its obligations under a financial instrument and cause us to make a financial loss. Council has exposure to credit risk on some financial assets included in our balance sheet. To help manage this risk:

- council have a policy for establishing credit limits for the entities we deal with;
- council may require collateral where appropriate; and
- council only invest surplus funds with financial institutions which have a recognised credit rating specified in our investment policy.

Receivables consist of a large number of customers, spread across the ratepayer, business and government sectors. Credit risk associated with the Council's financial assets is minimal because the main debtor is secured by a charge over the rateable property.

There are no material financial assets which are individually determined to be impaired.

Council may also be subject to credit risk for transactions which are not included in the balance sheet, such as when we provide a guarantee for another party. Details of our contingent liabilities are disclosed in note 33.

The maximum exposure to credit risk at the reporting date to recognised financial assets is the carrying amount, net of any provisions for impairment of those assets, as disclosed in the balance sheet and notes to the financial statements. Council does not hold any collateral.

Notes to the Financial Report  
For the Year Ended 30 June 2016

NOTE 34 FINANCIAL INSTRUMENTS (CONTD)

**(d) Liquidity risk**

Liquidity risk includes the risk that, as a result of our operational liquidity requirements or we will not have sufficient funds to settle a transaction when required, we will be forced to sell a financial asset at below value or may be unable to settle or recover a financial asset.

To help reduce these risks Council:

- have a liquidity policy which targets a minimum and average level of cash and cash equivalents to be maintained;
- have readily accessible standby facilities and other funding arrangements in place;
- have a liquidity portfolio structure that requires surplus funds to be invested within various bands of liquid instruments;
- monitor budget to actual performance on a regular basis; and
- set limits on borrowings relating to the percentage of loans to rate revenue and percentage of loan principal repayments to rate revenue.

The Council's maximum exposure to liquidity risk is the carrying amounts of financial liabilities as disclosed in the face of the balance sheet and the amounts related to financial guarantees disclosed in Note 35, and is deemed insignificant based on prior periods' data and current assessment of risk.

There has been no significant change in Council's exposure, or its objectives, policies and processes for managing liquidity risk or the methods used to measure this risk from the previous reporting period.

With the exception of borrowings, all financial liabilities are expected to be settled within normal terms of trade. Details of the maturity profile for borrowings are disclosed at Note 26.

Unless otherwise stated, the carrying amounts of financial instruments reflect their fair value.

**(e) Fair value**

*Fair value hierarchy*

Council's financial assets and liabilities are not valued in accordance with the fair value hierarchy, Council's financial assets and liabilities are measured at amortised cost.

**(f) Sensitivity disclosure analysis**

Taking into account past performance, future expectations, economic forecasts, and management's knowledge and experience of the financial markets, Council believes the following movements are 'reasonably possible' over the next 12 months:

- A parallel shift of 0% and -0.5% in market interest rates (AUD) from year-end cash rate of 1.75%

These movements will not have a material impact on the valuation of Council's financial assets and liabilities, nor will they have a material impact on the results of Council's operations.



Notes to the Financial Report  
For the Year Ended 30 June 2016

	2016	2015
	\$'000	\$'000
<b>NOTE 35 ADJUSTMENTS DIRECTLY TO EQUITY</b>		
Reversal of revalued components of assets disposed or written off (transfer from asset revaluation reserve to accumulated surplus)		
Land	84	71
Landfill Air space	-	224
Buildings & Structures	451	1,627
Roads, Streets, Drainage, Bridges & Culverts	1,009	633
	<u>1,543</u>	<u>2,555</u>

**NOTE 36 RELATED PARTY TRANSACTIONS**

(i) **Responsible Persons**

Names of persons holding the position of a Responsible Person at the Council at any time during the year are:

<b>COUNCILLORS</b>	Councillor Carolyn Crossley Mayor (1/7/15 - 4/11/15)
	Councillor John Duncan
	Councillor Patrick Mulver
	Councillor Bob Winger
	Councillor Peter Cleary
	Councillor Emilie Davine
	Councillor Malcolm Hole
	Councillor Darren McCubbin - Mayor (5/11/15 - 30/6/16)
	Councillor Scott Rossetti

**CHIEF EXECUTIVE OFFICER** David Morcom

(ii) **Remuneration of Responsible Persons**

The numbers of Responsible Officers whose total remuneration from Council and any related entities fall within the following bands:

	2016	2015
	No.	No.
Income Range:		
\$ 1 - \$ 9,999	-	-
\$ 10,000 - \$ 19,999	-	-
\$ 20,000 - \$ 29,999	7	7
\$ 30,000 - \$ 39,999	-	-
\$ 40,000 - \$ 49,999	1	1
\$ 50,000 - \$ 59,999	-	-
\$ 60,000 - \$ 69,999	1	1
\$ 70,000 - \$ 79,999	-	-
\$ 200,000 - \$ 269,999	-	-
\$ 280,000 - \$ 289,999	-	1
\$ 290,000 - \$ 299,999	1	-
	<u>10</u>	<u>10</u>
	<b>\$'000</b>	<b>\$'000</b>
Total Remuneration for the reporting year for Responsible Persons included above amounted to	589	566

Notes to the Financial Report  
For the Year Ended 30 June 2016

**NOTE 36 RELATED PARTIES (CONT'D)**

**(iii) Senior Officers Remuneration**

A Senior Officer other than a Responsible Person, is an officer of Council who:

- (a) has management responsibilities and reports directly to the Chief Executive Officer; or
- (b) whose total annual remuneration exceeds \$139,000

The number of Senior Officers other than the Responsible Persons, are shown below in their relevant income bands:

Income Range:	2016 No.	2015 No.
<\$138,999	1	1
\$140,000 - \$149,999	-	1
\$150,000 - \$159,999	-	1
\$160,000 - \$169,999	1	-
\$180,000 - \$189,999	-	1
\$190,000 - \$199,999	4	2
	<b>6</b>	<b>6</b>
	<b>\$'000</b>	<b>\$'000</b>
Total Remuneration for the reporting year for Senior Officers included above, amounted to:	1,024	945

**(iv) Responsible persons retirement benefits**

The aggregate amount paid during the reporting period by Council in connection with the retirement of responsible persons was \$Nil. (2015 - \$Nil)

**(v) Loans to responsible persons**

The aggregate amount of loans in existence at balance date that have been made, guaranteed or secured by the council to a responsible person of the council, or a related party of a responsible person was Nil (2014/15 Nil)

**(vi) Transactions with responsible persons**

During the period Council entered into transactions with responsible persons or related parties of responsible persons, which occurred within a normal employee, customer or supplier relationship and at arm's length, including provision of transport services, production of shows at the Esso BHP Billiton Wellington Entertainment Centre, and contribution towards a maintenance of public hall.

**NOTE 37 EVENTS OCCURRING AFTER BALANCE DATE**

No matters have occurred after balance date that require disclosure in the financial report.

## CERTIFICATION OF FINANCIAL STATEMENTS

In my opinion the accompanying financial statements have been prepared in accordance with the *Local Government Act 1989*, the *Local Government (Planning and Reporting) Regulations 2014*, *Australian Accounting Standards* and other mandatory professional reporting requirements.

\_\_\_\_\_  
PRINCIPAL ACCOUNTING OFFICER

Ian Carroll CPA

Dated:

5/9/16

In our opinion the accompanying financial statements present fairly the financial transactions of Wellington Shire Council for the year ended 30 June 2016 and the financial position of the Council as at that date.

As at the date of signing, we are not aware of any circumstances which would render any particulars in the financial statements to be misleading or inaccurate.

We have been authorised by the Council and by the *Local Government (Planning and Reporting) Regulations 2014* to certify the financial statements in their final form.

\_\_\_\_\_  
COUNCILLOR

Peter Geary

Dated:

5/9/16

\_\_\_\_\_  
COUNCILLOR

John Duncan

Dated:

5/9/16

\_\_\_\_\_  
CHIEF EXECUTIVE OFFICER

David Morcom

Dated:

5/9/16



**AUDITOR-GENERAL'S REPORT**  
2 pages

**AUDITOR-GENERAL'S REPORT**  
2 pages



# WELLINGTON SHIRE COUNCIL

## Performance Statement

For the year ended 30 June 2016

## **Performance Statement**

For the year ended 30 June 2016

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### **Description of municipality**

Wellington Shire is the third largest municipality in Victoria, covering an area of 10,924 square kilometres in Central Gippsland, and includes the internationally significant Gippsland Lakes and Wetlands and the Ninety Mile Beach.

With a population of 41,440\* Wellington Shire Council comprises a wide variety of industry and business contributing to the local economy including mining, offshore oil and gas extraction, primary production and agriculture, tourism and service industries, manufacturing and construction, retail, healthcare, education, arts and recreation and community services. In addition, RAAF Base East Sale is a major air and ground training base and home to the famous Roulettes, Central Flying School, the Officers' Training School and the schools of Air Warfare and Air Traffic Control.

\*2011 Census

## Sustainable Capacity Indicators

For the year ended 30 June 2016

<i>Indicator/measure</i>	<b>Results</b>		<b>Material Variations</b>
	2015	2016	
<b>Population</b>			
<i>Expenses per head of municipal population</i> [Total expenses / Municipal population]	\$1,776.84	1,717.79	No material variations
<i>Infrastructure per head of municipal population</i> [Value of infrastructure / Municipal population]	\$18,726.79	\$19,099.08	No material variations
<i>Population density per length of road</i> [Municipal population / Kilometres of local roads]	13.61	13.52	No material variations
<b>Own-source revenue</b>			
<i>Own-source revenue per head of municipal population</i> [Own-source revenue / Municipal population]	\$1,394.98	\$1,475.59	Additional own source revenue received in 2015/16 included revenue from new animal registration fees, revenue from a combined service agreement with East Gippsland Shire Council and increased commercial tipping fees.
<b>Recurrent grants</b>			
<i>Recurrent grants per head of municipal population</i> [Recurrent grants / Municipal population]	\$503.46	\$293.24	On 30 June 2015, the Commonwealth Government remitted an advance payment of \$6.07 million for the 2015/16 Financial Assistance Grants, which overstated the 2014/15 indicator and also results in a corresponding understatement of the 2015/16 indicator.
<b>Disadvantage</b>			
<i>Relative socio-economic disadvantage</i> [Index of Relative Socio-economic Disadvantage by decile]	4	4	Wellington Shire ranks in the fourth decile in Victoria. The first decile indicates the most disadvantaged and the tenth decile indicates the least disadvantaged.

### Definitions

"adjusted underlying revenue" means total income other than:

- (a) non-recurrent grants used to fund capital expenditure; and
- (b) non-monetary asset contributions; and
- (c) contributions to fund capital expenditure from sources other than those referred to above

"infrastructure" means non-current property, plant and equipment excluding land

"local road" means a sealed or unsealed road for which the council is the responsible road authority under the *Road Management Act 2004*

"population" means the resident population estimated by council

"own-source revenue" means adjusted underlying revenue other than revenue that is not under the control of council (including government grants)

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"relative socio-economic disadvantage", in relation to a municipality, means the relative socio-economic disadvantage, expressed as a decile for the relevant financial year, of the area in which the municipality is located according to the Index of Relative Socio-Economic Disadvantage (Catalogue Number 2033.0.55.001) of SEIFA

"SEIFA" means the Socio-Economic Indexes for Areas published from time to time by the Australian Bureau of Statistics on its Internet website

"unrestricted cash" means all cash and cash equivalents other than restricted cash.

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## Service Performance Indicators

For the year ended 30 June 2016

Service/indicator/measure	Results		Material Variations
	2015	2016	
<b>Aquatic facilities</b>			
<b>Utilisation</b>			
<i>Utilisation of aquatic facilities</i> [Number of visits to aquatic facilities / Municipal population]	4.55	4.75	WSC Combined visits to aquatic facilities for 2015-16 (to Heyfield, Maffra, Rosedale, Stratford and Yarram outdoor pools) and (Sale) indoor aquatic facility was 199,337 from an estimated population of 41,965. This equates to an average of almost five visits per Wellington Shire resident for the year.
<b>Animal management</b>			
<b>Health and safety</b>			
<i>Animal management prosecutions</i> [Number of successful animal management prosecutions]	11	4	During 2015-16, Council undertook 4 animal management prosecutions, all of which were successful. The relatively low number of animal prosecutions undertaken by Council indicates the effectiveness of its animal management education program.
<b>Food safety</b>			
<b>Health and safety</b>			
<i>Critical and major non-compliance notifications</i> [Number of critical non-compliance notifications and major non-compliance notifications about a food premises followed up / Number of critical non-compliance notifications and major non-compliance notifications about food premises] x 100	100%	100%	Council is committed to minimising threats to public health and has developed a proactive health promotions and education program for major-noncompliance food premises.
<b>Governance</b>			
<b>Satisfaction</b>			
<i>Satisfaction with council decisions</i> [Community satisfaction rating out of 100 with how council has performed in making decisions in the interest of the community]	58	56	Council's participation in the 2015 Community Satisfaction Survey showed a 56% community satisfaction rating with the way Council has performed in making decision in the interests of the community. Though there is a slight decline in this rating, Council is still performing 6 points higher than large rural average and 2 points higher compared to State wide average.

Service/indicator/measure	Results		Material Variations
	2015	2016	
<b>Libraries</b>			
<b>Participation</b>			
<i>Active library members</i> [Number of active library members / Municipal population] x100	15.41%	13.42%	Wellington Shire Libraries offer a broad range of popular programs including author talks, baby rhyme times, and toddler story time and school holiday programs. These are well attended by library members and non-members within the municipality. It is anticipated that active library membership will increase in 2016-17 with alignment with SWIFT consortia providing access for our patrons to over 2.5 million items.
<b>Roads</b>			
<b>Satisfaction</b>			
<i>Satisfaction with sealed local roads</i> [Community satisfaction rating out of 100 with how council has performed on the condition of sealed local roads]	52	53	Results from the 2015 Community Satisfaction Survey show an increase in residents' satisfaction rating for Wellington Shire's sealed local roads to 53% which is significantly higher than the average for similar Large Rural Councils.
<b>Statutory Planning</b>			
<b>Decision making</b>			
<i>Council planning decisions upheld at VCAT</i> [Number of VCAT decisions that did not set aside council's decision in relation to a planning application / Number of VCAT decisions in relation to planning applications] x100	100%	100%	In 2015/16 two planning application decisions were subject to a review by VCAT and, in both instances, Council's decision was upheld.
<b>Waste Collection</b>			
<b>Waste diversion</b>			
<i>Kerbside collection waste diverted from landfill</i> [Weight of recyclables and green organics collected from kerbside bins / Weight of garbage, recyclables and green organics collected from kerbside bins] x100	34.61%	32.10%	Over 3,400 tonnes of recycling waste was diverted from landfill in 2015/16 which is a slight decrease compared to 2014/15. That's an average of 179 kg of recycling waste per household in Wellington Shire.



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#### Definitions

"Aboriginal child" means a child who is an Aboriginal person

"Aboriginal person" has the same meaning as in the Aboriginal Heritage Act 2006

"active library member" means a member of a library who has borrowed a book from the library

"annual report" means an annual report prepared by a council under sections 131, 132 and 133 of the Act

"CALD" means culturally and linguistically diverse and refers to persons born outside Australia in a country whose national language is not English

"class 1 food premises" means food premises, within the meaning of the *Food Act 1984*, that have been declared as class 1 food premises under section 19C of that Act

"class 2 food premises" means food premises, within the meaning of the *Food Act 1984*, that have been declared as class 2 food premises under section 19C of that Act

"Community Care Common Standards" means the Community Care Common Standards for the delivery of HACC services, published from time to time by the Commonwealth

"critical non-compliance outcome notification" means a notification received by council under section 19N(3) or (4) of the *Food Act 1984*, or advice given to council by an authorized officer under that Act, of a deficiency that poses an immediate serious threat to public health

"food premises" has the same meaning as in the *Food Act 1984*

"HACC program" means the Home and Community Care program established under the Agreement entered into for the purpose of the Home and Community Care Act 1985 of the Commonwealth

"HACC service" means home help, personal care or community respite provided under the HACC program

"local road" means a sealed or unsealed road for which the council is the responsible road authority under the *Road Management Act 2004*

"major non-compliance outcome notification" means a notification received by a council under section 19N(3) or (4) of the *Food Act 1984*, or advice given to council by an authorized officer under that Act, of a deficiency that does not pose an immediate serious threat to public health but may do so if no remedial action is taken

"MCH" means the Maternal and Child Health Service provided by a council to support the health and development of children within the municipality from birth until school age

"population" means the resident population estimated by council

"target population" has the same meaning as in the Agreement entered into for the purposes of the Home and Community Care Act 1985 of the Commonwealth

"WorkSafe reportable aquatic facility safety incident" means an incident relating to a council aquatic facility that is required to be notified to the Victorian WorkCover Authority under Part 5 of the *Occupational Health and Safety Act 2004*.

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## Financial Performance Indicators

For the year ended 30 June 2016

Dimension/Indicator/measure	Results		Forecasts				Material Variations
	2015	2016	2017	2018	2019	2020	
<b>Efficiency</b>							
<b>Revenue level</b>							
<i>Average residential rate per residential property assessment</i> [Residential rate revenue / Number of residential property assessments]	\$1,114.95	1,177.97	\$1,251.13	\$1,305.15	\$1,370.65	\$1,434.12	A higher than expected number of supplementary valuations relating to residential properties were processed in 2015/16 compared to 2014/15 resulting in additional rates and charges raised. This increase was partly offset by a number of vacant blocks transferred to Council as part of the Wellington Coastal Strategy Voluntary Assistance program.
<b>Expenditure level</b>							
<i>Expenses per property assessment</i> [Total expenses / Number of property assessments]	\$2,181.33	2,103.93	\$2,322.26	\$2,378.07	\$2,424.99	\$2,472.12	This measure is forecast to increase by \$150 per assessment by 2020. This increase reflects the inclusion of a CPI increase over the period with 2016/17 impacted by large one – off projects. Council is well below other similar councils for expenses per property assessments.
<b>Workforce turnover</b>							
<i>Resignations and terminations compared to average staff</i> [Number of permanent staff resignations and terminations / Average number of permanent staff for the financial year] x100	9.39%	13.14%	10.95%	10.00%	10.00%	10.00%	Slight increase in resignations and terminations in 2015-16 due to a higher number of planned retirements and couple of redundancies as a result of review in positions. Four full time staff who converted into casuals are also included in the result as casual positions are excluded from the calculation. Long term average for number of resignations and terminations is approximately 30 per year or 10%. No increase in staff numbers are anticipated in forecast based on current organisational structure.

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Dimension/indicator/measure	Results		Forecasts				Material Variations
	2015	2016	2017	2018	2019	2020	
<b>Liquidity</b>							
<b>Working capital</b>							
<i>Current assets compared to current liabilities</i> [Current assets / Current liabilities] x100	321.14%	382.82%	286.78%	300.53%	250.42%	269.83%	Council's liquidity has improved ahead of a planned increase in capital works for 2016/17. Project timing has seen deferral of commitment and reduced creditors at balance date.
<b>Unrestricted cash</b>							
<i>Unrestricted cash compared to current liabilities</i> [Unrestricted cash / Current liabilities] x100	156.80%	226.46%	229.29%	240.00%	201.78%	221.96%	Conditional grants unspent are \$6.7 million lower from 2015 resulting in increased unrestricted cash in 2016. Payables and loan balances are also lower than the prior year.
<b>Obligations</b>							
<b>Asset renewal</b>							
<i>Asset renewal compared to depreciation</i> [Asset renewal expenses / Asset depreciation] x100	69.40%	80.21%	137.33%	90.37%	109.75%	122.23%	The improvement in this measure recognises Council's emphasis on reducing the asset renewal gap, which is being assisted by successful receipt of grant funding for projects as Yarram Streetscape renewal (completed 2015/16), Port of Sale Precinct (commenced 2015/16 and expected completion in 2017/18) and increased renewal of roads and bridges (funded by increased Roads to Recovery allocation).
<b>Loans and borrowings</b>							
<i>Loans and borrowings compared to rates</i> [Interest bearing loans and borrowings / Rate revenue] x100	26.58%	19.61%	19.75%	18.86%	19.33%	15.03%	This reduction in this measure relates to Council not requiring 2015/16 proposed borrowings of \$1.89 million and deferring \$1.3 million to 2016/17. Over the next four years Council will continue to construct a number of key residential street schemes, funded by borrowings which will be repaid over time by ratepayers benefiting from the works.

Dimension/indicator/meas ure	Results		Forecasts				Material Variations
	2015	2016	2017	2018	2019	2020	
<b>Loans and borrowings</b> <i>Loans and borrowings repayments compared to rates</i> [Interest and principal repayments on interest bearing loans and borrowings / Rate revenue] x100	7.33%	7.05%	3.69%	2.58%	1.78%	6.78%	Existing Council loans will be progressively repaid over the next four years.
<b>Indebtedness</b> <i>Non-current liabilities compared to own source revenue</i> [Non-current liabilities / Own source revenue] x100	20.36%	17.40%	18.37%	18.25%	14.02%	14.55%	The reduction in this measure mainly results from an increase in 2015/16 own source revenue associated with new sources of income and increased rates and charges and commercial tipping fees, along with a minor decrease in non-current liabilities (reduced loan payments). This measure compared to other similar Councils (2015 31.34%) is significantly lower indicating Council is in a strong position to cover non-current liabilities.
<b>Operating position</b> <i>Adjusted underlying result</i> <i>Adjusted underlying surplus (or deficit)</i> [Adjusted underlying surplus (deficit)/ Adjusted underlying revenue] x100	8.46%	3.63%	9.94%	1.99%	5.00%	5.69%	The fluctuation between 2015 and 2016 is the result of the early receipt of 2015/16 funds in 2014/15. This measure is predicted to rise in 2015/16 due to additional Roads to Recovery funding.



Dimension/indicator/meas ure	Results		Forecasts				Material Variations
	2015	2016	2017	2018	2019	2020	
<b>Stability</b>							
<b>Rates concentration</b>							
Rates compared to adjusted underlying revenue [Rate revenue / Adjusted underlying revenue] x100	60.27%	69.10%	62.54%	69.00%	68.45%	69.36%	This measure has also been impacted by the unexpected receipt of funding in 2014/15, generating higher than expected adjusted underlying revenue for 2015.
<b>Rates effort</b>							
Rates compared to property values [Rate revenue / Capital improved value of rateable properties in the municipality] x100	0.54%	0.56%	0.56%	0.58%	0.59%	0.61%	This measure is forecast to remain steady over the next four years.

#### Definitions

"adjusted underlying revenue" means total income other than:

- (a) non-recurrent grants used to fund capital expenditure; and
- (b) non-monetary asset contributions; and
- (c) contributions to fund capital expenditure from sources other than those referred to above

"adjusted underlying surplus (or deficit)" means adjusted underlying revenue less total expenditure

"asset renewal expenditure" means expenditure on an existing asset or on replacing an existing asset that returns the service capability of the asset to its original capability

"current assets" has the same meaning as in the Australian Account Standards (AAS)

"current liabilities" has the same meaning as in the AAS

"non-current assets" means all assets other than current assets

"non-current liabilities" means all liabilities other than current liabilities

"non-recurrent grant" means a grant obtained on the condition that it be expended in a specified manner and is not expected to be received again during the period covered by a council's Strategic Resource Plan

"own-source revenue" means adjusted underlying revenue other than revenue that is not under the control of council (including government grants)

"population" means the resident population estimated by council

"rate revenue" means revenue from general rates, municipal charges, service rates and service charges

"recurrent grant" means a grant other than a non-recurrent grant

"residential rates" means revenue from general rates, municipal charges, service rates and service charges levied on residential properties

"restricted cash" means cash and cash equivalents, within the meaning of the AAS, that are not available for use other than for a purpose for which it is restricted, and includes cash to be used to fund capital works expenditure from the previous financial year

"unrestricted cash" means all cash and cash equivalents other than restricted cash.

## Other Information

For the year ended 30 June 2016

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### 1. Basis of preparation

Council is required to prepare and include a performance statement within its annual report. The performance statement includes the results of the prescribed sustainable capacity, service performance and financial performance indicators and measures together with a description of the municipal district and an explanation of material variations in the results. This statement has been prepared to meet the requirements of the *Local Government Act 1989* and *Local Government (Planning and Reporting) Regulations 2014*.

Where applicable the results in the performance statement have been prepared on accounting bases consistent with those reported in the Financial Statements. The other results are based on information drawn from council information systems or from third parties (e.g. Australian Bureau of Statistics).

The performance statement presents the actual results for the current year and for the prescribed financial performance indicators and measures, the results forecast by the council's strategic resource plan. The *Local Government (Planning and Reporting) Regulations 2014* requires explanation of any material variations in the results contained in the performance statement. Council has adopted materiality thresholds relevant to each indicator and measure and explanations have not been provided for variations below the materiality thresholds unless the variance is considered to be material because of its nature.

The forecast figures included in the performance statement are those adopted by council in its strategic resource plan on 21 June 2016 and which forms part of the council plan. The strategic resource plan includes estimates based on key assumptions about the future that were relevant at the time of adoption and aimed at achieving sustainability over the long term. Detailed information on the actual financial results is contained in the General Purpose Financial Statements. The strategic resource plan can be obtained by contacting council.

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## Certification of the Performance Statement

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In my opinion, the accompanying performance statement has been prepared in accordance with the *Local Government Act 1989* and the *Local Government (Planning and Reporting) Regulations 2014*.

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Ian Carroll CPA  
Principal Accounting Officer  
Dated:

In our opinion, the accompanying performance statement of the *(council name)* for the year ended 30 June 2016 presents fairly the results of council's performance in accordance with the *Local Government Act 1989* and the *Local Government (Planning and Reporting) Regulations 2014*.

The performance statement contains the relevant performance indicators, measures and results in relation to service performance, financial performance and sustainable capacity.

At the date of signing, we are not aware of any circumstances that would render any particulars in the performance statement to be misleading or inaccurate.

We have been authorised by the council and by the *Local Government (Planning and Reporting) Regulations 2014* to certify this performance statement in its final form.

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Councillor  
Peter Cleary  
Dated:

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Councillor  
John Duncan  
Dated:

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Chief Executive Officer  
David Morcom  
Dated:

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**ITEM C2.3****RE-APPOINTMENT OF THE CHIEF EXECUTIVE OFFICER**

DIVISION: CORPORATE SERVICES

ACTION OFFICER: GENERAL MANGER CORPORTATE SERVICES

DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**OBJECTIVE**

For Council to re-appoint David Morcom as Council's Chief Executive Officer for a period of 5 years from 30 January 2017 to 29 January 2022.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION***That:*

- 1. Council re-appoint DAVID MORCOM as Council's Chief Executive Officer for a period of 5 years from 30 January 2017 to 29 January 2022; pursuant to section 94(4) of the Local Government Act 1989 and in accordance with the public notice published in the Gippsland Times on 23 August 2016, the Yarram Standard on 24 August 2016 and the Council's website on 23 August 2016.***
- 2. Council authorise the Mayor to finalise the contract of employment (draft contract attached as a Confidential document - item F1.1) with DAVID MORCOM, inclusive of annual Enterprise Agreement increases, before 9 September 2016.***
- 3. In accordance with section 94(6) of the Local Government Act 1989, details of DAVID MORCOM's total remuneration as Chief Executive Officer under the new contract of employment, be made available for public inspection within 14 days following approval of this recommendation.***

**BACKGROUND**

In accordance with sections 94 and 95A of the *Local Government Act 1989*, DAVID MORCOM was appointed as Council's Chief Executive Officer from 30 January 2012 to 29 January 2017. Section 94(4) of the *Local Government Act 1989* enables a Council to pass a resolution to re-appoint its incumbent Chief Executive Officer without the requirement to externally advertise the position. The resolution must be passed in the 6 months immediately before the Chief Executive Officer's contract is due to expire.



## **OPTIONS**

Council has the following options:

1. Re-appoint David Morcom as Council's Chief Executive Officer for a period of 5 years, from 30 January 2017 to 29 January 2022.
2. Not re-appoint David Morcom as Council's Chief Executive Officer at this point in time.

## **PROPOSAL**

That :-

1. Council re-appoint DAVID MORCOM as Council's Chief Executive Officer for a period of 5 years from 30 January 2017 to 29 January 2022; pursuant to section 94(4) of the *Local Government Act 1989* and in accordance with the public notice published in the Gippsland Times on 23 August 2016, the Yarram Standard on 24 August 2016 and the Council's website on 23 August 2016.
2. Council authorise the Mayor to finalise the contract of employment (draft contract attached as a Confidential document - item F1.1) with DAVID MORCOM, inclusive of annual Enterprise Agreement increases, before 9 September 2016.
3. In accordance with section 94(6) of the *Local Government Act 1989*, details of DAVID MORCOM's proposed total remuneration as Chief Executive Officer under the new contract of employment, be made available for public inspection within 14 days following approval of this recommendation.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **COMMUNICATION IMPACT**

A public notice was published in the Gippsland Times on 23 August 2016, the Yarram Standard on 24 August 2016 and the Council's website on 23 August 2016 pursuant to section 94(4) of the *Local Government Act 1989*, advising that Council intends to re-appoint DAVID MORCOM as Council's Chief Executive Officer.

In accordance with section 94(6) of the *Local Government Act 1989*, details of DAVID MORCOM's total remuneration as Chief Executive Officer under the new contract of employment, will be made available for public inspection within 14 days following approval of this recommendation.

## **LEGISLATIVE IMPACT**

Section 94(4) of the *Local Government Act 1989* enables a Council to pass a resolution to re-appoint its incumbent Chief Executive Officer without the requirement to externally advertise the position. The resolution must be passed in the 6 months immediately before the Chief Executive Officer's contract is due to expire.

**GENERAL MANAGER  
DEVELOPMENT**

**ITEM C3.1****WELLINGTON AND EAST GIPPSLAND SHIRE'S DOMESTIC WASTEWATER MANAGEMENT PLAN (DWMP)**

DIVISION: DEVELOPMENT  
 ACTION OFFICER: MANAGER MUNICIPAL SERVICES  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓				✓		✓		✓	

**OBJECTIVE**

The purpose of this report is for Council to formally adopt the Wellington and East Gippsland Shire's Domestic Wastewater Management Plan (DWMP) 2016.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council adopt the Wellington and East Gippsland Shire's Domestic Wastewater Management Plan 2016 (provided at Attachment 1).***

**BACKGROUND**

The Wellington and East Gippsland Shire's Domestic Wastewater Management Plan (DWMP) is a strategic document which seeks to address domestic wastewater management issues within the municipalities of Wellington and East Gippsland. The Wellington and East Gippsland DWMP has developed appropriate strategies and actions to prevent and/or minimize the impacts of domestic wastewater management issues. Further it will mitigate the potential risks to public health and the environment that can result from the treatment and disposal of domestic wastewater.

The primary purpose of developing a new Wellington and East Gippsland Shire's DWMP is to update the existing DWMP to meet the revised Ministerial Catchment Guidelines 2012, and to meet Council's responsibilities under the provisions of the *Environmental Protection Act 1970* and the *Health and Wellbeing Act 2008*.

To that end, a working group was formed consisting representatives from regional water corporations, East Gippsland and Wellingtons Shire's together with expert Environmental Consultants (ECOS). Following a lengthy development and internal consultation phase, a draft DWMP was developed that includes detailed background material together with an action plan that responds to domestic wastewater issues within the municipalities. The plan will be subjected to annual reviews which will commit to the implementation of the recommended actions detailed. Following the annual reviews, a four year re-writing of the plan will be completed.

A draft copy of the DWMP was made available to stakeholder agencies and residents of both shires for a three-week period in August 2016.

Three external submissions were received by Council:

- 1) Submission from East Gippsland Water, supporting the DWMP.
- 2) Submission from Gippsland Water, supporting the DWMP
- 3) Submission from Goulburn-Murray Water, which raises matters of technical references, resourcing, and the potential need to introduce an environmental significance overlay within the East Gippsland Planning Scheme, identifying the Hume potable catchments. In the response, suggested technical reference changes are supported, and the document altered. The request for a planning scheme amendment will be referred to East Gippsland Shire's Strategic Planning unit, and resourcing will be further reviewed with water corporations.

Copies of these submissions are attached for your information (Attachment 2)

## **OPTIONS**

Council has the following options:

1. Adopt the Wellington and East Gippsland Shire's Domestic Wastewater Management Plan (DWMP) 2016; or
2. Not adopt the Wellington and East Gippsland Shire's Domestic Wastewater Management Plan (DWMP) 2016 and present to a future Council meeting.

## **PROPOSAL**

It is proposed that Council adopt the Wellington and East Gippsland Shire's Domestic Wastewater Management Plan (DWMP) 2016.

## **CONFLICT OF INTEREST**

No Staff and/or Contractors involved in the compilation of this Report have declared a Conflict of Interest.

## **FINANCIAL IMPACT**

The first draft of the Wellington and East Gippsland Shire's DWMP was funded by the Gippsland Lakes Environment Fund for \$45,000. However additional funds of \$20,000 were received from water corporations to support further and more detailed risk analysis, thereby ensuring the reports priority recommendations were based on the best possible information.

One of the priority actions coming out of the DWMP will see the development of a Memorandum of Understanding (MOU) with water corporations, and this MOU will document an agreed monitoring and compliance program. This program may require additional resources/staff allocations and we will work closely with water corporations to identify how this program can be funded.

## **COUNCIL PLAN IMPACT**

The Council Plan 2013-2017 Theme 7 Community Wellbeing states the following strategic objective and related strategy.

### Strategic Objective

*Enhance health and wellbeing for the whole community*

### Strategy 7.7

*Work in partnerships to provide leadership and strategic direction on issues or risks relating to community safety*

This report supports the above Council Plan strategic objective and strategy

## **CONSULTATION IMPACT**

The development of the DWMP has involved extensive consultation with a number of stakeholder agencies such as the water corporations, the Department of Health and Human Services (DHHS) and the Environment Protection Authority (EPA). Regular feedback was received throughout the project, in particular the water corporations which has been included in the final DWMP where relevant.

A public consultation process has been undertaken following the release of the Wellington and East Gippsland Shire's DWMP with three submissions received on Friday 26 August 2016. Ongoing stakeholder agency consultation is planned annually.



# Wellington and East Gippsland Shires Municipal Domestic Wastewater Management Plan



Prepared for Wellington and East Gippsland Shires  
By Ecos Environmental Consulting

August 2016

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## Executive Summary

### Introduction

The environmental and public health risks posed by unsewered areas is recognised nationally and internationally as a significant public health and environmental issue. In Victoria, management of domestic wastewater is addressed under the *Environment Protection Act 1970* and State Environment Protection Policy (Waters of Victoria) (SEPP WoV). It is a requirement of this legislation for local Governments to develop a Domestic Wastewater Management Plan (DWMP) to address potential risks to community health and the environment resulting from the treatment and disposal of wastewater from homes and businesses in unsewered areas.

Wellington and East Gippsland Shires released their existing DWMP in 2006. In 2014, the Shires received funding assistance from the Gippsland Lakes Environment Fund to review the 2006 DWMP and to produce a new and revised version. The 2006 DWMP was developed with the support of regional water corporations and the corporations have retained a strong obligation in the on-going implementation of the 2016 DWMP.

### Aims

The primary purpose of preparing this DWMP plan is to update the existing DWMP to meet the revised Ministerial Catchment Guidelines, "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012) (the Ministerial Guidelines) as well satisfy the obligations of each Shire council as outlined by Clause 32 of the SEPP WoV. Specific sections of the DWMP that address the requirements of the Ministerial Guidelines are listed in Table 1.

*Table 1. Domestic Wastewater Management Plan Requirements and relevant sections of this DWMP where the requirement is addressed.*

Attribute	Requirements	Relevant section in DWMP
<b>Consultation</b>	<p>The DWMP must be prepared or reviewed in consultation with all relevant stakeholders including:</p> <ul style="list-style-type: none"> <li>• other local governments with which catchment/s are shared;</li> <li>• EPA; and</li> <li>• local water corporation/s.</li> </ul>	<p>Section 6.1 and Appendix 5 (stakeholder consultation)            Section 6.1 and Appendix 5 (stakeholder consultation)            Section 6.1 and Appendix 5 (stakeholder consultation)</p>
<b>Protection of surface and groundwaters</b>	<p>The DWMP must comprise a strategy, including timelines and priorities, to:</p> <ul style="list-style-type: none"> <li>• prevent discharge of wastewater beyond property boundaries; and</li> <li>• prevent individual and cumulative impacts on groundwater and surface water beneficial uses.</li> </ul>	<p>Action plans - Section 9.1            Action plans - Section 9.1</p>
<b>Monitoring, compliance and enforcement</b>	<p>The DWMP must provide for:</p> <ul style="list-style-type: none"> <li>• the effective monitoring of the condition and management of onsite treatment systems, including but not limited to compliance by permit holders with permit conditions and the Code;</li> <li>• the results of monitoring being provided to stakeholders as agreed by the relevant stakeholders;</li> <li>• enforcement action where non-compliance is identified;</li> </ul>	<p>Action plans - Section 9.1, Table 9-4            Action plans - Section 9.1, Table 9-4 (Item ES.3)            Action plans - Section 9.1, Table 9-4 (see Item on Monitoring and Compliance [MC])</p>



Attribute	Requirements	Relevant section in DWMP
	<ul style="list-style-type: none"> <li>a process of review and updating (if necessary) of the DWMP every 5 years;</li> </ul>	Action plan - Section 9.1, Table 9-4 (Item ES.6)
	<ul style="list-style-type: none"> <li>independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, including of monitoring and enforcement, every 5 years;</li> </ul>	Action plan - Section 9.1, Table 9-4 (Item MC.10)
	<ul style="list-style-type: none"> <li>the results of audit being provided to stakeholders as soon as possible after the relevant assessment; and</li> </ul>	Action plan - Section 9.1, Table 9-4 (Item ES.7)
	<ul style="list-style-type: none"> <li>Councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.</li> </ul>	Action plan - Section 9.1, Table 9-4 (Item MC.11)

The development of this DWMP has provided an opportunity for the Shires to strategically assess the wastewater issues within their respective jurisdictions and develop appropriate strategies and actions to prevent wastewater problems, or at the very least minimise resultant impacts.

### Region

The Wellington and East Gippsland Shires include water catchments that support the Gippsland Lakes as well as many other regional waterways of high social, economic and environmental importance. The management and protection of water catchments and regional streams, rivers and lakes is considered a high priority by the regional community. With respect to wastewater management, the larger towns and most of the smaller towns are sewered, however there remains a number of small, relatively remote unsewered settlements as well as areas of rural land use with relatively high densities of unsewered properties. These locations pose potential risks to catchment water quality and within this DWMP are a focus for risk management. Overall there are just under 13,000 onsite wastewater management systems across both Shires combined.

Detailed statistics related to onsite wastewater management are provided in the DWMP on townships in each Shire including classification by lot size and planning zone.

Declared Water Supply Catchment boundaries and planning zones are displayed in map form (Figures 1 to 3). For East Gippsland Shire 787,106 ha lies within Declared Water Supply Catchments (38 %) while in Wellington Shire the corresponding figure is 450,232 ha (41 %).



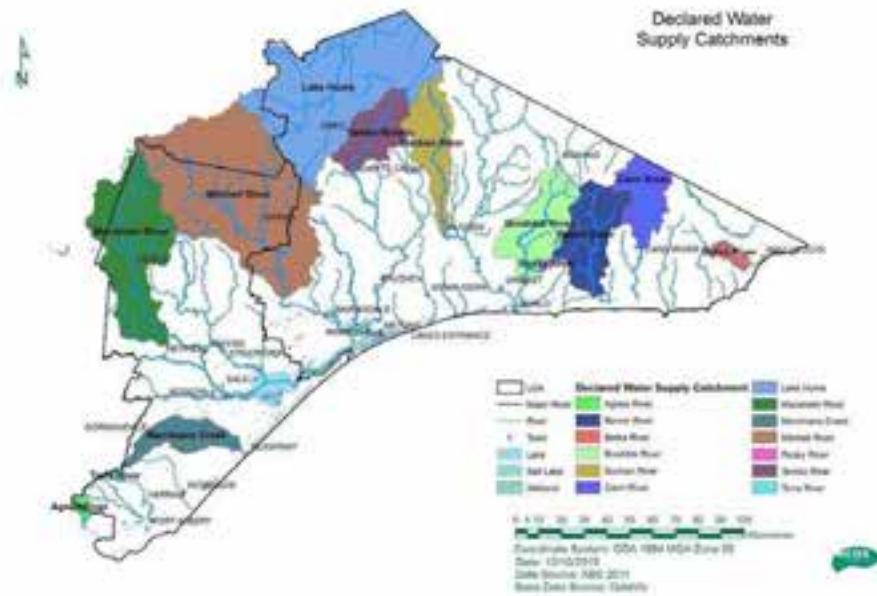


Figure 1. Declared Water Supply Catchments within the Shires of East Gippsland and Wellington.

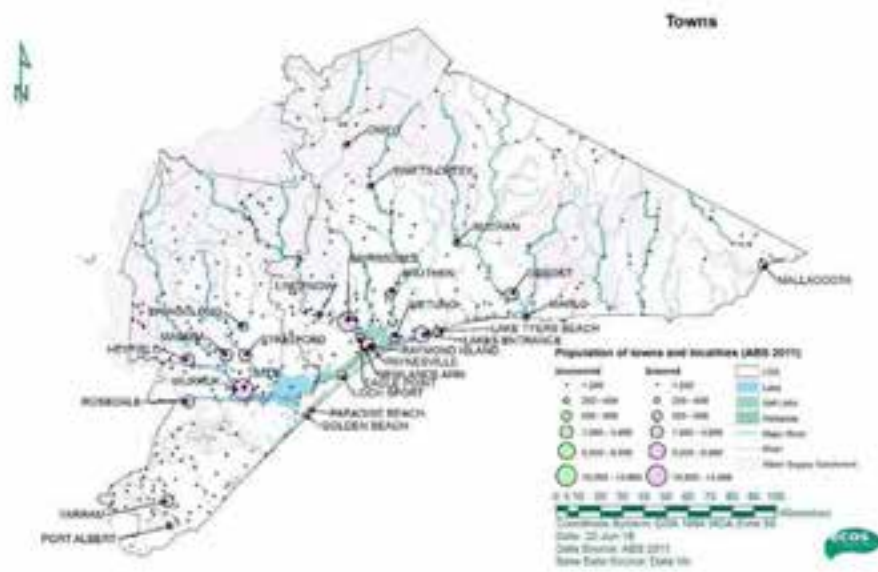


Figure 2. Township locations within the Shires of Wellington and East Gippsland

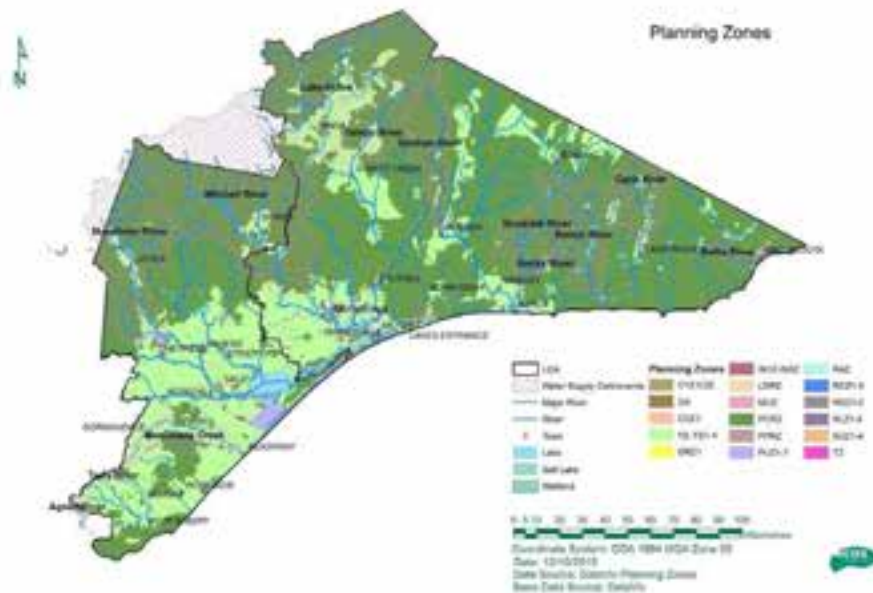


Figure 3. Planning Zones within the Shires of Wellington and East Gippsland. Water supply catchments are also shown in outline.

#### Legal and planning framework

The statutory framework behind the DWMP is described in detail including reference to relevant standards and guidelines, particularly the Victorian EPA "Code of Practice for Onsite Wastewater Management".

Relevant council plans and policies are also reviewed and their relationship to the DWMP is described.

#### Current approvals process

The DWMP contains a detailed description of the current approvals process for onsite wastewater management systems including a flow chart of the septic tank and planning permit process for each Shire.

Discussion and recommendations are also included on the following topics:

- Land Capability Assessment (LCA)
- Maintenance of Septic Tank Systems
- Monitoring and Compliance
- Data management for onsite systems

#### Water quality risks posed by domestic onsite wastewater management systems

The DWMP contains a brief review of the water quality risks posed by domestic onsite wastewater management systems including risks from microbial pathogens, nutrients, and trace organic compounds (e.g. household herbicides and insecticides, detergents, personal care products and pharmaceuticals). Common failure modes of on-site treatment systems are also described.

### Onsite systems catchment water quality risk assessment

A key component of the DWMP is a detailed GIS-based risk assessment for onsite wastewater management systems. The risk mapping approach was developed for the DWMP and consists of a semi-quantitative risk scoring exercise. It is appropriate for the high level identification of areas of heightened risk to surface water and groundwater quality across each Shire and can be used by the council EHO's to assist in their decision making with respect to individual sites.

Risk mapping was based on the potential risk to surface and groundwater quality posed by an onsite wastewater management system for each property (whether an onsite wastewater management system was present or not). Risk factors were:

- soil suitability
- slope
- climate
- useable area subject to various regulatory and environmental constraints including - Distance to water - Depth to the water table - Distance from groundwater bore

The risk maps displayed in the DWMP are presented at the regional scale to provide an overview of risk for this report. However, each map is produced from a GIS database that allows the user to zoom in for more detailed analysis. These databases, developed for the DWMP, have been supplied to Wellington and East Gippsland Shires to assist them in assessing the risks associated with new planning permit applications and existing unsewered dwellings.

Each unsewered dwelling was allocated a risk score based on its risk factors. The score is used to rank and prioritise properties for follow up, so that resources can be more effectively devoted to the management of higher risk properties. Unsewered dwellings with higher risk scores pose a higher risk to groundwater or surface water or both (Figure 4).

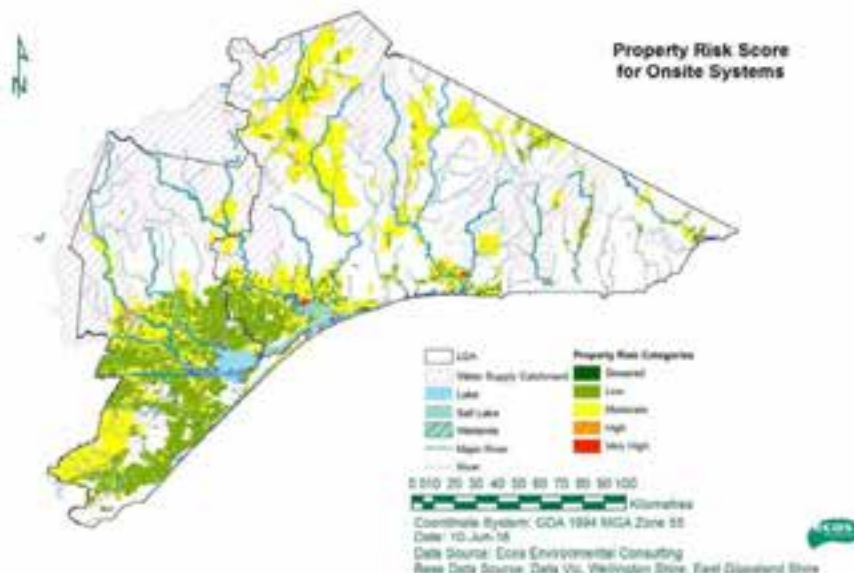


Figure 4. Property risk scores for unsewered houses in the Wellington and East Gippsland Shires.





#### **Priority township assessments**

Risk scores were allocated to each unsewered town in each Shire based on the township and residential planning zones. Towns were then sorted on their aggregate risk score to enable identification of high risk towns. These towns contributed disproportionately to the total risk for each Shire.

Towns in declared water supply catchments were also sorted on their aggregate risk scores to identify those towns that posed the highest risks of off-site movement of wastewater. These areas are a priority for compliance assessments. To assist in the identification of high risk unsewered houses in these towns, detailed GIS maps are presented in the DWMP.

#### *Wellington Shire*

The results of the township assessments showed that Golden Beach, The Honeysuckles, Longford and Paradise Beach accounted for approximately 50% of the total risk from onsite systems within the Wellington Shire. Other significant contributions to the total risk were Wurruk, Briagolong, Glenmaggie and Stratford.

Briagolong (north of Stratford), Stratford and Wurruk (west of Sale) are located on floodplain soils while all the other townships are located on or adjacent to the 90 Mile Beach where sandy soils prevail. These areas are a priority for compliance assessments. Glenmaggie is situated within 1km upstream of Lake Glenmaggie, and so all unsewered properties here have been classified as high risk.

#### *East Gippsland Shire*

The distribution of onsite system risk was more evenly distributed amongst East Gippsland Shire townships compared to Wellington Shire. Here approximately 50% of the total risk was accounted for by 9 towns: Nicholson, Metung, Buchan, Sarsfield, Nungurner, Wy Yung, Bruthen, Lucknow and Swan Reach.

These towns are all located in the catchments of the Gippsland Lakes or Lake Tyers and most lie lower down in the catchment close to the lakes where soils tend to be sandy and the water table is relatively close to the surface.

#### *Declared water supply catchments*

The acceptable housing density within a Declared Water Supply Catchment is 1:40 ha except for planning zones where a permit is not required to erect a dwelling. The main clusters of houses exceeding the density limit of 1:40 ha within the relevant planning zones is located at Gormandale (Table 2, Figure 5) while smaller clusters occur at Dargo and Benambra (see close up maps in Section 8). These areas are a priority for compliance assessments.



Table 2. Declared Water Supply Catchments (DWSC) within each Shire.

Density	Declared Water Supply Catchments	Number of seweraged houses not complying	Planning Zone exceeding the DWSC density. Onsite systems in FZ, ACZ, RLZ and LDZ were included in this assessment
East Gippsland DWSCs 1:40 ha	Berrin River	0 of 20	--
	Brodrick River	0 of 10	--
	Buchan River	0 of 4	--
	Cann River	2 of 85	FZ1 near Cann River
	Lake Hurst	40 of 160	18 in FZ1 near Ormeo and Glen Valley, 22 in RLZ3 in Coburgra
	Woodhill River	0 of 3	--
	Tambo River	10 of 33	FZ1 near Swifts Creek
Wellington DWSCs 1:40 ha	Agnis River	0 of 9	--
	Macalister River	136 of 169	11 in FZ, 12 in ACZ1 and 113 in RLZ1, mainly in Glenmaggie and Coongalla
	Merriman Creek	97 of 198	15 in RLZ2 at Gormandale*, 82 in FZ near Stratbrooke, Wilberg, Wilberg South, Gormandale and Calignor North
	Mitchell River	22 of 71	19 in FZ, 3 in RLZ1, all in and around Dargo
	Tarra River	0 of 11	--

\* At the time of writing, 12 lots on north Calladale Court that were incorrectly zoned RLZ2 are under review and expected to be changed to FZ.

The data in Table 2 for each DWSC is for the entire catchment. To further prioritise onsite systems for compliance assessment, the township areas in each DWSC were selected from the risk assessment using GIS query tools (Table 3). Onsite systems in these townships can be considered to have the highest priority for compliance assessment.

Table 3. Towns in declared water supply catchments sorted by property risk score (sewer infilled).

Risk rank within Shire	Township	DWSC	# DWWS	Current Risk Score	Sewer infilled Risk Score	Number of properties with DWWS in each risk category					Proportion of Total
						Severed A+	Low	Moderate	High	Very High	
<b>Wellington Shire</b>											
7	Glenmaggie	Macalister R	86	437	553	1		7	61	27	4%
14	Dargo	Mitchell R	45	283	283			12	3	30	2%
20	Coongalla	Macalister R	34	164	196	1			24	9	1%
28	Gormandale	Merriman Cr	39	101	101		2	36	1		1%
33	Licata	Macalister R	16	74	74			10	3	3	1%
<b>East Gippsland Shire</b>											
19	Sceambra	L Hurst	49	189	189		7	16	22	4	2%
35	Club Terrace	Berrin R	15	62	62		1	10	2	2	1%
45	Ormeo	L Hurst	3	14	14			1	1	1	0%

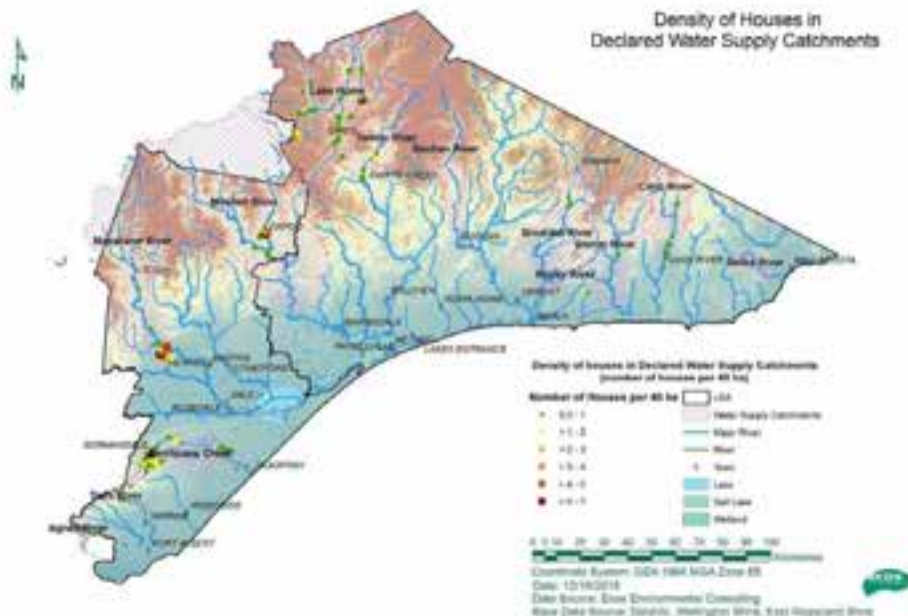


Figure 5. Density of houses in water supply catchments. Close up maps of priority areas are presented in the DWMP in Section 8.

#### Compliance with planning zone densities

A related risk assessment exercise examined the housing density compliance with planning zone requirements and identified clusters of houses around the major towns that exceed the target planning limits.

#### Growth Area assessments

Future settlement planning has indicated a number of growth areas across Wellington and East Gippsland Shires. As these developments proceed, many will involve increases in the number and density of unsewered dwellings and associated onsite wastewater management systems.

The current risk for each township was estimated as follows; the risk for each property was calculated, and the risks per property were added for each property which had been identified as containing an OWMS (onsite wastewater management system).

The future risk for each town was calculated by adding the risks for each property which could potentially have an OWMS. It was assumed that properties in seweraged areas would be seweraged when developed, and that properties which had been identified as being unsuitable for an OWMS (due to proximity to a waterway, bore, reservoir or shallow water table) would not have an OWMS installed.

Within Wellington Shire, planning has identified two towns of highest potential future risk, Longford, south of Sale as an area with significant growth potential (Figure 6) and Golden Beach. Within East Gippsland Shire the potential future onsite wastewater risks are greatest at Metung, Swan Reach, Wy Yung and Bairnsdale, with a spread of similar risk across a number of towns (Figure 7).

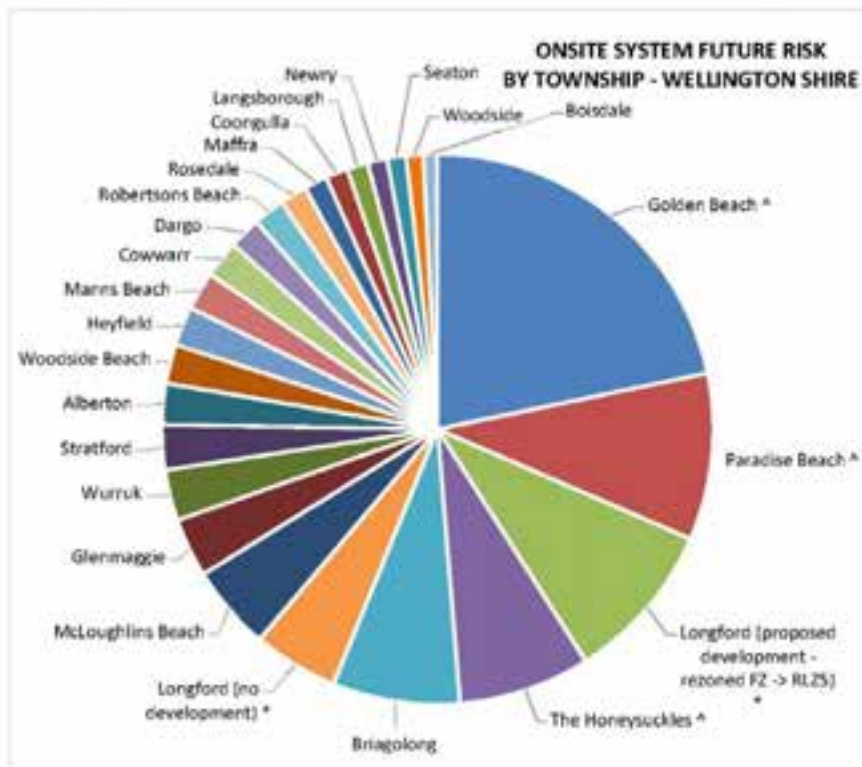


Figure 6. Potential future risk from onsite wastewater management system development by township – Wellington Shire. The top 25 localities are shown. For further details, see Section 8.5 of the DWMP. \* Longford is shown in the graph twice, once for if no development occurs and once for full proposed development. ^ Towns on the Ninety Mile Beach.

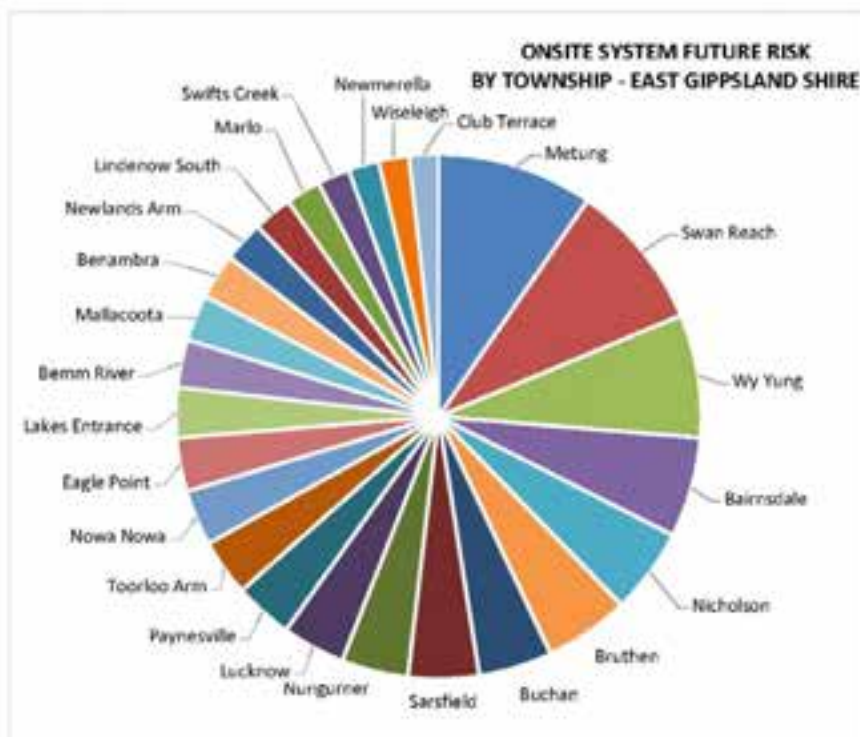


Figure 7. Potential future risk from onsite wastewater management system development by township – East Gippsland Shire. The top 25 localities are shown. For further details, see Section 8.6 of the DWMP.

**Risk management**

**Action Plans**

Action plan items from the 2006 DWMP were reviewed and either closed off due to completion or changes in priorities or carried over to the 2016 plan and combined with a number of new action items.

Action plans were separated into issues-based plans that addressed council procedures and relationships with stakeholders and plans for priority towns that addressed matters in relation to particular locations.

Discussion of general issues in relation to the planning action items is also included in the DWMP.

**Appendices**

Detailed appendices contain background information on the statutory framework supporting DWMP, surface water and groundwater water quality risk factors used in the risk assessment, a key to planning zones, and Action Plan items from the 2006 DWMP closed off due to completion or changing priorities.





## 1 Introduction

The environmental and public health risks posed by unsewered areas is recognised nationally and internationally as a significant environmental and public health issue. In Victoria, management of domestic wastewater is addressed under Clause 32 of the State Environment Protection Policy (Waters of Victoria) (SEPP WoV), where it is a requirement for local Governments to develop a Domestic Wastewater Management Plan (DWMP). The SEPP WoV is an instrument under the *Environment Protection Act 1970*.

Specifically local governments throughout Victoria are required to prepare DWMPs to address potential risks to community health and the environment resulting from the treatment and disposal of wastewater from homes and businesses in unsewered areas.

### 1.1. Aims

The primary purpose of preparing this DWMP plan is to update the existing DWMP to meet the revised Ministerial Catchment Guidelines, "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012) as well satisfy the obligations of each Shire council as outlined by Clause 32 of the SEPP WoV.

- Currently the Ministerial Catchment Guidelines "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012) (the Ministerial Guidelines) state that the development density should be no greater than one dwelling per 40 hectares in declared special water supply catchment areas. However, the Ministerial Guidelines allow for the relaxation of the 1:40 ha ruling for allotments when a DWMP has been prepared, adopted and implemented by Council and endorsed by the relevant water corporations to address the current requirements. Specifically, the Ministerial Guidelines require that a DWMP address that, Domestic wastewater systems retain wastewater within property boundaries; and
- Wastewater is managed to prevent impacts on groundwater and surface water. Additionally, the DWMP must include the following components:
- Demonstrate effective monitoring of the condition and management of domestic wastewater treatment systems;
- Results of monitoring and audits being provided to stakeholders; and
- A process of enforcement action where non-compliance is identified;
- A process of review of the DWMP every 5 years;
- Independent (accredited) audit of DWMP implementation every 3 years with audit results provided to stakeholders as soon as possible after assessment;
- Demonstration by councils that suitable resourcing for implementation, monitoring, enforcement, review and audit are in place.

### 1.2. Background

Wellington and East Gippsland Shires released their existing DWMP in 2006. In 2014, the Shires received funding assistance from the Gippsland Lakes Environment Fund to review the 2006 DWMP and to produce a new and revised version.

The Wellington and East Gippsland Shires account for around 15% of Victoria's land area and include water catchments that support the Gippsland Lakes as well as many other regional waterways of high social, economic and environmental importance. The management and protection of water catchments and regional streams, rivers and lakes from the deleterious effects of a wide range of real and potential impacts is considered a high priority by the regional community. With respect to wastewater management in the Shires, the larger towns and most smaller towns are sewered, nevertheless there are a large number of small, relatively remote unsewered settlements as well as areas of rural land use with relatively high densities of unsewered properties.



Some residential areas have been sewered or may be in the process of being sewered, but other areas still rely on onsite wastewater management systems (OWMS) of which there are just under 13,000 in both Shires combined.

The development of this DWMP has provided an opportunity for the Shires to strategically assess the wastewater issues within their respective jurisdictions and develop appropriate strategies and actions to prevent wastewater problems, or at the very least minimise resultant impacts. It clearly articulates each Shires' policy on domestic wastewater and its management.

## 2 East Gippsland and Wellington Shires Regional Attributes

Issues and potential threats from on-site domestic wastewater management include: high microbial (*E. coli*) and detergent (surfactant) levels in stormwater; discharge of grey water to open street drains and stormwater; inappropriate and outdated septic systems, including WC-only (also known as blackwater-only) types; direct off-site discharge of wastewater; small allotments and inadequate effluent disposal areas; high water tables; ageing and poorly-maintained septic systems and high household water use made possible by the availability of reticulated water in some areas.

Based on spatial and planning zone data supplied by Wellington and East Gippsland Shire Councils and by Victorian Government Data Directory ([www.data.vic.gov.au](http://www.data.vic.gov.au)), 33 townships were listed in Wellington Shire and 47 townships were listed in East Gippsland Shire. Of these townships 11 and 24 respectively are sewered, although there are still significant numbers of unsewered dwellings and vacant allotments present within the boundaries of these townships.

In total, approximately 5,078 properties in East Gippsland were estimated to have an onsite domestic wastewater management system while in Wellington Shire the number was estimated at 7,818 (Table 2-1). These estimates are based on data supplied by the councils and are based on individual address points.

Table 2-1. Numbers of domestic on-site wastewater management systems by Shire and planning zone

Shire	Zones														Total
	Commercial	Comprehensive Development	Farming	General Residential	Industrial	Low Density Residential	Public Conservation	Public Park & Recreation	Public Use	Rural Conservation	Road	Rural Living	Special Use	Township	
	CD1-3	CD2	FL, FZ1-1	GRZ1	IND1	LDREZ	POZ	PPZ	PUZ1-4	RZC1-3	RZC1	RLZ1-4	SUZ1-4	TZ	
East Gippsland	14		2,093	67	13	978	108	15	29	71		1,246	1	441	5,078
Wellington	6	2	2,770	43	13	2,456	20	41	33	226	1	1,119	14	1,074	7,818
<b>Total</b>	<b>20</b>	<b>2</b>	<b>4,863</b>	<b>110</b>	<b>26</b>	<b>3,434</b>	<b>128</b>	<b>56</b>	<b>62</b>	<b>297</b>	<b>1</b>	<b>2,365</b>	<b>15</b>	<b>1,517</b>	<b>12,896</b>



Within the Declared Water Supply Catchments there are 6 towns in Wellington Shire and 5 towns in East Gippsland Shire (Table 2-2).

Table 2-2. Towns within Declared Water Supply Catchments (DWSC) (Towns identified as such if they lay within the following planning zones: GR1Z, TZ or LDRZ – see legend of Table 2-1 for zone descriptions).

Shire	DWSC	Sewered Towns	Unsewered Towns
East Gippsland	Lake Hume	Orino	Benambra
East Gippsland	Serres River		Club Terrace
East Gippsland	Buchan River (Buchan)		Buchan
East Gippsland	Tombo River		Swifts Creek
Wellington	Macalister River (Glenmaggie)	Coongulla, Glenmaggie, Glenmaggie Point (part sewered)	Licola
Wellington	Mitchell River		Dargo
Wellington	Merritts Creek (Senspry)		Gomandale

#### Townships size and characteristics

There are 2943 allotments less than 1 ha in Declared Water Supply Catchments in Wellington Shire while in East Gippsland Shire the number is 403.

For East Gippsland Shire, a breakdown of the number of unsewered residential properties by township showed that there are 2734 unsewered properties in and around townships including 152 in Declared Water Supply Catchments (Table 2-3).





Table 2-3: Number of unsewered properties (listed as having onsite systems in Shire database) by township in East Gippsland Shire. Data provided by East Gippsland Shire. (Townships within Water Supply Catchments are shown in bold type)

East Gippsland	Sewered	Number of Onsite Systems per Planning Zone						Total # Properties with Onsite Systems	Total # Properties	
		GRZ1	LDRZ	TZ	RLZ1	RLZ2	RLZ3			RLZ4
Bairnsdale	Yes	1			7	1		9	5521	
Bemm River	Yes							0	102	
Benambra (Lake Hume)				48				48	110	
Bendoc				30				30	52	
Boole Poole			33					33	46	
Bruthen	Yes		53	14		56		123	276	
Buchan				87				87	133	
Bullumwaal			7					7	22	
Bumberrah						26		26	31	
Cabbage Tree Creek				9				9	11	
Cann River	Yes							0	184	
Lassiter (Umco) (Jambo River)						2		2	9	
Club Terrace (Bemm River)				15				15	52	
Cobungra (Lake Hume)							22	22	31	
Eagle Point	Yes		23		26		33	82	702	
East Bairnsdale	Yes						15	15	652	
Eastwood	Yes							0	1296	
Elliswood			2				64	66	88	
Ensay				6				6	14	
Ensay South				16				16	20	
Fernbank			13					13	27	
Genoa				6				6	11	
Gipsy Point				32			1	33	41	
Granite Rock					24		27	51	60	
Hillsce							4	4	12	
Johnsonville	Yes			2				2	132	
Kalbarra	Yes	26	12					38	673	
Lake Bungs	Yes	10	22					32	250	
Lake Tyers Beach	Yes		27				2	29	590	
Lakes Entrance	Yes	17	43		22	4	26	5	117	3758
Lindenow (includes Walpa)	Yes		55	1					56	227
Lindenow South			30	42					72	109
Lucknow	Yes				95		49		144	582
Millecoota	Yes								0	1153
Marlo	Yes		13						13	477
Metung	Yes		118			5			123	1749
Mount Taylor			33						33	51
Newlands Arm	Yes		70						70	557
Newmerella			33			36			69	69
Nicholson	Yes		86		42	141			269	221
Nowa Nowa				70			6		76	119
Nungunner			97						97	132
<b>Omeo (Lake Hume)</b>	Yes				1				1	279
Orbost	Yes		9						9	1344
Paynesville	Yes								0	2647
Raymond Island	Yes	13					51		64	517
Sarsfield			66			78	15		159	95
Swan Reach	Yes					123			123	184
Swifts Creek				65					65	85
Tambo Upper						48			48	56
Toorloo Arm			32			54	31	4	121	146
Wisefield			31			32			63	89
Wy Yung	Yes		20		68				138	682





In Wellington Shire, there are 2831 unsewered residential properties in and around townships including 234 in Declared Water Supply Catchments (Table 2-4).

Table 2-4. Number of unsewered properties (listed as having onsite systems in Shire database) by zone and township in Wellington Shire. Data provided by Wellington Shire. (Townships within Water Supply Catchments are shown in bold type). ^ Note: Golden Beach and Paradise Beach have a much larger number of properties listed on the database than have dwellings on them (as determined from 2012 aerial photography). The number of dwellings is listed below.

Wellington	Sewered	Number of Onsite Systems per Planning Zone								Total # Properties with Onsite Systems	Total # Properties
		CDZ1	CRZ1	LDR2	RLZ1	RLZ2	RLZ3	RLZ4	TZ		
Albion	Yes									0	105
Bosciale									27	27	30
Bragolong						67	30		312	409	463
Carrajung						5			22	27	29
<b>Coongulla (Glenmaggie)</b>	Yes					33				33	280
Cowwarr									81	81	92
<b>Dargo (Mitchell River)</b>						3			39	42	63
Devon North						41				41	45
Glen Rose						3				3	4
Bassetts Lane, Glengarry					9					9	10
<b>Glenmaggie (Macalister River)</b>	Yes					106			5	111	146
Golden Beach				489^						489^	1373
<b>Gormandale (Merrimans Creek)</b>						15			24	39	39
Greenmount				9		19				28	29
Heyfield	Yes					64	8			72	878
Hollands Landing				16						16	28
Kilsnary									10	10	14
Langsborough			41							41	45
<b>Licola (Macalister River)</b>									9	9	16
Loch Sport	Yes									0	2511
Longford		2			232				56	290	326
Matta	Yes			7		58		24		89	2546
Manns Beach									80	80	81
McLoughlins Beach									171	171	179
Murro				12		2			16	30	30
Myrtlebank						10				10	10
Newry									46	46	50
Paradise Beach				285^						285^	572
Port Albert	Partly		2							2	360
Robertsons Beach									63	63	66
Rosedale	Yes			15	42		16			73	706
Sale	Yes			25		12				37	8057
Seaspray	Yes			21						21	366
Seaton						38				38	88
Stratford	Yes			13		164				177	910
Tarraville									18	18	20
The Honeyuckles				268						268	278
Tinamba									23	23	30
Won Wron						23				23	24
Woodside					12	38			22	72	22
Woodside Beach				59					50	109	114
Wurruk	Partly			148	45					193	498
Yarram	Yes									0	1195



### 2.1. Landuse and Declared Water Supply Catchments

A large proportion of both Wellington and East Gippsland Shires lie within Water Supply Catchments (both Declared and other). For East Gippsland Shire 787,106 ha lies within Water Supply Catchments (38 %) while in Wellington Shire the corresponding figure is 479,896 ha (43 %) (Figure 2-1, Table 2-5, Table 2-6). Each Shire has large areas of land devoted to forest reserves including the majority of the water supply catchment areas (Figure 2-3). However, there are significant areas of agricultural activity in some of the water supply catchment areas, particularly in the Tambo River catchment of East Gippsland Shire and the Merrimans Creek Catchment of Wellington Shire.

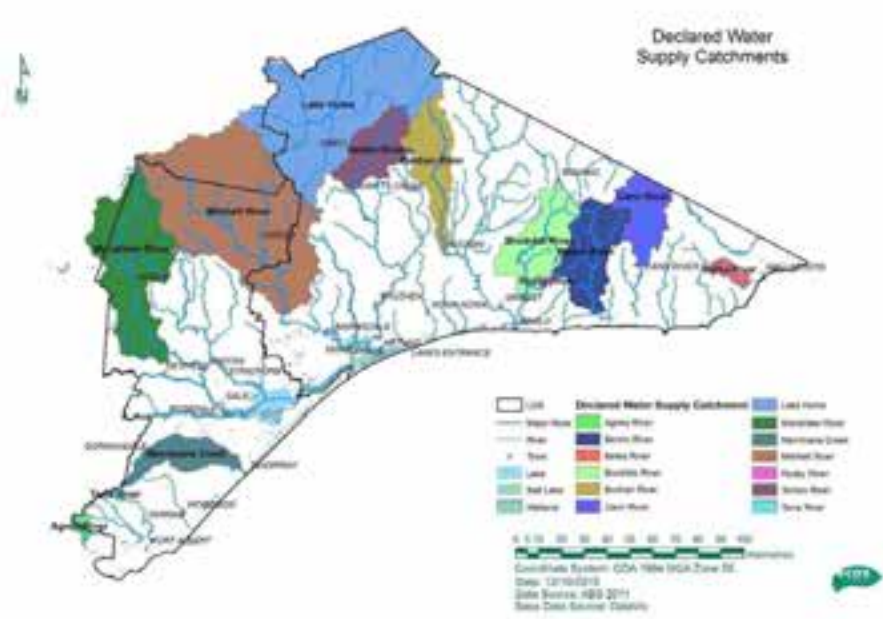


Figure 2-1. Water Supply Catchments within the Shires of Wellington and East Gippsland

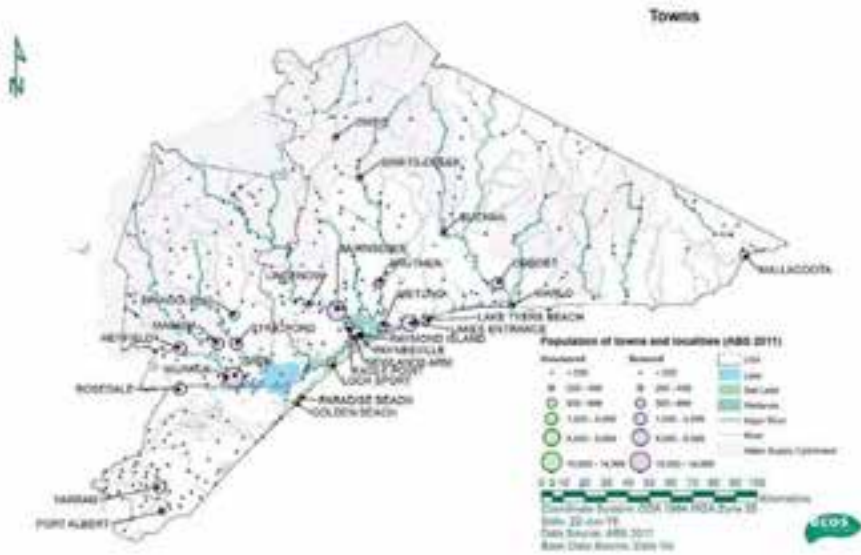


Figure 2-2. Township locations within the Shires of Wellington and East Gippsland.

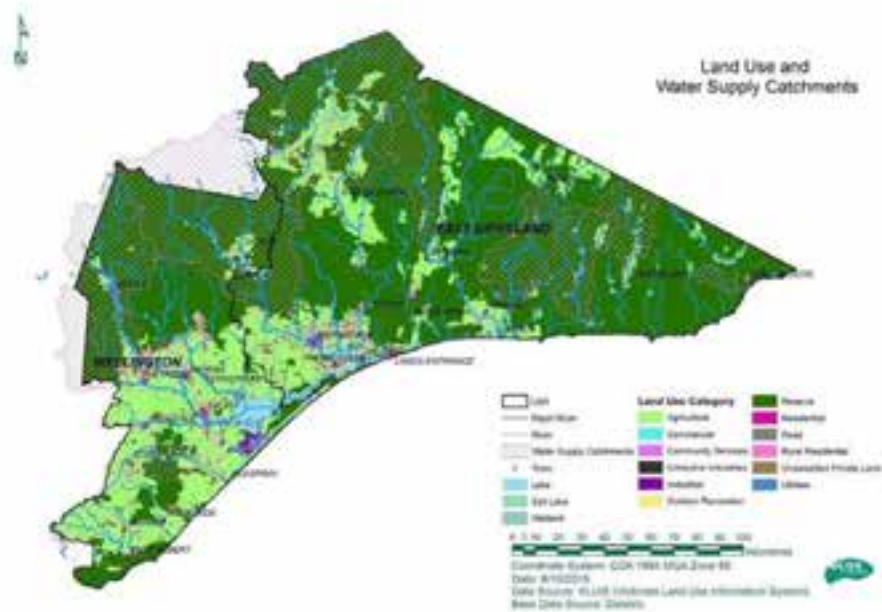


Figure 2-3. Land use within the Shires of Wellington and East Gippsland. Water supply catchments are shown in outline.



Table 2-5 Landuse (ha) by Declared Water Supply Catchments (DWSC) within the East Gippsland Shire

Landuse (ha)												Total	
Declared Water Supply Catchments (DWSC)	Agriculture	Commercial	Community Services	Extractives/Industries	Industrial	Outdoor Recreation	Reserve	Residential	Rural	Rural Residential	Unclassified Private Land	Utilities	Total
Berrin River	3,819	1	8		5		86,185	3	939	990	414	5	99,259
Berka River							11,508		39			17	11,563
Brodribb River	1,295		4				91,626		612	119	1	11	99,601
Buchan River	2,774	8	0	0			78,965	1	410	47	18	0	81,613
Carr River	5,940		5				55,482	29	478	962	4	4	62,298
Lake Home	65,401	377	187	6	14		225,493	485	3,577	2,119	2,780	141	300,586
Mitchell River	4,278		6				68,627		364	31	130		79,656
Rocky River	586						1,575		92	20	0		2,273
Tambo River	17,976						48,650	19	612	248	746	9	68,254
Not in a DWSC	259,222	595	2,553	339	400	413	985,984	3,140	16,078	20,504	19,015	2,458	1,310,701
<b>TOTAL</b>	<b>362,730</b>	<b>976</b>	<b>2,762</b>	<b>345</b>	<b>419</b>	<b>413</b>	<b>1,653,495</b>	<b>3,666</b>	<b>29,401</b>	<b>29,824</b>	<b>29,190</b>	<b>2,645</b>	<b>2,097,807</b>
	<b>17 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>79 %</b>	<b>&lt;1 %</b>	<b>1 %</b>	<b>1 %</b>	<b>1 %</b>	<b>&lt;1 %</b>	



Table 2-6. Landuse (ha) by Declared Water Supply Catchments (DWSC) within the Wellington Shire

Declared Water Supply Catchments (DWSC)	Agriculture	Commercial	Community Services	Extractive Industries	Industrial	Outdoor Recreation	Public Land, Incl. State and National Parks	Residential	Road	Rural Residential	Unclassified Private Land	Urban	Total
Agnes River	2,644		0				272	5	95	109	4	8	3,190
Lake Home							59						59
Maralster River	10,489	95	1	73		10	144,514	263	1,043	1,404	1,690	3,942	163,524
Merriman Creek	30,749	0	11	82			18,988	115	1,866	1,457	558	69	53,497
Mitchell River	12,847	155	71				189,629	68	675	1,826	946	74	206,281
Tarra River (WSC)	1,730	8					929	1	47	92	3	16	2,826
Not in DWSC	333,969	477	1,134	312	4,096	1,453	267,380	7,494	15,713	17,951	19,808	5,894	675,080
<b>Total</b>	<b>391,828</b>	<b>735</b>	<b>1,217</b>	<b>466</b>	<b>4,096</b>	<b>1,463</b>	<b>621,760</b>	<b>7,947</b>	<b>19,038</b>	<b>22,838</b>	<b>25,010</b>	<b>9,999</b>	<b>1,104,398</b>
	<b>35 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>&lt;1 %</b>	<b>56 %</b>	<b>1 %</b>	<b>2 %</b>	<b>2 %</b>	<b>2 %</b>	<b>1 %</b>	

### 3 Statutory Framework

The requirement for local Governments in Victoria to develop a DWMP is described in Clause 32 of the State Environment Protection Policy (Waters of Victoria) (SEPP WoV) which is an instrument under the *Environment Protection Act 1970*. Further specifications for DWMPs are set out in the guidelines released by the Victorian Water Minister in 2012. These Ministerial Catchment Guidelines, "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012) spell out in detail the requirements and necessary components of a DWMP (Table 3-1). The guidelines aim to assist water corporations and other referral and responsible authorities in their assessment of planning permit applications for use and development of land within all open, potable water supply catchments in Victoria.

Because of the risks to public health, all use and development should be sited and managed to protect the quality of water collected from a water supply catchment. While water corporations do not have direct control over land in open, potable water supply catchments, they can nevertheless influence development and land use through the strategic and statutory planning process. The Ministerial Guidelines provide guidance in this respect.

The statutory requirements behind the DWMP are complex as a significant amount of other environmental legislation impinges on water supply catchment protection (e.g. the *Planning and Environment Act 1987*, etc.). The Ministerial Guidelines attempt to tie these various components into a more cohesive framework. The material presented in **Appendix 1** summarises the key sections of the Ministerial Guidelines as well as the relevant components of other legislation that are relevant to this DWMP including the State Planning Policy Framework of the *Planning and Environment Act 1987*.



Table 3-1. Domestic Wastewater Management Plan Requirements

Attribute	Requirements	Relevant section in DWMP
Consultation	<p>The DWMP must be prepared or reviewed in consultation with all relevant stakeholders including:</p> <ul style="list-style-type: none"> <li>• other local governments with which catchment/s are shared;</li> <li>• EPA;</li> <li>• and local water corporation/s.</li> </ul>	<p>Section 6.1 and Appendix 5 (stakeholder consultation)            Section 6.1 and Appendix 5 (stakeholder consultation)            Section 6.1 and Appendix 5 (stakeholder consultation)</p>
Protection of surface and groundwaters	<p>The DWMP must comprise a strategy, including timelines and priorities, to:</p> <ul style="list-style-type: none"> <li>• prevent discharge of wastewater beyond property boundaries; and</li> <li>• prevent individual and cumulative impacts on groundwater and surface water beneficial uses.</li> </ul>	<p>Action plans - Section 9.1            Action plans - Section 9.1</p>
Monitoring, compliance and enforcement	<p>The DWMP must provide for:</p> <ul style="list-style-type: none"> <li>• the effective monitoring of the condition and management of onsite treatment systems, including but not limited to compliance by permit holders with permit conditions and the Code;</li> <li>• the results of monitoring being provided to stakeholders as agreed by the relevant stakeholders;</li> <li>• enforcement action where non-compliance is identified;</li> <li>• a process of review and updating (if necessary) of the DWMP every 5 years;</li> <li>• independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, including of monitoring and enforcement, every 3 years;</li> <li>• the results of audit being provided to stakeholders as soon as possible after the relevant assessment; and</li> <li>• Councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.</li> </ul>	<p>Action plans - Section 9.1, Table 9.4            Action plans - Section 9.1, Table 9.4 (Item ES.9)            Action plans - Section 9.1, Table 9.4 (see items on Monitoring and Compliance (MC))            Action plans - Section 9.1, Table 9.4 (Item ES.6)            Action plans - Section 9.1, Table 9.4 (Item MC.10)            Action plans - Section 9.1, Table 9.4 (Item ES.7)            Action plans - Section 9.1, Table 9.4 (Item MC.11)</p>

### 3.1 Standards and Guidelines

There are a range of published guidelines that are important for determining the conditions under which an onsite wastewater management system can be permitted, installed and maintained. The ministerial catchment guidelines have already been described in section 10.1.1 above;

#### 3.1.1. EPA Code of Practice for Onsite Wastewater Management

The EPA "Code of Practice for Onsite Wastewater Management" (EPA Victoria Publication 891) ("the Code") is a comprehensive technical document that provides standards and guidance for best practice management of onsite wastewater in Victoria. The Code applies to wastewater (containing sewage) generated by a single domestic household or by multi-dwelling residential, commercial, industrial or institutional facilities. It provides guidance on:

1. The selection, approval, management and maintenance of onsite wastewater management systems which treat up to 5,000 litres (L) of wastewater per day.
2. systems which treat up to 5,000 L/day of greywater to a quality fit for toilet flushing and cold water supply to clothes washing machines and/or land application; and

- 3. land capability assessment procedures and wastewater flow calculations for designing effluent recycling and disposal systems

### 3.1.2. EPA Land Capability Assessment – Onsite Wastewater Management

The purpose of the EPA Publication *Land Capability Assessment for Onsite Domestic Wastewater Management* (EPA Victoria Publication 748) is to:

- assist in the assessment of the capability of the site to sustainably manage wastewater within allotment boundaries; and
- Identify a management program that should be put in place to minimise the health and environmental impacts of on-site wastewater management.

### 3.1.3. Australian Standards:

#### 3.1.3.1. AS/NZS 1547:2012 Onsite Domestic Wastewater Management

The Australian Standard, AS/NZS 1547:2012 Onsite Domestic Wastewater Management (Standards Australia 2012) provides guidance for the design and construction of land application areas. If there is an inconsistency between an Australian Standard and the EPA Onsite Wastewater Management Systems Code (EPA Victoria Publication 891), the Code takes precedence. Where the Code does not cover a topic, the relevant Australian Standard should be followed.

#### 3.1.3.2. AS/NZS 3500:2013 Plumbing and Drainage

All plumbing work conducted on site during the installation of an onsite wastewater management system must comply with the Plumbing and Drainage Standard AS/NZS 3500:2013 (Standards Australia 2013). All design solutions should be installed by a licensed plumbing contractor in compliance standard.

## 4 Council policies and plans

### 4.1. Council Plans

Wellington and East Gippsland Shires have a number of strategic plans outlining the vision and objectives for their municipalities and communities. Figure 4-1 shows the connection between the DWMP and other relevant strategies.







Figure 4-1. Link between DWMP and other Council Plans

#### 4.1.1. Council Plans

Council Plans set out each municipality's Vision and Strategic Objectives to deliver services that meet the hopes and aspirations of the community, including residents, land owners and visitors to the Shire. The Plans serve to guide Council's corporate priorities and in certain cases deal with factors that influence the management of domestic wastewater.

#### 4.1.2. Planning Schemes

The Municipal Planning Scheme is a legal instrument under the *Planning and Environment Act 1987* that sets out both state-wide and local planning policy for land use, development, and the protection of natural and social values. The purpose of the Planning Scheme is to provide a clear and consistent framework within which decisions about the use and development of land can be made.

The Municipal Strategic Statement provides a vision and clear overarching strategic policy for land use and development in each municipality. These are further refined through issue-specific Local Policies, Zones and overlays applied over each municipality control the use of land.

The need for sustainable management of domestic wastewater is highlighted in both the Wellington and East Gippsland Planning Schemes.

East Gippsland Shire requires that all planning permit applications in unsewered areas (for subdivision and/or new dwellings) must be accompanied by information demonstrating that domestic wastewater can be treated and contained on-site in accordance with EPA requirements.

#### 4.1.2. Wellington Shire Special Water Supply Catchment Areas Policy (Clause 22.01)

Clause 22.01 of the Wellington Shire Planning Scheme lists the Shire's Special Water Supply Catchment Areas Policy.

The policy states that when considering an application to use or develop land within a Special Water Supply Catchment Area, Council will have regard to the likely impacts of the proposed use or development on water quality and quantity in the catchment.

- New development proposals should not lead to an increase in the amount of nutrients reaching streams, surface water bodies and groundwater.

Any application to use or develop land within a Special Water Supply Catchment Area will be referred to the relevant water corporations and/or catchment management authority. These include Southern Rural Water, Gippsland Water, East Gippsland Water, South Gippsland Water, East Gippsland Catchment Management Authority, and the West Gippsland Catchment Management Authority.

- Any application to construct a building within 100 metres of a waterway or wetland for a use which would generate effluent should include evidence that the building site is capable of containing an appropriate water treatment system by providing either a Soil Percolation Test in accordance with the EPA Code of Practice for Onsite Wastewater Management (EPA Victoria 2013) (the Code); or an approved land capability assessment including assessment of the effluent disposal system in accordance with the requirements of the Code.
- Subdivision and intensive farming activities in water supply catchments, especially in the lower areas of water supply catchments near take-off points will be discouraged.
- Subdivision and intensive farming activities in aquifer recharge areas will be discouraged.



The ESO8 Planning Overlay "Special Water Supply Catchment Areas" consists of 9 areas totalling 263 hectares, one in the Merrimans Creek DWSC (31 ha) and eight in the Mitchell River DWSC (232 ha) (Figure 4-2).

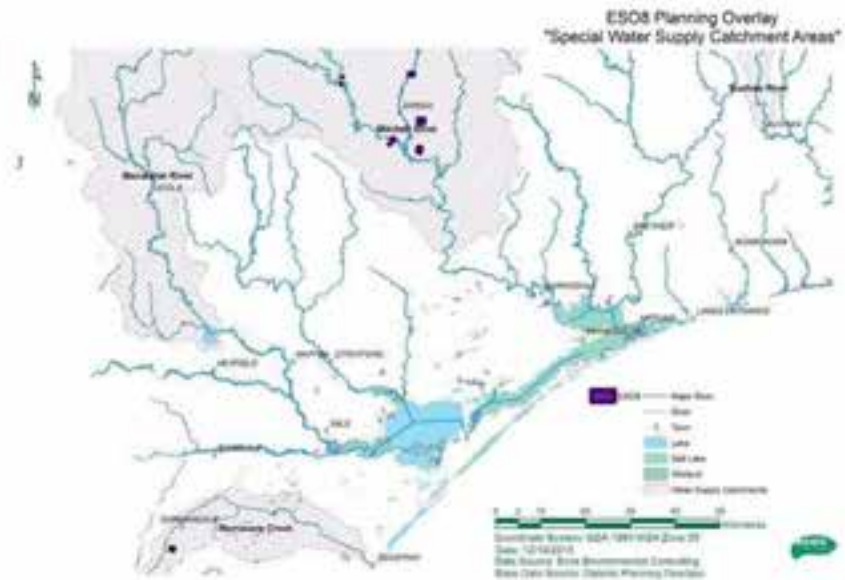


Figure 4-2. ESO8 "Special Water Supply Catchment Areas" in the Wellington Shire.

#### 4.1.3. Planning Zones

Planning zones mainly align with landuse and the predominant zones within each Shire are Public Conservation and Resource Zone (PCRZ) and Farming Zone (FZ) (Figure 4-3). Water supply catchments lie mostly within PCRZ and FZ.

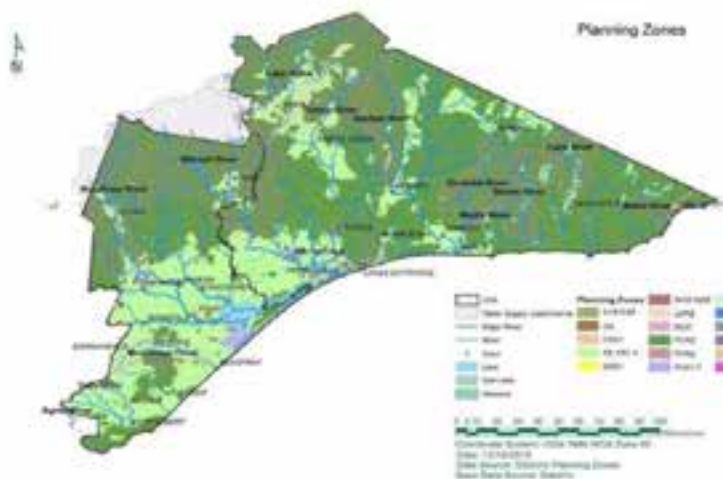


Figure 4-3. Planning Zones within the Shires of Wellington and East Gippsland. Water supply catchments are also shown in outline.



#### 4.1.4. Health and Wellbeing Plans

The *East Gippsland Community Health and Wellbeing Plan (2013-2017)* (East Gippsland Shire Council 2013) and the *Healthy Wellington Municipal Public Health and Wellbeing Plan 2013-17* (Wellington Shire Council 2013) provide the framework for an integrated approach to public health planning for each Shire. The plans are major policy documents that seek to improve the health, safety and wellbeing of the people who live and work in the Shires. Neither plan specifically mentions water or wastewater, however the underpinning objectives of the plans is to provide regional communities with a healthy living environment and the DWMP assists in achieving that objective.

#### 4.1.5. Urban Stormwater Management Plan

Wellington and East Gippsland Shires Urban management stormwater plans (Wellington Shire Council 2002, East Gippsland Shire Council 2003) provide detailed risk analysis and prioritised actions to address identified threats to environmental and amenity values from inadequately managed stormwater (including where domestic wastewater enters the stormwater system).

More recently the *East Gippsland Urban Water Management Strategy* and the companion *Urban Water Guidelines* (East Gippsland Shire Council 2013) seek to reduce sediments and nutrients entering the Gippsland Lakes from urban areas. This is to be achieved through:

- Establishment of vegetation corridors through the urban areas
- Reduction of weed species in urban waterways
- Improving community perception and value of urban waterways
- Identification of recreation opportunities in line with the East Gippsland Shire Council Trails Strategy.

The Urban Water Management Strategy and guidelines are focussed on protecting and improving urban waterways from sediment and related nutrient runoff and on weed and erosion control. While not specifically addressing on-site wastewater management, the strategy approaches are consistent with the aims of this DWMP, particularly where they intersect with the water supply catchments areas (e.g. stormwater in unsewered towns).

#### 4.1.6. Coastal Townships Urban Design Framework

The Coastal Towns Design Framework was a joint initiative of Wellington Shire Council and East Gippsland Shire Council. The councils developed Urban Design Frameworks for 18 coastal settlements in eastern Victoria. In Wellington this involved the coastal towns of Loch Sport, Golden Beach/Paradise Beach, The Honeysuckles, Seaspray, Woodside Beach, McLoughlins Beach, Manns Beach and Robertsons Beach, while for East Gippsland Shire the relevant towns were Paynesville, Raymond Island, Eagle Point, Metung, Nungurner, Lakes Entrance, Lake Tyers Beach, Marlo, Bemm River, Mallacoota, and Gipsy Point.

The Urban Design Frameworks provide guidance for the future development of urban areas and involved the preparation of realistic design concepts and planning provisions based on community consultation, research and analysis. The Urban Design Frameworks are implemented in the planning scheme and have the same status as other Structure Plans (e.g. Rosedale, Heyfield, Sale, Wurruk and Longford).

When planning for growth the councils take into account if the land is suitable for that development. Part of this is the consideration whether sewer infrastructure needs to be provided or else if onsite systems are to be used, what the most appropriate minimum lot size should be.



## 5 Assessment of current wastewater management situation

### 6.1. Current situation

The most common onsite wastewater management systems distributed throughout the Shires are:

- Primary treatments systems
- Secondary Wastewater Treatment Systems
- Split systems which treat only the toilet wastewater (blackwater). The remaining portion of wastewater from showers, baths, basins, etc. (greywater), is discharged land with a portion of the discharge entering the storm water system which enters local creeks, rivers and ground waters. Split systems are distributed across both Shires however, these are no longer installed.

Discharge of greywater to the environment means that local stormwater can be expected to have a very high nutrient and pathogen loading. Research has shown greywater pathogen concentrations can be very high (Birks and Hills 2007).

### 6.2. Current approvals process

Installation of new wastewater systems in unsewered areas, and modifications to existing systems require Council approval in accordance with the *Environment Protection Act 1970* and the following key EPA documents:

- The EPA "Code of Practice for Onsite Wastewater Management" (EPA Victoria Publication 891) (the Code);
- The EPA Publication "Land Capability Assessment for Onsite Domestic Wastewater Management" (EPA Victoria Publication 746) and
- EPA Approvals, Australian Standards and JASANZ Certificates of Conformity for domestic wastewater systems.

Council approval is obtained by making an application for a Septic Tank Permit. Both Wellington and East Gippsland Shires provide application kits describing the necessary information to accompany a permit application.

New dwellings and subdivisions often also require planning approval, which is obtained through a Planning Permit in accordance with requirements of the Municipal Planning Scheme and the Ministerial Catchment Guidelines, "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012) (see Section 3 above and Appendix 1). While all of the Ministerial Guidelines must be addressed where a planning permit is required to use land for a dwelling or to subdivide land, Guideline 1 "Density of dwellings", Guideline 2 "Effluent disposal and septic tank system maintenance" and Guideline 4 "Buildings and works" are particularly relevant with respect to this DWMP.

A diagrammatic view of the septic tank and planning permit process for each Shire is illustrated in Figure 5-1 and summarised in stepwise form in Table 5-1 following the procedure developed for the Mitchell Shire DWMP (Mitchell Shire Council 2014).





Table 5-1. Steps in approvals process for Septic Tank Systems (after Mitchell Shire Council 2014 with modifications).

Step	Details
Application for Permit	<ol style="list-style-type: none"> <li>Administration officers register receipt of a paid application which must include: <ul style="list-style-type: none"> <li>Identification of the site, site and building plans, specifications and particulars of the proposed septic tank system, a full description of the proposed means for treating the effluent and forward the application onto the Council Environmental Health Officer (EHO).</li> </ul> </li> </ol>
Site Inspections	<ol style="list-style-type: none"> <li>Staff will make arrangements for an initial on-site inspection which is conducted prior to approval of the application.</li> </ol>
Site Assessment	<ol style="list-style-type: none"> <li>An EHO will request a land capability assessment for all applications that fall within a Declared (Declared) Special Water Supply Catchment area if not previously submitted via the planning permit process. For all other areas EHOs will conduct a site inspection to determine whether the site is appropriate for wastewater disposal. The EHO may further request a land capability assessment if they require further clarification on the sites suitability.</li> </ol>
Further information/ Non-Compliance	<ol style="list-style-type: none"> <li>If the EHO requires further information the applicant will be notified and the application will not progress until the information is received.</li> </ol>
Compliance and Approval	<p>The EHO will conduct a series of progress inspection prior to backfilling of trenches/irrigation depending on the type of system.</p> <ul style="list-style-type: none"> <li>The EHO will conduct a final inspection when Certificate of Compliance has been issued by the plumber and prior to Certificate of Use being issued by the Council.</li> <li>Once the EHO is satisfied that all the aspects of the application, plans and specifications stated in the permit to install comply with the Act, a permit to use will be issued.</li> <li>The EHO may issue a permit subject to modifications or conditions.</li> <li>Septic permit shouldn't be issued in a DWSA area until the planning permit is issued and conditions of water corporations are considered/adhered to.</li> </ul>
Refusal to Grant Permit	<p>The EHO will refuse to issue a permit if they consider that:</p> <ul style="list-style-type: none"> <li>The site of the proposed septic tank system is unsuitable; or</li> <li>The area available for the treatment or disposal of the effluent is not sufficient.</li> </ul> <p>The EHO will refuse to issue a permit if the proposed domestic wastewater system:</p> <ul style="list-style-type: none"> <li>Is not an EPA approved system for the proposed purpose;</li> <li>Is contrary to any State environment protection policy or waste management policy; or</li> </ul> <p>Any refusal to grant a permit to install/alter a septic tank system must be ratified by Council.</p>

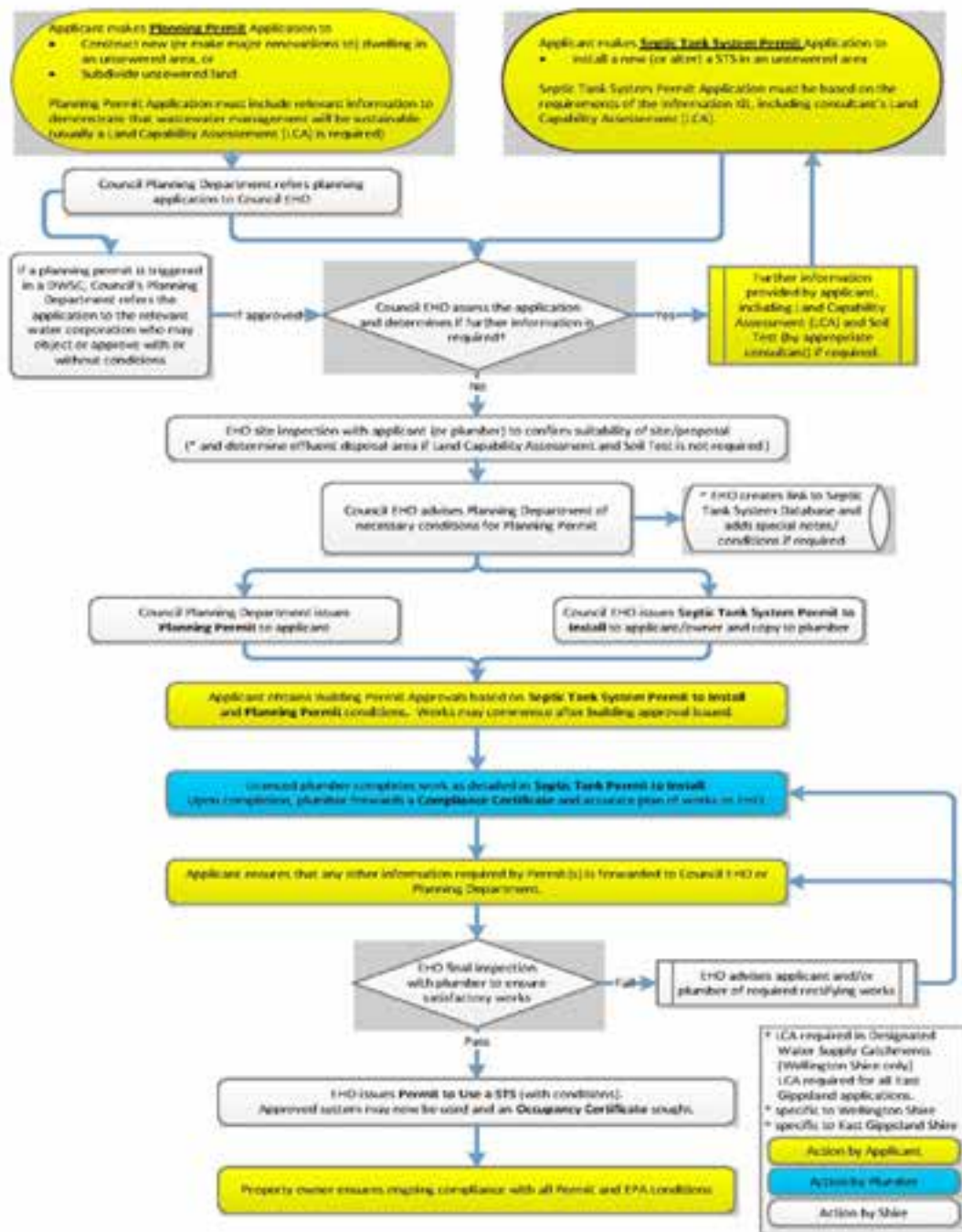


Figure 5-1. Approval Process for on-site wastewater management for East Gippsland and Wellington Shire Councils. The planning departments also review all applications to determine if and when a referral authority is to be notified of the application. This includes applications in water supply catchments.



### **5.2.1. Land Capability Assessment (LCA)**

The process for LCAs used by both Shires is that outlined in EPA Code (EPA Victoria 2013). The Code states that a Land Capability Assessment is required for all applications that fall within Declared Special Water Catchment Areas. In all other areas an LCA is not required unless requested by the EHO; this is the situation in Wellington Shire, however in East Gippsland Shire, an LCA is required for onsite wastewater management system applications regardless of whether they lie within a Declared Water Supply Catchment or not.

For Wellington Shire, the EHO will also consider the outcomes of the risk mapping analysis described in Section 8 of this DWMP in determining the requirement of an LCA.

Wellington Shire policy requires all new coastal developments, such as at Loch Sport, Golden/Paradise Beach, McLoughlins Beach, Manns Beach and Woodside Beach, to have a Secondary Treatment Systems with an EPA approved disposal method.

### **5.2.2. Maintenance of Septic Tank Systems**

The occupants of premises on which a wastewater treatment system is located must maintain the system in accordance with the requirements specified on the permit (e.g. regular servicing, pumping out the septic tank every five years etc.). The EHO may conduct annual inspections of wastewater treatment systems to ensure compliance with the certificate for use. These will be focussed on priority areas as discussed in Section 8.4 later on in this report.

### **5.2.3. Monitoring and Compliance**

Domestic onsite wastewater management systems are required to be operated and maintained in accordance with the conditions in the Council Permit to Use, the Certificate of Approval (CA), and the Code to ensure that human health and the environment are protected (EPA Victoria 2013). Furthermore, the Ministerial Guidelines require a process of monitoring the condition of septic systems and a process of enforcement when noncompliance is identified.

Council may fine a property owner under section 53H and Schedule A of the *Environment Protection Act 1970* for failing to have the treatment system regularly serviced on an ongoing basis in accordance with the conditions on the relevant CA and the Council Septic Tank Permit.

Wellington and East Gippsland Shire Councils have established inspection schedules for processing the applications to install or modify domestic onsite wastewater management systems. Although neither council has an active monitoring nor compliance procedure to follow up and monitor the condition of all types of domestic wastewater units after a permit to use has been issued and the installation process is complete, Wellington Shire Council does have such a monitoring and compliance procedure for Aerated Wastewater Treatment Systems (AWTS).

A recommendation of the action plan is to commence monitoring and enforce compliance of domestic wastewater treatment systems. Resourcing a monitoring and compliance program for every property in the Shires is currently not feasible and it is therefore a recommendation of this DWMP is that monitoring is to be prioritised by risk and to begin in localities that have been identified as high risk through the risk mapping component of this plan (see Section 8). This process will identify any non-compliant units and a process of enforcement will ensure action will be taken to ensure systems operate correctly. The initial focus will be on systems within the declared water supply catchments.





#### **5.2.4. Data management**

With respect to Aerated Wastewater Treatment Systems (AWTS) qualified maintenance operators certified by the system manufacturers undertake quality inspections and prepare reports for the councils as per the permit conditions and certificates of conformity. The data are then entered into an electronic database.

It is recommended in the action plan that service maintenance records are checked and followed up to ensure units are operating correctly. While this is the case for AWTSs in Wellington Shire, the process should be extended to all onsite wastewater management systems in both Shires, focussing firstly on systems in high risk areas described in Section 8 of this DWMP, with an emphasis on systems within the declared water supply catchments

It is further recommended that both councils retrospectively record unrecorded domestic wastewater treatment systems through utilising the inspections recommended under the proposed compliance program. The initial focus should be on systems in high risk areas described in Section 8 of this DWMP, with an emphasis on systems within the declared water supply catchments. Identification and registration of such systems will assist in managing the risk that unregistered or incorrectly registered onsite wastewater management systems could be operating incorrectly without the council's knowledge.

## **6 Management of the DWMP**

### **6.1. DWMP Development and stakeholder consultation**

The DWMP was prepared by Ecos Environmental Consulting according to terms of reference supplied by Wellington Shire Council and East Gippsland Shire Council and in accordance with the requirements of the Ministerial Catchment Guidelines (DEPI 2012). Development of the DWMP involved internal workshops with Environmental Health and Planning Staff from each council as well as external workshops with the regional water authorities, regulatory agencies and environmental organisations. The DWMP also draws on the material and findings of the 2006 Wellington and East Gippsland Shires DWMP as well as the Municipal Association of Victoria Model DWMP.

The parties consulted in the development of the DWMP were:

- Department of Environment, Land, Water and Planning (DELWP)
- Department of Health and Human Services, Victoria
- East Gippsland Water
- EPA Victoria
- Gippsland Lakes Committee
- Gippsland Water
- South Gippsland Water
- Southern Rural Water

A list of stakeholder workshops and attendees is presented in **Appendix 5**.

#### **6.1.1. Community Consultation**

The Shire councils have undertaken a community consultation exercise (public comment) as part of the adoption process.

#### **6.1.2. Implementation**

Following Council approval and adoption of this DWMP, actions will be undertaken as outlined in Sections 8 and 9, assuming sufficient resources are available.

Progress made towards completion of the actions outlined in this DWMP will be reviewed on an annual basis. This will include consideration of whether tasks have been completed on time (or are on schedule)



and the outcomes achieved. The action plans include an outline of monitoring indicators to assist in determining the outcomes achieved.

The annual review will be a joint undertaking between Wellington and East Gippsland Shires. It will be managed by Wellington Shires Environmental Health Coordinator and East Gippsland Shires Environmental Health Manager.

The review will be undertaken in September each year and will include a review of resources required for the following year for incorporation into the coming budget.

An annual report on progress will be distributed to both internal and external stakeholders as outlined in Section 8.7 and in the action plan tables (see Table 9-4).

## **7 Water quality risks posed by domestic onsite wastewater management systems**

### **7.1. Microbial pathogens**

There are around 150 known gastrointestinal pathogens that can be classified as waterborne. These pathogens may be broadly separated into viruses, bacteria, protozoa (single-celled parasites) and helminths (intestinal worms).

The most virulent organisms are typically associated with human sewage and animal faeces. Ingestion of these organisms typically results in gastrointestinal illness of varying degrees depending on the type of pathogen, the numbers of pathogens consumed by the host and the health and immunity of the host. While typical symptoms of gastrointestinal infection may include nausea, vomiting and diarrhoea, for certain pathogens an unfortunately high proportion of those infected develop serious and even life threatening complications (termed sequelae) including encephalitis, meningitis and kidney failure.

Since septic effluent poses a significant biohazard its management is a critical component of good public health practice. It is important that onsite wastewater management systems are designed, installed and managed appropriately to avoid the risk of septic effluent being allowed to contaminate surface waters and groundwaters and limit their beneficial uses.

### **7.2. Nutrients**

Septic effluent is rich in the plant nutrients nitrogen and phosphorus. Areas where there are high densities of on-site wastewater management systems, surface waters and groundwater often have elevated nutrient concentrations. Surface water impacts are typically manifested as blooms of filamentous algae or phytoplankton (single-celled algae) in rivers, streams and lakes due to high phosphorous loadings. The Gippsland Lakes are a significant example of an important regional asset that has been affected by high phosphorus loads from its catchment – although onsite wastewater management systems are just one of a number of contributors.

With respect to groundwater, it is nitrogen that tends to be the nutrient parameter of most concern. Partly this is due to the retention of phosphorus in the soil and greater mobility of nitrogen in the subsurface and partly due to the capacity of groundwater to accumulate nitrogen to high concentrations. Where groundwater is used as a source of drinking water, the Australian Drinking Water Guidelines (NHMRC and NRMCC 2011) specify that the concentration of nitrate in the water must be less than 50 mg NO<sub>3</sub>-L (as nitrate) to protect bottle-fed infants under 3 months of age. High nitrate concentrations can cause infantile methaemoglobinaemia (also known as blue-baby syndrome) where the nitrate affects the function of haemoglobin in the blood limiting its ability to carry oxygen. Clusters of onsite wastewater systems in areas where potable water supplies are sourced from groundwater should be considered a risk factor for nitrate accumulation.





### 7.3. Trace Organic Compounds (TOCs)

In the context of domestic sewage, TOCs are organic chemicals such as household herbicides and insecticides, detergents, personal care products and pharmaceuticals. In most cases, such chemicals undergo biodegradation by bacterial enzymes in the effluent holding chambers of conventional septic tanks and domestic aerated wastewater systems and further biodegradation in the soil environment of the effluent disposal field. When chlorine is added to the effluent (e.g. such as in domestic effluent of aerated onsite wastewater systems to permit surface irrigation), its oxidising effect can also destroy TOCs persisting through the earlier treatment stages.

Whilst there are literally thousands of chemicals in domestic use, the vast majority are used only in small quantities as part of routine household use and are readily degraded in the onsite wastewater treatment system. Since the principle aim of onsite wastewater management is to retain and treat effluent on site, the effects of persistent TOCs is likely to only be a problem if effluent is permitted to move offsite. In such circumstances the health risks from microbial pathogens is expected to significantly outweigh the risks from TOCs and thus management and monitoring for pathogens will also result in the management and control of persistent TOCs. Until otherwise advised by the EPA, the focus of both councils will be on protecting public health from microbial pathogens through the appropriate management of onsite wastewater management systems.

### 7.4. Failure modes of on-site treatment systems

Although there are many variations in design, a typical onsite wastewater management system consists of an underground chamber that receives household wastewater. Solids settle to the bottom where they undergo digestion by microorganisms. A frothy scum forms at the surface and also plays a role in biological digestion of the wastewater. Microbiological respiration in this chamber rapidly consumes the available dissolved oxygen and so most of the activity is anaerobic. The semi-clarified liquid is distributed by gravity to the disposal field (also known as an absorption trench). In aerated wastewater treatment systems, an additional chamber is present which is mechanically aerated, providing a better quality of effluent that may comply with less stringent permit conditions (e.g. reduced setback distances from waterways).

#### 7.4.1. Mechanisms of onsite system failure

Onsite wastewater management systems can have several modes of failure with the principal mode being disposal field surcharge (i.e. effluent pooling at the soil surface) due to trench clogging. Beal *et al.* (2005) documented the principal failure modes of domestic onsite wastewater management systems in South East Queensland. These were:

- Absorption trench surcharge (59%) due to:
  - Trench length under-design
  - Broken baffles / outlet filters, inadequate desludging (causing blockage and surcharge)
- Odour (10%)
- Risk of off-site runoff (10%)<sup>1</sup>
- Tank disrepair (21%)
- Beal *et al.* cited other Australian studies from the 1990's suggesting failure rates between 50% (Mt Lofty, Adelaide Hills, 12% surcharging) and 67% (Maroochy Shire, South East Queensland)
- Deliberate pipe disconnection by occupants allowing treated effluent to flow over the ground
- Other human interference (eg. turning off AWTS aerator).

Broken baffles/outlet filters and infrequent septic tank desludging both allow solids carryover into the trench, thereby reducing the ability of the trench to slowly "leak" effluent into the soil which is a desirable

<sup>1</sup> It was not explicit in the paper, but this is assumed to mean direct evidence of off-site runoff. In practice, any surcharging poses a risk of off-site runoff.

trait of properly-functioning absorption trench. If leaking is impeded the likelihood of surcharge of septic effluent to the surface increases.

## 8 Onsite systems catchment water quality risk assessment

In section 5.2.3 it was recommended that monitoring compliance of onsite systems be risk-based and focus on localities that have been identified as high risk through risk mapping. The risk mapping approach developed for the DWMP is described in this section and consists of a semi-quantitative risk scoring exercise. It is appropriate for the high level identification of areas of heightened risk to surface water and groundwater quality across each Shire and can be used by the council EHO's to assist in their decision making with respect to individual sites.

### 8.1. Data collation, GIS analysis, hazard source identification and mapping

Spatial data for use in the risk assessment of onsite wastewater management across Wellington and East Gippsland Shires was obtained from a range of sources including the Victorian online environmental databases DataVic, Water Measurement Information System, and the Bureau of Meteorology. Additional data sources were Gippsland Water, South Gippsland Water, East Gippsland Water, and Wellington and East Gippsland Shire Councils (Table 8-1).

Table 8-1. Data sources including spatial data used in the risk assessment

Data Source	Data layer	Description
DataVic	10 m Contours	Grate DDM to determine aspect, slope and water table depth
	Rivers	Calculate setback from waterways and waterbodies
	Lakes	
	Properties	Property size
	Flood layers (1 in 100)	Used to calculate useable area
	LSYS250	Land system – contains soil risk information – MASS_MOV (erosion), WATER_LOG (soil drainage), LEACH (pH), WIND_ER (soil texture), WATER_ER (soil depth)
	Soil EC	
	Soil %Clay	Used to calculate soil texture
	Soil pH	
	SWL (groundwater contours)	Groundwater level used with DDM to calculate depth to water table
	Planning Overlays	
	Planning Zones	
	DWSC	Declared Water Supply Catchments
	LGA	
Locality	Town locations	
Water Measurement Information System (WMIS)	Groundwater Bores	Used to calculate useable area, setback from bores
ABS	Town Population	
BOM	Site rainfall data	Used to calculate climate risk
	Site evaporation data	
	Annual rainfall map	
	Annual pan evaporation map	
GW	Sewered towns	Website
	DWSC	Water Supply Catchment confirmation
SPW	Sewered towns	Website
CGW	Sewered towns	GIS Layer
Shire Councils	On-site system locations	Excel files with lat/long coordinates
	Aerial photographs	



## 8.2. Risk assessment and ranking

### 8.2.1. Risk model development

The LCA Risk table in the Code (EPA Victoria 2013) was used as a basis for a risk assessment of properties that are permitted to have a dwelling within rural (FZ, RCZ, RAZ, RLZ) and urban (TZ, LDRZ, GR1Z, MUZ) planning zones.

Data for each of the characteristics used to assess the properties in the LCA were obtained where possible and the classifications of risk (or "level of constraint") were identified and whether they related to surface water or groundwater risk.

Although not all LCA site attributes are able to be assessed on a catchment scale, many can be used to provide a general assessment of the land capability for each property. A detailed list of potential risk factors that could be used in risk scoring is presented in **Appendix 2**.

In developing the risk scores for the classes: the risk factors which were considered to be representative of the highest risk were soil suitability, usable area, slope and climate. These were chosen to represent the likely risks posed by the on-site systems prior to detailed LCA site assessments if these are considered necessary by the EHO, or required due the site being within a declared water supply catchment.

Risk factors were based on a combination of the guidance given in the Victorian Land Capability Assessment Framework 2<sup>nd</sup> Edition (MAV, DEPI and EPA 2014) and the EPA LCA guidelines (EPA Victoria 2003).

The intention of the risk assessment is to prioritise areas and systems for possible follow up site inspections. A high risk score does not necessarily mean that a particular system actually poses a higher risk, rather it simply means that the Shire council EHO should evaluate the risk at the site more closely.

### 8.2.2. Property Risk

A number of risk factors were chosen to calculate the risk of having an onsite wastewater management system (OWMS) on each property permitted by the planning zone to have a dwelling.

The risk per property of an OWMS was categorised using the following formula:

$$\text{Property Risk Score} = \{[(\text{soil suitability constraint} + \text{slope constraint}) \times ((2 \times \text{useable area constraint}) + \text{climate constraint})] / 10\}$$

The final risk ratings were categorised and mapped in the following way:

- Very High >5.5
- High >4 to <=5.5
- Mod >=1.8 to <=4.0
- Low <1.8

The constraints used in the risk calculations were:

#### (1) Usable Area Constraint

The usable area for an OWMS was determined by the total lot size minus the areas of land deemed to be unusable according to the limitations listed below. Therefore, the useable area constraints were categorised as follows:

- i. Compliant:  $\geq 40$  ha
- ii. Low: 0.4 - < 40 ha
- iii. Moderate: 0.2 - < 0.4 ha
- iv. High: 0.1 - < 0.2 ha
- v. Very High: < 0.1 ha
- vi. Unusable: 0 ha





Limitations reducing the area of land on which an OWMS could be located were based on setbacks required by the Code of Practice for Onsite Wastewater Management (EPA Victoria 2013) (Table 8-2). A conservative approach was taken, using the highest setback requirements for each feature:

- a. *Distance to water* - shorter distances means that rainfall runoff is more likely to reach the waterway and less rainfall is required to contribute to a connection between surcharged effluent at the location of an onsite system and the nearest waterway.  
Within a DWSC, an OWMS cannot be located less than 100 m from a waterway or 300 m from a reservoir, whereas outside a DWSC, the required setback is 60 m from any waterway or waterbody;
- b. *Depth to the water table* – a shallower soil depth to the saturated zone (groundwater) increases the potential of pathogen movement in to the groundwater.  
The requirements for onsite systems is that the vertical depth from the base of the disposal field trench to the highest seasonal water table is 1.5 m. The trench can be up to 0.6 m deep, therefore, a watertable depth of less than 2.1 m results in that part of the property being unusable for an onsite system;
- c. *Distance from groundwater bore* – required setback is 50 m for category 1 and 2a soils and 20 m for category 2b – 6 soils for secondary treatment (see EPA Victoria 2013, Appendix A, Table 9 for soil categories). A 50 m setback was used in the risk calculation.

Table 8-2. Setback distances for classes of onsite wastewater management system. Source: EPA Publication 891. 3 Code of Practice Onsite Wastewater Management (EPA Victoria 2013)

Item	Setback Distances (m)		
	Primary Treated Effluent	Secondary Sewage and greywater effluent	Advanced secondary greywater effluent
Dam, lake or reservoir (potable water supply)	300	150	150
Waterways (potable water supply)	100	100	50
Waterways, wetlands, estuaries, ocean at high-tide, dams, lakes, reservoirs (stock and domestic, non potable)	60	30	30
Groundwater Bore (category 1 and 2a soils)	NA	50	20
Groundwater Bore (category 2b to 6 soils)	20	20	20
Vertical depth from base of trench to the highest seasonal watertable	1.5	1.5	1.5

## (2) Soil Suitability Constraint

Soil suitability for an OWMS was determined from the hydraulic hazard of the soil (texture, permeability and structure), the depth to rock or other impermeable layer, and other likely limitations due to soil condition. The significance of each characteristic was weighted to account for the likely impact of each on the OWMS risk. Thus the soil suitability was categorised using the following formula:

$$\text{Soil suitability} = \{(\text{hydraulic hazard} \times 3.2) + (\text{depth hazard} \times 1.2) + (\text{limitation hazard} \times 0.6)\} / 5]$$





**a. Hydraulic hazard constraints**

The soil characteristics used to categorise the hydraulic hazard constraints were based on soil texture, then adjusted according to likely structure and permeability for each soil texture category (Table 8-3). Therefore, the hydraulic hazard constraint was categorised using the following formula:

$$\text{Hydraulic hazard constraint} = \{(\text{soil texture} \times 1.4) + (\text{soil structure} \times 0.8) + (\text{permeability} \times 1)\}$$

Table 8-3 Hydraulic hazard constraints (Data sources EPA Victoria 2013, MAV, DEPI and EPA 2014)

Level of Constraint	Soil Texture	Soil Structure (pedality)	Indicative permeability Ksat (m/d)	Hydraulic Hazard Rating
Nil or Low	3. Loams	Highly or moderately structured 6a, 6b, 5a, 5b, 4a, 3a	0.5 – 3.0 m/d: 3a, 3b, 2b, 4a	3 Loams
	2. Sandy loams			
Moderately low	4. Clay loams	Weakly structured 2a, 3b, 4b, 5c, 6c	0.06 – 0.5 m/d: 4b, 4c, 5a, 5b	2 Sandy loams
Moderately high	5. Light clays			4 Clay loams
	High	6. Heavy clays	Structureless, massive or hardpan 1, 2b, 4c, 5c, 6c	< 0.5 m/d: 5c, 6a, 6b, 6c Or > 3.0 m/d: 1, 2a
1. Sands		6 Heavy clays 1 Sands No soil data		

The elements of the hydraulic hazard constraint equation are further explained in the following sections.

*Soil texture*

Very sandy soils could allow rapid subsurface movement and subsequent discharge to nearby waterways, while dense clay soils could support perched water tables and subsequent surface surcharging in wet weather. The soil texture constraint was categorised as follows:

- i. Low: 3. Loams, 2. Sandy Loams
- ii. Moderate low: 4. Clay Loams
- iii. Moderate high: 5. Light Clays
- iv. High: 1. Sands, 6. Heavy Clays

Victoria Clay% GIS data was used to calculate the soil texture, which was supplemented with Victorian Land Systems 1:250 000 GIS layer (LSYS250) where there was no Clay% data. Due to the nature of the data, which provided a % clay content for varying depths (to 2m), the most restrictive soil layer is the one that will likely affect soil suitability for onsite system use. Therefore, the clay content at the most restrictive depth was used to calculate the soil texture. This was generally lower in the profile as there tends to be a gradation of increasing clay content with depth.

Soil categories were calculated using the Hazelton and Murphy (2007) field texture and estimated clay content interpretations as follows:

- 1: Sands: < 10 % clay
- 2: Sandy loams: 10 – 20 % clay
- 3: Loams: 20 – 30 % clay
- 4: Clay loams: 30 – 35 % clay
- 5: Light clays: 35 – 45 % clay
- 6: Heavy clays: > 45 % clay



**Soil structure**

Soil texture data was the only GIS data available for soil structure, therefore the soil structure constraints were based on an average of the soil structure categories for each texture type [listed in square brackets]

- i. *Low:* 6: Heavy clays, 5: Light clays [6a,6b,5a,5b,4a,3a]
- ii. *Moderate Low:* 3: Loams
- iii. *Moderate:* 4: Clay loams [2a,3b,4b,5c,6c] iv. *Moderate High:* 2: Sandy loams
- v. *High:* 1: Sands, [1, 2b, 4c, 5c, 6c]

**Soil Indicative permeability**

Soil permeability constraints were based on an average of the soil permeability categories for each soil texture type [listed in square brackets]

- i. *Low:* 3: Loams [3a, 3b, 2b, 4a]
- ii. *Moderate Low:* 4: Clay loams
- iii. *Moderate:* 2: Sandy loams [4b, 4c, 5a, 5b] iv. *Moderate High:* 5: Light clays
- v. *High:* 1: Sands, 6: Heavy Clays [5c, 6a, 6b, 6c, 1, 2a]

**b. Depth hazard**

Depth hazard was identified using the LSYS250 GIS layer, which identified the depth hazard as a water erosion hazard (WATER\_ER). The depth hazard constraint was categorised as follows:

- i. *Low (WATER\_ER 1 or 2):* soil depth > 2 m
- ii. *Moderate (WATER\_ER 3):* soil depth 1 – 2 m
- iii. *High (WATER\_ER 4):* soil depth < 1 m (or no depth data available)

These categories are very similar to those listed in the Victorian Land Capability Assessment Framework (MAV, DEPI and EPA 2014) (Table 8-4).

Table 8-4. Victorian Land Capability Assessment Framework soil depth constraints

Level of Constraint	Soil depth to rock or other impermeable layer
Nil or Minor	> 1.5 m
Moderate	1.5 – 1.0 m
Major	< 1.0 m

**c. Limitation hazard**

Limitation hazards are listed in the LSYS250 GIS layer as PERF\_AGG, which consists of description of limitations and penalty points used to rank land systems for inherent production potential after Rowan et al. (2000). The best land for agriculture or horticulture is allocated 10 and the score declines as limitations become more severe, with the least productive land having a score of 0. The limitation constraint was categorised as follows:

- i. *Low:* 0 points
- ii. *Moderate:* 2 points
- iii. *High:* 4 points

The soil condition was calculated from Total limitation potential 10 – (PERF\_AGG + Rainfall Score + Steepness Score + Drainage Score). Rainfall, steepness and drainage scores were determined from the Land system and vegetation codes.



The remaining limitations were soil physical condition and soil chemical condition (Table 8-5):

Table 8-5. Soil physical condition and soil chemical condition limitations

Characteristic	Description	Penalty Points
Soil physical condition	Hard consistency in the A horizon; or low permeability of profile; or shallow stony loam profile (less than 0.2 m thick).	2
Soil chemical condition	Low nutrient status (sum of exchangeable calcium, magnesium and potassium less than 8 milliequivalents per 100 g within 1 m); or High salinity (more than 0.2% total soluble salts within 1 m of the soil).	2

### (3) Slope Constraint

Increasing slope promotes water shedding. The slope constraint was categorised to be consistent with the Victorian Land Capability Assessment Framework (MAV, DEPI and EPA 2014) (Table 8-6) and is as follows:

- i. *Low: lots with an average slope < 6%*
- ii. *Moderate Low: lots with an average slope 6 – 10%*
- iii. *Moderate High: lots with an average slope 10 – 15 %*
- iv. *High: lots with an average slope > 15 %*

Table 8-6. Victorian Land Capability Assessment Framework slope constraints

Level of Constraint	Slope gradient % (a) for absorption trenches & beds	Slope gradient % (b) for surface irrigation	Slope gradient % (c) for subsurface irrigation
Nil or Minor	<6%	<6%	<10%
Moderate	6-15%	6-10%	10-30%
Major	>15%	>10%	>30%

### (4) Climate Constraint

The climate risk is the soil moisture surplus where rainfall is greater than evaporation, which can result in surface runoff, saturation and an increase of infiltration to the groundwater. The climate constraint was categorised as follows:

- i. *Zone 1: Rainfall exceeds evaporation < 1 month in a year*
- ii. *Zone 2: Rainfall exceeds evaporation 1 – 4 months in a year*
- iii. *Zone 3: Rainfall exceeds evaporation > 4 months in a year*

There are seven sites with evaporation data within the two Shires (Table 8-7).

Two of these had available data on the Bureau of Meteorology (BOM) website. The available broad rainfall and evaporation maps on the BOM site were used in conjunction with this data to determine that the majority of the study area was likely to be in Zone 2.

Table 8-7. Bureau of Meteorology sites with rainfall & evaporation data

Site	Name	Dates	Zone
84100	Bairnsdale Waterworks	1970-2016	
85072	East Sale Airport	1971-2015	2
85034	Glenmaggie Weir	1969-2016	
84121	Orlist SRWSC	1972-1995	
84050	Orlist (comparison)	1994-2011	2
84087	Tabberaberra (The Fines)	1974-1980	
84107	Wulgulmerang (Pleasant View)	1972-1982	

Risk scores for unsewered properties in the Wellington and East Gippsland Shires are shown in Fig 8-1.

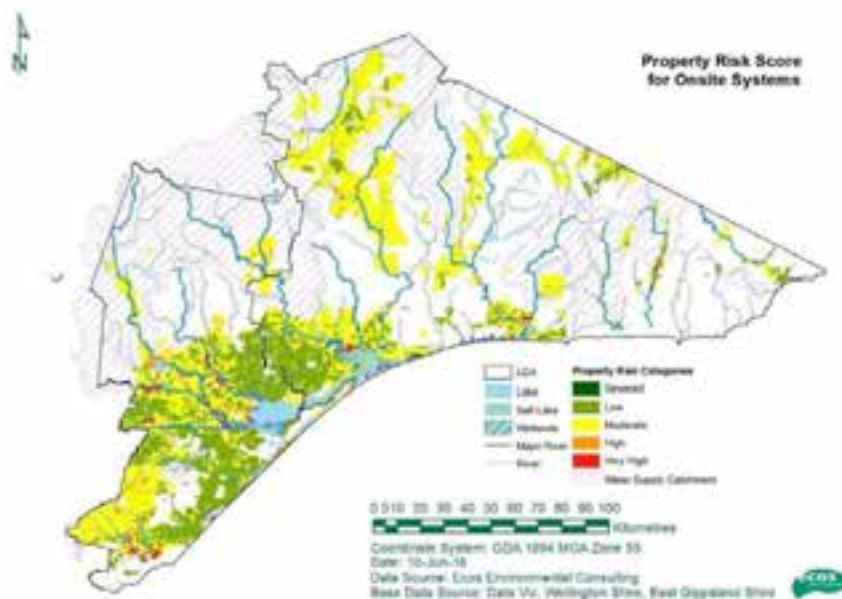


Figure 8-1. Risk scores for unsewered properties in the Wellington and East Gippsland Shires.

#### 8.2.2.1. Unsewered dwellings less than 1km upstream of a drinking water supply reservoir

Southern Rural Water have requested that unsewered dwellings less than 1km upstream of a drinking water supply reservoir should always be classed as high risk properties. This is to be regardless of any other elements of the risk classification described above. This is to ensure consistency with the water corporations risk management practices and recognises the risk posed by properties that lie close to the reservoirs.

Properties with a Low or Medium risk classification in this area were reclassified to High. Properties with a High or Very High risk classification remained as classified.

#### 8.2.2.2. Mapping and data availability for Wellington and East Gippsland Shires

The risk maps displayed in the following sections are presented at the regional scale to provide an overview of risk for this report. However, each map is produced from a GIS database that allows the user to zoom in for more detailed analysis. These databases, developed for the DWMP, have been supplied to the councils to assist them in assessing the risks associated with new planning permit applications and existing unsewered dwellings.





### 8.2.3. Risks from future development – housing density

#### 8.2.3.1. Planning zones

Acceptable housing densities vary with the planning zone and whether or not the area is within a Declared Water Supply Catchment. The data on planning zones and housing density limits was obtained from the Planning Schemes Online website (DELWP 2015) (Table 8-8, Table 8-9, Figure 8-2). The housing density for each planning zone was calculated separately.

Areas in the Farming Zone (FZ) and in Rural Conservation Zones 1 and 2 (RCZ1 and RCZ2) are the main sources of non-compliance with the maximum permitted housing densities across both Shires.

*Table 8-8. Acceptable housing densities for the various planning zones within the Wellington Shire (see Appendix 3 for list of all zones). Note: in a Declared Water Supply Catchment a planning permit application may require referral to a Water Corporation.*

Zone	Minimum Subdivision area (lot size when planning permit for subdivision)	Minimum area (lot size) for which no planning permit is required to use land for a dwelling	Clusters of houses exceeding required limit of planning zone
Farming Zone (FZ)	40 Hectares, unless in M/O then 25 Hectares	40 Hectares, unless in M/O then 25 Hectares	992 houses, mostly near towns
Rural Living Zone 1 (RLZ1)	0.8 Hectares	0.4 Hectares	
Rural Living Zone 2 + 3 (RLZ2, RLZ3)	2 Hectares	0.4 Hectares	
Rural Living Zone 4 (RLZ4)	4 Hectares	0.4 Hectares	
Rural Living Zone 5 (RLZ5)	0.6 Hectares	0.4 Hectares	
Low Density Residential Zone (LDLZ)	0.4 Hectares	Not determined	
Township Zone (TZ)	Not determined	300 square metres	
General Residential Zone (GRZ)	Not determined	300 square metres	
Mixed Use Zone (MUZ)	Not determined	300 square metres	
Rural Conservation Zone (RCZ)	40 Hectares, unless in CSO1 then 100 Hectares	Dwelling requires a planning permit	156 houses (40 ha minimum) Golden Beach, Flamingo Beach, Glomar Beach, south of Glomar Beach, near Lake Glenmaggie 27 houses (100 ha minimum) Flamingo Beach, Glomar Beach
Rural Activity Zone (RAZ)	40 Hectares	Dwelling requires a planning permit	

Table 8-9 Acceptable housing densities for the various planning zones within the East Gippsland Shire (see Appendix 3 for list of all zones). Note: in a Declared Water Supply Catchment a planning permit application may require referral to a Water Corporation.

Zone	Minimum Subdivision area (lot size when planning permit for subdivision)	Minimum area (lot size) for which no planning permit is required to use land for a dwelling	Clusters of houses exceeding required limit of planning zone
Farming Zone 1 (FZ1)	40 Hectares	40 Hectares	701 houses, mostly near towns
Farming Zone 2 (FZ2)	30 Hectares	30 Hectares	59 houses, FZ2 is near Barrisdale
Farming Zone 3 (FZ3)	15 Hectares	15 Hectares	
Farming Zone 4 (FZ4)	1 Hectare	10 Hectares	
Rural Living Zone 1 (RLZ1)	2 Hectares	1 Hectare	
Rural Living Zone 2 (RLZ2)	4 Hectares	1 Hectare	
Rural Living Zone 3 (RLZ3)	8 Hectares	8 Hectares	
Rural Living Zone 5 (RLZ4)	15 Hectares	15 Hectares	
Low Density Residential Zone (LDRZ)	0.4 Hectares	Not determined	
Township Zone (TZ)	Not determined	300 square metres	
General Residential Zone (GRZ)	Not determined	300 square metres	
Mixed Use Zone (MUZ)	Not determined	300 square metres	
Rural Conservation Zone 1 (RCZ1)	10 Hectares	Dwelling requires a planning permit.	
Rural Conservation Zone 2 (RCZ2)	50 Hectares	Dwelling requires a planning permit.	
Rural Conservation Zone 3 (RCZ3)	100 Hectares	Dwelling requires a planning permit.	58 houses Nyerinilang, Ocean Grange, Eagle Point, Boole Poole Peninsula

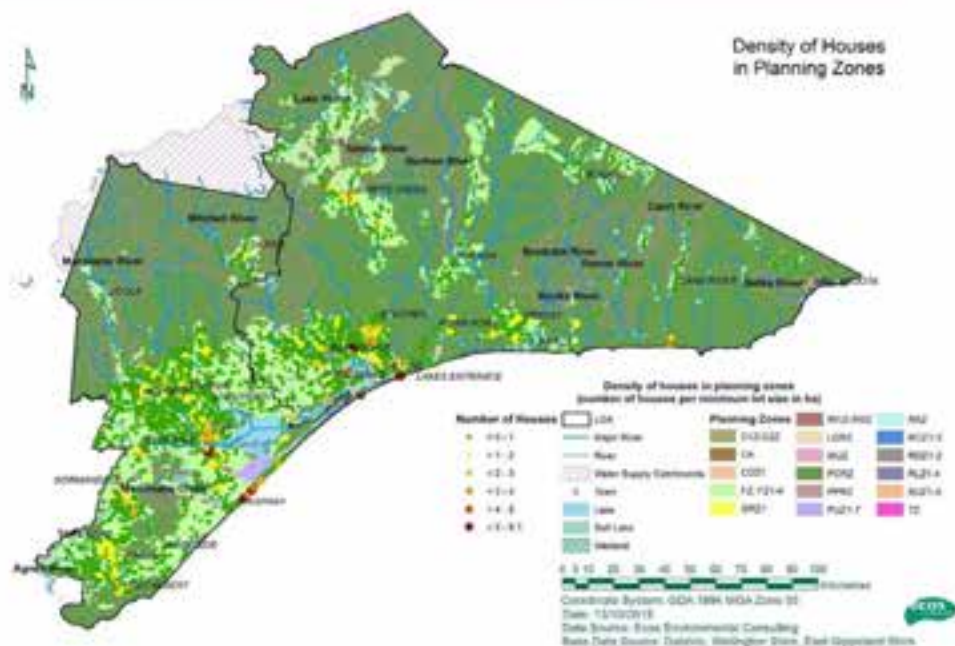


Figure 8-2. Density of houses in planning zones. Dwelling locations are colour coded according to level of compliance with the planning zone requirements. For example, where there is one house or less in the minimum acceptable area given the planning zone, the house is coloured with a green dot.





The map of housing density compliance with planning zone requirements shows clusters of houses around the major towns that exceed the target planning limits. The housing density calculations were carried out by determining the number of houses in a 1 km radius around each house (including the house) and then dividing by the acceptable number in the same area given the planning zone. This is the method recommended for housing density calculations in the *Victorian Water Industry Guidance Note for Determining Dwelling Density when Assessing Planning Permit Applications* (VicWater 2012). Note, however, that this is not how the minimum lot size in the planning scheme is determined. If the lot is too small, then the house is not an "as of right" and a planning permit is needed (depending on the zone). If lots comply with the minimum subdivision size target, planning limits are not exceeded. However, the map provides an effective overview of where higher densities are found and allowed under the planning scheme without the need for a planning permit and where "problem" areas may occur.

Note also that although Figure 8-2 is presented at the regional scale, the related GIS layers have been provided to the Shires and allow for finer scale close ups as required.

### **8.3. Township assessments**

For each town in each Shire, the individual risk scores for each property with an onsite wastewater management system were summed to give a risk score for each town (Table 8-10, Table 8-11). The town boundaries for assessment were based on the residential (GRZ1), township (TZ), low density residential (LDRZ) and rural living (RLZ) planning zones.

#### **8.3.1. Priority townships/locations**

##### **8.3.1.1. Wellington Shire**

The results of the township assessments showed that Golden Beach, The Honeysuckles, Briogolong, Paradise Beach and McLoughlins Beach accounted for approximately 50% of the total risk from on-site systems within the Wellington Shire (Table 8-10, Figure 8-3, Figure 8-4). Other significant contributions to the total risk were Longford, Glenmaggie, Wurruk and Stratford.

Briogolong (north of Stratford), Stratford and Wurruk (east of Sale) are located on floodplain soils while all the other townships are located on or adjacent to the 90 Mile Beach where sandy soils prevail. These areas are a priority for compliance assessments. Glenmaggie is situated within 1km upstream of Lake Glenmaggie, and so all unsewered properties here have been classified as high risk.



Table 8-10. Wellington Shire townships sorted by sum of groundwater and surface water risk. Towns located in declared water supply catchments are listed. Township risk = number of dwellings in each risk category multiplied by its property risk rating in GRZ1, MUZ, TZ, LDRZ and RLZ. Dwellings with onsite systems in sewered areas were categorised according to their risk rating for Current Score, and assumed to have a risk of 0 for the Sewer Infiltrated score. Township risk was ranked according to the sewer infiltrated score.

Risk rank within Shire	Township	DWSC	# DWMS	Current Risk Score	Sewer Infiltrated Risk Score	Number of properties with DWMS in each risk category:					Proportion of Total	Ranking total
						Sewered Area	Low	Medium	High	Very High		
1	Golden Beach		493	2276	2276			160	200	133	15%	13%
2	The Honeyeaters		268	1495	1495			1	4	263	10%	26%
3	Belgrave		414	1368	1368			387	23	4	9%	35%
4	Paradise Beach		286	1281	1281			96	175	17	9%	44%
5	Midonglwin Beach		172	963	963					172	7%	50%
6	Longford		295	849	849			259	26	10	6%	56%
7	Glenmaggie	Macalister	96	437	553	1		7	61	27	4%	62%
8	Warrak		181	494	488	1		174	5	1	3%	63%
9	Stratford		183	470	463	2		176	4	1	3%	66%
10	Manns Beach		79	442	442					79	3%	69%
11	Woodside Beach		109	441	441			35	36	18	3%	72%
12	Cowarr		81	397	397			30	31	20	3%	75%
13	Robertsons Beach		65	364	364					65	2%	77%
14	Dargo	Mitchell	45	283	283			12	3	30	2%	79%
15	Rosedale		75	267	267		1	48	2	24	2%	81%
16	Keyfield		90	225	231			85	4	1	2%	83%
17	Largborough		41	230	230					41	2%	84%
18	Newry		47	221	221			2	36	9	1%	86%
19	Muffo		88	219	219			88			1%	87%
20	Cooagulla	Macalister	34	164	196	1			24	9	1%	88%
21	Woodside		69	182	182			63	4		1%	90%
22	Borsdale		28	137	137					28	1%	91%
23	Tsunba		26	139	139			2		24	1%	92%
24	Sale		39	128	128			34	2	3	1%	93%
25	Devon North		47	122	122			47			1%	93%
26	Garrigong		28	113	113			19	6	3	1%	94%
27	Seaton		39	108	108			37		2	1%	95%
28	Gormanvale	Merrimans	39	101	101		3	36	1		1%	96%
29	Terraville		17	95	95					17	1%	96%
30	Masru		28	88	88			24	3	1	1%	97%
31	Yarram		28	80	77	1		23	1	1	1%	97%
32	Wun Wun		25	75	75			22	3		1%	98%
33	Licola	Macalister	16	74	74			10	3	3	1%	98%
34	Hullane's Landing		16	70	70				14	2	0%	99%
35	Seagrays		22	34	34			22			0%	99%
36	Ilmaru		12	35	35			12			0%	99%
37	Glegarry		10	28	28			9		1	0%	100%
38	Myrtlebank		11	28	28			11			0%	100%
39	Pearsondale		7	18	18			7			0%	100%
40	Alberton		4	16	16			2		2	0%	100%
41	Fort Albert		1	5.6	0	1					0%	100%

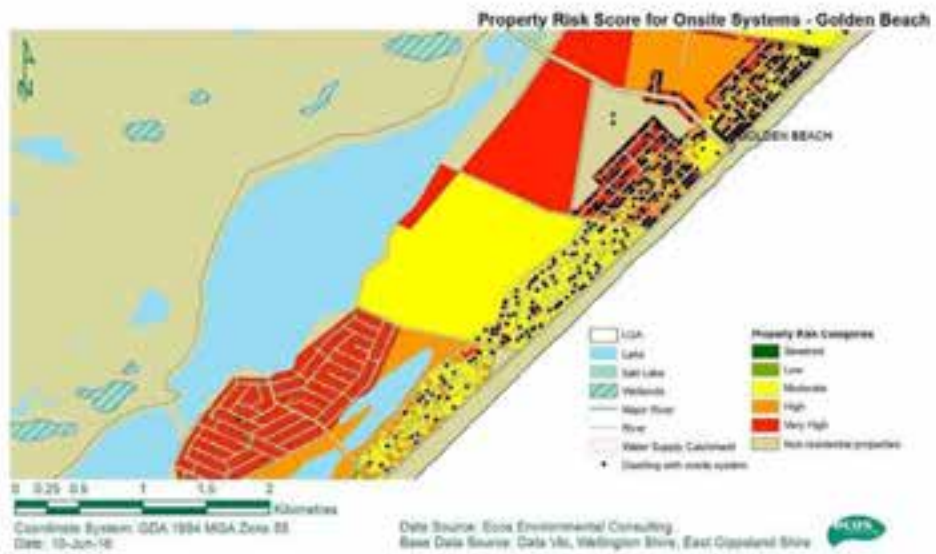


Figure 8-3. Property risk for unsewered properties in Golden Beach, and The Honeysuckles.



Property Risk Score for Onsite Systems - Briagalong



Property Risk Score for Onsite Systems - Paradise Beach



Figure 8-4. Property risk for unsewered properties in Briagalong and Paradise Beach

### 8.3.1.2. East Gippsland Shire

The distribution of onsite system risk was more evenly distributed amongst East Gippsland Shire townships compared to Wellington Shire (Table 8-11). Here approximately 50% of the total risk was accounted for by 9 towns: Nicholson, Metung, Buchan, Sarsfield, Nungurner, Wy Yung, Bruthen, Lucknow and Swan Reach.

These towns are all located in the catchments of the Gippsland Lakes or Lake Tyers and most lie lower down in the catchment close to the lakes where soils tend to be sandy and the water table is relatively close to the surface.



Table 8-11. East Gippsland Shire townships sorted by sum of groundwater and surface water risk. Towns located in declared water supply catchments are listed. Township risk = number of dwellings in each risk category multiplied by its property risk rating in GRZ1, MUZ, TZ, LDRZ and RLZ. Dwellings with onsite systems in sewerred areas were categorised according to their risk rating for Current Score, and assumed to have a risk of 0 for the Sewer Infilled Score. Township risk was ranked according to the sewer infilled score.

Risk rank within Shire	Township	DWSC	# OWNS	Current Risk Score	Sewer Infilled Risk Score	Number of properties with OWNS in each risk category					Proportion of Total	Running Total
						Sewerred Area	Low	Medium	High	Very High		
1	Nicholson		290	678	678		42	244	4		8%	8%
2	Mietung		136	542	542		1	81	30	24	6%	14%
3	Buchan		99	515	515		11	16	18	54	6%	19%
4	Garsfield		169	485	485		2	154	10	3	5%	25%
5	Nongarner		101	474	474		4	41	23	33	5%	30%
6	Wy Yang		156	467	467			140	10	6	5%	35%
7	Bruburn		124	414	414		3	99	11	11	5%	40%
8	Lucknow		149	404	404			142	7		4%	44%
9	Swan Reach		128	401	401			99	27	2	4%	49%
10	Toorloo Arm		124	360	360		2	114		8	4%	53%
11	Nova Nova		86	343	343		2	43	30	11	4%	57%
12	Lakes Entrance		121	349	301	19		91	10	1	3%	60%
13	Swifts Creek		76	258	258		13	45	11	7	3%	63%
14	Urdonow South		75	246	246			69	6		3%	66%
15	Newlands Arm		75	230	230			65	4	6	3%	69%
16	Newmorilla		72	229	229			61	10	1	3%	71%
17	Wiseleigh		66	229	229		1	50	11	4	3%	74%
18	Eagle Point		84	230	224	2	9	64	7	2	2%	76%
19	Benambra	L Home	49	189	189		7	16	22	4	2%	78%
20	Raymond Island		66	221	174	13		41	2	10	2%	80%
21	Granite Rock		55	137	137			55			2%	81%
22	Oliverwood		53	135	133		3	49	1		1%	83%
23	Mount Taylor		42	123	123			38	3	1	1%	84%
24	Bendoc		33	120	120			21	12		1%	85%
25	Erroy		22	111	111		1	5	5	11	1%	87%
26	Gipsey Point		34	110	110		5	25	2	2	1%	88%
27	Tambo Upper		48	109	109		15	32	1		1%	89%
28	Walpa		26	96	96		3	14	9		1%	90%
29	Lake Tyers Beach		39	100	95	2		36	1		1%	91%
30	Urdonow		31	87	87			30	1		1%	92%
31	Coburgra		22	79	79		1	15	2	4	1%	93%
32	Bomberrah		28	76	76			26	2		1%	94%
33	East Bairnsdale		15	65	65			8	2	5	1%	95%
34	Lake Bunge		32	93	65	8		24			1%	95%
35	Club Terrace	Beman R	15	62	62		1	10	2	2	1%	96%
36	Kallina		39	124	54	27		6	2	4	1%	97%



Risk rank within Shire	Township	DWSC	# OWMs	Current Risk Score	Sewer Infiltrated Risk Score	Number of properties with OWMs in each risk category					Proportion of Total	Running Total
						Sewered Area	Low	Moderate	High	Very High		
37	Boole Poole		33	44	44	25	8			0%	97%	
38	Cabbage Tree Creek		9	41	41		3	5	1	0%	98%	
39	Fernbank		18	40	40		11	2		0%	98%	
40	Genoa		6	35	35		1		5	0%	98%	
41	Marlo		18	32	32		18			0%	99%	
42	Orbost		8	28	28		6		2	0%	99%	
43	Balkinwood		7	28	28	1	3		3	0%	99%	
44	Bairnsdale		11	29	22	2	9			0%	100%	
45	Ormeo	L Home	3	14	14		1	1	1	0%	100%	
46	Hillside		5	12	12		5			0%	100%	
47	Kalkina West		2	6	6		2			0%	100%	
48	Johnsonville		1	2	2		1			0%	100%	





Figure 8-5. Property risk for unsewered properties in Nicholson and Metung



Figure 8-6. Property risk for unsewered properties in Buchan and Sarsfield

### 8.3.1.3. Declared water supply catchments

The acceptable housing density within a Declared Water Supply Catchment (DWSC) is 1:40 ha except for planning zones where a permit is not required to erect a dwelling. The main clusters of houses exceeding the density limit of 1:40 ha within the relevant planning zones are located at Gormandale and Glenmaggie/Coongulla (Table 8-12, Figure 8-7) while smaller clusters occur at Dargo and Benambra (Figure 8-8 to Figure 8-15). These areas are a priority for compliance assessments.

Table 8-12. Water supply catchments (WSC) within each Shire. With the exception of Maffra and Heyfield, all the catchments are Declared Water Supply Catchments (DWSC).

Density	Declared Water Supply Catchments	Number of unsewered houses not complying with maximum allowed density (1 house in 40 ha)	Planning Zone exceeding the DWSC density Onsite systems in non-residential and township planning zones were not included in this assessment
East Gippsland DWSCs 1: 40 ha	Berrin River	0 (of 20)	--
	Brodribb River	0 (of 10)	--
	Bushan River	0 (of 4)	--
	Cann River	2 (of 33)	FZ1 near Cann River
	Lake Hunter	40 (of 160)	18 in FZ1 near Ormeo and Glen Valley, 22 in RLZ3 in Coburgra
	Mitchell River	0 (of 8)	--
	Taribo River	10 (of 33)	FZ1 near Salfts Creek
Wellington DWSCs 1: 40 ha	Agnes River	0 (of 9)	--
	Maccalister River	136 (of 169)	11 in FZ, 12 in RC21 and 113 in RLZ2, mainly in Glenmaggie and Coongulla
	Merrimans Creek	97 (of 193)	15 in RLZ2 in Gormandale*, 82 in FZ near Stradbroke, Wilking, Wilking South, Gormandale and Caligree North
	Mitchell River	22 (of 71)	19 in FZ, 9 in RLZ2, all in and around Dargo
	Tarra River	0 (of 11)	--

\* At the time of writing, 12 lots on north Colledale Court that were incorrectly zoned RLZ2 are under review and expected to be changed to FZ.

The data in Table 8-12 for each DWSC is for the entire catchment. To further prioritise onsite systems for compliance assessment, the township areas in each DWSC were selected from the risk assessment using GIS query tools (Table 8-13). Onsite systems in these towns can be considered to have the highest priority for compliance assessment.

Table 8-13. Towns in declared water supply catchments sorted by onsite system risk.

Risk rank within Shire	Township	DWSC	# DWMS	Current Risk Score	Sewer Infiltrated Risk Score	Number of properties with DWMS in each risk category				Proportion of Total	
						Sewered Area	Low	Moderate	High		Very High
<b>Wellington Shire</b>											
7	Glenmaggie	Maccalister R	96	437	553	1	7	61	27	4%	
14	Dargo	Mitchell R	45	283	283			12	3	2%	
20	Coongulla	Maccalister R	34	164	196	1		24	9	1%	
28	Gormandale	Merrimans Cr	39	101	101		2	36	1	1%	
33	Licola	Maccalister R	16	74	74			10	3	3	1%
<b>East Gippsland Shire</b>											
19	Semandra	L Home	49	189	189		7	16	22	4	2%
33	Club Terrace	Berrin R	15	62	62		1	10	2	2	1%
45	Ormeo	L Home	3	14	14			1	1	1	0%



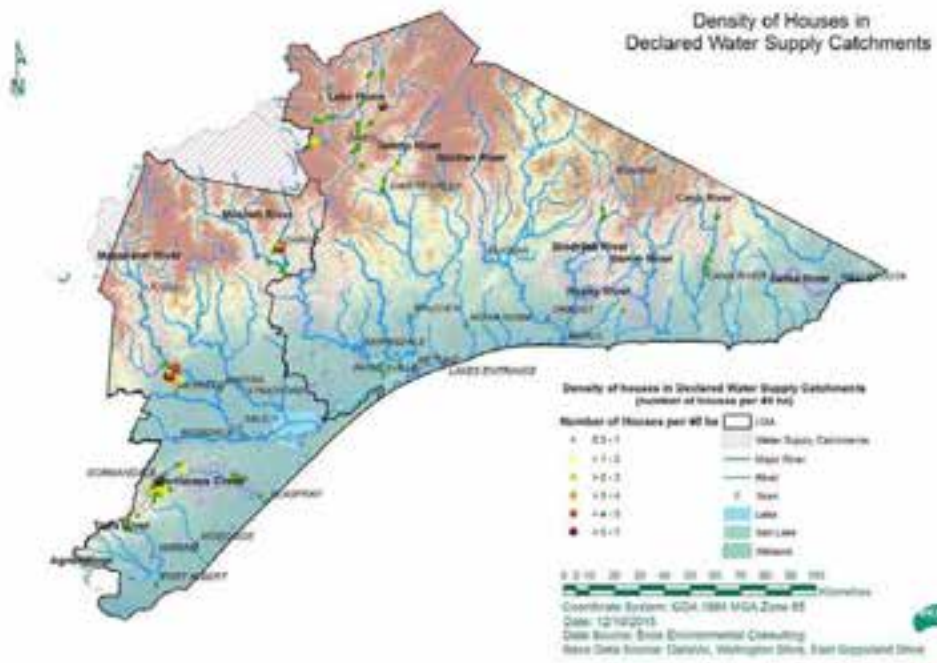


Figure 8-7. Density of houses in water supply catchments

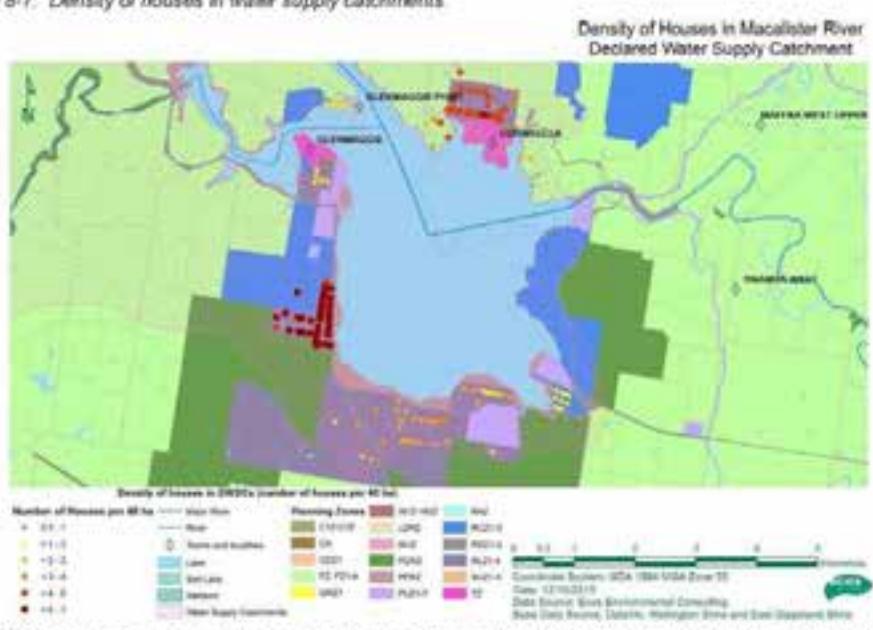


Figure 8-8. Density of unsewered houses (excluding TZ) in the Macalister River Declared Water Supply Catchment around Lake Glenmaggie



Figure 8-9 Risk for unsewered properties in the Macalister River Declared Water Supply Catchment around Lake Glenmaggie

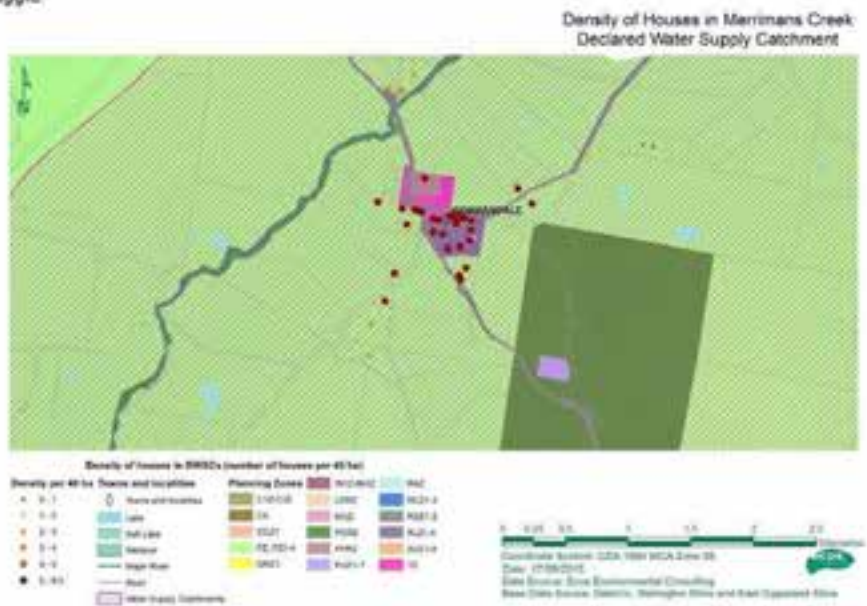


Figure 8-10 Density of unsewered houses (excluding T2) in the Merrimans Creek Declared Water Supply Catchment at Gomandale.



Figure 8-11. Risk for unsewered properties in the Merrimans Creek Declared Water Supply Catchment at Gormandale.

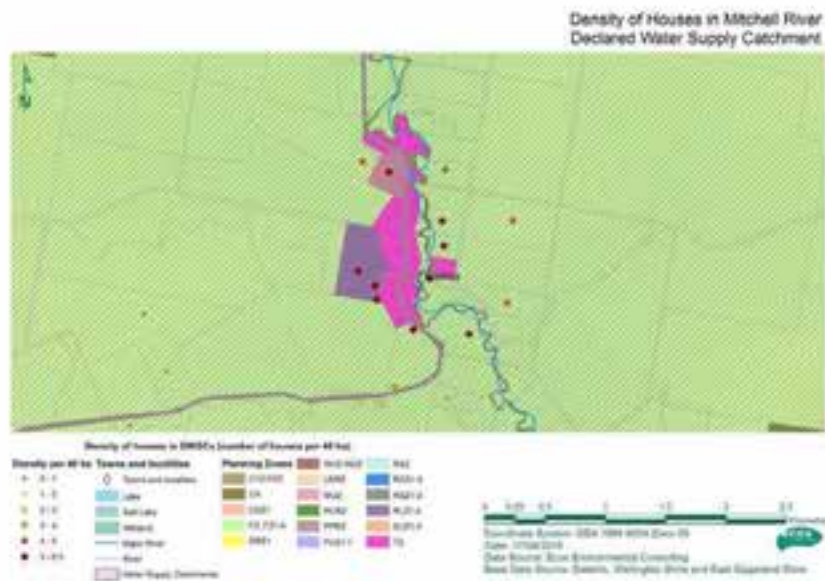


Figure 8-12. Density of unsewered houses (excluding T2) in the Mitchell River Declared Water Supply Catchment at Dargo.





Figure 8-13: Risk for unsewered properties in the Mitchell River Declared Water Supply Catchment at Dargo  
Density of Houses in Lake Hume Declared Water Supply Catchment

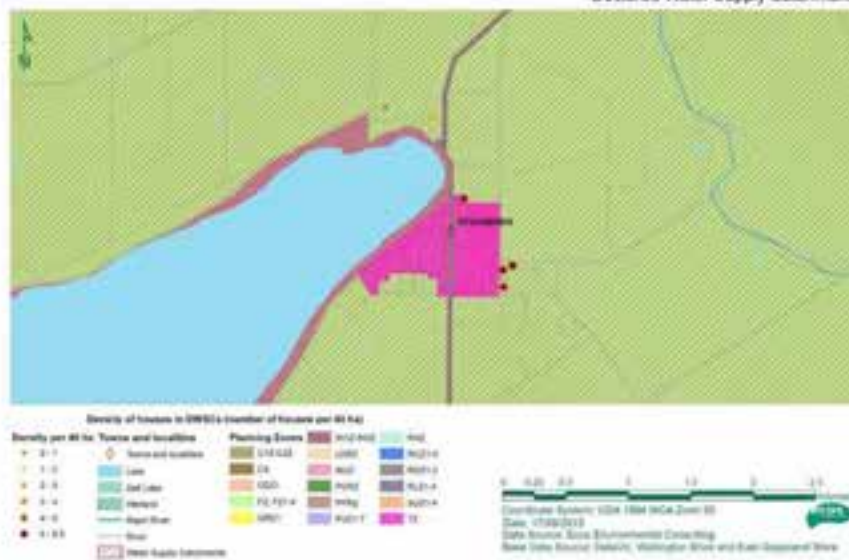


Figure 8-14: Density of unsewered houses (excluding TZ) in the Lake Hume Declared Water Supply Catchment at Benambra.



Figure 8-15. Risk for unsewered properties in the Lake Hume Declared Water Supply Catchment at Benambra.

#### 8.4. Summary - high, medium and low priority areas

The risk mapping exercise described in the previous sections can be used to set broad priorities for the protection of catchment water quality including declared water supply catchments. The Ministerial Guidelines were designed to assist in the protection of open, potable water supply catchment areas and set out the requirements for DWMPs. Thus high risk houses in the declared water supply catchments should be rated as having the highest priority for compliance monitoring and require the highest degree of oversight. High risk houses outside of the declared water supply catchments should be rated a medium priority along with medium risk houses inside the water supply catchments. All other properties can be considered low priority unless site specific matters not addressed in the risk assessments dictate that they should be treated as a higher priority.

Table 8-14. Priorities for compliance monitoring

Priority for compliance monitoring	Description
High	<ul style="list-style-type: none"> <li>High risk houses in the declared water supply catchments</li> <li>Properties less than 1km upstream from a drinking water supply reservoir</li> </ul>
Medium	<ul style="list-style-type: none"> <li>High risk houses outside of declared water supply catchments</li> <li>Medium risk houses inside of declared water supply catchments</li> </ul>
Low	<ul style="list-style-type: none"> <li>All other properties (unless site specific matters not addressed in the risk assessments dictate that they should be treated as a higher priority)</li> </ul>

#### 8.5. Wellington Shire Growth Areas

##### 8.5.1. Longford

Longford is highly valued by its community for the rural residential lifestyle it offers, within close proximity to the services and facilities of Sale. The settlement has been identified in the Sale Wurruk and Longford Structure Plan (Wellington Shire Council 2010) as its main growth area for rural lifestyle living. Sale Common, part of the Gippsland Lakes Ramsar listed wetlands, is located directly north of Longford. The



Longford Development Plan (Wellington Shire Council 2015) sets out the framework for approximately 500 to 700 rural living lots with an average lot size of 8,000 m<sup>2</sup> (Table 8-15).

The Development Plan was adopted by Council in 2015. Prior to development further detailed background work will be required to be completed on the 11 precincts described in the plan.

Longford has two areas where intensification of residential densities might be optional subject to the appropriate sewerage provisions. The first area is the golf course, 300 lots can be developed on this site subject to appropriate sewerage. The town core, roughly between the Longford Hall and the Primary School has also been identified as having the potential for a more intensified residential use subject to reticulated sewerage provisions over the longer term.

#### 8.5.1.1. Estimating increase in risk from future development

The current average risk per dwelling, calculated using the OWMS risk scores, was used to estimate the likely risk per future dwelling (Table 8-15). With increased density if rezoning occurs, the total risk for the town will greatly increase due to the extra dwellings. The predicted future total risk in the absence of reticulated sewerage or other risk management measures is 1,689 which would place it ahead of Golden Beach within Wellington Shire in terms of onsite wastewater system risk.

Note that although the flow distance to the nearest waterway is a key risk factor, it does not take into account the fact that the nearby wetland, Sale Common, is a high conservation value wetland of international significance (listed under the International Ramsar Convention). This fact should also be considered when planning for future wastewater management at Longford.

Table 8-15. Estimated future development for Longford and associated risk estimates if unsewered.

Zone	Current number of properties with onsite systems have per risk category or onsite system per risk category	Current number of properties that could potentially	Proposed Redevelopment Change	Current Risk	Likely Risk - FZ rezoned to RLZS, TZ unsewered	Likely Risk - FZ rezoned to RLZS, TZ & CDZS sewerred
TZ	Mod - 25 High - 24 Very High - 9	Mod - 2 High - 4 Very High - 1	Sewer and upgrade to GR1Z	Current town risk = 849		Likely town risk if all proposed development occurs and TZ is sewerred within CDZS = 1,893
CD1Z		0	Sale Golf Course Plan is for 300 sewerred dwellings	Current town risk = 1,068 (above plus FZ area marked for rezoning to RLZS)	Likely town risk if FZ is rezoned to RLZS and TZ remains unsewerred = 2,187	
RLZ1	Mod - 234 High - 2 Very High - 1	Mod - 33 High - 2 Very High - 4				if half of RLZ also sewerred in addition to TZ and CD1Z = 980
FZ is area marked for rezoning to RLZS	Mod - 81 High - 1	Low - 2 Mod - 15 Very High - 18	Rezone FZ to RLZS, taking property count to approx. 600			if all of RLZ also sewerred in addition to TZ and CD1Z = 0





Figure 8-16: Property risks for unsewered properties in Longford, assuming FZ rezoned to RLZ5 and TZ not sewered. Dots show approximate locations of currently unsewered dwellings. Please note that the proposed properties and subdivisions identified in this map as a part of the Longford Development Plan have not been approved. They are potential opportunities only. Contact with Council should be made to gain the most up to date information on specific properties.

### 8.5.2. The Rural Living Areas

Wellington Shire has 58 areas with a Rural Living Zone applied. Within the 58 areas there are 1780 parcels. The Rural Living Zones have minimum subdivisions sizes identified ranging from 0.6 Ha to 4 Ha. The minimum lot size for a house to be built on a lot is 0.4 Ha.

Most Rural Living Zone areas are in close proximity of a township. Significant rural lifestyle areas can be found in Longford, Briagolong, Stratford, Maffra, Rosedale and north of Heyfield (including Seaton and around Lake Glenmaggie).



Not all Rural Living areas are fully developed. Of those, land within Rosedale and Heyfield has recently been rezoned for rural living purposes in response to anticipated pressure for growth.

### **8.5.3. Coastal towns**

All coastal settlements in the Wellington Shire are subject to a Settlement Boundary Plan, which is reflected in the local policy within the Planning Scheme and the zones applied. Outside the settlement boundary development is restricted due to the vulnerability of the coastal area and environmental constraints. The township's main function is for tourism and to provide for holiday houses. There will be limited growth in these settlements - all within the existing town boundaries (although in Golden Beach around 50% of the blocks are vacant).

### **8.5.4. Growth area risk assessment**

Based on the approach used for Longford in Section 8.5.1.1, the risk assessment scores were estimated for potential future dwellings for all Wellington Shire unsewered localities. The change in total risk was then calculated and is presented for each township in Table 8-16, and displayed graphically for the 25 top ranked townships (ranked by amount of change in risk) in Figure 8-17.

For Wellington Shire the growth in future onsite wastewater risk is dominated by Golden Beach and followed by Longford due to the reasons described in Section 8.5.1. The figure was constructed assuming full development consistent with existing growth plans. Under this scenario, Longford accounts for around 11% of the future risk growth for the Shire.





Table 8-16. Estimated change in risk from onsite wastewater management systems due to potential future development for Wellington Shire townships. Towns show in grey font are seweraged to various degrees. OWMS = Onsite Wastewater Management Systems.

Township	Sewer		Potential Risk *	Current # OWMS	Potential # OWMS	Potential new # OWMS -	Total Risk Change
	Current Risk	Potential Risk					
Albion (sewered)	16	16	482	4	100	96	466
Bairdlea	157	157	168	28	30	2	11
Briaralong	1368	1368	1408	414	459	45	130
Carrington	113	113	124	28	31	3	11
Chapelton (sewered)	164	198	259	34	42	8	64
Cowwar	387	397	437	81	92	11	40
Dargo	283	283	376	45	61	16	93
Devon North	122	122	135	47	52	5	13
Glengarry	28	28	34	10	11	1	8
Glennoglee (sewered)	437	553	695	98	117	21	142
Gormandale	101	101	101	39	39		
Harford (sewered)	225	231	462	90	168	78	231
Hollands Landing	70	70	120	16	28	12	50
Glenny	35	35	40	12	14	2	5
Langborough	230	230	249	41	45	4	19
Licola	74	74	74	16	16	0	0
Luck Spot (sewered)							
* Longford (no development)	849	849	1003	295	341	46	153
* Longford (including area of FZ to be resumed in proposed development with rezoned FZ > RL25)	1068	1068	1893	377	979	602	825
Magill (sewered)	219	219	271	88	107	19	52
Mares Beach	442	442	450	79	81	2	8
McLoughlins Beach	963	963	1002	172	179	7	39
Moornapa			5		2	2	5
Munro	88	88	90	28	29	1	2
Myrtlebank	28	28	33	11	12	1	5
Newry	221	221	229	47	49	2	8
Ninety Mile Beach: Golden Beach *	2276	2276	4359	493	931	438	2082
Ninety Mile Beach: Paradise Beach *	1281	1281	1963	286	429	143	682
Ninety Mile Beach: The Minnesockles	1495	1495	1551	268	278	10	56
Pearsondale	18	18	18	7	7		
Port Albert (sewered)	6	0	0	1	1		
Robertsons Beach	364	364	370	65	66	1	6
Rocheville (sewered)	267	267	322	75	87	12	55
Sella (sewered)	128	128	166	39	48	9	38
Seagravy (sewered)	54	54	88	22	33	11	34
Seaton	108	108	224	39	80	41	117
Sheffield (sewered)	470	463	529	183	210	27	65
Terraville	95	95	101	17	18	1	6
Tramba	139	139	162	26	30	4	22
Won Won	75	75	82	25	27	2	7
Woodside	182	182	199	69	76	7	17
Woodside Beach	441	441	463	109	114	5	22
Worral (sewered)	494	488	600	181	215	34	112
Wyron (sewered)	80	77	84	28	31	3	7

\* Longford has been listed here twice – once without proposed redevelopment, and one with full redevelopment (Longford Redevelopment).

\* For Golden Beach and Paradise Beach, in some cases a dwelling can be built on 1 lot, in other cases; 4 lots should be in the same ownership before land can be developed (WSC Ninety Mile Plan 2015). Therefore, the vacant lots have been calculated on the assumption that an average of half could have a new OWMS.

\*The number of potential new OWMS has assumed that none are installed where the land has been identified as being within a sewerage area

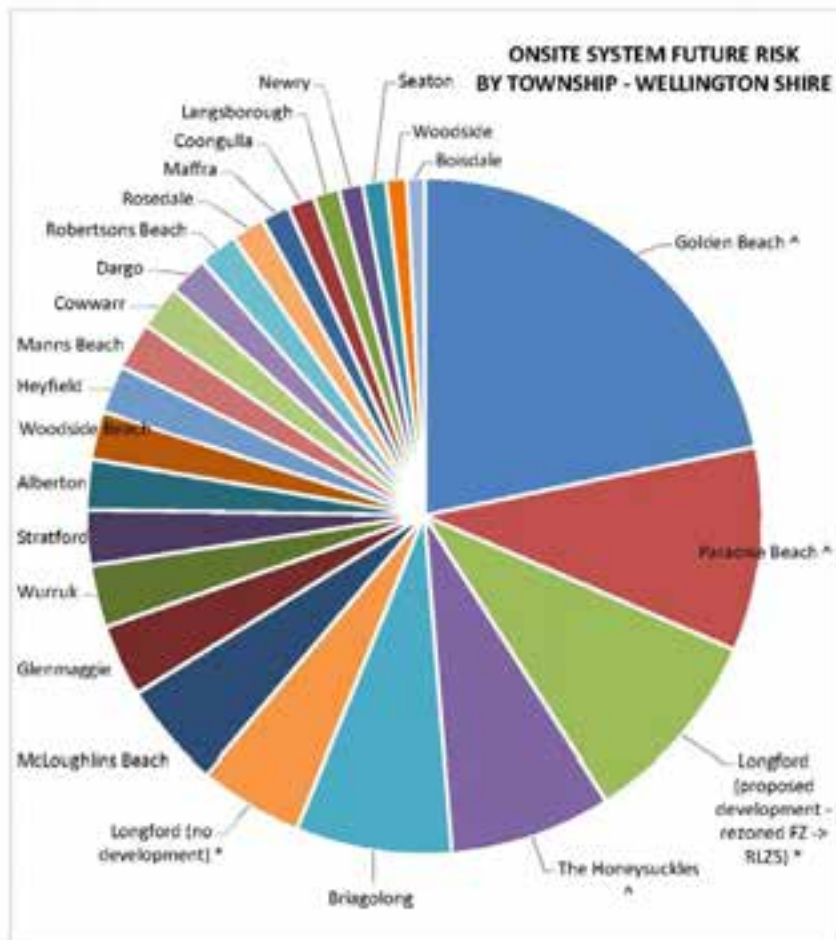


Figure 8-17. Potential future risk from onsite wastewater management system development by township – Wellington Shire. The top 25 localities are shown. \* Longford is shown in the graph twice, once for if no development occurs and once for full proposed development. ^ Towns on the Ninety Mile Beach.



## 8.6. East Gippsland Shire Growth Areas

Using the method described in sections 8.5.1.1 and 8.5.4, a growth area risk assessment was conducted for East Gippsland Shire. The calculated change in total risk is presented for each township in Table 8-17, and displayed graphically for the 25 top ranked townships (ranked by amount of change in risk) in Figure 8-18.

The data in Table 8-17 was constructed assuming:

- that GRZ is sewered;
- that TZ where no onsite wastewater management systems locations were provided are also sewered; and
- that all LDRZ and RLZ are unsewered, with the exception of the LDRZ to the west of Metung which is known to be sewered.

For East Gippsland Shire the growth in future onsite wastewater risk is to the north of Bairnsdale at Wy Yung, with a spread of similar risk across a number of towns (Figure 8-18).

Table 8-17. Estimated change in risk from onsite wastewater management systems due to potential future development for East Gippsland Shire townships. Towns shown in grey font are sewered to various degrees. OWMS = Onsite Wastewater Management Systems.

Township	Current Risk	Sewer Infill Risk	Potential Risk **	Current # OWMS	Potential # OWMS	Potential new # OWMS *	Total Risk Change
<b>Bairnsdale Area</b>							
Bairnsdale (sewered)	29	22	902	11	238	227	880
East Bairnsdale (sewered)	65	65	113	15	34	19	48
Clarewood	155	135	185	53	70	17	50
Granite Rock	137	137	162	55	65	10	25
Lucknow (sewered)	404	404	567	149	209	60	163
Mount Taylor	128	128	179	42	64	22	56
Wy Yung (sewered)	467	467	1106	156	954	198	639
<b>Other East Gippsland townships</b>							
Brown River (sewered)	0	0	480	0	102	102	480
Berambra	189	189	410	49	104	55	221
Bendoc	120	120	180	33	52	19	67
Boole Poole	44	44	58	33	40	13	14
Brotherton (sewered)	414	414	764	124	209	85	350
Burchar	515	515	661	99	133	34	146
Bulbinwood	28	28	94	7	22	15	65
Bumberrah	76	76	95	28	34	6	19
Cabbage Tree Creek	41	41	53	9	11	2	12
Cook River (sewered)	0	0	12	0	4	4	12
Club Terrace	62	62	269	15	52	37	201
Cobungra	79	79	113	22	32	10	34
Coigo Point (sewered)	230	224	482	84	176	92	258
Dray	111	111	141	22	30	8	30
Fernbank	40	40	78	13	24	11	38
Genoa	35	35	54	6	10	4	19
Gipps Point	110	110	194	34	41	7	28
Hillside	12	12	24	5	10	5	12
Johnstonville (sewered)	2	2	72	1	20	19	70
Kilmore (sewered)	124	54	80	39	47	8	26
Kalbarra West	6	6	6	2	2	0	0
Lake Buronga (sewered)	93	65	69	32	33	1	4
Lake Tyers Beach (sewered)	100	95	108	39	43	4	13



Township	Current Risk	Sewer Infill Risk	Potential Risk ~	Current # OWS	Potential # OWS	Potential new # OWS ~	Total Risk Change
Jalpa Entrance (sewered)	349	301	450	121	176	55	149
Lindemore (sewered)	87	87	119	31	43	12	33
Lindemore South	246	246	350	75	109	34	104
Melba (sewered)	0	0	417	0	141	141	417
Merle (sewered)	32	32	314	13	128	115	282
Milong (sewered)	542	542	1401	136	362	226	858
Newlands Arm (sewered)	230	230	368	75	118	43	198
Newmerville	229	229	276	72	88	16	47
Nicholson (sewered)	678	678	770	290	324	34	91
Nova Nova	343	343	500	86	127	41	157
Nungamer	474	474	599	101	132	31	125
Orma (sewered)	14	14	225	3	64	61	211
Orford (sewered)	28	28	188	8	59	51	160
Prepressville (sewered)	0	0	527	0	77	77	527
Reynold Island (sewered)	221	174	253	66	96	30	80
Sandyfield	485	485	635	169	220	51	149
Savin Beach (sewered)	401	401	1329	128	343	215	928
Swells Creek	258	258	288	76	85	9	30
Tambo Upper	109	109	128	48	56	8	19
Toorloo Arm	360	360	510	124	178	54	150
Welpe	96	96	118	26	33	7	22
Woolleigh	229	229	273	66	80	14	44

~The number of potential new OWS has been determined assuming that none are installed where the land has been identified as within a sewered area.



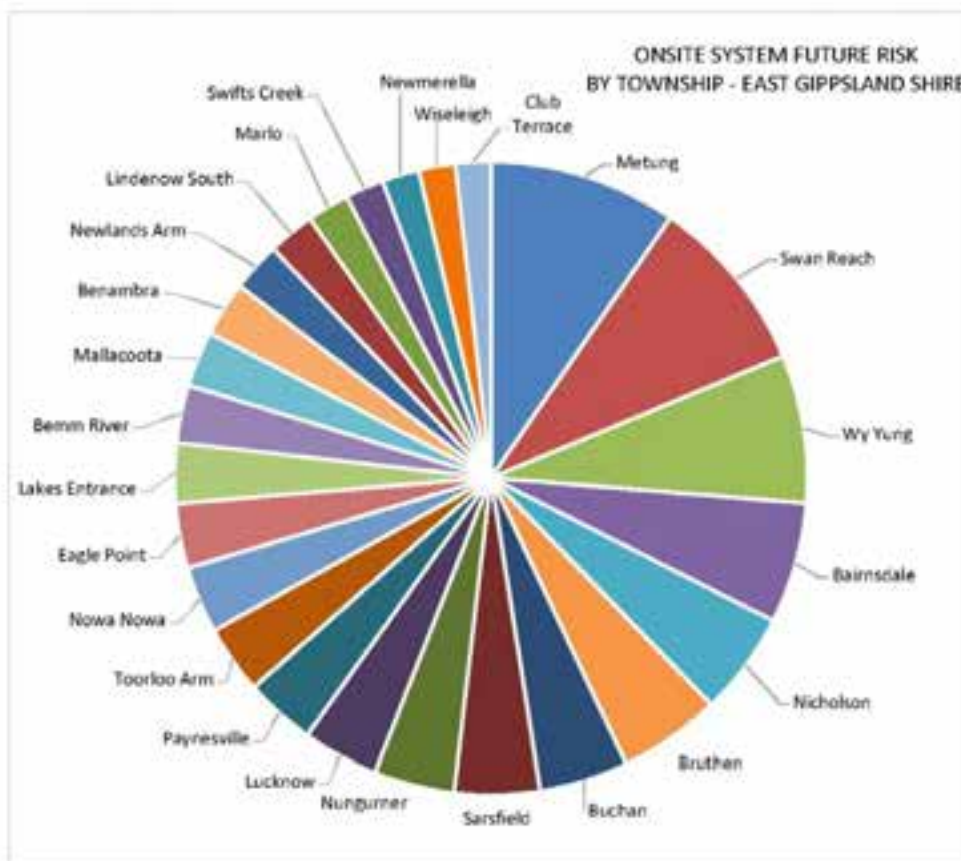


Figure 8-18. Potential future risk from onsite wastewater management system development by township – East Gippsland Shire. The top 25 localities are shown.

### 8.7. Reporting and periodic review

Key requirements of this DWMP are listed in the Ministerial Guidelines (see also Appendix 1). The Ministerial Guidelines specify that onsite wastewater treatment systems be effectively monitored for their condition and management and that the results of monitoring be provided to stakeholders as agreed by the relevant stakeholders. Stakeholders for this DWMP are listed in Section 6.

It is a recommendation of this DWMP that an annual report be sent to stakeholders describing:

- the results of onsite wastewater management system compliance monitoring;
- enforcement action where non-compliance is identified; and
- annual meetings may be held with stakeholders on an as needs basis.

Monitoring of onsite wastewater treatment systems for their condition and management should include compliance by permit holders with relevant permit conditions and the EPA Code of Practice – Onsite Wastewater Management (EPA Victoria 2013).

Implementation of the DWMP is to be subject to an independent audit by an accredited auditor (water corporation approved), including of monitoring and enforcement, every 3 years. The results of audit should be provided to stakeholders as soon as possible after the relevant assessment.

According to the Ministerial Guidelines, Councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place. It is understood that





resourcing is unlikely to be available for assessments of all onsite wastewater treatment systems, however the risk assessment conducted for this DWMP has identified a short-list of systems that are a high priority for assessment. These systems should form the focus of compliance monitoring in the first instance.

The DWMP is to be reviewed and updated (if necessary) every 5 years, therefore the next review should be 2021. Steps involved in the review include:

- Convening of a project management team;
- Gathering necessary information, including onsite wastewater management system data for each town. Refer to Action Plans for relevant monitoring indicators;
- Revision of risk assessments for each town/area and create a new list of priorities for improved domestic wastewater management;
- Revision of action plans for the next five years of implementation; Seeking Council approval and adoption of plan in each Shire.

## 9 Risk management

### 9.1. Actions Plans

The 2006 DWMP included an ambitious list of actions which was based on a comprehensive review and stakeholder consultation process. Although many of the major items listed were successfully closed off during the operational lifetime of the plan, there remained a number that could not be completed and have been carried over to the 2016 plan.

Furthermore, based on a review of actions conducted for the current plan, some actions have been identified as no longer being relevant or a priority due to changing circumstances and improved risk analysis information, and some new action items have been identified. Action items for the next five years are listed in this chapter. A list of closed-off action items from the 2006 DWMP is contained in **Appendix 4**.

#### 9.1.1. Summary of Strategic Objectives

Each action plan is based on one or more strategic objectives. These are summarised in Table 9-1 and Table 9-2.

Table 9-1. Municipality Wide Strategic Objectives from the 2006 DWMP (all continued on 2016 plan)

No.	Description	Continued for 2016 DWMP
1.	<p>The WSC and EDCS commit to entering into a Memorandum of Understanding (MoU) with the relevant water corporations that will clearly articulate the following:</p> <ol style="list-style-type: none"> <li>1. The level of resources to be allocated to the plan implementation. The allocation of resources to support approval, compliance and maintenance auditing will take into consideration: <ul style="list-style-type: none"> <li>- the level of support relevant water corporations can provide -</li> <li>- the risk profile of the property</li> </ul> </li> <li>2. The associated process that support outcome (1)</li> <li>3. Communication strategies between Councils and water corporations to brief on plan implementation and completed actions Process.</li> </ol> <p>The intention is to have the MoU completed and signed off by 20 December 2016. Once the MoU is finalised, all parties recognise this process has the potential to relax the Ministerial Catchment Guideline – Planning permit applications in open, potable water supply catchment areas (DCEP 2012).</p>	<p>New Item for 2016 DWMP Plan</p>



No.	Description	Continued for 2016 DWMP
2.	To increase the resources available for management of domestic wastewater to ensure actions identified in this plan can be implemented.	✓
3.	To improve regulation and enforcement mechanisms for outdated and non-compliant systems.	✓
4.	To improve the database of septic tank permit information to underpin implementation of a compliance program and future education programs.	✓
5.	Development of a community education program for seweraged properties to improve understanding of how on-site effluent systems work, how to achieve best practice management, and how to reduce the risks to public health and the environment from poorly managed systems. High-risk areas are to be targeted by the program initially. These include all priority towns and seweraged subdivisions of <1ha.	✓
6.	To ensure that when new septic tank permits are issued and when properties change hands, owners are informed that a septic tank permit applies to the property and understand the conditions of that permit.	✓
7.	To ensure town planning policy adequately considers wastewater management issues with respect to minimum allotment size and the implications of establishing reticulated sewer on development density.	✓
8.	To clarify circumstances in which Land Capability Assessments (LCAs) need to be undertaken and to improve the quality of LCAs received.	✓
9.	To monitor the performance of high risk septic tank systems (e.g. AWTs) to ensure compliance with permit conditions.	✓
10.	To investigate the approach to compliance for other septic tank systems.	✓
11.	To ensure there is a high level of understanding amongst Council staff of the importance of domestic wastewater management and how it can impact on other Council functions, such as planning and stormwater management.	✓
12.	To maintain and develop working relationships with relevant external stakeholders.	✓
13.	To ensure ongoing development of Environmental Health staff skills and expertise, and efficient induction and training of new staff.	✓

Table 9-2: Individual Towns Strategic Objectives from the 2006 DWMP. Objectives carried through onto 2016 plan are shown with a tick. Revised and new objectives are noted.

No.	Description	Continued for 2016 DWMP
1.	All high and medium priority towns - determine and set minimum lot size required for sustainable onsite management and determine approach to undeveloped lots that are smaller than this minimum.	✓
2.	All high and medium priority towns - undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.	✓
3.	All high and medium priority towns - develop a targeted monitoring and compliance program.	✓
4.	Dargo, Cowwarr, Swifts Creek, Beldran, Dooay, Nowa Nowa, Bendoc, Newmansella, Lindenow South - investigate improved stormwater management, building on existing actions in the Stormwater Management Plans, to reduce public health risk (e.g. covers over drains) and to reduce environmental impact (e.g. wetlands, reed beds). (Note: Altona removed from 2015 list due to being seweraged)	✓
5.	Metung East/Neargaster - work with council planning department to ensure Municipal Planning Scheme reflects development potential from a wastewater management perspective. ). (Note: Metung East has been partially seweraged since 2006)	✓
6.	West Wy Yung - work with East Gippsland Water to consider options for connecting to the nearby sewer system.	✓



No.	Description	Continued for 2016 DWMP
7.	Brigolong - investigate risk to groundwater in further detail and determine capacity for further unsewered development.	✓
8.	For the southern Ninety Mile Beach region (Golden/Paradise Beach, Woodside Beach, The Honeyuckles, and McLaughlins Beach) and for Manna Beach and Robertson Beach to the south west - determine approach to onsite management based on land capability.	✓ (revised for 2016 plan)
9.	Hollands Landing - determine sustainable approach to onsite management of domestic wastewater.	✓
10.	Sewer Infill - determine strategic approach to sewer Infill, e.g. restrict subdivision or ensure subdivided areas are sewered.	✓
11.	Wellington Shire - develop closer relationship with Gippsland Water and investigate options for expansion of sewer system in larger townships based on development plans and risk assessments contained within the DWMP.	✓ (revised for 2016 plan)
12.	Based on the risk assessment conducted for this DWMP, the onsite wastewater management systems in the following Declared Water Supply Catchment townships: Dargo, Gormandale, Urcola, Glenmaggie, Seaton, Benambra, Chib Terrace, and Omeo, should be subjected to a further risk assessment (including a site inspection). The results of the risk assessment should be used to guide an appropriate monitoring and inspection program to the satisfaction of the relevant water corporation stakeholders. The Gippsland water corporations may contribute resources to assist in the detailed risk assessment of properties in the declared special water supply catchment areas. Refer to Table 9.1 – Item 1 in relation to a commitment for a MoU.	New for 2016 plan
13.	In East Gippsland Shire, the distribution of risk from onsite wastewater systems is more evenly spread over a range of townships across the Shire and is mainly due to risk to groundwater. The top 10 townships (Nicholson, Sansfield, Wy Yang, Lockrow, Toorloo Arm, Bruthen, Lakes Entrance, Swan Reach, Buchan and Metung) account for just over 50% of the total Shire risk and should be the subject of a further risk assessment. The results of the risk assessment should be used to guide an appropriate monitoring and inspection program to the satisfaction of the regional environment agency stakeholders.	New for 2016 plan
14.	Underow South - undertake community consultation to determine whether area should be sewerred or reoped to restrict further subdivision (No longer a strategic objective, done)	X
15.	Alberion - work with South Gippsland Water to investigate potential for sewerred town to nearby Tarraville treatment plant (which services Tarram). (No longer a strategic objective, town now sewerred)	X
16.	Berren River - apply for external funding to assist in investigation of sustainable wastewater management approach. (No longer a strategic objective, town now sewerred)	X
17.	Bankola Peninsula - liaise with East Gippsland Water regarding current sewer investigation and, if sewerred is not implemented, determine approach to sustainable onsite disposal. (No longer a strategic objective, area now sewerred)	X
18.	Coongulla/Glenmaggie and Loch Sport - continue role as partner in investigation into innovative solutions to domestic wastewater management (No longer a strategic objective, towns now sewerred)	X
19.	Coastal towns - ensure domestic wastewater management issues are incorporated appropriately into Coastal Townships Urban Design Framework. (No longer a strategic objective, domestic wastewater management issues now incorporated into UDF)	X

### 9.1.2. Issues-based Action Plans

Issues-based action plans were developed in 2006 and reviewed and updated in 2016 and address the following areas:

- Capacity building;
- Information management and data collection;
- Community education;
- Strategic planning;
- Land capability assessments;
- Monitoring and compliance;
- Building better partnerships with internal and external stakeholders;



- Training for environmental health officers.

Priority area for implementation and related strategic objectives for each issue are detailed in Table 9-3.

Table 9-3. Issues-based action plans. Responsible person is the Environmental health manager/co-ordinator

Priority area for Issue Implementation		Strategic objectives
Capacity Building (CB)	All of municipality	To secure resources to ensure actions identified can be implemented. To improve regulation and enforcement mechanisms for outdated and non-compliant systems.
Information Management and Data Collection (IM)		
Update septic tank permit database	Identified high risk properties	Enhance existing database of septic tank permit information to underpin implementation of a compliance program and future education programs.
Establish Septic Tank Details at Change of Ownership	All of municipality	Ensure new property owners are informed of the existence of a septic tank and any recorded problems. Where a septic tank permit cannot be located establish the details of the septic system.
Community Education (CE)		
	High risk areas are to be targeted by the program initially. These include all priority towns and unimproved subdivisions in TE, LDRZ and RLZ	Raise awareness of septic tank management; Change the behaviour of some owners and achieve a higher level of compliance with permit conditions and best practice management;
Strategic Planning (SP)		
	All of municipality	To ensure land use planning policy adequately considers wastewater management issues with respect to minimum allotment size and the implications of establishing reticulated sewer on development density in the Planning Scheme.
Monitoring and Compliance (MC)		
Compliance	Initially priority towns/areas, expanding to whole of municipality dependent on experience in priority towns	To monitor the performance of high risk septic tank systems (e.g. AWTs) to ensure compliance with permit conditions. To investigate the approach to compliance for other septic tank systems.
Building Better Partnerships with Internal and External Stakeholders		
Internal stakeholder communication (IS)	Initially priority towns/areas, expanding to whole of municipality	To ensure there is a high level of understanding of the importance of domestic wastewater management and how it can impact on planning and stormwater management.
External stakeholder communication (ES)	Initially priority towns/areas, expanding to whole of municipality	To maintain and develop working relationships with relevant stakeholders.
Training for Environmental Health Officers (TR)		
	Within EH Department	To ensure ongoing development of environmental health staff skills and expertise, and efficient induction and training of new staff.



Table 9-4. 2016 DWMP Action plan for Wellington and East Gippsland Shire Councils

Action No.	Action steps	Team	Constraints and risks	Monitoring Indicators	Completion Date	Comments and action taken (since 2006 plan)
CS.3	Investigate external funding opportunities, e.g. Community Water Grants, Victorian Water Smart Fund.	DH, MAV, DCLWP	Funding availability.	Amount of funding obtained.	Ongoing	Berrim river, Cam river, Tambo Bluff, Mering East & Barkia Falls, Loch Sport, Coongulla, Alberton & Glenraggie sewerred (funding gained from CTWASS)
IM.2	Refine existing database to ensure sufficient information is included. Assess need for software enhancement.	DH	Resources required	Database updated.	2016	Ongoing
IM.3	Develop a list of unserved properties that do not have septic tank permit details included in the database.	DH, Rates Office	Security of information.	List available to be printed.	2018	Ongoing
IM.4	Compile existing hard copy files and determine value of transferring information to electronic database, if worthwhile determine process for undertaking transfer.	DH	Resources required. Condition of hard copy files.	No. of hard copy files found. Transfer process documented.	2017	Ongoing 1000+ file details added
IM.7	Develop an audit program for properties without septic tank permit details in the electronic database. (Could include seeking records from plumbers who install systems in the area.)	DH	Resources required.	Audit program documented.	2018	Not done, however both Shires are looking at this as a Long Term Program. Further investigation in high risk areas.
IM.11	Determine process for establishing the type and location of the system when there is no record of a septic tank permit.	DH	Resources required.	Process documented.	2018	Ongoing as part of 1. Planning referral process 2. Compliance process 3. Transfer of property process
IM.14	Add septic tank details to property database.	DH		No. of records added due to change of ownership.	2016	Ongoing
CC.4	Identify ownership details in priority areas.	DH, Rates office	Security of information	List available to be printed.	2017	In progress
CC.5	Distribute fact sheets to residents in priority areas. Where type of septic system is known, target fact sheets sent.	DH	Resources required.	No. queries from residents who received fact sheets.	2017	Required in high risk areas – will implement target areas
SP.1	Facilitate internal workshop between Environmental Health, Planning and Engineering departments of Council to increase understanding of domestic wastewater issues. (in conjunction with actions IS.1 and TR.1)	DH, Planning Dept., Engineering Dept.	Staff availability	No. of meeting/ workshops held.	2016	Ongoing
SP.7	Investigate and resolve the extent to which existing planning scheme provisions reflect the land use constraints associated with the inability to dispose of wastewater on-site.	Planning Dept., DH.	Restriction on development potential. Staff and resources required.	Land use constraints in relation to onsite waste water disposal identified.	Ongoing	Revised Item Standard setbacks in compliance with the EPA Code of Practice.
SP.8	Determine the need to develop a Special Water Catchment Policy or similar tool to have an agreed strategic approach between Council and all Water Corporations.	Planning Dept, DH, External Stakeholders	Restriction on development potential. Staff and resources required.	Agreement on the need for a Special Water Catchment Policy or similar tool.	Ongoing	Revised Item Strategic Planning matter in conjunction with Ministerial guidelines and GIS risk analysis.
SP.9	Review the case for expansion of sewer system for Longford in conjunction with Gippsland Water	Planning Dept., DH.	Restriction on development potential.	Agreement on extension of sewer network	Ongoing	New to 2016 DWMP





Action No.	Action steps	Team	Constraints and risks	Monitoring Indicators	Completion Date	Comments and action taken (since 2006 plan)
MC.1	For high risk systems develop system that requests landholders or their service agents to submit evidence of maintenance on a quarterly basis and sampling results annually.	DH	Landholder reaction to increased expectations. Availability of service agents	Percentage of properties with treatment plants that send maintenance report.	2016	Ongoing maintenance however sampling results not undertaken by either Shire.
MC.2	Establish a system on the information database to remind DH Dept when next submission due.	DH		System established.	2016	Ongoing development
MC.3	Prepare a standard letter to be sent to landholders if maintenance details are not submitted.	DH, MAV		Letter completed.	2016	Ongoing development
MC.4	Send letter to landholders if maintenance details are not submitted within one month of the due date.	DH	Resources required.	No. of reminder letters sent.	2016	Ongoing development
MC.5	Develop policy and procedures for dealing with non compliance.	DH	Legislative power to act on non-compliance. Resources required.	Policy and procedures documented. Process for implementation developed.	2016	Ongoing development
MC.6	Develop system for inspection of properties with high risk systems (e.g. AWTs).	DH	Resources required.	Inspection process documented.	2017	Quarterly reports received and necessary action taken (WSC East Gippsland do not undertake consistently however will be fully implemented during tenure of plan
MC.9	Investigate approach to improving compliance for other (non AWTs) septic tank systems.	DH	Resources required.	Investigation outcomes documented. Compliance program revised.	2017	Ongoing development
MC.10	Independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, including of monitoring and enforcement, every 3 years.	DH	Resources required.	Audit outcomes documented. Compliance program revised.	2019	Ongoing development
MC.11	Councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.	DH	Resources required.	Work plan for DH Department wastewater management activities developed. Evidence supplied to external stakeholders	Dec 2016	Annual review for the following 12 months
ES.1	Brief Council Teams regarding impact of DWMP outcomes on planning, stormwater and so on (potentially in conjunction with action TR.1)	DH, Planning, Infrastructure	Availability of staff.	No. meetings/workshops held.	2016	Ongoing
ES.3	Provide annual report to internal stakeholders (Council, Planning Dept, Infrastructure Dept, etc.) on progress of DWMP.	DH, internal stakeholders	Resources required.	Annual reports distributed.	Ongoing	Refer ES1
ES.3	Provide annual report to external stakeholders on DWMP progress.	DH, external stakeholders	Resources required.	Annual reports distributed to stakeholders.	Ongoing	Not done



Action No.	Action steps	Team	Constraints and risks	Monitoring Indicators	Completion Date	Comments and action taken (since 2006 plan)
ES.6	Involve external stakeholders in the review of the DWWMP. Undertake review in 2021.	DE, external stakeholders	Time taken for external stakeholders.	No. meetings/workshops held.	Ongoing	Revised action item. Previous review should have been completed in 2010 but was undertaken in 2015
ES.7	The results of the three-yearly audit to be provided to stakeholders as soon as possible after the relevant assessment.	DE, external stakeholders	Time taken for external stakeholders.	Audit completed and report forwarded to external stakeholders	2018	New action item
TR.5	Maintain awareness of MAV and industry seminars/workshops relevant to domestic wastewater management and attend sessions as training budget allows.	DE, MAV, industry groups	Training budget limits ability of staff to attend seminars.	No seminars/workshops attended by staff.	Ongoing	Ongoing

### 9.1.3. Action Plans for Priority Towns/Areas in East Gippsland Shire

Table 9-5. East Gippsland Shire Priority Towns/Areas and Strategic Objectives.

Priority area for implementation	Strategic objectives
Buxton, Swifts Creek, Nowa, Nowa, Dissy, Bendoc, Newmerella (River)	<ol style="list-style-type: none"> <li>Determine and set minimum lot size required for sustainable onsite management and determine approach to undeveloped lots that are smaller than this minimum.</li> <li>Undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.</li> <li>Develop a targeted monitoring and compliance program.</li> <li>Investigate improved stormwater management to reduce public health risk and environmental impact.</li> </ol>
Underwood South (Lind)	<ol style="list-style-type: none"> <li>Determine and set minimum lot size required for sustainable onsite management and determine approach to undeveloped lots that are smaller than this minimum.</li> <li>Undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.</li> <li>Develop a targeted monitoring and compliance program.</li> </ol>
Nungamer and Wetsing (Nun)	<ol style="list-style-type: none"> <li>Determine and set minimum lot size required for sustainable onsite management and determine approach to undeveloped lots that are smaller than this minimum.</li> <li>Work with council planning area to ensure Municipal Planning Scheme reflects development potential from a wastewater management perspective.</li> <li>Undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.</li> <li>Develop a targeted monitoring and compliance program.</li> </ol>
Gipsey Point (Gipsey)	<ol style="list-style-type: none"> <li>Undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.</li> <li>Develop a targeted monitoring and compliance program.</li> </ol>
West Wy Yung and other Sewerage Hill (Wy)	<ol style="list-style-type: none"> <li>Work with East Gippsland Water to consider options for connecting to the nearby sewer system.</li> <li>Undertake community education to achieve improved domestic wastewater management and to encourage installation of improved systems where required.</li> <li>Determine strategic approach to sewer inflow, e.g. restrict subdivision or ensure subdivided areas are sewerred.</li> </ol>

Table 9-6. East Gippsland Shire Action Plans for Priority Towns/Areas



Action No.	Action steps	Team	Constraints and Risks	Monitoring Indicators	Completion Date	Comments and action taken (since 2006 DWWMP)
River 3	Ensure new houses and upgraded systems implement full onsite disposal.	DH	Land capability.	No. of septic tank permits issued.	2016	Completed – ongoing
River 4	Investigate improved stormwater management to reduce public health risk, e.g. covers over drains.	DH, Stormwater	Resources required.	Investigation outcomes documented and action plan revised.	On Going	Not done
River 5	Investigate improved stormwater management to reduce environmental impact, e.g. wetland, reed bed.	DH, Stormwater, EGCSMA, EPA	Resources required.	Investigation outcomes documented and action plan revised.	On Going	Not done
River 6	Develop a monitoring and compliance program (linked to actions MC.1-9)	DH	Resources required.	Program implemented.	2018	Not done
Land 4	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5).	DH	Ability to identify landholders requiring information.	Fact sheets sent.	2018	Councils and CGA strategic policy to encourage development in Lindenow sewer district.
Land 5	Ensure new houses and upgraded systems implement full onsite disposal.	DH	Land capability.	No. of septic tank permits issued.	Completed	Completed
Land 6	Investigate improved stormwater management to reduce public health risk, e.g. covers over drains.	DH, Stormwater	Resources required.	Investigation outcomes documented and action plan revised.	On Going	Not done
Land 7	Investigate improved stormwater management to reduce environmental impact, e.g. wetland, reed bed.	DH, Stormwater, EGCSMA, EPA	Resources required.	Investigation outcomes documented and action plan revised.	On Going	Not done
Land 8	Develop a monitoring and compliance program (linked to actions MC.1-9).	DH	Resources required.	Program implemented.	2018	Not done
Nun 3	Undertake community education to ensure improved management of septic systems (part of actions CE.4 & CE.5).	DH	Ability to identify landholders requiring information.	Fact sheets distributed	2017	See CE 4 and 5
Nun 4	Develop a monitoring and compliance program (linked to actions MC.1-9).	DH	Resources required.	Program implemented.	2017	See MC 1-9
Gipps 1	Community education to achieve improved management if sewerage not implemented (part of actions CE.4 & CE.5).	DH	Ability to identify landholders requiring information.	Fact sheets distributed	2017	Not done
Gipps 2	Develop compliance and monitoring program if sewerage not implemented. (linked to actions MC.1-9)	DH	Resources required.	Program implemented.	2017	Not done
Wy 4	Where sewerage will not occur undertake community education to ensure improved management of septic systems (part of actions CE.4 & CE.5).	DH	Ability to identify landholders requiring information.	Fact sheets distributed	On Going	Not done
Wy 5	Develop a monitoring and compliance program for seweraged areas (linked to actions MC.1-9)	DH	Resources required.	Program implemented.	2017	See MC 1-9





## **9.2. Comment on planning action items**

### **9.2.1. Stormwater management in unsewered townships**

It is acknowledged that implementation of wetlands or reed beds would require ongoing management and maintenance to ensure their effectiveness. Where this approach is taken a supporting monitoring and evaluation program would be developed.

### **9.2.2. Monitoring and Compliance**

On construction of a new home or renovation of an existing home that incorporates a septic tank system, a septic tank permit is issued that details:

- The type of system and the conditions relating to installation and maintenance of the system;
- The approved installation plan incorporating positioning of the proposed effluent disposal area.

A compliance program seeks to ensure that property owners are complying with the conditions of the septic tank permit. This can be achieved by:

- AWTS monitoring certificates of maintenance and sampling requirements submitted regularly by property owners to councils;
- Conducting a rolling program of regular site inspections in high risk areas and for high risk systems.

Note that the maintenance and monitoring required is dependent on the type of septic system in place. Regular compliance monitoring is particularly relevant to Aerated Wastewater Treatment Systems (AWTSs).

Compliance is a legislative responsibility for Local Government. Appropriate enforcement activity will be undertaken on the systems that are brought to the attention of Shire Council.

### **9.2.3. Community education program for unsewered properties**

Further to the community education action items listed in Table 9-3 and Table 9-6 it is recommended that a community education program be developed for unsewered properties with the following aims:

- to improve understanding of how onsite wastewater management systems work,
- provide guidance on how to achieve best practice management; and
- provide guidance on how to reduce the risks to public health and the environment from poorly managed systems.

Areas will be addressed in order of priority.

### **9.2.4. Consideration of planning instruments**

The use of planning instruments to control the risk of effluent moving offsite from domestic wastewater systems is a complex area and could involve a number of potential measures (e.g. development of new ESOs, use of S173 agreements, etc.). Council planning departments have extensive experience in this area and it is recommended that the Council Environmental Health Departments work with their Planning Departments to develop appropriate approaches for each municipality.

### **9.2.5. Changes to legislation for a levy to support compliance monitoring**

An ongoing issue for Councils in Victoria is that they do not have a revenue source to cover the cost of ongoing compliance monitoring. This is a statewide issue and requires legislative changes to allow councils to levy charges for compliance monitoring. Wellington Shire and East Gippsland Shire Councils will continue to explore opportunities to progress this issue at the state level.



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## Appendix 1 - Statutory Framework

### 10.1. Relevant legislation specifying DWMP statutory requirements

As stated in Section 3, the requirement for local Governments in Victoria to develop a DWMP is described in Clause 32 of the State Environment Protection Policy (Waters of Victoria) (SEPP WbV) which is an instrument under the *Environment Protection Act 1970*. Further specifications for DWMPs are set out in the Ministerial Catchment Guidelines, "Planning permit applications in open, potable water supply catchment areas" (DEPI 2012). The Ministerial Guidelines aim to assist water corporations and other referral and responsible authorities in their assessment of planning permit applications for use and development of land within all open, potable water supply catchments in Victoria.

'Open' water supply catchments are where part or all of the catchment area is in private ownership and access to the catchment is unrestricted<sup>2</sup>.

The following sections summarise the key sections of the Ministerial Guidelines as well as the relevant components of other legislation that are relevant to this DWMP including the State Planning Policy Framework of the *Planning and Environment Act 1987*.

#### 10.1.1. Ministerial Guidelines (2012)

Each of the following guidelines must be addressed where a planning permit is required to use land for a dwelling or to subdivide land.

##### 10.1.1.1. Guideline 1: Density of dwellings

Where a planning permit is required to use land for a dwelling or to subdivide land or where a planning permit to develop land is required pursuant to a schedule to the Environmental Significance Overlay that has catchment or water quality protection as an objective:

- the density of dwellings should be no greater than one dwelling per 40 hectares (1:40 ha); and
- each lot created in the subdivision should be at least 40 hectares in area.

This does not apply where:

**Category 1:** A planning permit is not required to use land for a dwelling, to subdivide land or to develop the land.

**Category 2:** A permit is required but the proposed development will be connected to reticulated sewerage.

**Category 3:** A Catchment Policy has been prepared for the catchment and endorsed by the relevant water corporation following consultation with relevant local governments, government agencies and affected persons. The proposed development must be consistent with the Catchment Policy. Or,

**Category 4:** All of the conditions listed below are met, in which case the water corporation will consider allowing a higher density of development than would otherwise be permitted by Guideline 1:

- the minimum lot size area specified in the zone for subdivision is met in respect of each lot;
- the water corporation is satisfied that the relevant Council has prepared, adopted and is implementing a Domestic Wastewater Management Plan (DWMP) in accordance with the DWMP Requirements (described in Table 10-1) and
- the proposal does not present an unacceptable risk to the catchment having regard to:
  - the proximity and connectivity of the proposal site to a waterway or a potable water supply source (including reservoir);

<sup>2</sup> By comparison, in 'closed' catchments, the whole of the catchment area is publicly owned and public access is prohibited.



- the existing condition of the catchment and evidence of unacceptable water quality impacts;
- the quality of the soil; the slope of the land;
- the link between the proposal and the use of the land for a productive agricultural purpose;
- the existing lot and dwelling pattern in the vicinity of site; any site remediation and/or improvement works that form part of the application; and
- the intensity or size of the development or use proposed and the amount of run-off that is likely to be generated.

Note: this requires analysis in addition to a land capability assessment required pursuant to Guideline 2.

*Domestic Wastewater Management Plan Requirements*

A DWMP will be considered an acceptable basis for a relaxation of Guideline 1 (as set out above) where the requirements in relation to the DWMP (described in Table 10-1) are satisfied.

**Table 10-1. Domestic Wastewater Management Plan Requirements**

Attribute	Requirements
<b>Consultation</b>	The DWMP must be prepared or reviewed in consultation with all relevant stakeholders including: <ul style="list-style-type: none"> <li>• other local governments with which catchment/s are shared;</li> <li>• EPA; and</li> <li>• local water corporation/s.</li> </ul>
<b>Protection of surface and groundwaters</b>	The DWMP must comprise a strategy, including timelines and priorities, to: <ul style="list-style-type: none"> <li>• prevent discharge of wastewater beyond property boundaries; and</li> <li>• prevent individual and cumulative impacts on groundwater and surface water beneficial uses.</li> </ul>
<b>Monitoring, compliance and enforcement</b>	The DWMP must provide for: <ul style="list-style-type: none"> <li>• the effective monitoring of the condition and management of onsite treatment systems, including but not limited to compliance by permit holders with permit conditions and the Code;</li> <li>• the results of monitoring being provided to stakeholders as agreed by the relevant stakeholders;</li> <li>• enforcement action where non-compliance is identified;</li> <li>• a process of review and updating (if necessary) of the DWMP every 5 years;</li> <li>• independent audit by an accredited auditor (water corporation approved) of implementation of the DWMP, excluding of monitoring and enforcement, every 3 years;</li> <li>• the results of audit being provided to stakeholders as soon as possible after the relevant assessment; and</li> <li>• Councils are required to demonstrate that suitable resourcing for implementation, including monitoring, enforcement, review and audit, is in place.</li> </ul>

These requirements incorporate and build upon (but do not displace) Council responsibilities for developing DWMPs as set out in clause 32(2)(e) of the SEPP.





#### 10.1.1.2. Guideline 2: Effluent disposal and septic tank system maintenance

Any application for a planning permit must demonstrate that a proposed use, development or subdivision of land to which these Guidelines apply will comply with all applicable laws and guidelines (described in sections 10.1.2 to 10.1.8 of this document), including the need to obtain a Council permit under the *Environment Protection Act 1970* for the installation of an onsite wastewater management system and associated systems.

#### 10.1.1.3. Guideline 3: Vegetated corridors and buffer zones along waterways

Planning and responsible authorities should encourage the retention of natural drainage corridors with vegetated buffer zones at least 30 metres wide along waterways. This will maintain the natural drainage function, minimise erosion of stream banks and verges and reduce polluted surface run-off from adjacent land uses.

#### 10.1.1.4. Guideline 4: Buildings and works

Buildings and works (including such things as land forming and levee bank construction) should not be permitted to be located on effluent disposal areas, to retain full soil absorption and evaporation capabilities, and should be setback at least 30 metres from waterways to minimise erosion and sediment, nutrient and salinity-related impacts.

Appropriate measures should be used to restrict sediment discharges from construction sites in accordance with *Construction Techniques for Sediment Pollution Control*, *Environment Protection Authority* (EPA Victoria 1991) and *Environmental Guidelines for Major Construction Sites*, *Environment Protection Authority* (EPA Victoria 1996).

#### 10.1.1.5. Guideline 5: Agricultural activities

To prevent the pollution of waterways and damage to streamside vegetation (which contributes to bed and bank stability and filters overland flows entering the stream), stock access to waterways should be minimised.

### 10.1.2. Environment Protection Act 1970

Section 53M of the *Environment Protection Act 1970* provides that a municipal council must refuse a permit if a proposed onsite waste water/septic tank system is contrary to any State environment protection policy (SEPP) or waste management policy.

The State Environment Protection Policy (Waters of Victoria) (SEPP WoV) adopts the precautionary principle as a principle that should guide decisions about the protection and management of Victoria's surface waters when considering a permit for a septic tank system. The proper application of the principle requires consideration of the cumulative risk of the adverse impact of onsite waste water/ septic tank systems on water quality, in open potable water supply catchments, resulting from increased dwelling density.

Clause 32 of the SEPP WoV specifies EPA's expectations in relation to on-site domestic wastewater management (see Section 10.1.3 below), and the EPA provides further guidance in relation to onsite treatment systems, e.g. the *Code of Practice for Onsite Waste Water Management* (EPA Victoria 2013) (Section 3.1.1).



### 10.1.3. State Environment Protection Policy Waters of Victoria (SEPP WoV)

The DWMP must incorporate, and build upon Council's responsibilities for developing DWMPs set out in clause 32(2)(e) of the SEPP. This clause states that local councils need to:

- Where relevant, develop and implement a domestic wastewater management plan in conjunction with water corporations and communities that:
  - (i) Reviews land capability assessments and available domestic wastewater management options to prevent the discharge of wastewater beyond allotment boundaries and prevent impacts on groundwater beneficial uses;
  - (ii) Identifies the preferred options, together with costs, funding needs, timelines and priorities; and
  - (iii) Provides for the assessment of compliance of on-site domestic wastewater systems with permit conditions

Clause 32 further states that on-site domestic wastewater needs to be managed to prevent the transport of nutrients, pathogens and other pollutants to surface waters and to prevent any impacts on beneficial uses<sup>3</sup>. Cumulative effects of onsite wastewater treatment systems should also be considered.

In addition to the requirements for a Council DWMP, clause 32 also requires that:

- Occupiers of premises with an on-site domestic wastewater system need to manage that system in accordance with permit conditions and the *EPA Code of Practice for Onsite Wastewater Management* (EPA Victoria 2013), as amended.  
Occupiers also need to regularly assess the performance of their system against permit conditions.
- Municipal councils need to:
  - assess the suitability of land for on-site domestic wastewater systems prior to approving a development. To assist in this regard, the EPA provides guidance in *Land Capability Assessment for Onsite Domestic Wastewater Management* (EPA Victoria 2003) as amended (see also Section 3.1.2 in this document);
  - ensure that permits are consistent with guidance provided by the EPA, including that provided in the *EPA Code of Practice for Onsite Wastewater Management* (EPA Victoria 2013), as amended; and
  - work with the EPA to identify existing unsewered allotments which are not capable of preventing the discharge of wastewater beyond allotment boundaries, or preventing impacts on groundwater beneficial uses.

### 10.1.4. Groundwater SEPP

Depending on local conditions, under some circumstances on-site system disposal fields can drain to groundwater, particularly in areas where the water table is shallow and hydraulic loadings are high. The Groundwaters of Victoria SEPP (Government of Victoria 1997) provides a regulatory framework for the protection and management of groundwater environments in Victoria.

The groundwater SEPP identifies a range of beneficial uses dependent on different categories of groundwater and seeks to preserve the categorisation of local groundwater so the beneficial uses are not significantly impacted. Consequently, councils need to consider the cumulative effect of onsite wastewater treatment systems when assessing permit and planning applications and planning amendments to ensure that groundwater quality is protected.

<sup>3</sup> A beneficial use is defined in the Environment Protection Act 1970 and includes a current or future environmental value or use of surface waters or groundwaters that communities want to protect.





### 10.1.5. Planning and Environment Act 1987

#### 10.1.5.1. State planning and environmental policies that apply to open, potable water supply catchment areas

The *Planning and Environment (General) Act* (2013) describes procedures for preparing and amending planning provisions, planning schemes, obtaining permits under schemes, settling disputes, enforcing compliance with planning schemes, and other administrative procedures (DTPLI 2015).

Planning schemes set out policies and provisions for use, development and protection of land. Each local government area in Victoria is covered by a planning scheme (DTPLI 2015).

The importance of water quality and water catchments is specifically addressed in Clause 14.02 in the State Planning Policy Framework in all planning schemes. In this clause it is State planning policy to:

- Protect reservoirs, water mains and local storage facilities from potential contamination.
- Ensure that land use activities potentially discharging contaminated runoff or wastes to waterways are sited and managed to minimise such discharges and to protect the quality of surface water and groundwater resources, rivers, streams, wetlands, estuaries and marine environments.
- Discourage incompatible land use activities in areas subject to flooding, severe soil degradation, groundwater salinity or geotechnical hazards where the land cannot be sustainably managed to ensure minimum impact on downstream water quality or flow volumes.

Clause 19.03 of the State Planning Policy Framework adopts the strategy:

- Ensure water quality in water supply catchments is protected from possible contamination by urban, industrial and agricultural land uses.

It is State Planning Policy (Clause 14.02-1) that planning authorities must have regard to relevant aspects of:

- any regional catchment strategies approved under the *Catchment and Land Protection Act 1994* and any associated implementation plan or strategy, including any regional river health and wetland strategies (see Section 10.1.8 of this document);
- any special area plans prepared under the *Heritage Rivers Act 1992* and approved under the *Catchment and Land Protection Act 1994*; and
- Guidelines for planning permit applications in open, potable water supply catchment areas (DEPI 2012).

#### 10.1.5.2. Section 173 of the Act

Section 173 of the *Planning and Environment Act (General)* (2013) allows Councils to negotiate an agreement with an owner of land to set out conditions or restrictions on the use or development of the land, or to achieve other planning objectives in relation to the land (DPCD 2015). Such agreements are commonly known as Section 173 agreements.

Once completed, the agreement is lodged against the title of the property. Section 173 Agreements are frequently used by Water Corporations or Councils when planning applications are located in special water supply catchments. In such cases, the agreement usually specifies maintenance requirements for onsite wastewater systems. 10.1.6. *Public Health & Wellbeing Act 2008*

The *Public Health & Wellbeing Act 2008* replaced the *Health Act 1958* and lists types of nuisances which are offensive or could pose a health risk. Under this Act, Councils have a duty to remedy such nuisances. This includes investigating complaints relating to the illegal management of domestic wastewater and taking action to rectify the nuisance where this is necessary.



#### **10.1.7. Water Act 1989**

Section 183 of the *Water Act 1989*, empowers urban Water Corporations to inspect and measure existing septic tank systems. Furthermore, under Section 147 of the *Act*, systems that do not comply with the *Public Health and Wellbeing Act 2008* and the *Environment Protection Act 1970*, can be required by the Water Corporation to connect to the sewer where this is available

#### **10.1.8. Catchment and Land Protection Act 1994**

The importance of water catchments is also reflected in the special area plans prepared by Catchment Management Authorities, under Division 2 of Part 4 of the *Catchment and Land Protection Act 1994*. These plans assess the land and water resources of catchments in a region and identify objectives and strategies for improving the quality of those resources; they are also able to direct land use activities in a catchment.

#### **10.1.9. Local Government Act 1989**

The *Local Government Act* set outs the provisions under which the Councils operate and empowers Councils to have local laws and regulations, including those for management of onsite wastewater treatment systems.

#### **10.1.10 Safe Drinking Water Act, 2003**

All water corporations have obligations under the *Safe Drinking Water Act, 2013*.



## 10.2. Regulatory Authorities

A range of regulatory authorities have responsibilities that involve onsite wastewater management systems. These are summarised in Table 10-2.


Table 10-2. Regulatory authorities and their responsibilities relevant to the DWMP

Authority	Role
Wellington and East Gippsland Shire Councils	<p>Wellington and East Gippsland Shire Councils are responsible for issuing permits for new onsite systems under the <i>Environment Protection Act 1970</i>. The Councils are also responsible for the management of all onsite systems within their respective boundaries and this includes the inspection of existing systems and ensuring compliance with Council and EPA requirements.</p> <p>The legal requirements of the Councils (EPA Victoria 2013) include:</p> <ul style="list-style-type: none"> <li>• issuing planning permits with a requirement that reticulated sewerage is provided at the time of sub-division where wastewater cannot be contained within the boundaries of every allotment;</li> <li>• assessing land development applications to determine the suitability of a site for an onsite wastewater management system;</li> <li>• assessing onsite wastewater management permit applications;</li> <li>• issuing Permits to Install/Alter and Certificates to Use onsite wastewater management systems;</li> <li>• refusing to issue a Planning Permit or Septic Tank Permit for a proposed development where Council considers wastewater cannot be contained within the boundaries of the site and reticulated sewerage is not available or will not be provided at the time of subdivision;</li> <li>• ensuring systems are installed in accordance with the relevant Certificate of Approval (see EPA website), the conditions on any Planning or Septic Tank Permit issued for a site and the relevant Australian Standard;</li> <li>• ensuring systems are managed in accordance with the Septic Tank Permit, the relevant Certificate of Approval, this Code and, where applicable, the most recent version of AS/NZS1547 through relevant compliance and enforcement programs; and</li> <li>• developing Domestic Wastewater Management Plans.</li> </ul> <p>Council assesses applications for Permits to Install or Alter and operate onsite wastewater management systems under the Act (Section 53(1)). Permits are issued with conditions. Council must refuse to issue a permit if:</p> <ul style="list-style-type: none"> <li>• the proposed onsite wastewater treatment system and associated disposal/recycling system is contrary to any State Environment Protection Policy</li> <li>• the application and/or land capability assessment report does not satisfy Council that wastewater cannot be sustainably managed on that site; or</li> <li>• the proposed onsite wastewater treatment system does not hold a current Compliance with the Australian Standards and approval from the EPA.</li> </ul>
Department of Health and Human Services	<p>The department administers the <i>Safe Drinking Water Act 2003</i> and has responsibilities under the <i>Public Health and Wellbeing Act 2008</i>.</p>



Authority	Role
Catchment Management Authorities	<p>Wellington and East Gippsland Shire Councils lie within or intersect the East and West Gippsland Catchment Management Authorities (CMAs). The role of the CMAs relevant to the DWMP is listed in their statement of obligations under the Water Act 1989 (DEWLP 2006) and is as follows:</p> <ol style="list-style-type: none"> <li>a) Facilitate and coordinate the management of catchments in an integrated and sustainable manner;</li> <li>b) Take a sustainable approach by balancing environmental, social and economic considerations;</li> <li>c) Plan and make decisions within an integrated catchment management context:               <ul style="list-style-type: none"> <li>• recognising the integral relationship between rivers, their catchments and coastal systems;</li> <li>• using the best available scientific information;</li> <li>• targeting resources to address priorities and deliver maximum improvement in resource condition;</li> </ul> </li> <li>d) Provide opportunities for community engagement in the integrated management of catchments including rivers and related water and land ecosystems;</li> <li>e) Develop strategic partnerships with other relevant authorities and government agencies;</li> <li>f) Promote and apply a risk management approach for natural assets which seeks to preserve the quality of the natural assets;</li> <li>g) Promote and adopt an adaptive approach to integrated catchment management, including continuous review, innovation and improvement;</li> <li>h) Manage business operations in a prudent, efficient and responsible manner;</li> <li>i) Act as the caretaker of river health and provide regional leadership on issues relating to river health; and</li> <li>j) Undertake the operational management of the Environmental Water Reserve as a key component of an integrated program of river, wetland, floodplain and aquifer restoration.</li> </ol>
Department of Environment, Land, Water and Planning	<p>The Department of Environment, Land, Water and Planning (DELWP) is responsible for the management of environment, water resources, land management and planning in Victoria. DELWP may advise Councils on specialist matters where an on-site system may influence land, water and planning issues.</p>
Environment Protection Authority Victoria (EPA)	<p>EPA administers the Environment Protection Act 1970, and Waters of Victoria and Groundwaters of Victoria SCPs and is responsible for:</p> <ul style="list-style-type: none"> <li>• producing guidance documents for:           <ol style="list-style-type: none"> <li>i) wastewater treatment system, installation, testing and accreditation</li> <li>ii) the approval process for onsite wastewater management systems</li> </ol> </li> <li>• providing advice on and interpretation of the guidance;</li> <li>• Monitoring systems for compliance with conformity standards</li> <li>• keeping the website-based list of currently approved systems and their accreditations up-to-date (see <a href="http://www.epa.vic.gov.au/your-environment/water/onsite-wastewater">www.epa.vic.gov.au/your-environment/water/onsite-wastewater</a>);</li> <li>• rescinding approvals and removing them from the list of approved systems on the EPA website.</li> </ul> <p>EPA Guidance includes:</p> <ul style="list-style-type: none"> <li>• EPA 891 Code of Practice – Onsite Wastewater Management (EPA Victoria);</li> <li>• EPA 746 Land Capability Assessment – Onsite Wastewater Management (EPA Victoria); and</li> <li>• EPA 760 Guidelines for Aerated Onsite Wastewater Treatment Systems (EPA Victoria).</li> </ul>





Authority	Role
Municipal Association of Victoria (MAV)	MAV has prepared guidance documents for domestic wastewater management include a template for a DWMP and a model LCA report and procedures. The documentation is consistent with EPA Guidance documents.
Victorian Building Authority (VBA)	The VBA incorporates the roles and responsibilities of the former Plumbing Industry Commission (PIC and licenses all plumbers and onsite wastewater management systems installers in Victoria. The VBA regulates the installation of onsite wastewater management systems including internal plumbing works.
Water Corporations	<p>Water Corporations providing services within Wellington and East Gippsland Shires are Gippsland Water, East Gippsland Water, South Gippsland Water, Goulburn Murray Water (water storage manager) and Southern Rural Water.</p> <p>All water corporations have responsibilities under the Safe Drinking Water Act, 2003. It is the role of the water corporations to supply water fit for purpose and where this involves drinking water, the water corporations have a strong interest in the protection of drinking water catchments. In particular, they have a legislative obligation in protecting such catchments from the impacts of onsite wastewater management systems.</p> <p>Where a proposed onsite system is located within a drinking water catchment, in a declared sewer district or requires a planning permit, the proposal must be referred to relevant water corporation (determining referral authority) for assessment and approval prior to Council issuing approval for the development.</p>
Victorian Civil and Administrative Tribunal (VCAT)	<p>VCAT was established under the Victorian Civil and Administrative Tribunal Act 1998. It is a tribunal where civil disputes, administrative decisions and appeals can be heard before Judge or member. The purpose of VCAT is to provide an economical, effective and independent tribunal for dispute resolution.</p> <p>VCAT has made a number of important decisions on disputes with respect to onsite wastewater management systems.</p>





## Appendix 2 – Water quality risk factors

Table 10-3. Attributes which were investigated for potential use in risk model development (characteristics in bold were chosen for the risk assessment)

Characteristic	Data Source	Explanation	Assessment Process
Land area available for LAA	Property layer from DataVic	Available land calculated as total property area minus areas classed as unusable (within setbacks, near bores, high waterable, (one hundred years flood area).	Compliant ≥ 40 ha Low Risk 0.4 - < 40 ha Moderate Risk 0.2 - < 0.4 ha High Risk 0.1 - < 0.2 ha Very High Risk < 0.1 ha Extreme Risk 0 ha
Surface waters – setback distance (m)	Calculated from DCM, rivers and lakes layers.	Area of property within the setback is classed as unusable for land application area(s) (LAA).	Distance of potential disposal fields from ephemeral and permanent drainage lines, creeks, rivers, lakes, dams and all other surface waters. In DWSC waterway setback is 100 m, reservoir setback is 300 m, outside DWSC waterway and waterbody setback is 60 m
Flood Likelihood	Flood layers (1 in 100) from DataVic	Requirements for siting onsite wastewater infrastructure (including LAAs) away from areas subject to flooding can vary between Councils.	Access official records where available. Note proximity of LAAs to waterways and areas subject to flooding. Area under 1:100 flood layer is classed as unusable for LAA
Waterable Depth (m) below the base of the LAA	Waterable depth created from SWI and Elevation DCMs	The required soil depth to protect groundwater depends on soil type; high permeability soils generally require a greater separation distance (soil depth).	Distinguish between temporary (seasonal) perched watertables (moisture indicates wetting and drying) and permanent watertables.
Groundwater bores	Groundwater bores layer from WMS - EPA 891.3 Setbacks Minor >50m, Mod 20-50m, Major <=20m ... Setback for soil categories 2b- 6 is 20m, for soils 1-2a is either 50 or 20m (50 may become 20 if certain requirements met)	Adequate depth of soil to protect groundwater resources largely depends on soil type and climate.	Note the presence of bores on the site or in the locality, and depth of any standing water in pits or bores. Area within 50 m of bore is considered unusable for LAA
Slope gradient (%) Slope Form (affects water shedding ability) (a) for absorption trenches and beds (b) for surface irrigation (c) for subsurface irrigation	Slope created from DCM	Land application of effluent becomes increasingly constrained with increasing slope gradient, increasing the chances of effluent runoff or subsurface seepage.	Slope can be measured in the field using a clinometer. Topographic contour lines on a site plan can also be used.
Soil Texture, indicative Permeability	SoilNOClay from DataVic  Texture Group from Hezdon & Murphy 2010: indicative percolation rate from fao.org  Soil Categorisation EPA 891.3  LSYS250: WIND_ER (used where other data not available)	Soil textures are categorised as 1. Gravels and Sands 2. Sandy Loams 3. Loams 4. Clay Loams 5. Light Clays, or 6. Medium to Heavy Clays (AS/NZS1547:2012). The rate at which water moves through the soil reflects the soil's permeability and determines the rate at which effluent is applied to land in litres per square metre per day (mm per day). The application rate for each type of land dispersal and recycling system is listed in Table 9 in the Code. Whilst the loading rate for LAA design is based on the permeability, it is less than the true permeability.	Use the Code and AS/NZS1547:2012 to analyse and identify the texture of each soil horizon. Refer also to McDonald et al. (1990). Generally, assessment of soil texture is adequate to determine soil permeability from AS/NZS1547:2012. The constant-head parameter (AS/NZS1547:2012) can also be used, but not if soils are waterlogged or shrink-swell cracks are present. NOTE that the falling head percolation test is no longer considered acceptable by the EPA.



Characteristic	Data Source	Explanation	Assessment Process
Rainfall (climate - difference between rainfall and evaporation)	BOM contour map of annual rainfall categories	Seasonal rainfall, evaporation and temperature patterns influence potential evapotranspiration in land application areas.	Gather Bureau of Meteorology (BoM) data and determine average and maximum monthly rainfall, and average monthly evaporation. Risk levels Low: Rainfall > evaporation < 1 month Mod: Rainfall > evaporation 1 - 4 months High: Rainfall > evaporation > 4 months
Pan Evaporation (climate - difference between rainfall and evaporation)	BOM contour map of annual evaporation categories		
Soil Depth to Rock or other impermeable layer (m)	LSYS250: WATER_ER	Deeper soils generally have a greater assimilative capacity for effluent (depending on soil type).	Comment on the total soil depth, using field investigation or other sources of information such as bore logs, as well as the thickness of each soil horizon, to adequately characterise the soil beneath the LAA. The Code requires description of soil characteristic details 1.5m below the base of the LAA.
Aspect (effects solar radiation received)	Aspect created from DEM	The aspect or the direction that a slope is facing influences solar exposure.	Estimate the general direction of the slope of the land application area(s) (LAA). If there are multiple aspects, focus on the area's most suitable for LAA.
Landfill potential (Erosion, or potential for erosion)	LSYS250: MASS_MOV	Unstable areas (steep, unvegetated, dispersive soils etc.) are usually unsuitable for LAAs without mitigation.	Note any existing or potential erosion sites, as well as any past landfills or slope failures.
Soil Drainage	LSYS250: WATER_LOG	LAAs should be located in areas of good surface and subsurface (soil) drainage.	Determine whether rainfall will be shed (run off) or soak in, and note any waterlogged areas, which may be indicated by hydrophilic vegetation.
Electrical Conductivity (ECe) (dS/m) as a measure of soil salinity	Soil EC from DataVic	EC test result infers the salinity of the soil and its potential impact on plant growth on the LAA. Refer to Hazelton & Murphy (2007) for interpretation of EC test results. Application of effluent increases salt content of soils over time.	This cheap and simple test measures the amount of dissolved salts and can be undertaken using a hand-held meter using 1:5 soilwater suspension, or in a suitable soil testing laboratory.
pH (favourable range for plants)	Soil pH from DataVic LSYS250: LEACH (used where Soil pH data not available)	Acid soils (pH <5) or alkaline soils (pH >8) may constrain plant growth and should be ameliorated by use of chemical additives (e.g. lime for acidity).	This test can be undertaken using a soil pH test kit, a calibrated hand-held meter using 1:5 soilwater suspension, or in a suitable soil testing laboratory.
<b>No Data Available</b>			
Landform	(slope can be assessed)	Landform shape and the position of LAAs on slopes influence drainage and runoff characteristics both onto any potential LAAs as well as downslope of them (i.e. will runoff be evenly shed, or concentrated or dispersed flows?).	Topographic maps can be used to assess broad landform (geomorphology), and specifics such as position on slope and shape of slope should be assessed in the field, especially for any LAAs.



Characteristic	Data Source	Explanation	Assessment Process
Gleying or Mottling (see Munsell Soil Colour Chart)	Indicators of soil drainage (soil texture is another indicator of indicative permeability and is available)	Gleyed soils indicate permanent saturation (permanent watertable), while orange, yellow and red mottles indicate seasonal saturation with intermittent periods of drying (perched or seasonal watertable).	Describe the soil, including the dominant soil colour (using Munsell soil colour chart) and the proportion and colour of any mottling or gleying (soil that is greyish, bluish or greenish) in each soil horizon. Include a photograph to illustrate.
Stormwater run on		LAAs should not be located in areas with high run-on, without mitigation such as upslope diversion structures. Downslope runoff diversion may be useful.	Note evidence of run-on to potential LAAs (such as sediment dams and wet ground) and determine likely flow path(s) of runoff from LAAs.
Setback Distances (nonwaterway)		Determining the most appropriate position for LAAs should be prioritised over placement of building areas.	Note any constraints to required setback distances being met, e.g. lot size and shape.
Vegetation coverage over the site		Good vegetation cover is important to prevent erosion as well as for uptake of water and nutrients from effluent.	Vegetation cover (%) and type (e.g. turf or woodland) should be determined or estimated.
Cation Exchange Capacity		Influences the ability of the soil to hold and exchange cations; a major controlling agent for soil structural stability, nutrient availability for plants and the soil's reaction to fertilisers and other ameliorants (refer to Hazellon & Murphy, 2007).	Recommended for soils suspected to have low fertility. This test is undertaken in a suitable soil testing laboratory and is a precursor for measuring sodicity.
Sodium Absorption Ratio (SAR)		The ratio of sodium to calcium and magnesium (beneficial elements) in the soil solution, with higher ratios potentially damaging to plants and soils.	Recommended for soils or effluent suspected to have elevated sodium levels, especially soils that disperse in water, producing turbidity. This test is undertaken in a suitable soil testing laboratory.
Emerson Aggregate Class (consider in context of sodicity)		EAC results infer dispersibility (as ped staking, soil dispersion or both). LAAs should not be installed in soils with moderate or high dispersibility, without adequate mitigation (e.g. addition of gypsum, use of irrigation).	The Emerson Aggregate Test (EAT) is used to assess soil dispersibility and susceptibility to erosion and degradation. Refer to Hazellon & Murphy (2007) for test methodology. The EAT should be the first test of soil structure stability; if the soil is dispersive measuring its sodicity is highly desirable and can lead to a correct gypsum dosing recommendation.
Rock Fragments (size & volume %)		Coarse rock fragments displace soil volume and therefore can limit assimilative capacity of soils.	Visually estimate the size and proportion of coarse rock fragments (pebbles etc.) in each horizon. Judge to see if rocks indicate shallow bedrock.
Sodicity* (ESP %)		The percentage of sodium compounds on cation exchange sites on soil particles. ESP >6% may cause damage to the soil structure. Refer to Hazellon & Murphy (2007). Effluent and greywater contain sodium.	Recommended for soils or effluent suspected to have elevated sodium levels, especially soils that disperse in water, producing turbidity. This test is undertaken in a suitable soil testing laboratory, in conjunction with testing cation exchange capacity and exchangeable cations.



Characteristic	Data Source	Explanation	Assessment Process
Rock outcrops (% of surface)		Rock outcrops displace soil horizons and therefore can limit assimilative capacity of LAAs for effluent. Outcrops can indicate shallow bedrock. Some rocks are strongly fissured and permeable and others are not.	Estimate the amount (% cover) and type of any rock protruding from the ground on the site.
Fill <sup>1</sup> (imported)		Capacity to assimilate effluent depends on the physical and chemical characteristics of the imported fill material(s).	Observe the extent and characteristics of any imported fill, particularly on potential LAAs.
Land Suitability		An LCA is used to determine which land is suitable and unsuitable for LAAs.	Areas that are unsuitable for LAAs should be excluded to determine available LAA on the site. A number of small and separate areas are often not suitable for LAAs.



## Appendix 3 – Key to planning zones

Table 10-4. Key to planning zones

Category	Code	Planning Zones Name
Industrial	IN1Z -IN1Z	Industrial Zone
Commercial	CD1-2	Commercial Zone
	MUZ	Mixed Use Zone – not public land is a commercial zone
Public Land	PCRZ	Public Conservation and Resource Zone
	PPRZ	Public Park and Recreation Zone
	PUZ1-7	Public Use Zone
	PCRZ	Public Conservation and Resource Zone
	RDZ1-3	Road Zones
Residential	LDRZ	Low Density Residential Zone
	GRZ1	General Residential Zone
	MUZ	Mixed Use Zone
	CDZ1	Comprehensive Development Zone –is a residential zone in this case
	TZ	Township Zone
Rural	FZ	Farming Zone
	RAZ	Rural Activity Zone
	RLZ1-5	Rural Living Zones
	RCZ1-3	Rural Conservation Zones
Special Purpose	SUZ1	Special Use Zones: Carib and Energy Resources Industry
	CA	Commonwealth Land





## Appendix 4 – Action Plan items from 2006 DWMP not carried forward to 2016 plan

Action plan items in this appendix were either completed, or due to changing circumstances are no longer considered a priority in the 2016 plan.

### Issues Relevant to Municipalities as a Whole

Action	Action steps	Comments and action taken
<b>Capacity Building</b>		
CB.1	Investigate potential to obtain additional funds from Council budget. (take out)	Investigated No success, no funding
CB.2	Investigate potential for a domestic wastewater management levy for all unsewered homes.	Not done. No appetite from Council. Legality is unresolved
CB.4	Work with EPA and DSE to improve regulation and enforcement mechanisms to remedy septic tank systems that are operating in accordance with their permits but do not satisfy current standards.	No EPA Regulation Review process never completed despite discussion paper. (See Hard Copy)
CB.5	Investigate strategies for addressing the issue of landowner's ability to pay for upgrades required.	Funding not available
<b>Information Management and Data Collection Update</b>		
septic tank permit database		
IM.1	Unise with MAV pilot program regarding potential database module components.	Ongoing
IM.5	Submit data transfer program for incorporation into budget	No funding available as it is not separately funded
IM.6	On budget approval implement data transfer program	N/A
IM.8	Submit audit program for incorporation into budget	Submit for Budget item during the tenure of the plan
IM.9	On budget approval implement audit program	Not done (see comments above)
<b>Establish Septic Tank Details at Change of Ownership</b>		
IM.10	Establish/enhance link between the property system and the EH team to ensure that Section 32 notices inform potential property buyers of the existence of a septic system, the conditions of the permit and any recorded problems. (Links with education action CE.8)	To be implemented
IM.12	Submit program to access missing information for incorporation into budget	N/A
IM.13	On budget approval implement program to access missing information.	N/A
<b>Community Education</b>		
Community education for property owners and residents in priority towns and high risk areas.		
CE.1	Develop fact sheets addressing issues such as: <ul style="list-style-type: none"> <li>• How septic tank systems work.</li> <li>• Owner obligations.</li> <li>• How to achieve best system performance (maintenance &amp; household practices).</li> <li>• How to detect a failing system.</li> <li>• Impacts of failing systems.</li> <li>• Septic tank permits.</li> <li>• Water conservation.</li> <li>• Reuse of greywater.</li> </ul>	Ongoing improvement to website and continued education program
CE.2	Develop media release to publicise availability of fact sheets.	Not Required
CE.3	Display fact sheets on Council website and make available at Shire Offices.	Ongoing update on website
CE.6	Design a community evaluation survey and process for completion.	Not Required
CE.7	Submit survey process for budget approval.	Not Required
CE.8	Undertake a community evaluation survey.	Not Required
<b>Community education for new septic tank permit holders and new property owners with septic tank systems</b>		
CE.9	Prepare a standard covering letter to be circulated to new septic tank permit holders and new property owners with a set of fact sheets.	Ongoing updates
CE.10	Establish a system (or refine existing system) whereby Rates Office notify EH Dept. when a change of home ownership occurs for an unsewered property. (Linked to Action IM.10)	To be established (WSC) Completed (EG)



Action	Action steps	Comments and action taken
CE.11	DH Dept. to distribute fact sheets as permits are issued and when a change of home ownership occurs. Where type of septic system is known, target fact sheets sent.	To be established (WSC Completed) (E6)
<b>Strategic Planning</b>		
SP.2	Determine minimum lot size required for sustainable onsite wastewater management for all high and medium risk townships/locations.	LCA dependent. Requires site specific information dependent upon the specific development
SP.3	Develop planning strategy for lots that are smaller than the minimum size required for sustainable onsite wastewater management.	Ongoing in consultation with Planning
SP.4	Ensure Coastal Townships Urban Design Framework includes appropriate consideration of domestic wastewater issues.	In Consultation with Strategic Planning
SP.5	Ensure outcomes of Coastal Townships Urban Design Frameworks and wastewater management policies are included into Planning Schemes as amendments.	In Consultation with Relevant Water Corporations
SP.6	Develop strategic approach to sewerage in-fill and extension in sewerred towns.	Gippsland, East Gippsland and South Gippsland Water Strategies
<b>Land Capability Assessments</b>		
LCA.1	Review and document circumstances in which LCAs need to be undertaken.	LCA required as part of all COS septic tank applications. WSC have triggers that will require an LCA
LCA.2	Determine and set minimum requirements for preparation of LCAs in accordance with existing guidelines.	Ongoing compliance with the relevant codes and standards
LCA.3	Develop information package and template for LCA providers in consultation with providers.	LCA provider responsibility
LCA.4	Provide information package and template to key LCA providers and other relevant stakeholders (e.g. developers).	LCA provider responsibility
LCA.5	Make information package and template available on council website.	LCA provider responsibility
LCA.6	Develop LCA training process for field assessors, e.g. biennial workshop.	Not a Council role
LCA.7	Submit LCA training program for incorporation into budget.	Not a Council role
LCA.8	On budget approval implement LCA training program	Not a Council role
LCA.9	Investigate possibility of building knowledge of land capability in the region through a database incorporating information from LCAs or DHD assessments.	Ongoing development
LCA.10	Work with EPA to investigate an accreditation process for LCA providers.	EPA Matter
<b>Monitoring and Compliance</b>		
MC.7	Submit inspection program for incorporation into budget.	Under Current Budget
MC.8	On budget approval implement inspection program	As above
<b>Building Better Partnerships with Internal and External Stakeholders Internal stakeholder communication</b>		
IS.1	In East Gippsland Shire, consult with other towns regarding implementation of a weekly meeting to discuss planning permit applications.	Undertaken on an "as needs basis" formal referral process for relevant planning applications
IS.4	Provide annual update to customer service staff regarding DH issues, including staff in branch offices.	Ongoing
IS.5	Involve non DH staff in domestic wastewater training, where relevant. (linked to TR.1.4)	Not Required
<b>External stakeholder communication</b>		
ES.1	Maintain contacts database developed in DWWP project.	Ongoing
ES.2	Review referrals checklist for planning and septic tank permit applications to ensure there is a process established to contact external stakeholders when relevant issues arise.	Ongoing
ES.4	Hold annual meeting with external stakeholders to discuss domestic wastewater issues.	Not done
ES.5	Consult with external stakeholders regarding GIS data sets that are applicable in assessing land capability for domestic wastewater management (eg. water supply offtake points).	Ongoing/incomplete
<b>Training for Environmental Health Officers</b>		
TR.1	Convene a workshop on outcomes of the DWWP (potentially in conjunction with IS.1).	Not done
TR.2	Implement regular (e.g. annual) meetings/ workshops between Wellington and East Gippsland DH staff to discuss issues. Potentially involve an external expert on some occasions.	Not done



Action	Action steps	Comments and action taken
TR.3	Undertake annual review (in Jan/Feb) of the DWMP action plans jointly between Wellington and East Gippsland Shires.	Not done
TR.4	Develop an OH specific induction program that includes training on land capability assessment and planning tools.	Completed
TR.6	Encourage MAV to provide additional courses relevant to domestic wastewater management.	Ongoing



## Strategic objectives completed since 2006

Table 10-5 Individual Towns Strategic Objectives from the 2006 DWMP that were completed

No.	Shire	Description
1.	Wellington	Albion - work with South Gippsland Water to investigate potential for sewerage town to nearby Tarraville treatment plant (which services Yarram). (No longer a strategic objective, town now sewerage)
2.	East Gippsland	Berrin River - apply for external funding to assist in investigation of sustainable wastewater management approach. (No longer a strategic objective, town now sewerage)
3.	East Gippsland	Barakia Peninsula - liaise with East Gippsland Water regarding current sewer investigation and, if sewerage is not implemented, determine approach to sustainable onsite disposal. (No longer a strategic objective, area now sewerage)
4.	Wellington	Coongulla/Glenmaggie and Loch Sport - continue role as partner in investigation into innovative solutions to domestic wastewater management (No longer a strategic objective, towns now sewerage)
5.	Wellington and East Gippsland	Coastal towns - ensure domestic wastewater management issues are incorporated appropriately into Coastal Townships Urban Design Framework. (No longer a strategic objective, domestic wastewater management issues now incorporated into UDF)



## East Gippsland Shire

Action	Action steps	Comments and action taken
Bachan, Swifts Creek, Nowa Nowa, Drouby, Bendoc, Newmerella		
River.1	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5)	Not done
River.2	Determine minimum lot size required and preferred approach to sustainable onsite management (part of action SP.2).	Refer SP 2 and 3
Beech River		
Beech.1	Apply for external funding to investigate sustainable wastewater approach.	Done
Beech.2	Investigate options for reticulated sewerage or common effluent drainage scheme.	Done Reticulated sewer provided
Beech.3	Undertake community consultation regarding preferred approach.	Done Reticulated sewer provided
Beech.4	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5).	Done Reticulated sewer provided
Beech.5	Develop a monitoring and compliance program (linked to actions MC.1.9).	Done Reticulated sewer provided
Bunkola Peninsula		
Bunkola.1	Work with D&W regarding sewer investigation.	Done Reticulated sewer provided
Bunkola.2	Determine approach to sustainable onsite disposal if sewerage not implemented.	Done Reticulated sewer provided
Bunkola.3	Community education to achieve improved management if sewerage not implemented (part of actions CE.4 & CE.5).	Done Reticulated sewer provided
Bunkola.4	Develop compliance and monitoring program if sewerage not implemented. (Linked to actions MC.1.9)	Done Reticulated sewer provided
Linderoo South		
Lind.1	Determine minimum lot sizes for redgum plains vs sandy rises (part of action SP.2).	See SP2
Lind.2	Determine strategy for matching planning zones to land systems.	Councils and D&W strategic policy to encourage development in Linderoo sewer district
Lind.3	Community consultation to determine whether area should be rezoned or sewerage.	Councils and D&W strategic policy to encourage development in Linderoo sewer district
Nungamer/Metung East		
Nun.1	Determine minimum lot size appropriate for onsite wastewater management (part of action SP.2).	See SP 2
Nun.2	Work with council planning area to incorporate domestic wastewater strategy into Coastal Towns Urban Design Framework so as to ensure further subdivision of land is restricted (part of action SP.4).	Done NB East Metung now partially sewerage
West Wy Yung and other Sewerage Infill		
Wy.1	Determine minimum lot size appropriate for wastewater management (part of action SP.2).	See SP 2
Wy.2	Work with council planning area to determine strategic approach, e.g. restrict subdivisions or ensure subdivided areas are sewerage or have a common effluent drainage scheme. (Part of action SP.6.)	Done – in progress
Wy.3	Consider options for connecting to nearby sewer system, e.g. low pressure sewer.	Done





## Wellington Shire

Action	Action steps	Comments and action taken
<b>Coongulla/Glenmaggie</b>		
C/G.1	Continue role as partner in Country Towns Water Supply and Sewerage Program investigation into innovative domestic wastewater solutions.	Done
C/G.2	Determine minimum lot size and approach to sustainable onsite disposal in interim (part of action SP.2).	Done
C/G.3	Develop strategy for new houses, or upgrades that occur before sewer investigation complete.	Done
C/G.4	Community education to achieve improved management and encourage installation of improved systems (part of actions CC.4 & CE.5).	Done
C/G.5	Develop compliance and monitoring program (linked to actions MC.1-9).	Not done
<b>Loch Sport</b>		
Loch.1	Continue role as partner in Country Towns Water Supply and Sewerage Program investigation into innovative domestic wastewater solutions.	Done
Loch.2	Review approach to sustainable onsite disposal.	Done
Loch.3	Develop strategy for new houses, or upgrades that occur before sewer investigation complete.	Done
Loch.4	Community education to achieve improved management and encourage installation of improved systems (part of actions CC.4 & CE.5).	Done
Loch.5	Develop compliance and monitoring program (linked to actions MC.1-9).	Done
<b>Alberton</b>		
Ab.1	Community education to achieve improved management and encourage installation of improved systems (part of actions CC.4 & CE.5).	Done
Ab.2	Investigate potential to sewer town to Tarnville WWTP in consultation with South Gippsland Water.	Done
Ab.3	Determine minimum lot size required for sustainable onsite management (part of action SP.2).	Done
Ab.4	Develop strategy for undeveloped lots that are smaller than minimum lot size (part of action SP.3).	Done
Ab.5	Ensure new houses and upgraded systems implement full onsite disposal.	Done
Ab.6	Investigate improved stormwater management to reduce public health risk, e.g. covers over drains.	Done
Ab.7	Investigate improved stormwater management to reduce environmental impact, e.g. wetland, reed bed.	Done
Ab.8	Develop a monitoring and compliance program (linked to actions MC.1-9)	Done
<b>Cowarr and Dargo</b>		
C&D.1	Community education to achieve improved management and encourage installation of improved systems (part of actions CC.4 & CE.5).	Ongoing
C&D.2	Determine minimum lot size required for sustainable onsite management (part of action SP.2).	Ongoing
C&D.3	Develop strategy for undeveloped lots that are smaller than minimum lot size (part of action SP.3).	Ongoing
C&D.4	Ensure new houses and upgraded systems implement full onsite disposal.	Done
C&D.5	Investigate improved stormwater management to reduce public health risk, e.g. covers over drains.	Ongoing
C&D.6	Investigate improved stormwater management to reduce environmental impact, e.g. wetland, reed bed.	Done
C&D.7	Develop a monitoring and compliance program (linked to actions MC.1-9)	Ongoing
<b>Coastal Areas: in particular, Golden Beach, Paradise Beach, McLoughlins Beach and Woodside.</b>		
Coast.1	Take active role in development of Coastal Townships Urban Design Framework and Wellington Coastal Strategy to ensure domestic wastewater issues are incorporated appropriately (part of action SP.4).	Ongoing
Coast.2	Determine impact of land capability on approach to onsite management (part of action SP.2).	Ongoing



Action	Action Steps	Comments and action taken
Coast.4	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5).	Not done
Coast.5	Develop a monitoring and compliance program (linked to actions MC.1-9)	Not done
Brigolong		
Brig.1	Investigate risk to groundwater in further detail and determine capacity for further unsewered development in the town.	Not done
Brig.2	Determine minimum lot size required for sustainable wastewater management (part of action SP.2).	Not done
Brig.3	Develop strategy for undeveloped lots that are smaller than minimum lot size (part of action SP.3).	Done
Brig.4	Ensure new houses and upgraded systems implement full onsite disposal.	Done
Brig.5	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5).	Not done
Brig.6	Develop a monitoring and compliance program (linked to actions MC.1-9)	Not done
Hollands Landing		
H.L.1	Determine sustainable approach to onsite management.	Not done
H.L.2	Community education to achieve improved management and encourage installation of improved systems (part of actions CE.4 & CE.5).	Not done
H.L.3	Develop a monitoring and compliance program (linked to actions MC.1-9)	Not done
Sewerage Infill: Developments around Sale, Maffra, Heyfield, Rosedale, Yarram, and Strathford.		
infil.1	Determine minimum lot size appropriate for onsite wastewater management (part of action SP.2).	Done
infil.2	Work with council planning department to determine strategic approach, e.g. restrict subdivision or ensure subdivided areas are sewerage <sup>1</sup> . (Part of action SP.4)	Ongoing
infil.3	Develop a closer relationship with relevant water corporations and investigate options for expansion of the sewer system <sup>1</sup> .	Ongoing
infil.4	Where sewerage will not occur undertake community education to ensure improved management of septic systems (part of actions CE.4 & CE.5).	Ongoing
infil.5	Develop a monitoring and compliance program (linked to actions MC.1-9).	Ongoing



## Appendix 5 – Stakeholder Workshops

### Wellington and East Gippsland Shires Domestic Wastewater Management Plan – Workshop 1 – Review of DWMP Scope

May 1 2015, Wellington Shire Offices, 70 Foster St, Sale Attendees:

- Martin Richardson (Gippsland Lakes Committee – resigned)
- Fiona Pfeil (Catchment Officer, Gippsland Water)
- Vince Lopardi (Water Resources & Catchment Planning, Southern Rural Water)
- Kerry Matthews (Catchment Management & Water Quality, South Gippsland Water)
- Paul Young (Senior Planning Engineer, Gippsland Water)
- John Roche (Acting Senior Environmental Health Officer (EHO), East Gippsland Shire Council)
- Vanessa Ebsworth (Manager, Municipal Services, Wellington Shire Council)
- Barry Nicholl (Municipal Building Surveyor and Environmental Health Coordinator, Wellington Shire Council)
- Dean Graham (EHO, Wellington Shire Council)
- Andrew Fairhall (EHO, Wellington Shire Council)
- Elliot Robertson (Department of Health and Human Services)
- Nick O'Connor (Ecos Environmental Consulting)
- Tracy Clark (Ecos Environmental Consulting)

Apologies:

- Simon Robertson (East Gippsland Water)
- EPA Victoria





Our Ref: DOC/16/38442

26 August 2016

Mr Allan Watson  
 Environmental Health Officer  
 East Gippsland Shire Council  
 273 Main Street  
 BAIRNSDALE, Victoria 3875  
 (Via email)

Dear Mr Watson,

**RE: Review of Domestic Wastewater Management Plan**

East Gippsland Water (EGW) acknowledges the joint efforts of East Gippsland Shire Council (EGSC) and Wellington Shire Council (WSC) in generating the updated regional domestic wastewater management plan (DWMP). The final DWMP will be a valuable reference that will help facilitate appropriate development particularly within open potable water supply catchments to protect water supplies. EGW has appreciated being involved with representatives from both councils, and Gippsland Water and Southern Rural Water, in reviewing the document and providing regular feedback on the various iterations as the draft document has been prepared.

From our review of the latest draft, it appears that the document has progressed substantially. We take this opportunity to highlight and support the following key components.

EGW is keen to ensure that, in accordance with the Ministerial Guidelines (*Planning permit applications in open, potable water supply catchment areas*, November 2012), the DWMP is being effectively implemented (among other things). This would enable EGW to consider allowing higher densities of development than might otherwise be permitted by Guideline 1.

In particular, it is noted (in section 8.7, p 77) that an annual report will be sent to stakeholders (including EGW) describing:

- the results of onsite wastewater management system compliance monitoring;
- enforcement action where non-compliance is identified; and
- annual meetings may be held with stakeholders on an as needs basis.

Also, we believe that the 'independent audit by an accredited auditor (water corporation approved), including of monitoring and enforcement, every 3 years' will be a valuable indicator of progress with the DWMP.



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 E [egw@egwater.vic.gov.au](mailto:egw@egwater.vic.gov.au) W [www.egwater.vic.gov.au](http://www.egwater.vic.gov.au)

The proposed Memorandum of Understanding (MoU) between the relevant councils and water corporations (Action No. 1, Table 9-1, p 78) will also be a key enabler. The MoU will clearly articulate:

1. The level of resources to be allocated (by the councils) to the plan implementation. The allocation of resources to support approval, compliance and maintenance auditing will take into consideration:
  - the level of support relevant water corporations can provide
  - the risk profile of the property
2. The associated process that support outcome (1)
3. Communication strategies between Councils and water corporations to brief on plan implementation and completed actions Process.

We will work with the councils to ensure the MoU is completed by 20 December 2016.

It is also noted that other actions listed in Table 9-1 (particularly actions 2 and 3) and elsewhere in the DWMP, support the theme of increasing council resources and management processes to generally improve environmental performance and catchment protection associated with domestic wastewater systems.

One aspect of the draft DWMP that would benefit from further clarification is in relation to the potential to extend sewerage systems to certain infill areas (including west Wy Yung, as mentioned in item 6 of Table 9-2, and in Table 9-5). It should be noted that provision of sewerage systems is generally at the cost of the benefiting property-owners/developers.

EGW will formally consider the final DWMP, after all submissions have been considered by the councils.

If you have any further queries regarding this matter, please do not hesitate to contact Simon Robertson (5150 4426).

Yours faithfully,



Dean Boyd  
**EXECUTIVE MANAGER INFRASTRUCTURE**

CC: Vanessa Ebsworth, Manager Municipal Services, Wellington Shire Council  
Peter Skeels, General Manager, Operations, Gippsland Water  
Vince Lopardi, Manager Water Resources & Catchment Planning, Southern Rural Water



## GIPPSLAND WATER DWMP FEEDBACK

**From:** [Chris.Wood@gippswater.com.au](mailto:Chris.Wood@gippswater.com.au) [mailto:Chris.Wood@gippswater.com.au]

**Sent:** Friday, 26 August 2016 11:54 AM

**To:** Samantha King <[Samantha.King@wellington.vic.gov.au](mailto:Samantha.King@wellington.vic.gov.au)>

**Subject:** DWMP Feedback - Gippsland Water

I can confirm that Gippsland Water have reviewed the draft DWMP and thank Wellington Shire Council (WSC) for incorporating the feedback we have provided to date into the draft released for community.

Gippsland Water is satisfied the DWMP is moving in the right direction for the document to be endorsed subject to acceptance by the WSC and delivery of the DWMP MOU requirements and implementation of the DWMP.

Can you please advise the process and timing WSC intends to go through from here with council given the pending election, to get the DWMP endorsed and to commence implementation so Gippsland Water can align its internal board recommendation and endorsement process.



Our Ref: DM#4260278

26<sup>th</sup> August 2016

Mr Allan Watson  
Senior Environmental Health Officer  
East Gippsland Shire Council  
PO Box 1618  
BAIRNSDALE VIC 3875

Dear Mr Watson

**Domestic Wastewater Management Plan – Release for Community Feedback**

Thank-you for giving Goulburn-Murray Water (GMW) the opportunity to comment on the Wellington and East Gippsland Shire Council's 2016 Domestic Wastewater Management Plan (DWMP).

GMW has an interest in domestic wastewater management in those areas of the East Gippsland Shire which are in the Lake Hume Special Water Supply Catchment (SWSC) due to its role operating Dartmouth Dam and Lake Hume (downstream of Dartmouth and the Mitta Mitta River). Comments on the plan are only in relation to the East Gippsland Shire and GMW's areas of interest.

GMW is a determining referral authority under the Planning and Environment Amendment (General) Act, 2013 (which amends the P & E Act of 2007) and is a Water Storage Manager (WSM) under the *Safe Drinking Water Act 2003* and *Safe Drinking Water Regulations 2015*. A WSM releases water from storages it manages to a Water Supplier (urban water corporation) or permits the Water Supplier to take water directly from, or downstream of, a storage.

The unsewered towns/areas of interest to GMW in the East Gippsland Shire are Benambra, Cobungra, the unsewered areas of Omeo and individual unsewered properties within the Lake Hume SWSC.

Some specific comments about the plan are as follows:

- GMW considers that the success of any plan is in its resourcing and implementation and notes that many of the proposed actions are at present unresourced in terms of funding and staff. Also of note is that the plan does not include any results of system audits/inspections to identify the current operational status of on-site systems throughout the municipalities. GMW supports the use of a risk matrix process to identify and prioritise areas for actions but recommends that the prioritisation be based on not only the risk matrix but also some audit/inspection findings for existing systems and local EHO knowledge of problem areas.
- The plan clearly recognises that one of the drivers for preparing the DWMP is to address the requirements of the DSE Guidelines *Planning permit applications in open, potable water supply catchment areas* (2012) and in particular the density requirements of Guideline 1. The

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plan should recognise and identify that Guideline 1 is applicable to any zone where a planning permit is required or where there is an overlay whose objective is for water quality protection. The Guidelines can only be applied however where a planning permit is required and as there are no catchment overlays in the East Gippsland Shire Planning Scheme for water quality protection there will be instances in some zones where no planning permit for unsewered development is required and no referral to a Water Corporation occurs. Where a planning permit is required in a SWSC, the application must be referred to the relevant Water Corporation as a determining referral authority under Section 55 of the P & E Act (2013) and in accordance with Clause 66.02-5 of the Victorian Planning Provisions (VPPs) unless the Water Corporation has a specific agreement with council under Clause 66.04 of VPPs that specific types of applications do not need to be referred. It is important therefore that any shortcomings of the planning scheme be addressed in order to ensure that catchment protection can occur in a consistent manner across the municipalities. GMW notes that Table 9-4, Action Sp.8 identifies the potential for a catchment policy or similar. GMW would support the introduction of an Environmental Significance Overlay as part of the East Gippsland Planning Scheme as a means of achieving consistent objectives and assessment of development applications.

- The EPA has recently published a new version, 891.4 of the *Code of Practice On-site Wastewater Management* (2016) so all references to the previous version throughout the DWMP must be updated or referred to as the current version of the Code. Publication 746.1, Land Capability Assessment for Onsite Domestic Wastewater Management (2003) has also been superseded by 891.4.
- All references to Certificates of Approval should be replaced with Certificate of Conformity.
- **Table 5.1 Steps in Approval Process (adopted from the Mitchell Shire)** - there are steps in this that do not appear to be in the actual order they are undertaken. Specifically, steps 2 & 3 under Site Inspection are activities that would be undertaken as part of the construction process once approval has been granted. Clarify in the table that the process is for the Septic Tank permit as opposed to the planning permit.
- **Figure 5.1** – clarify the order of this process and where water corporations have input into the planning permit process as opposed to the septic tank permit process. The present flow chart indicates that the EHO provides the planning department with the conditions from the water corporations whereas this should be identified as a separate referral process.
- **Table 9.1, Action 1** relates to the undertaking of MoUs with Water Corporations which has the potential of relaxing Guideline 1. In order for Guideline 1 to be relaxed Water Corporations need to be confident that councils have demonstrated a robust program of audits/inspections showing a high level of compliance for existing systems. If there is no system of inspections or compliance monitoring, the guidelines must apply.
- **Section 10, References** – documentation should be in a consistent manner and include or be amended to the following:
  - Department of Sustainability and Environment (note not DEPI), *Guidelines Planning permit applications in open, potable water supply catchment areas* (2012).
  - Victorian Government, Variation to State Environment Protection Policy (Waters of Victoria) (2003)
  - EPA, *Code of Practice – Onsite Wastewater Management*, Publication 891.4 (2016)
  - Planning and Environment Amendment (General) Act (2013)
  - Water Act, 1989
  - Victorian Planning Provisions
  - Safe Drinking Water Act, 2003
  - Safe Drinking Water Regulations 2015



- **Section 10.1.5, Planning and Environment Act** – update reference to the current Planning and Environment Amendment (General) Act (2013). Delete any references to DEPI 2012 (which are the Guidelines) in this section.
- **Section 10.1.7, Water Act, 1989** – amend the wording to state that Section 183 ...."empowers urban Water Corporations.....". This section of the Act is only applicable to Water Corporations that have a sewerage district and does not apply to rural water suppliers such as GMW or Southern Rural Water.
- **Section 10.1.8, Catchment and Land Protection Act** – Delete reference to DEPI 2012 from the end of this paragraph. The relevance of this Act is that it contains the list of declared Special Water Supply Catchments in Schedule 5.
- It is recommended that the Safe Drinking Water Act, 2003 be referenced and included as an Act of relevance to the DWMP as all Water Corporations have obligations under this Act.
- **Table 10-2, Regulatory Authorities and their responsibilities**
  - remove the paragraph relating to Water Corporations from the council list on P85.
  - Update references in the EPA list
  - Include GMW in the list of Water Corporations and identify that our role is as a storage manager. All Water Corporations have responsibilities under the Safe Drinking Water Act, 2003 and it is recommended this is identified in this section.
  - The paragraph regarding referrals of applications to Water Corporations is not accurate for reasons described earlier. Water Corporations can only receive an application if a planning permit is required or if the proposal is for unsewered development within their sewerage district.

If you have any further queries please contact Joanne Runciman, Senior Catchment Health Officer on (03) 5450 5313 or me on (03) 5826 5732.

Yours sincerely



**Greg Smith**  
**MANAGER WATER QUALITY**

**ITEM C3.2****PLANNING SCHEME AMENDMENT C84 - WURRUK GROWTH AREA**

DIVISION: DEVELOPMENT  
 ACTION OFFICER: MANAGER LAND USE PLANNING  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓	✓	✓		✓		✓	✓	✓	

**OBJECTIVE**

To consider a private Planning Scheme Amendment request to rezone land within the Wurruk Growth Area for residential use, and to request the Minister for Planning to Authorise Council, as the planning authority, to prepare Amendment C84 - Wurruk Growth Area, pursuant to Section 8A of the *Planning and Environment Act 1987*, and once Authorisation is granted, proceed to exhibition.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

*That*

1. ***Council, having considered the private request (refer to Attachment 1), resolve to advance the Planning Scheme Amendment process to facilitate the rezoning of land within the Wurruk growth area.***
2. ***Pursuant to Section 8A of the Planning and Environment Act 1987, Council resolve to request the Minister for Planning to Authorise Council, as the planning authority, to prepare Amendment C84 – Wurruk Growth Area (refer to Attachment 2).***
3. ***Council resolve to proceed with the public exhibition of Amendment C84 - Wurruk Growth Area once Authorisation is granted.***

**BACKGROUND**

In May 2016 Council received a request to rezone land within the Wurruk Growth Area (see Figure 1) to General Residential Zone – Schedule 1 (GRZ1), Low Density Residential Zone (LDRZ), apply a new Development Plan Overlay – Schedule 9 (DPO9) and update the Land Subject to Inundation Overlay (LSIO) and Heritage Overlay (HO). The rezoning request and relevant specialist reports are included in **Attachment 1** to this Report.

The subject land relates to the Wurruk Growth Area, which is identified within the Sale, Wurruk and Longford Structure Plan (2010). The Structure Plan advocates for the creation of well designed, complete neighbourhoods that are integrated with the existing adjoining residential areas and local facilities in Wurruk, in the short to medium term.





*Figure 1: Wurruk Growth Area*

An initial assessment of the rezoning request indicates that the application and its supporting information is generally of a standard that can now be progressed to the next stage in the process. However, the following four (4) components of the proposal have been the subject of further detailed discussion with both the proponents and the relevant statutory authorities.

### **1) Heritage place Kilmany Park Estate**

The proponent is seeking a reduction in the extent of the existing Heritage Overlay, which currently applies to the Kilmany Park Estate (see Figure 2). The Heritage Assessment Kilmany Park (April 2016) report identified the extent to which the current Heritage Overlay could reasonably be reduced. As a consequence, a revised Heritage Citation has subsequently been prepared by Council's Heritage Advisor to reflect the new information and provide the basis for a revised Heritage Overlay to be considered as part of C84.

The Heritage Overlay provides a degree of protection to the main Mansion House itself and significant buildings, works and trees contained within the site. Significant view lines to and from the Estate and the (long) driveway from Settlement Road are also afforded protection. Any new development will also be required to be assessed against its potential impact on the heritage significance of Kilmany Park.



*Figure 2: Kilmany Park Heritage Overlay. Pink shaded area - existing extent, black line - proposed extent*

## 2) Impact by flooding

In response to advice from the West Gippsland Catchment Management Authority (WGCMA), Council is proposing to recognise the most up-to-date flood data by revising the extents of the current LSIO and Flood Overlay. The WGCMA has stated that it considers the rezoning of any land that would facilitate future residential development within areas that are subject to flooding, as unsuitable and inappropriate.

## 3) Proposed zones and overlays

In response to updated heritage and flooding information, Officers are suggesting that the following zones (refer to Figure 3) be applied to the subject land:

- Rezone land which is not flood prone to General Residential Schedule 1 and Low Density Residential Zone, as identified in the Sale, Wurruk and Longford Structure Plan (2010).
- Apply the Rural Activity Zone to the Kilmany Park Estate (as recommended in the Rural Zone Review (2009)), including land in the flood-prone area. Officers consider that the application of the Rural Activity Zone would better reflect the existing use of Kilmany Park as a residence, bed and breakfast and conference centre.
- Apply the LSIO and Flood Overlay to flood prone areas within the Planning Scheme Amendment area, based on the most up-to-date data provided by the WGCMA.
- Reduce the extent of the existing Heritage Overlay and update the associated Heritage Citation and relevant Clauses within the Wellington Planning Scheme based on the advice of Council's Heritage Advisor.

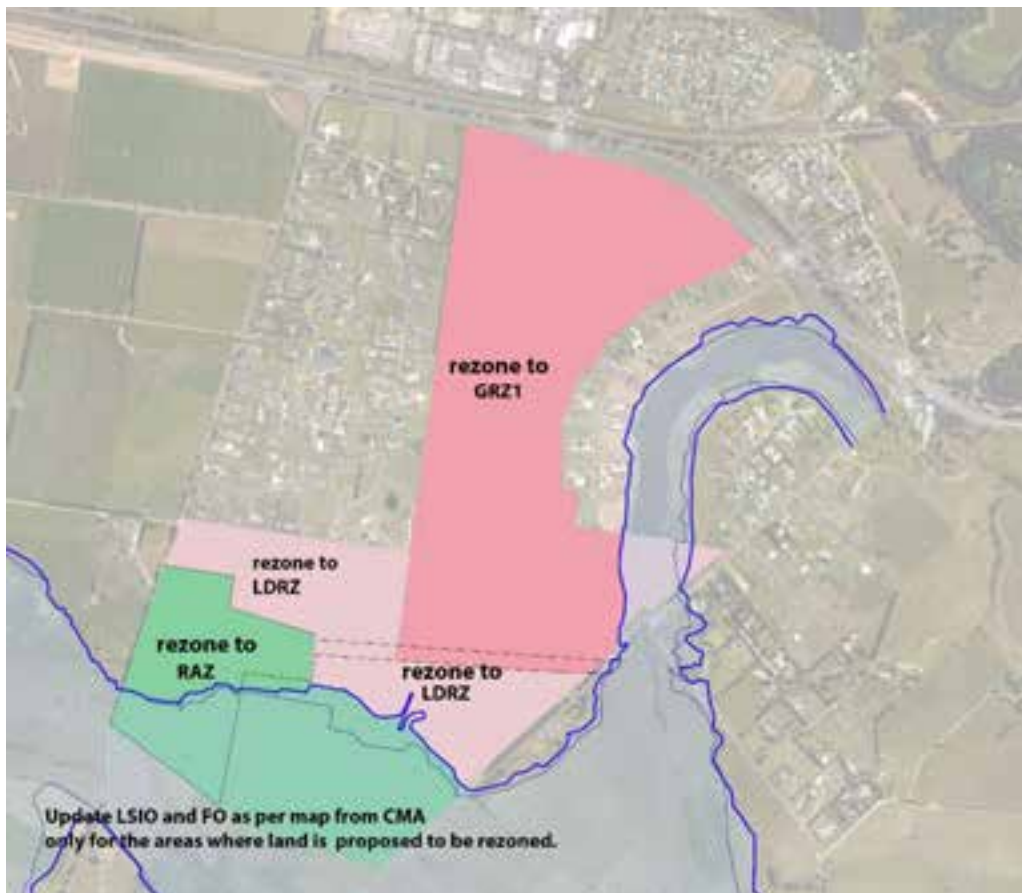


Figure 3: Proposed zones and overlays

#### 4) The Development Plan Overlay

The Amendment also proposes the application of a DPO9 to the subject land. A Development Plan Overlay requires a Development Plan to be prepared prior to subdivision or development of the land. The purpose of a Development Plan is to describe all elements necessary to achieve quality residential development. It sets out the key principles for the long-term coordinated development of an area into a complete and fully integrated neighbourhood - including the preferred staging and a developer contribution system.

Given the strategic significance and scale of the proposed development, a specific schedule has been prepared for the Wurruk Growth Area, which will require the preparation of a single Development Plan for the whole of the Growth Area. To achieve the best possible land use outcome a concept plan and design principles have been included within the schedule. The key design principles upon which the Development Plan would be based, include the need to create:

- A distinctive neighbourhood with a strong sense of place:
  - This principle requires the Development Plan to take account of existing significant features e.g. the natural topography, the Kilmany Park (heritage) Estate and native scattered trees.
- A connected and integrated movement network:
  - This principle requires consideration to be afforded to the creation of a permeable and safe road network, including paths for pedestrian and cyclists, which provide connections to the Wurruk Primary School and to the Sale CBD.
- A centrally located and accessible community area for the use of the whole Wurruk community:
  - This principle seeks to secure the provision of accessible public open space of at least 5 hectares in area to provide facilities such as a regional playground, a junior football ground and an area reserved for a neighbourhood activity centre for commercial and community uses.
- An attractive and safe neighbourhood:
  - This principle requires specific design approaches to all interfaces (e.g. the Princes Highway, adjoining established residential areas, Settlement Road) and the provision of natural surveillance.

Further specialist reports will be required to support the preparation of the Development Plan including: traffic, native vegetation and cultural heritage studies. The proposed Schedule will also require the need for community participation in the preparation of the Development Plan, prior to its approval.

Although the provisions of the draft Schedule could be perceived as being very detailed, the level of prescription proposed is directly commensurate with the complex land use issues at play within the Growth Area and the need to achieve the best possible planning outcome.

The provisions of the DPO9 also provide the flexibility for revisions to the Development Plan to be considered by Council over the course of its anticipated life.

A full set of the draft Planning Scheme Amendment documents - including the revised Heritage Citation and proposed DPO9, are included in **Attachment 2** to this Report

It should be noted that as a consequence of further detailed discussions between the proponent and Council Officers, that the proposal as submitted (refer to **Attachment 1**) differs from the Planning Scheme Amendment currently proposed to be exhibited (see **Attachment 2**). If the proponent wishes to challenge Council's suggestions, the Amendment process affords an opportunity to do so through an independent Planning Panel.

## OPTIONS

Council has the following options:

1. To advance the residential rezoning of land within the Wurruk Growth Area by requesting the Minister for Planning to Authorise Council, as the planning authority, to prepare Amendment C84 - Wurruk Growth Area pursuant to Section 8A of the *Planning and Environment Act 1987* and once Authorisation is granted, proceed to exhibit Amendment C84.
2. To not advance the rezoning of land within the Wurruk Growth Area.
3. To seek further information prior for considering a further report at a future Council Meeting.

## PROPOSAL

That Council

1. Having considered the private request (refer to **Attachment 1**), resolve to advance the residential rezoning of land within the Wurruk growth area, Wurruk.
2. Pursuant to Section 8A of the *Planning and Environment Act 1987*, resolve to request the Minister for Planning to authorise Council, as the planning authority, to prepare Amendment C84 – Wurruk Growth Area (refer to **Attachment 2**).
3. Resolve to proceed with the public exhibition of Amendment C84 - Wurruk Growth Area once Authorisation is granted.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## FINANCIAL IMPACT

As Amendment C84 is a private request, all direct financial costs associated with the Amendment process will need to be met by the proponent.

## COMMUNICATION IMPACT

Should Council decide to proceed with C84, landowners within and directly surrounding the Wurruk growth area will receive notification of the public exhibition once Authorisation is granted by the Minister for Planning. The Council website will also be updated accordingly.

## LEGISLATIVE IMPACT

Should Council decide to proceed with Amendment C84, it will need to seek the Minister for Planning's formal Authorisation, as stipulated by the *Planning and Environment Act 1987* prior to public exhibition.

Wellington Shire Council is committed to upholding the Human Rights principles as outlined in the *Charter of Human Rights and Responsibilities Act 2006 (Vic)* and referred to in Council's Human Rights Policy. The Human Rights Checklist has been completed and the proposed amendment to

the Wellington Planning Scheme is in accordance with Council's policy commitment to uphold human rights principles.

## **COUNCIL PLAN IMPACT**

The Council Plan 2013–17 Theme 5 Land Use Planning states the following strategic objective and related strategy:

### Strategic Objective

*"Appropriate and forward looking land use planning that incorporates sustainable growth and development."*

### Strategy 5.1

*"Ensure Land Use Policies and Plans utilise an integrated approach to guide appropriate land use and development."*

Amendment C84 supports the above Council Plan strategic objective and strategy.

## **PLANNING POLICY IMPACT**

Amendment C84 is consistent with the State and Local Planning Policy Frameworks (SPPF and LPPF) within the Wellington Planning Scheme, the Sale, Wurruk and Longford Structure Plan (2010), the Gippsland Regional Growth Plan (2014) and the relevant State Government Planning Practice Notes.

Clause 21.05 of the Wellington Planning Scheme - Sale, Wurruk and Longford Strategic Framework, identifies the subject land for urban residential expansion.

## **COMMUNITY IMPACT**

The development of the Growth Area will have a generally positive impact on the Wurruk community as a whole. The integrated and coordinated development of the Growth Area will provide for an accessible community area with accessible open space and pedestrian and cycling connections to Wurruk and Sale. Through the provision of a range of block sizes, the proposal will ultimately afford new opportunities to accommodate the growing population of Sale.

It is anticipated that existing landowners, particularly those who currently adjoin the Growth Area land, may have concerns relating to the potential impacts of the proposed rezoning's, on their property. It should be noted that the fundamental principle of residential development within the Growth Area has been advocated in the Sale, Wurruk and Longford Structure Plan since its adoption by Council in 2010.



## **ENVIRONMENTAL IMPACT**

On the basis of advice obtained from the WGCMA, the Amendment will facilitate revisions to the extent of the current flood mapping within the Wellington Planning Scheme to reflect the most up-to-date data – as it applies to the subject land.

Other preliminary assessments have not identified any potential negative impacts on the environment.

The proposed DPO9 will require further detailed assessments to be undertaken at a later date in the process and prior to the commencement of any development.

In relation to the proposed rezoning of land to LDRZ, the option to create lots of either 2,000m<sup>2</sup> or 4,000m<sup>2</sup> exists and will depend upon the availability of reticulated services and the ability to address the issue of wastewater disposal. This issue can be considered in more detail at the Development Plan preparation stage.

## **CONSULTATION IMPACT**

Amendment C84 will be exhibited in accordance with the procedures required by the *Planning and Environment Act 1987*. On the basis that support is given for the request to be made to the Minister for Planning to Authorise the Amendment, the process would allow for the following:

- a) The exhibition period for Amendment C84 is tentatively scheduled in November/December 2016, during which submissions can be made by the general public;
- b) Depending on the nature of submissions received, Council could either abandon the Amendment, choose to try and resolve any issues raised by submitters, or request the Minister for Planning to appoint an expert independent Planning Panel to consider the submissions and make recommendations to Council.

## ATTACHMENT 1

### Beveridge Williams

Reference: 1400147  
Office: Sale

6 May 2016

Wellington Shire Council  
18 DeSally Street  
Sale VIC 3850



ACN 006 197 235  
ABN 36 006 197 235

Sale  
45 Macalister St  
PO Box 47  
Sale Vic 3850  
ph: 03 5144 3877

Dear

**RE: APPLICATION TO AMEND THE WELLINGTON PLANNING SCHEME  
REZONING OF LAND  
LOTS 6 & 7 ON PS702630, LOT 1 ON PS410216, LOT 2 ON PS610634,  
LOTS 1 & 2 ON PS415183 &  
CROWN ALLOTMENT 21, SECTION E, PARISH OF WURRUK WURRUK**

We refer to the above matter and advise that we act on behalf of the owners of the above land parcels, who are:

- Jelaryl Pty. Ltd.
- Park Ridge Investments Pty. Ltd.
- Reyela Pty. Ltd.
- Pearsondale Heights Pty. Ltd.

We refer to the Sale, Wurruk & Longford Structure Plan, which was incorporated into the Wellington Planning Scheme through Amendment C67 on 8 November 2012 and recognize that this established Council's official policy position for residential growth across the Sale, Wurruk & Longford area.

Since this incorporation occurred, we have undertaken a series of site investigations to clarify whether development of the above parcels in South Wurruk can be carried out in a manner that accords with the zonings foreshadowed in the Structure Plan and in the context of Council's strategic planning policies.

We have now completed our investigations, which included a site analysis, a heritage study, a vegetation assessment, a land supply/demand analysis, a drainage strategy and a land capability assessment and our conclusion is that the site is suitable for residential development at both low and general residential densities, as recommended in the Structure Plan.

Our clients request that Council commence a planning scheme amendment to rezone the land as a result of the findings of these reports.

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Warragul

Wonthaggi



Accordingly, we ask that Council amend the Wellington Planning Scheme by making the following rezonings:

- Lots 6 & 7 on Plan of Subdivision No. 702630, Lot 1 on Plan of Subdivision No. 410216 and Crown Allotment 21, Section E, Parish of Wurruk Wurruk from Low Density Residential Zone to General Residential Zone (Schedule 1);
- Lot 1 & 2 on Plan of Subdivision No. 610634 from Farming Zone to General Residential Zone (Schedule 1);
- Crown Allotment 19, Section E, Parish of Wurruk Wurruk from Farming Zone to Low Density Residential Zone;
- Lot 1 on Plan of Subdivision No. 602219 from Farming Zone to both General Residential Zone (Schedule 1) and Low Density Residential Zone and Heritage Overlay (with a reduction to the existing extent of the overlay covering the land);
- Lot 2 on Plan of Subdivision No. 602219 from Farming Zone to both General Residential Zone (Schedule 1) and Low Density Residential Zone, Land Subject to Inundation Overlay, Floodway Overlay and Heritage Overlay (with a reduction to the existing extent of the overlay covering the land); and,
- Lots 2-6 on Plan of Subdivision No. 602219 from Farming Zone to Low Density Residential Zone with a Heritage Overlay.

It is also proposed to apply the Development Plan Overlay across all of the above sites and introduce a new Development Plan Overlay Schedule that will set out the requirements for the preparation of an outline development plan covering all of the above parcels.

We enclose for Council's consideration:

- A Site Analysis
- A Draft DPO Schedule
- An Explanatory Statement
- A Land Supply/Demand Assessment
- A Heritage Study
- A Drainage Strategy
- A Vegetation Assessment
- A Land Capability Assessment
- A Statutory Fee of \$798

We believe that the information submitted is sufficiently comprehensive to enable Council to consider this request and that Council is in a position to proceed with the amendment.



We are happy to meet at any time to discuss this application or to provide further information on this request. Please do not hesitate to contact us should you have any queries.

Yours sincerely,

**BEVERIDGE WILLIAMS & CO PTY LTD**

A handwritten signature in black ink, appearing to read 'Chris Curnow'.

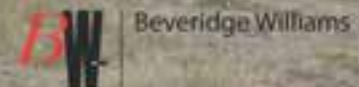
**CHRIS CURNOW**

Senior Planner – East Gippsland Region



## South Wurruk Site Analysis Report

May 2016





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# 1.0 Background

## 1.1 Strategic Context

South Warruk is identified as a future residential area in the **Safe, Warruk and Longford Structure Plan** (September 2010). The Structure Plan notes that 'opportunity exists for the establishment of urban residential and some rural residential development to form a complete neighbourhood that is integrated with the existing urban area and local facilities.'



Source: Aerial

The following three elements comprise Wellington Shire Council's vision to ensure Warruk and Warruk South is developed to create a complete neighbourhood:

### Connected and Integrated Neighbourhoods

- Link existing neighbourhoods to create a strong sense of place and strengthen community relationships.
- Development of roads and walking/cycling paths to link key facilities and locations within the development area, between existing neighbourhoods and between North/South Warruk and Sale.

### Site Specific Features

- Enhance landscape character, including site topography and the Kilmory Park Heritage Estate.
- Enhance main access points along the Princes Highway and consider highway frontage treatments to establish the character of the new neighbourhood.

### Open Space

- Provide easily accessible open space, available for use by the whole neighbourhood.
- Provide centrally located open space, typically within a 400m walkable catchment area.
- Accommodate a new sports oval which will become an open space provision for the whole of Warruk.



Western Growth Area - Extract from the Safe, Warruk and Longford Structure Plan

## 1.1 Site Context

South Wurruk is located 1.3km west of Sale, to the south of the Princes Highway. The development area is approximately 85 hectares in size and consists of ten land parcels.

The original Wurruk township is established to the north of the Princes Highway, consisting of standard density residential development. This vicinity also contains Wurruk Primary School, limited commercial development and one of Sale's main industrial precincts. A range of recreational sites including Wurruk Oval and Sale Bowling Club, as well as public open space along the Thompson River and within the Herb Guyatt Sanctuary, are also located in the Wurruk township area.

The south side of the Princes Highway has been developed in more recent years and consists of low density residential housing. Sovereign Estate is located to the west of the development area with lots of 4000-6000 square metres and Park Ridge Estate is located to the east with lots ranging from 3500 square metres to 3 hectares. The surrounding area also consists of some rural living to the south east, and is framed by farm zoned land on all sides, generally used for cattle grazing.

North and South Wurruk are separated by the Princes Highway and the railway line, which creates a strong divide between the two areas in terms of accessibility and neighbourhood character. The area is also physically separated from the Sale Town Centre area by the Thompson River, and the development plan provides the opportunity for greater linkages between these areas.



Sale Town Centre



Sale Bowling Club



Herb Guyatt Sanctuary



Thompson River



Low density residential adjacent to L100



## 2.0 Site Analysis

The subject site is currently zoned Low Density Residential, however the Sale, Wurruk and Longford Structure Plan highlights the potential for some higher density residential development to the northern half of the site, to integrate with the surrounding estate developments to the east and west. The site is largely characterised by paddocks containing scattered trees and plantings, some flood prone land to the south and the Kilmory Park Heritage Estate, a significant historical feature that presents a strong landscape character to the area.

The key physical features and influences on the site which will underpin the preparation of the South Wurruk Development Plan are described and illustrated according to the following categories:

- Access and Movement
- Landscape Character
- Vegetation
- Topography and Views
- Drainage
- Heritage
- Services



Kilmory Park buildings



Existing vegetation



Old farm equipment at Kilmory Park



Views to surrounding landscape



## 2.1 Access and Movement

The Princes Highway to the north of the site provides the main point of access into the development area. Two roundabouts have been constructed in the recent realignment of the highway, which provides vehicular access to the North Wurruk residential area and community facilities, as well as to the Sale Urban Area located 1.3km to the east.

The site also has a number of access points from the surrounding local roads within Park Ridge Estate to the east and Sovereign Estate to the west. These provide opportunities for future new road connections, as well as the integration of the residential development into a unified neighbourhood precinct. There is also an unmade road reserve along the western boundary of the site, which is currently not in use.

There are two unsealed roads which traverse the site, including Annup Road, which provides east-west vehicular access through the area, as well as the Kilmory Park Track, which provides private access to the heritage mansion. These two routes are to both be mostly retained, with the Annup Road alignment and established avenues of planted vegetation to the south of the site to potentially dictate the future road layout of the development area. The track to the Kilmory Park Heritage Mansion should also be protected and continue to be used primarily to access the heritage site, and any surrounding residential development should be sympathetic and embracing of its established landscape character.

The Princes Highway and the Gippsland Railway Line currently present a strong divide between the South Wurruk Development Area and North Wurruk. There is the opportunity to provide better and safer connections between these areas for both vehicular and pedestrian/cycling access, as well as to the Sale Town Centre and broader region. The shared path network around the town centre should be extended and integrated into the new neighbourhood precinct, and connections to community facilities, the school, public open space and public transport, including Sale Station and the existing bus route along the highway, should be enhanced.



Princes Highway interchange



Existing access point



Kilmory Park Estate



Kilmory Park Estate





## 2.2 Landscape Character

The development area has predominantly been used for agricultural and grazing purposes and the landscape character of the site is reflective of this, although the northern half presents quite a different quality to the south.

The northern area above Arrup Road is higher and offers views across the surrounding land, particularly from the ridgeline along the centre of the site. It is mainly cleared of vegetation and the developments to both the east and west provide an established residential interface which will influence the development across the subject site. The Princes Highway also has a strong influence on the character of the area, providing a physical buffer and noise barrier to the region beyond.

The south of the site is characterised by low lying land which is partly covered by a Land Subject to Inundation Overlay (LSIO). The land is covered in pasture grasses, some scattered paddock trees and lines of planted vegetation, and offers long views out to the surrounding farmland. The Kilmarnock Park Heritage Estate divides this character precinct, the buildings and landscape of which have a strong presence in the setting.

The character of the site is also heavily influenced by the presence of the Kilmarnock Park Mansion and the surrounding homestead. The access track leading up to the mansion is a key landscape feature of the area and should be protected and enhanced during the development of the site. The estate grounds also comprise a number of existing outbuildings, a grassed oval area and established historic vegetation, which are to be retained and will contribute to the landscape setting of the future residential neighbourhood.



Paddocks and scattered vegetation



Kilmarnock Park forest grounds



Kilmarnock Park estate buildings



Kilmarnock Park Mansion

## 2.3 Vegetation

The subject site has previously been cleared and used for agricultural purposes, however there is some scattered vegetation and planted avenues of trees as well as two protected trees to the north east of the site which are fenced and covered by a Section 173 agreement.

The Ecological Vegetation Class (EVC) identified for most of the land is primarily 'Plains Grassy Woodland', and there are 44 scattered native trees identified on the site which are representative of this bioregion. These are predominantly Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *medians*), River Red Gum (*Eucalyptus camaldulensis*), or hybrids between the two species. Where possible, new residential development should aim to retain most of this native vegetation.

There is planted vegetation, which is predominantly exotic, along Armap Road, Kilmory Park Track and Settlement Road as well as shelterbelts between some paddocks. There are also several planted trees in the grounds immediately surrounding the buildings at Kilmory Park, comprising mostly exotic species, with some scattered natives. There is a large English Oak Tree to the west of the mansion which is estimated to be approximately 100 years old and is of historical significance to the area. A commemorative plaque by the tree notes that it was 'Planted by His Majesty King George V when visiting Kilmory Park as HRH The Duke of York on 15th May 1901'.

The entirety of the development area is also dominated by introduced groundcover pasture species, reflecting the current and past agricultural land uses of grazing and cropping. There are no species of threatened flora or fauna identified on the land and the vegetation remaining on site has a highly modified structure.

The unused road reserve along the western boundary of the site also contains some vegetation which currently provides a landscape buffer to the adjacent residential development.



Historic English Oak Tree in Kilmory Park Estate



Scattered native trees



Scattered native trees



Scattered native trees

## 2.4 Topography and Views

The subject site is located within the Gippsland Plain bioregion, which typically comprises flat low lying coastal and alluvial plains with some gently undulating terrain. The land within the site generally falls north to south, with varying topographical features throughout the area.

To the north of the development area adjacent to the Princes Highway lies a former quarry. A ridgeline extends through the centre of the site from this location, with a number of high points offering views across the site and surrounds, providing valuable land for residential development. The land around this consists of undulating terrain, with areas of steep gradient as well as some flat open spaces further towards the middle section of the site, which have the potential to be utilised for active open space.

Views throughout the middle of the site highlight the landscape and heritage character of Kilmany Park. There are also some significant sightlines across the area from the mansion itself, which any future residential development would need to be sympathetic to.

The bottom half of the development area, generally to the south of the Kilmany Park Heritage Estate, is much flatter with some low points and drainage basins, falling away to floodplains further to the south where the land is covered by a Land Subject to Inundation Overlay (LSIO). The land sitting above this flood prone lane would be most suitable for lower density residential development to integrate with the surrounding area.



Undulating topography



Areas of steep gradient



Flat areas to the south of the subject site



Views across surrounding farmland



## 2.5 Drainage

The site generally falls towards the flood prone land to the south, with a range of existing drainage infrastructure that should be incorporated and enhanced within the development plan.

The high points along the central ridgeline to the north fall towards the edges of the site, and there are a number of defined drainage lines running towards existing reserves and various low points across the area. These existing systems provide the opportunity to incorporate new wetland areas and stormwater detention into the future residential development.

The lower half of the site is low lying and partly covered by a Land Subject to Inundation Overlay (LSIO), which may experience some flooding during large rainfall events. This will have a large impact on future development within this vicinity, and the area provides the potential for further wetland treatment areas.



Existing water body and drainage reserve



Established drainage lines to low points



Existing drainage infrastructure



Land subject to inundation



## 2.6 Heritage

The heritage qualities of the site are a key contributor to the overall landscape character of the development area, including the historical presence of the Kilmarnock Park Heritage Estate, established vegetation and the existence of some areas of aboriginal heritage sensitivity.

Kilmarnock Park Estate is a post settlement heritage site, comprising a homestead and double storey mansion that was constructed in the Federation style and has recently been repaired and operates as a Bed and Breakfast and Function Centre. It is one of the oldest established properties in Eastern Victoria and the **Wellington Heritage Study** notes that it is of considerable historical and aesthetic significance to Wellington Shire and the Gippsland region. There is a grassed oval area to the east of the buildings and several planted trees around the homestead and along the Kilmarnock Park Track leading up to the estate, which add to the overall landscape and heritage setting of the mansion. There is also a large English Oak Tree to the west of the mansion which is estimated to be approximately 100 years old and is of historical significance to the area.

Access to the estate is currently from Settlement Road via an existing crossover at the eastern boundary and from Reid Drive via a crossover at the northwest corner. The landscape and views to and from the estate entrance and homestead contribute to its heritage qualities and should be maintained and enhanced in the preparation of the development plan.

The site is recognised as having soils from 'Briagolong' Class, which are considered appropriate for cattle grazing, but are not seen as prime agricultural soils. An area which is noted to have some aboriginal heritage sensitivity also extends across the site from the east around the existing drainage reserve.



Kilmarnock Park Mansion



Kilmarnock Park Estate grounds



Kilmarnock Park Estate outbuildings



Kilmarnock Park planted avenue





## 2.7 Services

The development area comprises some existing drainage infrastructure across the site. There is a sewerage pumping station proposed to the east of the site adjacent to the Kilmany Park Estate main entrance, although there is no reticulated sewerage infrastructure available in this part of Wurruk at this time.

The surrounding residential areas to the east and west have water connections and septic tanks in use, and are also connected to reticulated electricity and telecommunication. Future residential development within the study area will be able to pick up on service connections from these areas.

The southern portion of the area also contains a number of powerline easements, with the main one extending across the north west corner of the site. This existing electrical infrastructure is to be removed.



Existing powerline easement across site



Drainage infrastructure



Existing wetlands and drainage system



Existing open drains

xzfxz0017  
CH4

## **SCHEDULE 9 TO THE DEVELOPMENT PLAN OVERLAY**

Shown on the planning scheme map as **DPO9**

### **SOUTH WURRUK**

#### **1.0**

#### **Requirement before a permit is granted**

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CH4

A permit may be granted before a development plan has been prepared to the satisfaction of the Responsible Authority for the following:

- A minor extension, minor addition or minor modification to an existing development that does not prejudice the future, orderly development of the general area affected by the Development Plan Overlay.
- Any development that would only otherwise require permission under the Heritage Overlay.

#### **2.0**

#### **Conditions and requirements for permits**

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CH4

Before deciding on an application to subdivide land, construct buildings, or carry out works, the responsible authority must consider, as appropriate:

- Whether the development of the land is occurring in an orderly manner having regard to essential services, drainage infrastructure, community facilities and roads.
- The potential for future re-subdivision of lots.
- The relationship of proposed and existing nearby developments, to reduce the chance of conflicting developments.
- Safe and efficient vehicle access to Settlement Road, the Princes Highway, The Ridge and Reid Drive from lots within the plan area.
- The adequacy of walk/cycle facilities within the plan area and its external connections.
- The preservation of the Heritage significance of the Kilmany Park Estate.
- The timing of the development of the land.
- The consistency of the proposed development with the approved development plan.

#### **3.0**

#### **Requirements for development plan**

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CH4

A development plan must be prepared to the satisfaction of the responsible authority.

The plan must show:

##### **Land use and Subdivision**

- The proposed boundaries of the development plan area and provide justification for those boundaries.
- The layout of all allotments within the development plan area.
- The overall pattern of development within the immediate surrounding area.
- The proposed use and development of each part of the plan area.
- Street networks that provide direct, safe and convenient pedestrian and cycle access to all lots with the plan area from external connection points.
- An accessible and integrated network of walking and cycling routes for safe and convenient travel to nearby walk/cycle facilities.
- A neighbourhood activity centre.

#### Infrastructure Services

- The provision of an integrated drainage scheme that services all parts of the development plan area.
- The pattern and location of any internal road system based on a safe and practical hierarchy of roads that include safe pedestrian and bicycle connections and crossing points and appropriate connection points to the Princes Highway at Hunt Place, Reid Drive, The Ridge and Settlement Road.
- All lots in the General Residential Zone must be designed to have the capacity for connection to reticulated water, sewerage, electricity, natural gas and drainage.
- All lots in the Low Density Residential Zone must be designed to have the capacity for connection to reticulated water, electricity, natural gas and drainage.

#### Open Space Network and General Amenity

- A public open space reserve must be provided in accordance with the provisions of ResCode (Clause 56) and have adequate dimensions to accommodate a Passive open space that includes a Regional Playground and an 'Active' open space that includes a junior football oval (including club rooms).
- Appropriate natural surveillance from private lots to provide a sense of safety and security along all internal roads as well as integration with the surrounding neighbourhood, where appropriate.
- An overall scheme for landscape planting and the preservation of stands of existing indigenous vegetation and individual trees wherever possible.

#### Process and Outcomes

The development plan should be prepared with an appropriate level of community consultation as determined by the Responsible Authority.

An implementation plan must be submitted as part of the development plan, indicating the proposed staging of the development.

A "Developer Contribution Scheme" must be prepared to ensure that any developer contributions towards the cost of internal and external public infrastructure deemed necessary through servicing reports prepared as part of this plan is provided for on an equitable basis.

The approved Development Plan can be amended by the Responsible Authority upon request by the owner of land with the plan area.

#### 4.0 Decision guidelines for development plan

xx/xx/2017  
CB4

Before deciding on a development plan, the responsible authority must be satisfied that the plan has regard to the following information:

- Wellington Shire Built Environment Strategy 2011-2015
- Wellington Shire Walking and Cycling Strategic Plan 2012-16
- Wellington Shire Public Open Space Plan 2014-2024

**WELLINGTON PLANNING SCHEME**  
**AMENDMENT C [INSERT AMENDMENT NUMBER]**  
**EXPLANATORY REPORT**

**Who is the planning authority?**

This amendment has been prepared by the Wellington Shire Council, which is the planning authority for this amendment.

The amendment has been made at the request of Beveridge Williams & Co. Pty. Ltd. on behalf of Daryl Page, Steven Bailey, Martin Bailey, David Hollonds and Barry Hollonds.

**Land affected by the amendment**

The amendment applies to:

- Lots 6 & 7 on Plan of Subdivision 702630 (PS702630);
- Lot 1 on Plan of Subdivision 410216 (PS410216);
- Crown Allotment 21, Section E, Parish of Wurruk Wurruk;
- Lot 2 on Plan of Subdivision 610634 (PS610634);
- Crown Allotment 19, Section E, Parish of Wurruk Wurruk; and,
- Lots 1 & 2 on Plan of Subdivision 415183 (PS415183).



**What the amendment does**

The amendment rezones Lots 6 & 7 on PS702630, Lot 1 on PS410216, CA21 and Lot 2 on PS610634 to General Residential Zone and CA19 and Lots 1 & 2 on PS415183 to Low Density Residential Zone. It will also reduce the extent of Lot 1 on PS415183 that is affected by a Heritage Overlay.



## **Strategic assessment of the amendment**

### **Why is the amendment required?**

The amendment is required to allow the land to be developed for residential purposes at a mixture of low and standard densities. To achieve this, the amendment seeks to rezone the land as follows:

- Lots 6 & 7 on Plan of Subdivision No. 702630, Lot 1 on Plan of Subdivision No. 410216 and Crown Allotment 21, Section E, Parish of Wurruk Wurruk from Low Density Residential Zone to General Residential Zone (Schedule 1) with a Development Plan Overlay;
- Lot 1 & 2 on Plan of Subdivision No. 610634 from Farming Zone to General Residential Zone (Schedule 1) with a Development Plan Overlay;
- Crown Allotment 19, Section E, Parish of Wurruk Wurruk from Farming Zone to Low Density Residential Zone with a Development Plan Overlay;
- Lot 1 on Plan of Subdivision No. 602219 from Farming Zone to both General Residential Zone (Schedule 1) and Low Residential Zone with a Development Plan Overlay and Heritage Overlay;
- Lot 2 on Plan of Subdivision No. 602219 from Farming Zone to both General Residential Zone (Schedule 1) and Low Residential Zone with a Development Plan Overlay, Land Subject to Inundation Overlay, Floodway Overlay and Heritage Overlay; and,
- Lots 2-6 on Plan of Subdivision No. 602219 from Farming Zone to Low Density Residential Zone with a Heritage Overlay.

This amendment is supported by the Sale, Wurruk & Longford Structure Plan and the change of zonings will facilitate the identified development outcome.

### **How does the amendment implement the objectives of planning in Victoria?**

The objectives of planning in Victoria are:

- a) To provide for the fair, orderly, economic and sustainable use and development of land.
- b) To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity.
- c) To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria.
- d) To conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value.
- e) To protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community.
- f) To facilitate development in accordance with the objectives set out in the points above.
- g) To balance the present and future interests of all Victorians.

The amendment implements the objectives of the *Planning and Environment Act 1987* by allowing for the residential development of well-located land at a range of densities within the Urban Growth Boundary of Wurruk.

### **How does the amendment address any environmental, social and economic effects?**

#### **• Environment**

All of the land has been previously cleared for agricultural purposes and retains only scattered paddock trees that require protection through the amendment and development process. All land within the floodplain at the southern and southeastern extremities of the



land will remain protected through the updated Land Subject to Inundation and Floodway Overlays, which also form part of the Amendment

- **Social**

Much of the land is presently open pasture that is flanked either by lower density residential development or farmland.

The most significant asset within the development area from a social perspective is the Kilmany Park Mansion, a cluster of smaller buildings that flank its northern side and the driveway leading to them from Settlement Road. These buildings sit in the southwest corner of the overall development site and are recognized as having heritage significance for both aesthetic and historic reasons, insofar as the mansion was constructed by members of the Pearson family, who were prominent in both Sale society and the expansion of the regional agricultural sector through the 19<sup>th</sup> Century.

The proposed rezoning and development will facilitate the gradual expansion of standard density residential development across the site and extension of lower density residential development both around the Kilmany Park Mansion and to its east.

In order to avoid creating negative social outcomes through this change, the proposal includes application of a Development Plan Overlay, which will be used to ensure that the development of all sites is carried out in an orderly and coherent fashion that does not create a lag between infrastructure provision and population growth, whilst also ensuring the development layout creates sensitive interfaces between the existing and new development.

The development of the land will include the creation of a large new public reserve that will be developed for active recreation purposes, i.e. relocation of the Wurruk Cricket Club, which will allow for a substantial upgrade to the existing facility and provide a new focal point for community activity.

Otherwise, the projected population growth from the overall development of the land will increase Wurruk's population by at least 2,000 people over the coming 15-20 years, which will provide critical mass for an extensive improvement and expansion of commercial and community services. This growth will be instituted in a staged fashion in order to ensure that local community and commercial facilities are able to keep pace and the demand for services never exceeds supply.

- **Economic**

Through the development phase of the project, economic benefits will be felt by road construction firms, earthworks contractors, sand and gravel quarries and suppliers, landscapers, telecommunications contractors, concreters, electrical contractors, plumbing contractors, real estate agents, local hotels, restaurants and convenience food outlets. Once housing construction commences, local builders and building supply firms, plumbers, gasfitters, electricians, concreters, landscapers, real estate agents and conveyancers will all directly benefit. Once the estate is fully developed with housing, there will be a substantial boost to Council's rates base that will have positive flow on effects for both Wurruk and the broader community. On top of this, there will be a general boost in economic productivity through the capacity of the Sale/Wurruk urban centre to accommodate a larger working population.

#### **Does the amendment address relevant bushfire risk?**

The subject land is itself mostly cleared of vegetation apart from pasture grass and some scattered paddock trees. It abuts landscaped residential developments to the east and west, the Princes Highway road reserve to the north and cleared grazing land to the south.

Although the subject site is not recognized as having any bushfire risk through the planning scheme, it is located in a Designated Bushfire Prone Area and, hence, all buildings built

thereon will need to be constructed to a minimum standard to provide protection from bushfire events.

The nearest bushfire threat would appear to come from copses of native vegetation that flank the Latrobe River, which runs in an east-west direction 2.65 kilometres to the south.

The proposed development of the land has been designed to ensure that all lots created will be able to accommodate buildings constructed in accordance with the relevant State and Local Planning Policies and in a manner that will not increase risk to life or property from a bushfire, or the need for any ongoing land management controls.

#### **Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?**

The amendment complies with:

- the requirements of the Ministerial Direction on the Form and Content of Planning Schemes at *Section 7(5) of the Planning and Environment Act 1987*; and,
- Under *Section 12 of the Planning and Environment Act 1987*, the following applicable Ministerial Directions:
  - Ministerial Direction No. 11 - Strategic Assessment of Amendments; and
  - Ministerial Direction No. 15 - The Planning Scheme Amendment Process.

This amendment to the Wellington Planning Scheme is accompanied by all the required information.

#### **How does the amendment support or implement the State Planning Policy Framework and any adopted State policy?**

The amendment is supported by the following State Planning Policy Framework objectives:

##### *Clause 11.02 Urban Growth*

The proposed amendment will increase the supply of urban land available for residential development by an additional 800 lots, which represents a 10.5 year increase in land supply based upon the projections in the Land Supply / Demand Analysis that accompanies this report. This increase will expand the land supply across the overall Sale/Wurruk area out to 18 years, which is more in line with State Government recommendations and will help to facilitate the growth expectations set out in the Gippsland Regional Growth Strategy, which predicts that Sale will require 1,500 new dwellings by 2041. Otherwise, it is noted that the layout will facilitate the creation of valuable community facilities within an appropriately layered set of development densities to ensure a diversity of housing and lifestyle choices can be accommodated. This outcome will also allow for improved utilisation of existing and available infrastructure, such as reticulated sewerage/water facilities and Council's existing walk/cycle path between Wurruk and Sale.

##### *Clause 11.08-3 Sustainable Communities*

The proposed amendment retains development within the Wurruk settlement boundary that has been identified in the structure planning exercises and can mitigate risks to the natural environment and agriculture.

##### *Clause 12.04: Significant Environments and Landscapes*

The proposed amendment and subsequent development will ensure protection of the heritage assets around the Kilmany Park Mansion through the retention of an appropriately extensive and detailed Heritage Overlay over the property.

Otherwise, the inclusion of the Development Plan Overlay will facilitate an appropriate design response to address the manner in which any future residential development presents to the Princes Highway and Settlement Road.



#### *Clause 13.02: Floodplains*

The proposed amendment will have the effect of resetting the extent of the Land Subject to Inundation Overlay and Floodway Overlay so that they more appropriately accord with the findings of the Latrobe River Flood Study in order to ensure that there are no impacts on or from floodplains as a result of the future development of the land for residential purposes.

#### *Clause 15.01: Urban Environment*

The proposed amendment will further strengthen the Sale/Wurruk urban centre through increases in population and housing choice within an area that enjoys good pedestrian, cycle, public transport and private vehicle access to Sale's central activity district.

The inclusion of a development plan overlay will ensure that the development of each individual estate is carried out as part of a coherent whole. This will have the effect of allowing a diverse range of properties that take advantage of the overall site's gently undulating topography to be developed in an ordered fashion that avoids creating shortfalls in the timing of infrastructure provision, whilst also allowing for efficiencies through the shared construction and use of necessary public assets, e.g. stormwater treatment facilities and public recreation reserves.

#### *Clause 15.03-2: Aboriginal Cultural Heritage*

The subject site is noted as having potential sensitivity to aboriginal cultural heritage in its eastern portion. This will be investigated prior to the finalisation of any development plan layout to ensure that any sensitive material and sites discovered as part of further investigations are either avoided or appropriately managed.

#### *Clause 16.01-4: Housing Diversity*

Through its facilitation of a broad range of lot sizes, i.e. General Residential Zoned lots of between 600m<sup>2</sup> and 1,000m<sup>2</sup>, Low Density Residential Lots of between 2,000m<sup>2</sup> and 5,000m<sup>2</sup>, in a gently undulating setting, the proposed amendment and subsequent development will create a broad diversity of housing and lifestyle opportunities that will bring broad diversification across the market and municipality generally.

### **How does the amendment support or implement the Local Planning Policy Framework, and specifically the Municipal Strategic Statement?**

The amendment is supported by the following Local Planning Policy Framework objectives:

#### *Clause 21.04: Settlement and Housing*

The proposed amendment will:

- Further promote Sale as the main employment, education, medical and commercial centre of the Shire;
- Accommodate population growth over the next fifteen years in a settlement that can accommodate change and is expected to grow;
- Allow the development of an identified growth area with access to adequate infrastructure;
- Ensure, through the inclusion of a development plan overlay over the whole site, that there will be cohesion between the new housing estates and existing movement corridors and public infrastructure that will be created as part of the development, e.g. recreation reserves, bus stops and walk/cycle pathways, in order to encourage physical activity and reduce motorised vehicle use;

- Promote, through the connection of reticulated sewerage across all commandable areas, improved sewerage infrastructure;
- Ensure, through the inclusion of a development plan overlay over the whole site, a comprehensive stormwater drainage system that prevents high nutrient and sediment concentrations from entering waterways and wetlands within the overall catchment;
- Avoid impacts on agricultural land by ensuring there are appropriately low densities where interfaces occur;
- Support and reinforce the regional role of Sale/Wurruk through an increase in the capacity of the town to accommodate a population that is in line with the growth estimates in the Gippsland Regional Growth Strategy;
- Support development that accords with the outcomes foreshadowed through Sale, Wurruk & Longford Strategy Plan at Clause 21.05;
- Facilitate a residential rezoning that will increase land supply with the Sale/Wurruk area from 7.5 years to 18 years and provide a broader choice of residential locations;
- Encourage urban development within existing town boundaries and in an identified growth area;
- Promote, through the use of a development plan overlay, urban design that encourages physical activity and accessibility to public open spaces as part of a broader network of walking and cycling opportunities;
- Not affect the operation of high quality farmland, as its direct abuttal to farmland is very limited and will only comprise one lot density lot;
- Not affect environmental features, as there are all remaining significant trees will be retained in reserves and there will be no housing allowed on land within the floodplain;
- Encourage increased housing densities within the principle urban centre within the Shire;
- Ensure, through the development plan overlay, that interfaces with the Princes Highway and, to a lesser extent, Settlement Road reflect the importance of the area and improve the impression that Wurruk creates to road users;
- Protect, through the retention of a heritage overlay over the pertinent areas of the site, the historic and aesthetic significance of the Kilmany Park Mansion;
- Ensure, through the requirements within the development plan overlay and attendant traffic study that access and use of the Princes Highway and Settlement Road reflects the importance of these roads to all road users, including vehicles, cyclists, pedestrians and the mobility impaired;
- Encourage, through the development plan overlay, physical activity and social interaction through the creation of a conveniently-located public recreation reserve and neighbourhood activity centre with easy pedestrian/cycle/motorised vehicle access;
- Integrate, through the development plan overlay, appropriate levels of access to Kilmany Park Mansion in order to foster its ongoing role as an iconic building within the social fabric of the Sale/Wurruk area;
- Ensure that adequate effluent and stormwater discharge systems are provided through compliance with the land capability assessment and drainage strategy provided as part of the amendment application;
- Maintain access to an appropriately scaled and developed public recreation reserve within Wurruk through the creation of a new facility as part of the development in order to replace the existing sub-standard facility on the north side of the Princes Highway;
- Prevent, through adherence with the findings of the drainage strategy provided with the application to rezone, nutrients and sediments entering waterways, wetlands and groundwater through stormwater systems;



- Ensure, through the holistic outcomes secured through the development plan overlay, that new public infrastructure is delivered in a cost efficient manner;
- Provide for full subdivision of all low density residential areas that have the potential to be sewered.

*Clause 21.05: Sale, Wurruk and Longford Strategic Framework*

The proposed amendment is in keeping with the strategic direction set out within the Sale, Wurruk and Longford Structure Plan, insofar as it earmarks the subject sites as being part of the broader Sale/ Wurruk area's western growth corridor and recommends use of the zonings that have been proposed.

*Clause 21.13-1: Rural and Natural Landscapes*

The proposed amendment will employ the General Residential Zone through the portions of the overall land that abut the lower density residential areas and the Low Density Residential Zone across the portions of the land that abut farmland. In this manner it will create an appropriate graduation from the built up areas to the interface with open farmland, noting that there is only one direct interface with open farmland, i.e. at the southern end of the western periphery, most of which will not experience development due to its inclusion in the Kilmany Park Heritage area.

**Does the amendment make proper use of the Victoria Planning Provisions?**

The amendment seeks to use the General Residential Zone, Lower Density Residential Zone, Development Plan Overlay, Heritage Overlay, Low Density Residential Overlay and Floodway Overlay to facilitate the residential development of the subject site at a mixture of densities that are deemed appropriate to facilitate efficient and appropriate use of the land.

The scaling back of the Heritage Overlay is proposed to manage the development of land around the Kilmany Park mansion in a fashion that respects the ongoing significance of this heritage place in the context of a low density residential, as distinct from a farming, area.

**How does the amendment address the views of any relevant agency?**

The preliminary views of VicRoads, the West Gippsland Catchment Management Authority and Gippsland Water have already been sought with no objections raised. Their comments will be sought again during the public exhibition process.

**Does the amendment address relevant requirements of the Transport Integration Act 2010?**

The amendment will necessitate a connection to the roundabout on the Princes Highway at Hunt Place. This roundabout has been constructed with this outcome in mind and, hence is not likely to have a significant impact on the transport system, as recognized in Section 3 of the *Transport Integration Act 2010*. The statements of policy principles under Section 22 of the *Transport Integration Act 2010* are not relevant to the current proposal.

**Resource and administrative costs**

**• What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

The proposal will be followed by:

- An application for approval of a Development Plan under the provisions of the Development Plan Overlay;
- Applications for planning permits for subdivision on all rezoned parcels of land;
- Applications for planning permits to construct buildings on land that will be affected by the Heritage Overlay. It is predicted that these controls will necessitate the issue of around xx planning permits. Otherwise, Council will become responsible for the maintenance of the public open space reserves and all other public infrastructure.



However, when balanced against the likely increase in rates revenue from an additional 800 lots, the resource and administrative costs will easily be outweighed.

### **Where you may inspect this Amendment**

The amendment is available for public inspection, free of charge, during office hours at the following places:

[Insert Council's details]

The amendment can also be inspected free of charge at the Department of Transport, Planning, and Local Infrastructure website at [www.dtpli.vic.gov.au/publicinspection](http://www.dtpli.vic.gov.au/publicinspection).

[The following sections of the Explanatory Report are only applicable to exhibited amendments and should be removed at the adoption stage]

### **Submissions**

Any person who may be affected by the amendment may make a submission to the planning authority. Submissions about the amendment must be received by [insert submissions due date].

A submission must be sent to: [insert Council's address]

### **Panel hearing dates**

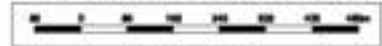
In accordance with clause 4(2) of Ministerial Direction No.15 the following panel hearing dates have been set for this amendment:

- directions hearing: [insert directions hearing date]
- panel hearing: [insert panel hearing date] ]



**DRAFT**

FOR DISCUSSION PURPOSES ONLY



<p><b>Proposed Zoning Plan</b> South Mairak</p>	<p><b>Beveridge Williams</b> CONSULTANTS</p>	<p>Drawn by: J. MARRAS Checked by: JACQUELINE Drawing No: 160104 Issue No: 01 Date: 11.08.2016</p>	<p>N</p>
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**LAND SUPPLY & DEMAND ANALYSIS FOR SALE AND WURRUK**

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**July 2016**

## DOCUMENT CONTROL DATA

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	<b>Author</b>	CC
	<b>Checked</b>	NS
	<b>Project Manager</b>	CC
	<b>Synopsis</b>	An analysis of existing land supply and prevailing and predicted demand for the Sale & Wurruk area

Reference: 1400147

Client: Stephen &amp; Martin Bailey, David &amp; Barry Hollonds and Daryl Page

## Revision Table

Rev	Description	Date	Authorised
A	Final draft for rezoning application	21/7/2016	CC

## Distribution Table

Date	Revision	Distribution
21/7/2016	A	Council, client, file

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## 1 KEY FINDINGS

### 1.1 KEY FINDING

In April 2016, the total estimated land supply is 568 residential lots across the Sale and Warruk area, as shown in **Table 1**.

	Amount of Vacant lots	Broadhectare lot capacity	Total
General Residential Zone	114	286	400
Low Density Residential Zone	32	136	168
Total	146	422	568

**Table 1:** Estimated residential land supply for Sale and Warruk in April 2016

### 1.2 DEMAND FOR RESIDENTIAL LAND

Based on the two demand scenarios analysed, Gippsland Regional Growth Plan and Building Approvals, future dwelling requirements could range from 60 to 102 dwellings per annum. This equates to 1,500 to 2,550 new dwellings over the 25 year period from 2016 to 2011 (**Table 2**).

	Gippsland Regional Growth Plan Estimates (Sale)	Building Approvals (based on 2005-2015)	Average
Dwelling Demand per annum (2016-2041)	60	92.4	76.2
Projected Dwelling Demand (2016-2041)	1500	2310	1905

**Table 2:** Estimated residential land supply for Sale and Warruk in April 2015

### 1.3 ESTIMATED YEARS OF RESIDENTIAL LAND SUPPLY

**Table 3** shows the estimated number of years of residential land supply. Using the average of the two demand projections, the residential land supply is estimated at 7.5 years.

	Lots per annum	Years Supply
Gippsland Regional Growth Plan	60	9.5
Building approvals in Sale & Warruk	92.4	6.2
Average	76.2	7.5

**Table 3:** Estimated years of residential land supply for Sale and Warruk

## 1.4 LAND SUPPLY AND DEMAND – A COMPARISON WITH 2010

### 1.4.1 Land Supply

Upon its publication in August 2010, the Sale, Wurruk & Longford Structure Plan estimated that the residential land supply in Sale and Wurruk was 900 lots, i.e. 330 Residential 1 Zoned lots in Sale and 210 Low Density Residential Lots in Wurruk. However, it was acknowledged that rezoning in North Sale that happened around the same time as the Structure Plan was released had added capacity for an additional 360 new lots to be created, providing a figure of 900 lots overall. The analysis carried out as part of this assessment has revealed that there is presently capacity to create 568 residential lots, which represents an overall decline in land supply of 332 lots from August, 2010 (Table 4).

### 1.4.2 Demand for residential land

Based upon historical data, the estimated average demand per annum for new dwellings between 2016 and 2041 is anticipated to be 76.2, down 28.36 lots per annum from 2010 which estimated 104.56 new dwellings per annum would be required based purely upon building approval figures from 2005-2010. The updated figure is based upon an average between the building approvals between 2005-2015, i.e. 92.4 new dwellings per annum, and the demand projections in the Gippsland Regional Growth Plan, which predicts there will need to be an extra 1,500 new dwellings constructed in Sale by 2041, or 60 dwellings per annum over the next 25 years (See Table 3).

Given construction on General Residential Zone lots has kept a very consistent pattern of around 70 dwellings per year throughout 2005-2015, one of the key factors in the drop in required dwellings could quite likely be as a result of the exhaustion of supply of Low Density Residential Zoned land in Sale and, more recently, in Wurruk, where only a handful of vacant lots are now available.

### 1.4.3 Estimated years of residential land supply

The average number of years of existing supply in Sale and Wurruk (7.5 years) represents a decrease of 1.1 year of residential land supply relative to August 2010 when the Structure Plan was released.

	2010	2016	Decline/Increase from 2010
Estimated Residential Land Supply	900	568	-332
Estimated Dwelling Demand per annum 2016-2041	104.56	76.2	-28.36
Estimated Dwelling Demand 2016-2041 (Average)	2,614	1,905	-609
Years of Supply (Average)	8.6	7.5	-1.1

**Table 4:** A comparison of dwelling supply and demand – 2010 to 2016

This decrease in supply is due in part to the fact that residentially zoned land along the Sale-Maffra Road and in North Sale has been developed since the Structure Plan was finalised and no further land across Sale and Wurruk has been rezoned to General or Low Density Residential since.

## 2 INTRODUCTION

This report has been prepared to provide an assessment of residential land supply across Sale and Wurruk, as at April 2016.

The report builds on the *Sale, Wurruk and Longford Structure Plan (August 2010)* and provides updated information about the availability of residential land, projected demand and the estimated number of years of supply that current supply represents. This report has been prepared by Beveridge Williams & Co. Pty. Ltd. to provide background detail for a planning scheme amendment seeking the rezoning of a group of properties in Wurruk, which will henceforth be described as the 'subject sites'.

### 2.1 Methodology

Land supply in Sale and Wurruk was considered to be made up of vacant lots in zones appropriate for residential development. In Sale and Wurruk this includes the General Residential Zone and Low Density Residential Zone.

Information about vacant lots and broadhectare land supply across the study area was captured through zoning maps and in consultation with Council's strategic planning team. A map showing both vacant lots and broadhectare supply in Sale and Wurruk is provided at **Appendix A**.

Broadhectare land was defined as all lots in the General Residential Zone greater than 5,000m<sup>2</sup> and all lots in the Low Density Residential Zone greater than one hectare.

The lot capacity of broadhectare land was estimated using any available indicative information, such as endorsed development plans and proposed subdivision plans. Where this information was not available, an average lot size of 700m<sup>2</sup> was calculated by using average sizes across the Woodella, Glebe, Glenhaven and Cobains Estates elsewhere within Sale's urban growth areas.

Three sources of information were used to predict residential growth/demand for new dwellings over the 15 year period from 2011 to 2026. These were:

- The Gippsland Regional Growth Plan; and
- Building approvals for new dwellings in Sale and Wurruk, as listed in the Sale, Wurruk and Longford Structure Plan for the 5 year period between (January, 2005 to March, 2010); and
- Victorian Building Association Data for the period 2009-2010.

### 2.2 Findings

This report has found that there was, on average, 7.2 years of land supply across Sale and Wurruk (See **Table 4**).

### 3 POLICY CONTEXT

#### *The State Planning Policy Framework*

The following State Planning Policies within the Wellington Planning Scheme are pertinent to issues of land supply and rezoning of land in Wurruk for residential purposes:

- **Clause 11.02** (Urban Growth)

Response:

This Clause emphasises the need for all municipal Councils to assess and monitor residential land supply across their cities, suburbs and townships and ensure that it does not begin to influence the property market in a negative fashion, either through an undersupply or oversupply of developable land. To achieve this, the State Government recommends that where growth is possible, the land supply across a city, suburb or township should remain at least 15 years, based upon the most up to date demand figures.

The proposed rezoning of land across Wurruk is predicted to elevate land supply across the Sale/Wurruk area to around 16.2 years based upon current figures, but should be around 15 years once the likely time lag between authorisation and the actual rezoning occurring, i.e. 18 months, is taken into account.

Hence, the conclusions reached in this analysis accord with the land supply expectations set out in this Clause.

- **Clause 12.01** (Biodiversity)

Response:

This Clause emphasises the need for all municipal Councils to protect significant habitats and flora communities within threatened and endangered ecological vegetation classes to foster broad biodiversity across the State. The calculation of available land factored into the land supply analysis for the Wurruk Growth area excludes any areas within the site that will require protection due to their threatened or endangered nature.

Hence, the density projections for the land being examined in this report present an accurate portrayal of supply once the provisions of this clause are taken into account.

- **Clause 13.02** (Floodplains)

Response:

This Clause discourages the consideration of flood prone land for development. The calculation of land supply provided by the rezoning of land across Wurruk excludes flood prone land.

Hence, the projections in this report accord with the objective and strategies of this Clause.



- **Clause 13.05** (Bushfire)

Response:

This Clause discourages the consideration of land that is prone to bushfire risk for development. The area in Wurruk being considered in this report is not affected in a Bushfire Management Overlay and is not understood to be under consideration for inclusion by the Country Fire Authority due to its generally cleared nature and extensive setbacks from any forested land.

Nonetheless, it is in an area that could potentially be susceptible to impacts from a bushfire elsewhere and, hence, like the rest of Wurruk, is considered to be in a "Bushfire Prone area" under the Building Code of Australia. As such, all buildings constructed on the site will need to consider what risks may arise from a bushfire elsewhere and how they can best be managed. To that end, the consideration of road structure and the accessibility of the various estates to the CFA appliances has been taken into account in the density projections used.

Hence, the figures used in this study are accurate in light of the provisions of this Clause.

- **Clause 15.01** (Urban Environment)

Response:

This Clause encourages the use of best practice urban design in consideration of the optimal layout for a residential subdivision. Consideration must be given to the context of the site and how best to make any new development blend in with what surrounds it whilst also overcoming existing shortfalls in community infrastructure, where appropriate. It also suggests that residential development should be designed with a focus on allowing future residents to pursue healthy, active lifestyles and gain access to internal and external facilities on foot or bicycle.

The calculation of likely yield from a rezoning in Wurruk factors in the inclusion of a minimum 5 hectare recreation reserve and neighbourhood community centre, with a network of walk cycle paths around any potential development.

Hence, the land supply scenario considered in this report is in accordance with this Clause.

- **Clause 15.02** (Sustainable Development)

Response:

This Clause encourages the use of best practice urban and architectural design to achieve the optimal outcome for energy efficiency and easy non-motorised vehicle transport in a residential development. The density factors used in the calculation for the rezoning in Wurruk incorporate these outcomes.

Hence, the land supply figures reached in this report reflect the intent of this Clause.

- **Clause 15.03** (Heritage)

Response:

This Clause emphasises the need for development to only occur in circumstances where the historically relevant vestiges of pre and post European Settlement activity are either preserved or recorded, as appropriate. The area considered for rezoning has examples of



relevant post-European settlement activity, i.e. the Kilmarnock Park mansion, and may bear evidence of pre-European settlement activity, insofar as it has an area of sensitivity to Aboriginal Cultural Heritage in its southeast corner. The density figures arrived at for the overall development reflect the necessary actions to protect the post-European settlement activity, while the area with potential pre-European settlement activity is mostly excluded from the development calculation.

Hence, the land supply figures reached in this report reflect the intent of this Clause.

- **Clause 16.01** (Residential Development)

Response:

This Clause encourages consideration of issues relating to the integration of housing with the market demand, the appropriate location of new housing, diversity of housing choice and housing affordability in any new residential development. The land supply figures used in this report are based upon an outcome whereby these matters are incorporated in any new development layout through the use of a variety of lot sizes and the creation of good walk/cycle and road linkages back to Sale's central activity district from all lots within any new estate.

Hence, the conclusions reached in this report are accurate in light of the objectives and strategies within this Clause.

- **Clause 18.01** (Integrated Transport)

Response:

This Clause encourages the integration of various transport modes with land use outcomes in order to provide multiple safe and efficient options for travelling within residential estates and to key external sites. The figures used in this analysis take into account the provision of transport options that will achieve these objectives.

Hence, the conclusions reached in this report are accurate in light of the objectives and strategies within this Clause.

- **Clause 18.02** (Movement Networks)

Response:

This Clause promotes sustainable personal transport, with an emphasis on providing future residents of any residential estate with the option of walking, cycling, driving or taking public transport to and from all key destinations within a reasonable distance from the development site. These outcomes have been incorporated in the land supply calculations set out in this analysis.

Hence, the conclusions reached in this report are accurate in light of the objectives and strategies within this Clause.

- **Clause 19.02** (Community Infrastructure)

Response:

This Clause promotes the integration of health, education and cultural facilities with new development. The density calculation for the area being considered for rezoning excludes a site that will be set aside of a community facility that can provide some of these services, with the balance available across the existing Wurruk Primary School on the opposite side of the Princes Highway, or within Sale, both of which will be easily accessible via car, cycle or on foot.

Hence, the conclusions reached in this report are accurate in light of the objectives and strategies within this Clause.

- **Clause 19.03** (Development Infrastructure)

Response:

This Clause promotes the timely provision of water supply, sewerage, telecommunications and drainage infrastructure. The density outcomes considered in this analysis take the provision of these services of all commandable portions of the development area into account.

Hence, the conclusions reached in this report are accurate in light of the objectives and strategies within this Clause.

#### ***Local Planning Policy Framework***

The following Local Planning Policies within the Wellington Planning Scheme are pertinent to issues of land supply and rezoning of land in Wurruk for residential purposes:

- **Clause 21.02-1** (Settlement and Housing)

Response:

The land that is being considered for rezoning is within the designated Wurruk township boundary under the Structure Plan and is either fully or partially flanked by existing residential development on all sides. Furthermore, the majority of the land has the capacity to be served by a full suite of reticulated services.

Hence, this Clause is supportive of the rezoning of the entirety of the land in accordance with the Structure Plan and the supply figures will not be impacted by its objectives.

- **Clause 21.02-3** (Environmental Risks)

Response:

The southern and eastern extremities of the land are recognized by the West Gippsland Catchment Management Authority as being subject to flooding in a 1 in 100-year rainfall event. This land supply analysis does not include these areas within its assessment of the available supply.

Hence, the constraints flagged by this clause have been adequately considered as part this analysis.

- **Clause 21.02-5 (Built Environment and Heritage)**

Response:

Consideration is given in the predicted lot yield to the need to restrict development around the Kilmory Park Homestead, in line with the recommendations of the Heritage Study carried out by Trethowan.

Hence, the land supply figures and general analysis accords with the objectives of this clause.

- **Clause 21.02-6 (Economic Development)**

Response:

This Clause emphasises the need for Sale to continue to fulfil its role as the primary service centre within the municipality and this will not be able to be achieved without the capacity for its population to continue growing in line with the expected demand. So, the need to retain an adequate, i.e. 15 year, land supply is supported by this clause.

Hence, an expectation that the demand figures used in this report will continue to be pertinent is inherent in this Clause.

- **Clause 21.02-7 (Transport)**

Response:

The Princes Highway has recently been duplicated adjacent to the northern portion of the Wurruk rezoning site and at the intersection with Settlement Road, with roundabouts created in anticipation of future residential growth in this corridor.

Hence, the rezoning of land in Wurruk can be achieved in line with the objective of this Clause.

- **Clause 21.02-8 (Infrastructure)**

Response:

A gravity-fed reticulated sewerage main is already available along the southern side of the Princes Highway, with reticulated natural gas, water and electricity already connected across the rezoning area to existing residences to the west. Hence, the area that is being considered for rezoning can be fully serviced for an economical price.

Hence, the potential servicing delays foreshadowed in this clause will not constraint the provision of land supply across the study area.

- **Clause 21.03-1 (Vision)**

Response:

This Clause encourages ongoing population growth within designated growth corridors across the Shire, of which Wurruk is a major one and supports the creation of land supply that delivers a safe, well-serviced and generally liveable environment.

Hence, as the land supply figures used in this report, are geared to achieving these ends in Wurruk, they are supported by this Clause.

- **Clause 21.03-2 (Strategic Framework Land Use Plan)**

Response:

The land supply figures used in this report are based upon the projections and expectations expressed in the Sale, Wurruk & Longford Structure Plan, which is referenced in this Clause.

- **Clause 21.04-2 (Settlement Objectives)**

Response:

All land considered in this analysis of land supply is within the township boundaries designated through the Sale, Wurruk & Longford Structure Plan mapping and is able to connect with the existing vehicular and pedestrian/cycling network and reticulated services.

Hence, it will be able to achieve the supply figures that are forecast while remaining in compliance with the objectives of this Clause.

- **Clause 21.04-3 (Settlement Strategies)**

Response:

The supply figures outlined in this analysis predict that there is presently 7.5 years of supply available. So, consideration of rezoning further land to return the supply to between 10-15 years is necessary to meet the strategies set out in this Clause. Moreover, the Clause encourages the use of the Sale, Wurruk & Longford Structure Plan in determining supply and demand figures, as has also been done. The yield figures are based upon a density that will allow the creation of estates that:

- are within the designated township boundaries;
- encourage healthy lifestyles;
- do not include inappropriate rural lifestyle development;
- will not detrimentally affect high quality agricultural land or significant environmental assets;
- encourages diversity of housing choice;
- avoids creating new lots on flood-prone land;
- is sympathetic to the heritage values of Kilmory Park Estate;
- will provide a positive impression when viewed from the Princes Highway;
- are able to provide appropriate community infrastructure to support active lifestyles through the integration of walking/cycling facilities to key sites;
- can accommodate appropriate effluent and stormwater discharge systems;
- can accommodate a network of public open spaces for recreation and other municipal purposes; and,
- can utilise existing urban infrastructure.



- **Clause 21.05-1 (Vision)**

Response:

The land supply figures used in this report are based upon the densities that will ensue from development of the land in line with the mapping in the Sale, Wurruk and Longford Structure Plan, while taking into account the following principles:

- Creation of high quality public open spaces;
- Formation of a sustainable community that integrates with existing adjoining developments;
- Easy accessibility by car, cycle, or on foot;
- Creation of inclusive neighbourhoods; and,
- Protection of culturally significant features, e.g. Kilmory Park mansion.

- **Clause 21.05-2 (Township Roles)**

Response:

The figures used in the calculation of potential supply are based upon the creation of estates that will create a diversity of housing choice with new community facilities within a new 5-hectare recreation reserve.

This outcome is foreshadowed in this Clause and, hence, the figures can be relied upon.

- **Clause 21.05-3 (Regional City)**

Response:

The figures in this analysis are based upon the rezoning of land for residential use in Wurruk as suggested in the Sale, Wurruk & Longford Structure Plan and can be delivered in a timely and sequential manner.

Hence, the findings in this report remain in accordance with the objective and strategies in this clause.

- **Clause 21.05-4 (Housing Choice and Diversity)**

Response:

The supply figures used in this report are based upon the creation of a diverse range of lot sizes across residential development adjacent to the Princes Highway and south of Annup Road in Wurruk.

Hence, they accord with the strategy and objectives outlined in this clause.

- **Clause 21.05-5 (Residential Development)**

Response:

The land supply figures are based upon a development density in Wurruk that can incorporate walkable neighbourhoods, bus routes, water sensitive urban design, energy



efficiency/sustainability measures, staged reticulated infrastructure delivery, access to community facilities, a range of lot sizes and appropriate sequencing.

Hence, the figures arrived at accord with the objective and strategies of this clause.

- **Clause 21.05-7 (Design Excellence)**

Response:

The figures used in this report factor in a development density across Wurruk that will allow the protection of the Kilmany Park mansion through retention of appropriate sightlines to it, high quality open space and an appropriate relationship to adjoining low density residential estates.

Hence, the conclusions accord with the objective and strategies of this clause.

- **Clause 21.05-9 (Movement Network)**

Response:

The figures used in this report accommodate the creation of an integrated movement network in a legislative-compliant manner that can cater for vehicular, pedestrian and cyclist access safe and efficient manner and enhance the connection between Wurruk and Sale's central activity district.

Hence, the supply figures used in this document meet the requirements set out in this clause and can be relied upon.

- **Clause 21.05-11 (Sensitive Assets)**

Response:

The supply figures used to predict yields from the rezoning of the Wurruk area factor in the need to retain significant native vegetation and waterways, whilst incorporating water sensitive urban design methods.

Hence, the supply figures used in this document meet the requirements set out in this clause and can be relied upon.

- **Clause 21.05-12 (Implementation)**

Response:

The density calculation method used in this report takes into account the need to create a road structure that meets CFA requirements, walking/cycling routes that connect all residents with recreation reserves, drainage reserves that meet best practice guidelines and reticulated infrastructure across estates with lots ranging from 600m<sup>2</sup> to above 4,000m<sup>2</sup>. Moreover, consideration is given to the need to protect the significance of Kilmany Park Mansion and its immediate surrounds and the comments and feedback from VicRoads, Gippsland Water and the West Gippsland Catchment Management Authority.

Hence, the supply figures that have been relied upon are sensitive to the requirements set out in the objective and strategies of this clause.

- **Clause 21.13-2 (Biodiversity)**

Response:

The density projected for the Wurruk development site incorporates the exclusion of sensitive environmental assets, such as indigenous vegetation and waterbodies and watercourses.

Hence, the figures arrived at in this report can be relied upon for an accurate analysis of land supply as a result of a rezoning in Wurruk.

- **Clause 21.14-3 (Flooding)**

Response:

The areas that have been deemed prone to flooding by the West Gippsland Catchment Management Authority, have been excluded in the calculations of developable land across the Wurruk rezoning site.

Hence, the assumptions in the land supply analysis can be considered accurate in light of the objective and strategies in this Clause.

- **Clause 21.16-1 (Built Environment)**

Response:

The assumptions made about the density that will be achievable across the Wurruk development have taken into account best practice theories about the creation of sustainable residential estates, such as the creation of a safe walk/cycle movement network, the incorporation of useable public open spaces and the need to orient housing to take best advantage of solar rays.

Hence, the supply figures anticipated for the Wurruk development are sensitive to the objectives and strategies outlined in this clause.

- **Clause 21.16-2 (Heritage)**

Response:

The need to protect the Kilmany Park mansion through the limitation of development around it has been factored into the calculation of density across that part of Wurruk.

Hence, the land supply figures used in this report are accurate as regards the requirements that will be imposed on any development through the objective and strategies of this Clause.

- **Clause 21.18-2 (Road Infrastructure)**

Response:

The development area within Wurruk enjoys access to an excellent road network externally and the density figures that are used in this study anticipate the creation of an appropriately scaled and aligned road network within the site.

Hence, the land supply figures used in this report provide an accurate portrayal of the likely outcomes from the rezoning of the land in Wurruk.

- **Clause 21.18-5** (Walking and cycling)

Response:

The land supply figures used in this report take into account the need for an integrated and comprehensive walk/cycle network to be created across the Wurruk development area.

Hence, the outcomes foreshadowed in this investigation can be relied upon in light of the objectives and strategies set out in this Clause.

- **Clause 21.19-1** (Physical Infrastructure)

Response:

The Wurruk development site considered in this analysis is surrounded by low density residential development on both sides; so, its development could not be considered as leap-frogging existing infrastructure.

Hence, the supply figures in this study are considered accurate as regards the objective and strategies of this clause.

- **Clause 21.19-2** (Community Infrastructure)

Response:

The density anticipated from the Wurruk development factors in the need for relevant items of community infrastructure to be created as part of the overall development.

Hence, the supply figures used in this report can be relied upon in light of the objective and strategies of this clause.

- **Clause 22.03** (Heritage)

Response:

The need to protect the Kilmory Park mansion through the limitation of development around it has been factored into the calculation of density across that part of Wurruk.

Hence, the land supply figures used in this report are accurate as regards the requirements that will be imposed on any development through the objective and strategies of this Clause.

## 4 RESIDENTIAL LAND SUPPLY

Residential land supply was calculated by combining existing vacant lots and the lot capacity of broadacre land in Planning Zones appropriate for residential development across Wurruk and Sale. This includes the General Residential Zone and the Low Density Residential Zone within Sale and Wurruk's settlement boundaries, as defined in **Clause 21.05**.

### 4.1 Vacant Lots

Information about existing vacant lots, as at April 2016, was captured using real estate websites (e.g. realestate.com.au), site inspection and a review of aerial photography in conjunction with zoning maps.

Only lots which met the following criteria were captured:

- All available vacant lots in the General Residential Zone and Low Density Residential Zone;
- All lots in an adopted settlement boundary.

For illustrative purposes, **Figure 1** shows the location of the four residential estates that are currently under construction or retain vacant lots across Sale and Wurruk in relation to the subject sites.



**Figure 1:** Aerial view of Sale showing the location of the subject sites in relation to the residential estates currently under development across Sale



The outcomes of this investigation of vacant lot supply are displayed in **Table 5**.

	Available Vacant GRZ Lots
Cobains Estate (Stage 1)	51
Glebe Estate (Stage 4)	22
Glenhaven Estate (Stage 2)	12
Infill Sites (Sale)	26
Infill Sites (Wurruk)	9
<b>Total:</b>	<b>114</b>

**Table 5: Vacant Lots in Existing Residential Zoned Estates or infill sites across Sale & Wurruk**

	Available Vacant LDRZ Lots
The Ridge Estate	16
Sovereign Estate	2
Infill Sites (Sale)	9
Infill Sites (Wurruk)	5
<b>Total:</b>	<b>32</b>

**Table 6: Vacant Lots in Existing Low Density Residential Zoned Estates or infill sites across Sale & Wurruk**

#### 4.2 Broadhectare Lots

Broadhectare lots were identified based on the LandVic website. Only lots that met the following criteria were captured:

- All lots in the General Residential Zone that are greater than 5,000m<sup>2</sup> and within the Sale and Wurruk township boundaries as defined in the mapping at **Clause 21.05**; and,
- Lots in the Low Density Residential Zone that are greater than 10,000 m<sup>2</sup> (one hectare) and fall within the Sale and Wurruk township boundaries as defined in the mapping at **Clause 21.05**.

#### 4.3 Broadhectare Lot Capacity

Broadhectare lot capacity was calculated using the following formulas:

- For each broadhectare lot, where there was a known endorsed development plan (showing proposed subdivision layout), incorporated plan, provisional plan or subdivision permit, such plans were used to estimate the lot capacity.



Where this information was not available, the following methodology was used:

- Ascertain the area of each broadhectare lot;
- Deduct any part of the lot which is encumbered (for example, by an easement) to determine the initial lot capacity;
- Deduct 25% of the remaining unencumbered area for open space (5%) and internal access roads (20%) to result in a net residential developable area;
- Apply an average density of 9 lots per gross hectare for General Residential Zoned Land, and 1.8 lots per gross hectare for Low Density Residential Zoned Land to determine the lot capacity of each broadhectare lot; then,
- Round down to the whole number.

	Broadhectare GARZ Lots
Cobains Estate	120
Glenhaven Estate	56
Glebe Estate	43
Wooddella Estate	47
Infill Sites (Sale & Wurruk)	20
Total	286

**Table 7: Broadhectare General Residential Zoned Lots and Low Density Residential Zoned Lots in Sale & Wurruk**

	Broadhectare LDRZ Lots
Park Ridge Estate	119
'White's' Land, Settlement Road	17
Total	136

**Table 8: Broadhectare Low Density Residential Zoned Lots in Sale & Wurruk**

#### 4.4 Existing Land Supply (Vacant and Broadhectare)

Based on the methods outlined above, the number of lots available for residential land supply has been provided at **Table 9**, below.

Estimated supply is 568 lots, including 146 existing vacant lots and 422 lots in broadhectare lot capacity.

	Vacant land	Broadhectare lot capacity	Total
General Residential Zone	114	286	400
Low Density Residential Zone	32	136	168
Total	146	422	568

**Table 9: Estimated land supply in Sale & Wurruk (April 2016)**

## 5 DEMAND FOR HOUSING

### 5.1 Components of Housing Demand

In locations such as Sale and Warrak, demand for housing is driven by two main factors:

- Gradual growth in permanent population due to the ageing of Australia's population, decreased household sizes, international immigration and general depopulation of traditional farming areas into urban centres; and
- Growth in key local industries, such as resource exploitation (Oil and Natural Gas refinement at Longford and offshore in Bass Strait), Defence (expansion of the RAAF Base – East Sale), Corrections (expansion of Fulham Prison), Agriculture (Ongoing intensification of irrigated dairying and vegetable growing and usual activity in agroforestry and dryland grazing).

Figures 2 & 3, which includes excerpts from a newspaper article in the Gippsland Times dated Tuesday, 29<sup>th</sup> of December, 2015, provides evidence of the economic impetus that Sale is presently experiencing and provides some background to the factors referenced above.



Figure 2: Excerpt from "Million dollar boom time" article, Page 1 of the Gippsland Times, 29/12/2015

# Million dollar boom time

From page 1

THE full-scale stages five and six at the Woodville Kurrajong area promises to deliver the best pricing some of the blocks for sale and within the release of the next instalment.

As the RAAP project started by Mr Chalton and extra pressure may be placed on the local rental market, and be able to afford some price would increase.

"Full time employment will be here for some weeks of time," Mr Chalton said.

"There will need to stay and buy a house rather than rent."

"You would think that every price has to go up, but you would still hope that they're

affordable," he said.

Mr Chalton said there was probably not enough new housing coming on line now to meet future demand, but there was land available in the Glenorchy, Chalmers and Glendale areas.

With lower cost land packages still available, particularly for those in dual income households, it is the best time to build a new house.

Mr Chalton said he had seen a slight increase in the number of properties bought by investors following the RAAP land release program, adding that many were looking to other projects coming up.

"I'd probably see about 10 per cent of our sales are investors, but not any other categories."

he said.

Mr Chalton said while most people do work in Sale and there, nothing else was the likely to benefit from developments in the locality, particularly those like Stratford and Longford where people lived but commuted to Sale for work.

"When all these jobs are generated, it creates new jobs in Sale."

"It is really good news for residents who have long been in the area."

Mr Chalton said with existing infrastructure and medical facilities and affordable housing locally as well as low interest rates to help attract new people, the future was bright in Sale.

Figure 3: Excerpt from "Million dollar boom time" article, Page 3 of the Gippsland Times, 29/12/2015

These factors will influence the number of dwellings that are needed within the municipality over time, and therefore the number of lots that will be required to support this growth.

This section provides a review of these growth factors, augmented by analysis of historical data such as dwelling approvals and property values. This additional analysis provides further evidence relating to the future demand for dwellings in the municipality.

## 5.2 The Gippsland Regional Growth Plan

Clause 11.02-1 of the SPPF states that planning must give consideration to the official State government population projections (currently *Gippsland Regional Growth Plan*). This document makes projections about how key towns across the Gippsland region will grow over the coming 25 years to 2041.

The Gippsland Regional Growth Plan was released in 2014 and is the most up to date set of projections.

The plan estimates that Sale will require an additional 1,500 dwellings by 2041.

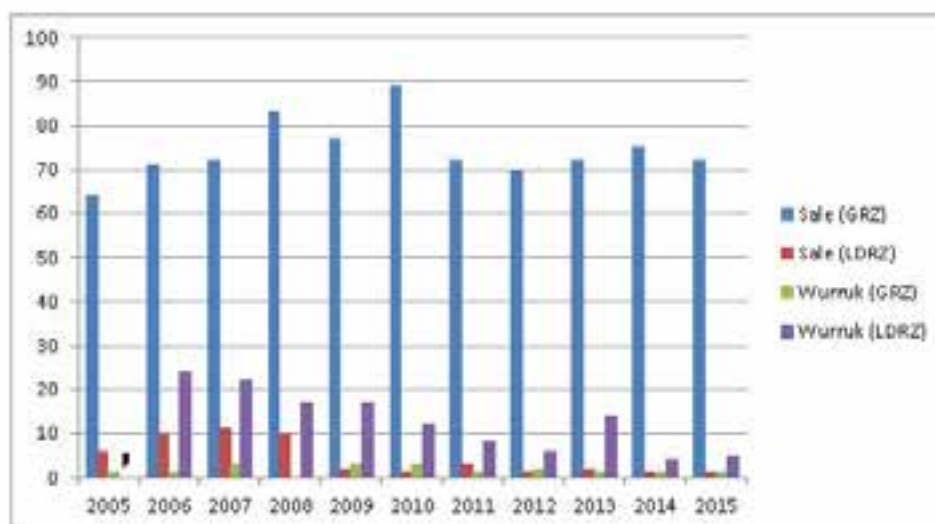
## 5.3 Building Approvals

Historical building approval data for residential development has been analysed to show historical trends in new housing development and activity that will indicate future likely rates. Building approvals at the municipal level provide a useful alternative or comparison to broad population projections when estimating future housing demand.

**Table 10** provides the total building approvals for new dwellings across Sale and Wurruk over the period 2005-2015, while **Figure 4** represents this data in a column graph format to more clearly demonstrate the trends over the study period.

Year	Number of Building permits issued			
	Sale		Wurruk	
	GRZ	LDRZ	GRZ	LDRZ
2005	64	6	1	7
2006	71	10	1	24
2007	72	11	3	22
2008	83	10	0	17
2009	77	2	3	17
2010	89	1	3	12
2011	72	3	1	8
2012	70	1	2	6
2013	72	2	1	14
2014	75	1	1	4
2015	72	1	1	5
Totals	817	48	14	136
Annual Averages	74.3	4.4	1.3	12.4

**Table 10: New dwelling approvals Data 2005-2015**



**Figure 4: New dwelling approvals Data 2005-2015**



Building approvals data from 2005-2015 shows that construction of new dwellings in the General Residential Zone has remained fairly static at around 70 dwellings per year, while there was a generally consistent decrease in new dwelling construction in the Low Density Residential Zone. This decline could, in part, be explained by a tightening of the more attractive supply in this market.

For example, of the 32 vacant lots recognised in this zone:

- 4 of the infill lots within Wurruk directly abut the Princes Highway but have not yet been discounted to account for this amenity impact;
- 9 of the 16 vacant lots at Park Ridge have never been offered for sale; and,
- 7 of the infill lots within Sale have only just come onto the market.

This leaves just 12 Low Density Residential Lots across Sale and Wurruk that have been for sale for more than 1 to 2 months and are not hampered by potential amenity impacts.

#### 5.4 Estimated Demand for Housing

**Table 11** shows the various projected demand rates compiled from the Gippsland Regional Growth Plan and Building Approvals.

Based on the various rates presented, future dwelling requirements could range from 60 to 92.4 per annum, representing an average of 76.2 new dwellings per annum.

	Gippsland Regional Growth Plan	Building Approvals	Average
Estimated Dwelling Demand per annum 2016-2041	60	92.4	76.2
Estimated Dwelling Demand 2016-2041 (Average)	1500	2,310	1,905

**Table 11: Housing demand indicators summary**

## 6 ESTIMATED YEARS OF SUPPLY

### 6.1 Estimate Years of Land Supply

Based on the demand indicators and supply assessment, the number of years of demand that the existing lot supply will meet can be estimated. **Table 12** shows the calculation of supply in terms of years.

Using the average of the two demand scenarios, the residential land supply in Sale and Wurruk as at April 2016 is estimated at 7.5 years, with a variance of between 6.2 and 9.5 years.

	Lots per annum	Years Supply
Gippsland Regional Growth Plan	60	9.5
Building approvals in Sale & Wurruk	92.4	6.2
<i>Average</i>	76.2	7.5

**Table 12 Estimated Years Supply**

### 6.2 Impacts of the rezoning the subject sites in Wurruk

As discussed previously, the Sale, Wurruk & Longford Structure Plan recommends rezoning of a set of contiguous parcels of land in Wurruk to the General and Low Density Residential.

Once this occurs, the land supply figure for Sale/Wurruk will alter in two ways:

- The 136 broadhectare Low Density Residential Zoned lots presently located in the Park Ridge Estate and White's land in Wurruk will become broadhectare General Residential Lots, so the 136 lots Low Density Residential Lots presently included in the overall supply figure will need to be subtracted; and
- An additional 800 broadhectare lots will need to be added to the overall land supply figure to represent the likely yield from all land being rezoned across Wurruk.

The outcome of these alterations will be the addition of 664 lots to the overall land supply across Sale and Wurruk.

So, based upon the average demand figure of 76.2 dwellings per annum, the rezoning in Wurruk outlined in the Structure Plan would add 8.7 years land supply and bring the overall figure to 16.2 years.

However, given the lead time of around 1-2 years before the land is likely to be rezoned, the supply will be less than 15 years by the time the lots can be considered to be available as broadhectare land supply.

Another factor in the consideration of the impacts of rezoning the subject sites is that they will be developed by five syndicates that each own separate parcels within the development area and will also provide a mixture of different densities:

- General residential zoned lots of between 600m<sup>2</sup> and 800m<sup>2</sup>, which will be similar to those on offer in the existing estate across North Sale;
- Low Density Residential Zoned lots with area of at least 2,000m<sup>2</sup> with connection to all reticulated services, which will be largely unique across the Sale/Wurruk area; and,
- Low Density Residential Zoned lots with area of at least 4,000m<sup>2</sup>, with connection to all reticulated services bar sewer, which will be similar to lots in The Ridge and Sovereign Estates in Wurruk.

At present rates, there is every likelihood that the Glebe, Woondella, and Glenhaven Estates will have fully developed and sold all of their remaining lots by 2019, with only the Cobains Estate likely to still providing significant supply by the time the Wurruk developments are offering lots to the market.

Given the spread of ownership and road access arrangements across the rezoning sites in Wurruk, development will, by necessity, commence across three fronts:

- I. 600m<sup>2</sup>-1,000m<sup>2</sup> General Residential lots adjacent to the Princes Highway in the north;
- II. 2,000m<sup>2</sup> Low Density Residential lots adjacent to Reid Drive/Amup Road in the west; and,
- III. 4,000m<sup>2</sup> Low Density Residential lots adjacent to Settlement Road in the southeast.

Lots in Wurruk's northern development front will commence competition for market share with the remaining stages of the Cobains Estate in around 2018-9, while the western and southeastern development fronts will not have any significant direct market competitor when they start offering lots to the market at around the same time, apart perhaps from each other.

By the time the Cobains Estate has been completely sold out, which should occur in around 2020-2021, market competition for 600m<sup>2</sup> - 1,000m<sup>2</sup> lots in Wurruk's northern development front will be coming from the central parts of the Wurruk development as road access is brought across from Reid Drive and up from Settlement Road into two individually owned, General Residential Zoned parcels in the heart of development area.

The speed of development across the Wurruk development sites will then depend on market demand, but it is submitted that the risk of land banking in order to starve supply and drive up prices over the next 15 years is quite low due to the capacity for competition to be sustained across the Wurruk development area itself.

### 6.3 Impacts of residential rezoning in North Sale

Apart from the "western growth area" in the Sale, Wurruk & Longford Structure Plan, i.e. Wurruk, the report also recommends that an investigation of the potential for residential development be undertaken across a "northern growth area", which would be comprised of land that is presently located in the Farming Zone on the north side of Sale. This area is predicted in the Structure Plan to have the potential to yield 1,500 lots, although subsequent development approvals will have reduced that figure, i.e. the new Sale Specialist School on the west side of the Princes Highway and the Sale Greyhound Club redevelopment on the north side of the Sale-

Maffra Road will occupy land within the "northern growth area" that was anticipated as being suitable to provide for lots.

Given the land earmarked for rezoning across Wurruk is owned by 5 separate and competing syndicates, Council will not need to rezone alternative land for residential development in North Sale to maintain a competitive market. So, further rezoning across the northern growth area can be based purely upon an analysis of supply and demand.

There are roundabout works presently underway at the intersection of Cobains Road and the Princes Highway; so, it would appear that the most logical place for the next round of residential rezoning to occur after Wurruk would be on the land to the east of the Cobains Estate, i.e. the 43 hectares of land along both sides of Chinaman's Lane. It is expected that release of this supply, which would yield around 400 residential lots, will become necessary once the Cobains Estate and the Glenhaven Estates are complete and the 8.7-year supply that Wurruk offers has been depleted to a 5-year supply or less, i.e. sometime between 2025 and 2030. A rezoning of this land would boost supply across Sale to back over 10 years, which will be ample to ensure that the building market retains confidence that demand will continue to be met over the medium to long term and prices do not start to escalate beyond the capacity of prospective purchasers.

It is noted that Council has recently undertaken to prepare an outline development plan for the "northern growth area" in order to establish a framework for how that part of Sale may be able to develop, when appropriate. However, this strategic work has revealed physical constraints that will need to be overcome prior to any serious consideration of rezoning, i.e. difficulties with storm water drainage due to the general flatness of the area, the physical barriers created by the Melbourne-Bairnsdale Railway line and the Princes Highway, a shortfall of pedestrian footpaths connecting back to the central activity district in the area, the thinness of the Cobains Road reserve, the flightpath for aircraft associated with the East Sale RAAF Base and the large number of separately owned lots, etc. The capacity of the market to absorb the cost of overcoming these physical constraints will obviously also need to be considered prior to rezoning of any land within the northern growth area.



# Heritage Assessment

regarding the heritage issues

pursuant to the proposed

Review of the significance and extent of heritage overlay HO63 (Kilmany Park)  
on the Schedule to the Heritage Overlay of the Wellington Planning Scheme

at

'Kilmany Park'

1613 Settlement Road, Wurruk



8 April 2016

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## 1. Executive Summary

The 'Kilmarny Park' estate at Wurnuk, near Sale, was established in 1841 by squatter William Pearson. Systematically developed over time by both Pearson and his son, also William Pearson, the estate eventually covered an area of approximately 30,000 acres.

By the beginning of the 20<sup>th</sup> century, at the centre of the estate, a homestead had been developed, which reflected the fortunes of both the estate and the Pearson family in its extent, facilities and architectural pretension. Incorporating buildings designed by one of regional Victoria's notable domestic architects, J.H.W. Pettit, and Melbourne's pre-eminent commercial and domestic architects, Harry B. Gibbs and Finlay Architects, the homestead consisted of: a significant mansion house, formal gardens, various domestic outbuildings, a purpose-built racing horse stable and various estate buildings, including men's quarters. The social status of the Pearson family, as formidable members of the Victorian horse racing industry, generous public benefactors within the Gippsland region and a political dynasty seen through successive generations serving as state parliamentarians, resulted in 'Kilmarny Park' serving as a social centre for both the Sale district and the upper echelons of Victorian state society during the Victorian and Edwardian periods, including royalty, state governors, Melbourne gentry and notable residents of the Sale district. The homestead and its setting, including gardens, grounds and surrounding landscape, are significant for these associations.

Following the significant reduction of the estate, due to compulsory acquisition by the Closer Settlement Board from the early 1910s, and the eventual disposal of the homestead and its remnant land by the Pearson family in the 1920s, its acquisition as a Presbyterian Church boys' home in 1923 (the Kilmarny Park Farm Home for Boys) saw the construction of multiple buildings directly related with the operation of the home and the education, social welfare and training of the boys who lived there, including: a school house (c.1927), a stoyd room, designed by renowned Public Works Department Percy Everett (c.1949); and a recreation centre (1962), presumably designed by notable Post-war era architect Keith Reid. These buildings have contributory significance for their social and architectural significance; socially for the operations of the boys' home and architecturally for being good examples of their typologies in addition to their provenance as works of architects Percy Everett and, presumably, Keith Reid. A series of caretakers' and labourers' houses associated with the operation of 'Kilmarny Park' as the boys' home and as a dairy farm, by the Uniting Church of Australia (following the closure of the boys' home and its transfer from the Presbyterian to Uniting Churches in c.1977) are not significant.

In 1995, 'Kilmarny Park' was placed on sale by the Uniting Church and purchased by surgeon Mr. Daryl Page on December 18<sup>th</sup> 1995.

In 2005, 'Kilmarny Park' was identified as being of 'State' significance and was subsequently included on the Schedule to the Heritage Overlay (HO) to the Wellington Planning Scheme, for these associations, as HO68 – Kilmarny Park. An English Oak in the gardens of the homestead was also included on the HO at this time for its associations with visiting royalty and the social status of 'Kilmarny Park' during the Victorian and Edwardian periods.

In 2015, Mr. Daryl Page engaged Tretthowan Architecture (Tretthowan) to undertake a heritage assessment of the property. The heritage assessment was commissioned following the decision by Dr. Page to review the significance of the property and the ability for partial subdivision of out-laying areas of the property. These actions have included the engagement of planners (Beveridge Williams Development and Environment Consultants) to advise on the potential for subdivision of these identified out-laying areas of the property.

This Heritage Assessment reviews the significance of 'Kilmarny Park' in its current form and assesses the perceived heritage impacts on the ascribed heritage significance of the property associated with its partial subdivision.

## 2. Introduction

### 2.1 Background

This Heritage Assessment has been prepared for 'Kilmany Park', 1613 Settlement Road, Wurruk. The Assessment is applicable to all land, at the above address, covered by heritage overlay HO68 (Kilmany Park) only.

The Assessment has been commissioned by Dr. Daryl Page.

The author of the Assessment is Sam Nichols, in consultation with Bruce Trethowan.

### 2.2 Purpose of the Document

The purpose of this document is to assess the significance of all the land, outbuildings and landscape elements contained on the property 'Kilmany Park' – hereafter referred to as the property (refer Figure 1).

The intent of the document is to determine the potential for subdivision of specific areas of the property covered by the existing heritage overlay (HO68 – Kilmany Park) and the potential impact on the significance of the heritage overlay should subdivision occur.

### 2.3 Location

The property, 'Kilmany Park', is located on Settlement Road, Wurruk, approximately 5km south-west of Sale (refer Figure 1). The property is jointly bordered, to the north, by neighbouring farmland and the eastern extent of the minor roadway Arnup Road. To the north of Arnup Road, established subdivisions of 1 acre allotments have been developed, the nearest bound by Mountview Drive to the north and east, Arnup Road to the south and Reid Drive to the east. The subdivisions incorporate approximately nine streets (drives and courts). The farmland bordering the north boundary of the property is the subject of proposed rezoning and residential redevelopment that would form an extension of this existing subdivision. The remaining boundaries of the property are bordered by the major roadway Settlement Road (to the east) and neighbouring farmland to the south and west.

The property consists of the majority of those remaining vestiges (land and buildings) of the former 'Kilmany Park' estate and the later 'Kilmany Park Farm Home for Boys', including the mansion house, outbuildings, gardens, parkland, surrounding paddocks and extant stands of European and indigenous trees. While the majority of buildings remain on the property, several buildings associated with both the homestead complex and the later boys' home have been subdivided onto separate titles and therefore exist as individual properties. These individual properties are Nos. 148A, 148B, 148C, 148D and 148F Reid Drive. A road easement, an extension of Reid Drive, extends through the northern section of the homestead complex. Refer to Section 5.2 (Built Form) of the report for descriptions of the subdivided properties.



Figure 1 Location of the property within the context of the Wurruk and Sale, the property is indicated.  
Source: Google Maps, 2016



Figure 2 Diagram showing the 2008-09 subdivision of the northern extent of the homestead complex, overlaid with a coloured key. The coloured key indicates the subdivided properties as: 148A Raid Drive (pink), 148B Raid Drive (purple), 148C Raid Drive (orange), 148D Raid Drive (red), 148F Raid Drive (green), and the road easement (cyan).  
Source: Land Victoria

#### 2.4 Reference Documents

The following documents have been referenced in the preparation of this Heritage Assessment:

- Heritage reports:
  - John Hawker Horticulturalist, Heritage Victoria, *Kilmany Park, Sale – Plant Survey*, 20<sup>th</sup> March 1997.
  - Anne Napier Architect, *Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk*, 1<sup>st</sup> December 2005.
  - David Helms Heritage Planning + Management, *Kilmany Park Sale, Review of heritage significance*, January 2009.
- Planning reports:
  - Beveridge Williams Development and Environment Consultants, *South Wurruk Development Plan*, July 2014 (Draft).



### 3. Heritage Listings and Controls

#### 3.1 Statutory Listings

##### 3.1.1 Heritage Act 1995

###### 3.1.1.1 Victorian Heritage Register

The property is not included as a heritage place on the Victorian Heritage Register (VHR), pursuant to the Heritage Act 1995.

Despite the subsequent reference to the property as being of 'State' significance (refer Section 3.1.2.3 Property Significance), is not included on the VHR.

##### 3.1.2 Planning and Environment Act 1987

###### 3.1.2.1 Wellington Planning Scheme

The property is identified as heritage overlay HO68 – Kilmany Park – on the Heritage Overlay Map of the Wellington Planning Scheme (refer Figure 3). The heritage overlay relates to the land and subject buildings of the property, including the subdivision discussed at Section 2.3 (Location). External paint and tree controls apply as a result of the Heritage Overlay, however, no internal controls are applicable.

In addition, HO68 includes the additional heritage overlay identified as HO151 (Oak Tree) on the Heritage Overlay Map. Tree controls are applicable as a result of the Heritage Overlay.

###### 3.1.2.2 Heritage Studies

The property has been the subject of the previous heritage studies and reviews:

- Context Pty Ltd, Wellington Shire Heritage Study: Stage 1 – Volume 1: Study methods and results, May 2005.
- Context Pty Ltd, Wellington Shire Heritage Study: Stage 1 – Volume 2: Environmental History, May 2005.
- Anne Napier Architect, Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk, 1<sup>st</sup> December 2005.
- David Helms Heritage Planning + Management, Kilmany Park Sale: Review of heritage significance, January 2009.

The **Wellington Shire Heritage Study: Stage 1** (Context Pty Ltd, 2005) was initially undertaken in order to assess the significance of the property as part of its inclusion on the Schedule to the Heritage Overlay of the Wellington Planning Scheme. This significance was assessed on the basis of historical research previously undertaken as part of the inclusion of the property on the non-statutory registers of the National Trust of Australia (Victoria) and the now-archived Register of the National Estate (refer Section 3.2 Non-Statutory Listings). The property was assessed as being of 'State' significance as a result of this assessment (refer Section 3.1.2.3 Property Significance).<sup>1</sup> The property was subsequently included within heritage overlay HO68 as a result of its identified significance. The Statement of Significance developed for the property, as part of the assessment, was based on those developed by the National Trust of Australia (Victoria) and the Register of the National Estate. The English Oak tree (*Quercus robur*) was identified as having significance in light of its inclusion on the National Trust of Australia Register of Significant Trees.<sup>2</sup>

In May, 2005, the property was re-assessed in the report **Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk** (Anne Napier Architect, 2005). The report was based on an application to subdivide the buildings on the property onto a series of 6 individual allotments.<sup>3</sup> The report undertook further historical research, extracting quotes from two published sources,<sup>4</sup> and provided a physical assessment of the individual buildings on the property.<sup>5</sup> In its assessments of the perceived impacts associated with subdivision, the report extracted quotes from the Heritage Victoria published

<sup>1</sup> Context Pty Ltd, Wellington Shire Heritage Study: Stage 1 – Study methods and results, 2005, p. 130.

<sup>2</sup> Wellington Shire Council, HERMES database record no. 128012, Place Citation Report 'English Oak (*Quercus robur*)', p. 2.

<sup>3</sup> Anne Napier Architect, Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk, 1<sup>st</sup> December 2005, pp.4-5.

<sup>4</sup> Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk, pp.2-3.

<sup>5</sup> Proposed Subdivision 'Kilmany Park' Settlement Road, Wurruk, pp.3-5.



document *Guidelines For The Assessment of Heritage Planning Applications*.<sup>6</sup> In light of the information gleaned from these documents, the report developed a series of recommendations for the management of the property.

Amongst others, it recommended:

- Subdivision of the property into the proposed 6 allotments was appropriate
- HO68 remain over all allotments, despite the subdivision, as part of a broader management plan for the heritage overlay
- Internal controls to the individual properties need not apply
- External paint controls be removed from selected allotments; and
- External tree controls be removed from selected allotments.

The subdivision of the property into the proposed number of allotments occurred, creating the new properties 148A – 148F Reid Drive.<sup>7</sup> The heritage overlay was retained its existing boundary (refer Figure 3).

In January, 2009, the property was again re-assessed in the report *Kilmory Park Sale: Review of heritage significance* (David Helms Heritage Planning + Management, January 2009). The report was based on a review of the significance of the property in order to provide recommendations to alter the extent of HO68.<sup>8</sup> A history of the property was developed and based, like that of the *Wellington Shire Heritage Study: Stage 1*, on the previous research undertaken by the National Trust of Australia (Victoria) and the Register of the National Estate; an assessment of the property was undertaken as part of the report.<sup>9</sup> Based on the assessment and previous historical research, a Statement of Significance was developed for the property.<sup>10</sup>

The preceding heritage reports (Napier, 2005 and Helms, 2008) are included at Appendix C.

### 3.1.2.3 Property Significance

The property, 'Kilmory Park', is identified as being of 'State' significance in the *Wellington Shire Heritage Study: Stage 1 – Volume 1: Study methods*. State significance is defined as:

*State significance: those places that are considered to contribute to the heritage of Victoria.*<sup>11</sup>

The Statement of Significance for the property reads as follows:

*Kilmory Park is of considerable historical and aesthetic significance to Wellington Shire and the Gippsland region.*

*Historically, it has associations with the pastoral settlement of Gippsland in the mid-nineteenth century and illustrates the status of the pastoralists within Gippsland society. It has important associations with the locally important Pearson family who were influential in local and Victorian commerce and politics. Aesthetically, the present Classically [sic] derived mansion with the wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and ponderous central pediment, is notable as one of the last of the conservative Classical mansions erected in Victoria. (RNE criteria A.4, B.2, D.2, E.1 & H.1)*

*(The Commission is in the process of developing and/or upgrading official statements for places listed prior to 1991. The above data was mainly provided by the nominator and has not yet been revised by the Commission.)<sup>12</sup>*

<sup>6</sup> *Proposed Subdivision 'Kilmory Park' Settlement Road, Warrak*, pp 5-9.

<sup>7</sup> Land Victoria, *Planning Property Report – 148B Reid Drive, Warrak*, 23<sup>rd</sup> February 2016, p. 1.

<sup>8</sup> David Helms Heritage Planning + Management, *Kilmory Park Sale, Review of heritage significance – January 2009*, p. 1.

<sup>9</sup> Helms, *Kilmory Park Sale, Review of heritage significance – January 2009*, pp. 2-4.

<sup>10</sup> Helms, *Kilmory Park Sale, Review of heritage significance – January 2009*, pp. 4-5.

<sup>11</sup> *Wellington Shire Heritage Study: Stage 1 – Study methods and results*, 2005, p. 10.

<sup>12</sup> Wellington Shire Council, HERMES database record no. 120062, *Place Citation Report 'Kilmory Park'*, p. 2.

The Statement of Significance for the English Oak reads as follows:

*This English Oak (Quercus robur) at Kilmany Park planted by King George V when visiting the property as the Duke of York on 15 May 1901 is of historical and scientific (horticultural) significance to Wellington Shire. Historically, it is significant for its associations with King George V and a reminder of his visit to Sale at the time of Federation. It demonstrates the importance of Sale as city and Kilmany Park. Scientifically, it is of horticultural significance as a fine mature specimen of this species. (RNE criteria A.4, D.2 and H.1)<sup>11</sup>*

The Statements of Significance for 'Kilmany Park' and the Oak Tree have been derived from the Statements of Significance developed by the Register of the National Estate and the National Trust of Australia (Victoria), refer Section 3.2 Non-Statutory Listings.

The heritage citations for 'Kilmany Park' and the Oak Tree, contained in the Wellington Shire Heritage Study, are included at Appendix A.



Figure 3 Extract of the heritage overlay map from the Wellington Planning Scheme; the extent of the property is indicated.  
Source: Wellington Planning Scheme

<sup>11</sup> Wellington Shire Council, HERMES database record no. 128012, Place Citation Report 'English Oak (Quercus robur)', p. 2.

## 3.2 Non-Statutory Listings

### 3.2.1 Register of the National Estate

The property is included on the now archived Register of the National Estate (RNE), known as the Australian Heritage Database, as Place ID 4772 – Kilmany Park. The property was registered as a historic building on 21 March 1978.

The registration for the property includes the following Statement of Significance:

*Kilmany Park is one of the oldest established properties in eastern Victoria and largely founded by William Pearson. Resolute Scot, successful pastoralist, politician, and mining entrepreneur. The present Classically [sic] derived mansion with the wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and ponderous central pediment, is one of the last of the conservative Classical mansions erected in Victoria and notable for this fact. William Pearson junior was a model of his father's career.<sup>14</sup>*

There are no statutory requirements as a result of the registration.

The accompanying citation for the registration is included at Appendix B.

### 3.2.2 National Trust of Australia (Victoria)

The property, and the English Oak tree planted by The Duke of Cornwall and York, are classified by the National Trust of Australia (Victoria).

The Kilmany Park Homestead is classified as being locally significant – file no. B2969. The building was classified on 7<sup>th</sup> December 1972.

The classification for the property includes the following Statement of Significance:

*A two-storeyed mansion on a particularly grand scale, built in 1901 for the major squatter William Pearson, and notable for the variety of its art nouveau plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony, now partially built in.<sup>15</sup>*

The 'Quercus robur' (English Oak) is classified as being state significant – file no. T11099. The tree was classified on 10<sup>th</sup> April 1997. The tree is included on the National Trust of Australia Register of Significant Trees.<sup>16</sup>

The accompanying citations for the classifications are included at Appendix B.

<sup>14</sup> Department of the Environment – Australian Government, 'Kilmany Park, Reid Dr, Wumuk' in Australian Heritage Database, accessed 20 January 2016 at <http://www.environment.gov.au/ahd>.  
[http://ahd.environment.gov.au/ahd/place\\_detail?search\\_place\\_name%3DKilmany%20Park%20Vic%20RNE%3Dkeyword\\_PQ%3D%3Dkeyword\\_23%3D%3Dkeyword\\_P%3D%3D%3Dlatitude\\_14%3D%3D%3Dlongitude\\_14%3D%3D%3Dlongitude\\_24%3D%3D%3Dlatitude\\_24%3D%3D%3Dreport%3D%3Darticle\\_id%3D4772](http://ahd.environment.gov.au/ahd/place_detail?search_place_name%3DKilmany%20Park%20Vic%20RNE%3Dkeyword_PQ%3D%3Dkeyword_23%3D%3Dkeyword_P%3D%3D%3Dlatitude_14%3D%3D%3Dlongitude_14%3D%3D%3Dlongitude_24%3D%3D%3Dlatitude_24%3D%3D%3Dreport%3D%3Darticle_id%3D4772)

<sup>15</sup> National Trust database, Kilmany Park Homestead, accessed 20 January 2016 at [http://ahd.heritage.vic.gov.au/search/natrust\\_result\\_detail?0006](http://ahd.heritage.vic.gov.au/search/natrust_result_detail?0006)

<sup>16</sup> Wellington Shire Council, HERMES database record no. 128012, Place Citation Report 'English Oak (Quercus robur)', p. 2.

## 4. History

### 4.1 Contextual History

#### 4.1.1 Settlement of North Gippsland

From the early 1840s, the Gippsland region of Victoria was initially settled by 'squatters'<sup>17</sup> who took up licenses on vast runs of Crown land. The majority of these early settlers were Scottish emigrants.<sup>18</sup> This followed earlier exploration into Gippsland, from New South Wales, by Scottish explorer Angus McMillan from December 1839.<sup>19</sup>

The inaccessibility of Gippsland from Melbourne during this early period was well noted, the Crown Lands Commissioner for Gippsland, Charles Tyers, abandoning his attempt at a 'practical overland route', in September 1843, instead opting to sail for Port Albert in January 1844.<sup>20</sup> Prior to this, the majority of attempts at an overland route into the central plains of North Gippsland had been made from the New South Wales borders, via the mountain trail of Angus McMillan through alpine Gippsland.<sup>21</sup> Those settlers opting for the alpine route shepherded livestock (both sheep and cattle) on a journey that, in the case of the early 'overlander' William Odell Raymond in June 1842, took four months.<sup>22</sup>

Other Scottish squatters that opted for the overland route included William Pearson who, at the age of 23, started for Gippsland in June 1841. Travelling overland toward the Murray River (to the future site of Albury), Pearson followed the Milla-Milla River toward Mt Gibbo from where he travelled overland, via Ormeo, into Gippsland where he took up a 'run'<sup>23</sup> on the central plains, in what would become the Sale district, in September 1841.<sup>24</sup> He named his run 'Kilmany Park'.

### 4.2 Place History

#### 4.2.1 William Pearson of 'Kilmany Park'

William Pearson (1818-1893) was born at Hilton, Parish of Kilmany, Fife-shire, Scotland and educated at Edinburgh High School.<sup>25</sup> The son of a retired Royal Navy officer,<sup>26</sup> Captain Hugh Pearson,<sup>27</sup> young Pearson developed a penchant for the sea and was assigned to an American timber ship by his father in the expectation it would dissuade him from entering the seafaring profession. Captain Pearson's attempts achieved the opposite effect with young Pearson jumping ship and joining the service of an East Indiaman,<sup>28</sup> in 1838, where he eventually rose to the position of third officer by the age of 20.<sup>29</sup> Following the death of Pearson's father in 1839, he left the sea and sailed from Greenock, Scotland for Australia in September 1840. Pearson arrived in Adelaide early in 1841 from where he travelled overland to Port Phillip (Melbourne) and thence onwards to Gippsland.<sup>30</sup>

Upon his arrival in Gippsland in September 1841, from Ormeo, with a herd of cattle co-owned with fellow settler Malcolm Macfarlane,<sup>31</sup> Pearson took out a license in his mother's name, Helen Pearson of Edinburgh, for a run of 12,800 acres,

<sup>17</sup> Squatter: Someone who settled on Crown land to run stock, especially sheep, initially without government permission, but later with a lease or licence. (Macquarie Dictionary definition)

<sup>18</sup> Peter Syme, *Gippsland's Lucky City: A History of Sale*, 1994, p. 19.

<sup>19</sup> Theo Webster, 'McMillan, Angus (1810-1865)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, first published in hardcopy 1967, accessed online 3 February 2016: <http://adb.anu.edu.au/biography/mcmillan-angus-24167e/d1203>

<sup>20</sup> *Gippsland's Lucky City: A History of Sale*, p. 19.

<sup>21</sup> *Gippsland's Lucky City: A History of Sale*, p. 19.

<sup>22</sup> *Gippsland's Lucky City: A History of Sale*, p. 19.

<sup>23</sup> Run: A large area of grazing land; a rural property; a grazing run; a sheep run. (Macquarie Dictionary definition)

<sup>24</sup> Alexander Henderson, 'Pearson of Kilmany Park', *Henderson's Australian Families*, 1941, p. 27.

<sup>25</sup> 'Pearson of Kilmany Park', *Henderson's Australian Families*, p. 27.

<sup>26</sup> 'Pearson of Kilmany Park', *Henderson's Australian Families*, p. 27.

<sup>27</sup> Meryn Stevenson, *Kilmany's Stories 1911-2011*, 2011, p. 4.

<sup>28</sup> East Indiaman: a large armed sailing vessel of the East India Company. (Macquarie Dictionary definition)

<sup>29</sup> *Kilmany's Stories 1911-2011*, p. 4.

<sup>30</sup> 'Pearson of Kilmany Park', *Henderson's Australian Families*, p. 27.

<sup>31</sup> 'Pearson of Kilmany Park', *Henderson's Australian Families*, p. 27.



before eventually transferring this into his own name in 1848.<sup>32</sup> Pearson's change in ownership of the license was no doubt influenced by the preceding right obtained by squatters, in 1847, for freehold title on homestead blocks and long leases, of up to 14 years, on remaining land.<sup>33</sup>

Securing freehold on the homestead block led to the development of more permanent structures after 1847, including the first 'Kilmory Park' house: a gable roofed weatherboard bungalow of sorts, with five sets of French doors opening onto a recessed verandah beneath a continuous roofline (refer Figure 5). In c. 1870-71, this house was superceded as the principal residence on the estate with Pearson commissioning a new house,<sup>34</sup> to a design by Norwich-born, Sale-based architect and surveyor John Henry Wroth (J.H.W.) Pettit (refer Figure 6).<sup>35</sup> Despite being superceded, the original house was retained as an annex to the new residence with an internal connection between the two, via a small hipped-roof weatherboard link (refer Figure 5).

William Pearson's character was defined by 'reputed aristocratic looks and stern demeanour' yet demonstrated a quick reaction when 'he believed his honour was being questioned'.<sup>36</sup> He also demonstrated an aptitude and ruthlessness in his business and personal pursuits, aiding in his development of 'Kilmory Park' as one of the great pastoral properties of Victoria. In 1862, the first example of this business acumen came at a time of threat to the squatting class's leased land on the Sale plains, via the terms of the Duffy Land Act. The Duffy Land Act was established in the 1860s as a response by government to assist out of work ex-miners establish themselves as small farmers or 'selectors' by reverting Crown land to freehold title. The majority of this land was identified as that Crown land held by the ruling squatter class under licensee or lessee agreement, the best of which was reserved by the government for disbursement via auction. In 1862, a pact was entered into by the various Gippsland squatters in which they would not bid against one another in the auctions held at land offices in the regional centres of the district. In the instance of one of these sales, this pact was dishonoured with William Pearson bidding on the neighbouring run to 'Kilmory Park', 'Fulham Station', and ultimately un-sealing the squatter of Fulham, Captain J.W. Jones. Following a public denunciation of Pearson in the editorial of the *Gippsland Times* after the event, it was reported that Jones suicided not long thereafter.<sup>37</sup> Having procured the entirety of 'Kilmory Park' per the Gippsland squatters' pact and the majority of 'Fulham Station' via auction, the whole was converted into freehold title by 1868.<sup>38</sup> In 1872, further accounts of Pearson's questionable conduct with regard to land acquisition at the local land board arose when morass land (marshy ground) leased by him at Warrak was opened up to selectors. In this instance, the police magistrate W.H. Foster and district surveyor W.T. Dawson were in attendance in an attempt to thwart Pearson's undue influence over the sale through his use of several 'dummy bidders' on his behalf, including the private school master to his children Reginald Wynne, so that it appeared that land was being purchased by the selectors for whom it was intended. In 1877, a candidate for the seat of North Gippsland asserted that the failure of the land sales between Sale and Rosedale and been due to being 'dummed by Pearson'.<sup>39</sup> While questionable, the adoption of these practices was ultimately successful with Pearson increasing 'Kilmory Park' to over 14,500 acres by 1882.<sup>40</sup> By 1894, the property totalled 17,000 acres.<sup>41</sup> At the beginning of the new century, the estate covered nearly 30,000 acres.<sup>42</sup>

The acquisition of such land did come at significant cost, however Pearson's diversified business portfolio extended beyond that of pastoral pursuits. In June 1865, Pearson's fortuitous investment, along with other leading squatters on the Sale plains,<sup>43</sup> realised the establishment of the Long Tunnel Extended Gold Mining Company mine at Walthalla, Pearson being its largest shareholder with 900 shares.<sup>44</sup> With an initial share price of £5, resulting in a capital outlay of £4,500, Pearson's

<sup>32</sup> 'Pearson of Kilmory Park', Henderson's Australian Families, p. 28.

<sup>33</sup> *Gippsland's Lucky City: A History of Sale*, p. 43.

<sup>34</sup> 'Tenders', *Gippsland Times*, 8 December 1870, p. 2.

<sup>35</sup> 'John Henry Wroth Pettit', Design and Art Australia Online, accessed 5 February 2016: [http://www.daan.org.au/ho/john-henry-wroth-pettit/personal\\_details/](http://www.daan.org.au/ho/john-henry-wroth-pettit/personal_details/)

<sup>36</sup> Debra Morris, 'Pearson, William (1818-1893)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, first published in hardcopy 1967, accessed online 9 February 2016: <http://adb.anu.edu.au/biography/pearson-william-4384>

<sup>37</sup> *Gippsland's Lucky City: A History of Sale*, p. 43.

<sup>38</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>39</sup> *Gippsland's Lucky City: A History of Sale*, p. 44.

<sup>40</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>41</sup> 'Kilmory Park', *The Leader*, 18 August 1894, p. 8.

<sup>42</sup> 'The Gippsland Capital - An Other's See It', *Gippsland Times*, p. 3.

<sup>43</sup> *Gippsland's Lucky City: A History of Sale*, p. 34.

<sup>44</sup> *Kilmory's Stories 1911-2011*, p. 4.



share price rose to £212, realising dividends of £512 per share over the 45 years of the mine's operations<sup>41</sup> between 1865 and 1911.<sup>42</sup>

With the systematic increase in his wealth, Pearson further expanded his interests, investing in costly social pursuits, including hunting and horse racing, that would later become lynch pins in the social structure of the Gippsland community. Pearson was the first to introduce fox hounds into the Gippsland region for the sport and maintained them as 'master of the hounds', a position he retained until 1868 when he handed the responsibility to the newly formed Sale-District Hunt Club.<sup>43</sup> His interest in horse racing in particular became a primary focus over time, initially beginning him as a race horse owner running at the local racecourse at Flooding Creek (as Sale was then known) where he won his first race in 1842.<sup>44</sup> Later, he became an important supporter in the development of the Greenwattle Racecourse at Sale, both as an official of the Sale Turf Club and as a horse owner.<sup>45</sup> In 1867, Pearson's contribution to the local racing industry began to border, in the eyes of some in the community, on undue influence with a question of a monopoly raised in light of Pearson's positions as secretary, treasurer and collector of funds for the Gippsland Turf Club in addition to him being the race handicapper and owning horses competing in the races.<sup>46</sup> His response to his critics, particularly with regard to his method of handicapping horses, was a claim for damages in a libel suit that he subsequently lost.<sup>47</sup> Not one to suffer failure, Pearson instead broadened his focus further afield to the metropolitan races of Melbourne and subsequently placing greater emphasis on the development of his racing stable at Kilmory Park, the Pearson stable even possessing its own racing colour – black with a white stripe.<sup>48</sup> In 1880-81, Pearson commissioned improvements to the Kilmory Park stables including the construction of a purpose built racing stable, again engaging Sale-based architect John Henry Wroth Pettit.<sup>49</sup> Constructed by Rosedale builder William Allen,<sup>50</sup> the stable consisted of 10 loose boxes and 5 stalls.<sup>51</sup> At its height the stables were considered 'the best outside Melbourne',<sup>52</sup> consisted of the central stable buildings and three training tracks, two of which were specifically designed for jumpers (steeple-chase) incorporating 'stout post and rail and log and stone fences' for training the horses, the whole overseen by a staff of 24.<sup>53</sup> For those employed in the stables, rough treatment was incurred under Pearson, especially the jockey who 'rode a bad race on a horse that was expected to win and did not, he was "given a hiding" when he got home'.<sup>54</sup> Outside of the stables however, Pearson possessed a reputation as a notable breeder within Victoria, becoming members of both the Victoria Amateur Turf Club (Caulfield Racecourse) and the Victoria Racing Club (Flemington Racecourse), the latter including a position on the Racing Club Committee.<sup>55</sup> While experiencing great success, reputedly winning over 300 races and breeding over 100 winning horses,<sup>56</sup> the Melbourne Cup eluded his grasp; his nearest win with the Kilmory Park-bred horse 'Commoon' finishing second in 1884.<sup>57</sup> In October 1893, having 'completely broken down', 'Commoon' was shot at 'Kilmory Park', the destruction of the horse making significant headlines in *The Age* newspaper.<sup>58</sup> Following his destruction, 'Commoon' was buried in the gardens of the homestead.<sup>59</sup>

<sup>41</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>42</sup> Parks Victoria, 'Long Tunnel Extended Gold Mine', accessed online 5 February 2016: <http://parks.vic.gov.au/explorer/parks/feathalls-habitat-and-heritagelong-tunnel-extended-gold-mine>

<sup>43</sup> *Gippsland's Lucky City: A History of Sale*, p. 45.

<sup>44</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>45</sup> *Gippsland's Lucky City: A History of Sale*, p. 44.

<sup>46</sup> *Gippsland's Lucky City: A History of Sale*, p. 44.

<sup>47</sup> 'Pearson, William (1818-1892)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, accessed online 9 February 2016: <http://adb.anu.edu.au/biography/pearson-william-4384>

<sup>48</sup> *Gippsland's Lucky City: A History of Sale*, p. 44.

<sup>49</sup> 'Tenders', *Gippsland Times*, 1 November 1880, p. 2.

<sup>50</sup> 'A Pioneer Builder Passes – Mr Allen, of Rosedale', *Gippsland Times*, 3 January 1924, p. 2.

<sup>51</sup> 'Kilmory Park', *The Leader*, 18 August 1894, p. 6.

<sup>52</sup> 'Devastating Grass Fires at Sale', *Gippsland Times*, 17 February 1944, p. 1.

<sup>53</sup> 'Makur's Cup – Not Commoon', *Gippsland Times*, 21 February 1944, p. 2.

<sup>54</sup> 'Passed Away – Mr Geo. Wallace', *Gippsland Times*, 22 May 1952, p. 1.

<sup>55</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>56</sup> *Kilmory's Stories 1911-2011*, p. 4.

<sup>57</sup> *Gippsland's Lucky City: A History of Sale*, p. 44.

<sup>58</sup> 'Death Of A Famous Racehorse – Commoon Shot at Kilmory Park', *The Age*, 27 October 1893, p. 6.

<sup>59</sup> 'Kilmory Park', *The Leader*, 18 August 1894, pp. 6-7.

While openly criticised by many in the Sale district, no doubt in light of his reputation for business, Pearson possessed supporters. In 1864, this support was bought to the fore in Pearson's election to the seat of North Gippsland in the Victorian Legislative Assembly, a seat he was re-elected to in 1866.<sup>14</sup> Resigning his seat in light of his opposition to the introduction of salaries for Legislative Assembly members, he subsequently ran for, and was elected, as the Representative of Eastern Province from 1881 and the Representative of Gippsland from 1882,<sup>15</sup> retaining the seat until his death in 1893.<sup>16</sup> Developing standing in the community as a politician in light of his continued re-election, Pearson's personal investment in the Sale district was no more defined than his contribution, in 1893 at the height of the 1890s depression, of £20 to the Gippsland Hospital to see the institution through following the closure of the National Bank in Sale and with it the loss of the Hospital's credit balance.<sup>17</sup>

In light of his increasing time spent in Melbourne between the racing calendar and political appointments, Pearson purchased land in St Kilda East, at the intersection of Orrong and Inkerman Roads (now Inkerman Street) in 1864 for the construction of a townhouse, no doubt leaving a manager in charge of 'Kilmany Park' in his absence. In 1876, he commissioned the construction of a vast suburban 20-room villa, 'Craigellachie', at the centre of the 12 acre estate.<sup>18</sup> The main entrance to the property was entered off Inkerman Street with a trade entrance, to a stable complex overlooked by an estate cottage, off Orrong Road.<sup>19</sup> Significantly larger than comparable stable blocks on neighbouring villa estates, the increased size would have no doubt been a result of the buildings stabling for both the 'Craigellachie' household and race horses from the Kilmany Park stable, 'Craigellachie' providing Melbourne based stabling prior to and after race meets before their return to the racing stables at 'Kilmany Park'. The proximity of the 'Craigellachie' estate to Caulfield Racecourse would have also been advantageous.

The Hon. William Pearson MLC died at 'Craigellachie', St Kilda East, on 10<sup>th</sup> August 1893.<sup>20</sup>



Figure 4 Hon. William Pearson I (1818-1893); image date c.1880-1893, photographer unknown. Source: State Library of Victoria

<sup>14</sup> Kilmany's Stories 1911-2011, p. 4

<sup>15</sup> Kilmany's Stories 1911-2011, p. 4

<sup>16</sup> Pearson of Kilmany Park, Henderson's Australian Families, p. 28.

<sup>17</sup> Gippsland's Lucky City: A History of Sale, p. 88.

<sup>18</sup> City of Glen Eira, HERMES database record no. 35209. Place Citation Report 'Craigellachie, 2b and 2c Lynedoch Avenue', p.2.

<sup>19</sup> State Library of Victoria, MMDW Detail Plan No. 1430, Shire of Caulfield.

<sup>20</sup> Kilmany's Stories 1911-2011, p. 4.



Figure 5 External view of the first 'Kilmory Park' house, constructed after 1847 by William Pearson, looking north, photographer and date unknown. The image is taken from the carriage circle (circular driveway) at the front of the house. Note the roofline and chimney of the 'Meat House' to the immediate left of the house.  
Source: Pearson-Trumble Family Collection (image courtesy of Angus Trumble, Canberra)



Figure 6 External view of the second 'Kilmory Park' house, constructed in c. 1870-71, looking north-west, photographer and date unknown. The image is taken from the gardens to the south-east of the house.  
Note the original house constructed by William Pearson in the background at right.  
Source: Pearson-Trumble Family Collection (image courtesy of Angus Trumble, Canberra)

#### 4.2.2 The Pearson Dynasty

##### Hon. William Pearson MLC (1818 – 1893)

William Pearson was a defining character in the settlement and development of Gippsland. From the early years of the region's settlement, he positioned himself at the centre of community life, in the Sale district particularly, and by virtue his family as one of the defining 'squatocratic' dynasties of the late Victorian – early Edwardian age.<sup>71</sup>

In 1859, William Pearson married Eliza Laura Travers<sup>72</sup> at 'Grassdale', Gippsland, the two having met on a return trip of Pearson's to his native Scotland earlier that year.<sup>73</sup> Eliza was the daughter of H.J. Travers, who, like Pearson, was previously in the service of the East India Company.<sup>74</sup> Following their marriage, William and Eliza Pearson realised five sons and two daughters:

- Hugh Pearson (1860-1874) – born 'Kilmany Park', Sale
- Henry Travers Pearson (1861-1880) – born 'Kilmany Park', Sale
- William Pearson (1864-1919) – born 'Craigellachie', St Kilda East
- John Benward Pearson (1866-1925) – born 'Kilmany Park', Sale
- Alexander Buchanan Pearson (1869-1920) – born 'Kilmany Park', Sale
- Helen Pearson (1871-1891) – born 'Kilmany Park', Sale
- Laura Margaret Pearson (1874-1905) – born 'Craigellachie', St Kilda East.<sup>75</sup>

##### Hon. William Pearson MLC (1864 – 1919)

Given the premature death of his two elder brothers, the third son, William Pearson, succeeded them at 'Kilmany Park' as heir apparent. Following his education at the Geelong Church of England Grammar School, he travelled abroad for two years with Bishop Arthur Green before returning to 'Kilmany Park' under his father's direction on the Estate; Pearson subsequently acquired 'Bonegilla' station near Wodonga.<sup>76</sup> On 2<sup>nd</sup> July 1887, Pearson wed Sophie Emily Gooch, daughter of George Cornelius Gooch of 'Coonalbyn Station', South Australia,<sup>77</sup> the two returning, with their young family, to 'Kilmany Park' upon his father's death at 'Craigellachie', from heart disease at the age of 75, in 1894.<sup>78</sup> Following their marriage, William and Sophie realised one son and two daughters:

- William Roy Pearson (1891-1923) – born 'Bonegilla' station, Wodonga<sup>79</sup>
- Helen Pearson (1893-1975) – born 'Bonegilla' station, Wodonga<sup>80</sup>
- Emily Laura Pearson (known as Mim)<sup>81</sup> – born St Kilda.<sup>82</sup>

Upon his return to 'Kilmany Park', William Pearson (Junior) assumed the mantle of his father as head of the Pearson family and its position at the centre of community life, and the social squatocratic elite, in the Sale district / Gippsland region. Like his father he took a keen interest in local affairs, including several years as a member of both the Sale Borough Council and Rosedale Shire Council, a term as President of the North Gippsland Agricultural Society and a patron of the Sale Turf Club as its President. Admired for his commitment to community life, he made his private golf course available to the Sale Golf Club following its founding in 1901. In the event of big private tournaments at the 'Kilmany Park' course, Pearson invited boys from Sale to caddy for the gentry of Melbourne who descended upon 'Kilmany Park' to compete. Ever the gentlemen, Pearson had the unwritten rule that these gentlemen golfers be responsible for their caddies being well fed at the preceding

<sup>71</sup> Squatocratic, from Squatocracy: the long-established and wealthy landowners who regard themselves as an aristocracy. (Macquarie Dictionary definition)

<sup>72</sup> Pearson of Kilmany Park', Henderson's Australian Families, p. 28.

<sup>73</sup> Kilmany's Stories 1911-2011, p. 4.

<sup>74</sup> Pearson of Kilmany Park', Henderson's Australian Families, p. 28.

<sup>75</sup> Pearson of Kilmany Park', Henderson's Australian Families, p. 28.

<sup>76</sup> Kilmany's Stories 1911-2011, p. 4.

<sup>77</sup> Pearson of Kilmany Park', Henderson's Australian Families, p. 28.

<sup>78</sup> Kilmany's Stories 1911-2011, p. 4.

<sup>79</sup> Pearson of Kilmany Park', Henderson's Australian Families, pp. 28-29.

<sup>80</sup> 'Granny' in The Trumble/Dierkes, Angus Trumble, published 15 December 2008, <http://angustrumble.blogspot.com.au/2008/12/granny.html>

<sup>81</sup> Pers. comm.: A. Trumble to S. Nichols, via email, 22 January 2018.

<sup>82</sup> Pearson of Kilmany Park', Henderson's Australian Families, pp. 28-29.



luncheon he would host in the grounds of the homestead. On one occasion where he noticed one caddy, Arthur Mitchell, being neglected, Pearson confronted 'the offending golfer and dispatched him forthwith to the Sale Railway Station'.<sup>13</sup> In 1896, Pearson, like his father, entered state politics, running for the same Province his father represented. Elected to the seat, he remained a member of the Council until 1916.<sup>14</sup> He carried on the famous horse stud established by his father, albeit with lesser focus on racing and more on breeding, the large 10 box racing stable previously full of horses in training during his father's time given over to 3 thoroughbred horses. Despite winding back horse-led operations at 'Kilmory Park', by 1894, the estate still supported a stud of 200 horses, nearly all thoroughbreds.<sup>15</sup> Like his father, Pearson maintained an extensive workforce on the estate, including a chauffeur known purely as 'Old Sock', the Pearson's car reputedly one of the first seen in Gippsland.<sup>16</sup> Emily Pearson too assumed her own responsibilities within local affairs, being much admired for her charitable work.<sup>17</sup> While maintaining the majority of his father's vices, Pearson was still yet to make his mark at 'Kilmory Park'.

From 1903, Pearson began his improvements to the property, beginning with 'making and forming 75 chains of roadway', tenders for the project being called by Sale architect G.H. Cain in May, 1903.<sup>18</sup> The works potentially related to the formation of the main driveway to the house, the distance of 75 chains (approx. 1.5kms) comparable to the current length of the driveway. All this was perhaps in preparation for what would be Pearson's ultimate gesture, that being a house with architectural pretension that would maintain the Pearson's of 'Kilmory Park' at the centre of the district socially beyond his life time. Constructed between 1905-06 to a design by pre-eminent Melbourne architects Harry B. Gibbs & Finlay,<sup>19</sup> the c. 1870-71 house on the estate was gutted, a second storey added and the whole extended to create a mansion with a vast imitation ashlar, cement rendered, double-storey colonnade wrapping around three sides of the building. The post-1847 weatherboard house on the estate, which had previously survived as part of the homestead complex, was demolished as a consequence of these works. The mansion was constructed from bricks produced at Young's Brickworks in Raglan Street, Sale, the number of workmen engaged by Pearson in its construction large enough to support its own social club which conducted eel fishing contests on Lake Guthridge, toward the edge of Sale; one event in 1906 attracting 19 competitors and a crowd of onlookers.<sup>20</sup> A Melbourne-based newspaper, *The Leader*, did a photographic feature on the homestead, shortly after the completion of the mansion, in July 1906.<sup>21</sup>

Like his father, Pearson entertained at 'Kilmory Park' on a grand scale. In 1901, his hospitality was on show when honoured with being received by his HRH The Duke of Cornwall and York (later King George V) during his Victorian visit to open the first Commonwealth Parliament in Melbourne.<sup>22</sup> On this occasion, the Duke planted an English Oak tree in the homestead's gardens.<sup>23</sup> In 1905, his hosting of the Easter Encampment of the 10<sup>th</sup> Regiment Australian Light Horse saw him lavish the entire regiment. His generosity, 'not forgotten', resulted in him being bestowed the rank Honorary Colonel.<sup>24</sup> In 1906, entertaining at 'Kilmory Park' ascended to another level of social hierarchy following completion of the mansion, with Pearson hosting the Farmer's Convention in July of that year the perfect opportunity. Over the course of the event, attendees were received by the Governor of Victoria, Sir Reginald Talbot, with convention delegates and an additional 400 residents of the Sale district hosted on the front lawns.<sup>25</sup> Following inspection of the mansion, a large marquee was erected at the rear of the mansion which served afternoon tea to all those in attendance.<sup>26</sup> This would become one of the last great events hosted at the mansion, the days of 'Kilmory Park' as a symbol of the squatocracy and what they represented.

<sup>13</sup> *Gippsland's Lucky City: A History of Sale*, p. 147.

<sup>14</sup> 'Pearson of Kilmory Park', Henderson's Australian Families, p. 28.

<sup>15</sup> 'Kilmory Park', *The Leader*, 18 August 1894, p. 6.

<sup>16</sup> Pers. comm.: A. Trumble to S. Nichols, via email, 22 January 2016.

<sup>17</sup> *Gippsland's Lucky City: A History of Sale*, p. 123.

<sup>18</sup> 'Tenders', *Gippsland Times*, 25<sup>th</sup> May 1903, p. 2.

<sup>19</sup> 'Tenders', *Gippsland Times*, 17 April 1905, p. 2.

<sup>20</sup> *Gippsland's Lucky City: A History of Sale*, p. 109.

<sup>21</sup> 'Kilmory Park Estate, Near Sale', *The Leader*, 7<sup>th</sup> July 1906.

<sup>22</sup> Pearson of Kilmory Park, Henderson's Australian Families, p. 28.

<sup>23</sup> Wellington Shire Council, HERMES database record no. 128012, Place Citation Report 'English Oak (*Quercus robur*)', p. 1.

<sup>24</sup> *Gippsland's Lucky City: A History of Sale*, p. 110.

<sup>25</sup> *Gippsland's Lucky City: A History of Sale*, p. 109.

<sup>26</sup> *Gippsland's Lucky City: A History of Sale*, p. 110.



coming to a dose as a tide of sentiment turned against the ruling squatters, both at government level and within the local community.

During the early 1900s, agitation in Sale toward absentee landlords of vast squattocratic estates drew resentment in the community, such individuals seen as making no contribution toward the district, or Sale in particular, and therefore in effect were actively contributing to the stowed growth of the town.<sup>107</sup> While criticism was rife in the case of Henry Foster,<sup>108</sup> a resident of Tasmania whose family had owned the vast 'Heart Estate' since 1848,<sup>109</sup> community criticism of William Pearson was held but muted, despite his considerably larger holding. This was in light of his residing at 'Kilmory Park' for part of the year and the major contributions of himself and his wife to the town, William in his role as public benefactor and parliamentarian and Sophie for her contributions toward local charities.<sup>110</sup> Later, in 1910 and despite his considerable contributions to the district, injustice would be delivered to William Pearson in the compulsory acquisition of the western portion of 'Kilmory Park',<sup>111</sup> an area covering some 8,600 acres (refer Figure 14).<sup>112</sup>

Following the sale of the Estate's western section, at the end of 1912, Pearson took his family to England for an extended period. During this time, Sophie Pearson and her daughters, Helen and Mim, were presented at an evening court to King George V and Queen Mary. Their trip also included time on the continent, including Menton in southern France and skiing in Switzerland. While there, the only Pearson son, Roy, enrolled in the British Army, eventually serving as a Lieutenant in the 13<sup>th</sup> Hussars in Mesopotamia and the King's Own Yorkshire Regiment in France.<sup>113</sup> With Roy remaining in Britain, Pearson and the remainder of the family sailed for Victoria in 1914, however with their only son remaining in Britain, the family returned in 1915 and stayed for the duration of the First World War. Anticipating the length of their stay, Pearson did not contest his parliamentary seat in the Legislative Council in 1916. In his absence, his Australian affairs were left with his brothers (John and Alexander) and a group of, apparently, 'incompetent business agents'.<sup>114</sup> In 1918, upon the outbreak of the notorious 'Spanish Flu' pandemic which was contracted by both Helen and Mim, Pearson and his family returned to Victoria and the safety of 'Kilmory Park'.<sup>115</sup> Eventually reaching Victoria in 1919, the pandemic killed approximately 10,000 people nationally.<sup>116</sup> William Pearson, being 'in indifferent health for some time' eventually succumbed to heart failure in April of that year,<sup>117</sup> a potential complication of the influenza pandemic.

The Hon. William Pearson MLC died at 'Kilmory Park', at the age of 54,<sup>118</sup> on 31<sup>st</sup> March 1919.<sup>119</sup>



Figure 7 Hon. William Pearson II (1864-1919), date and photographer unknown. Source: Pearson-Tumble Family Collection (Image courtesy of Angus Tumble, Carbenra)

<sup>107</sup> Gippsland's Lucky City: A History of Sale, p. 123.

<sup>108</sup> Gippsland's Lucky City: A History of Sale, p. 123.

<sup>109</sup> Foster, John (1792-1875), Australian Dictionary of Biography, National Centre of Biography, Australian National University, accessed online 11 February 2016: <http://adb.anu.edu.au/biography/foster-john-2061>

<sup>110</sup> Gippsland's Lucky City: A History of Sale, p. 123.

<sup>111</sup> Kilmory's Stories 1911-2011, p. 4.

<sup>112</sup> Gippsland's Lucky City: A History of Sale, p. 146.

<sup>113</sup> 'Pearson of Kilmory Park', Henderson's Australian Families, p. 28.

<sup>114</sup> 'The Pearsons in London' in The Tumble Diaries, Angus Tumble, published 4 March 2008, <http://angustumble.blogspot.com.au/2008/03/pearsons-in-london.html>

<sup>115</sup> 'Granny' in The Tumble Diaries, Angus Tumble, published 15 December 2008, <http://angustumble.blogspot.com.au/2008/12/granny.html>

<sup>116</sup> Australian Emergency Management Knowledge Hub, 'Epidemic - Spanish Flu, Australia-wide 1919', accessed 12 February 2016, <http://www.emknowledge.gov.au/source/97/1919/epidemic--spanish-flu-australia-wide-1919>

<sup>117</sup> 'Obituary - The Late William Pearson', Gippsland Times, 3 April 1919, p. 3.

<sup>118</sup> 'Obituary - The Late William Pearson', Gippsland Times, 3 April 1919, p. 3.

<sup>119</sup> 'Pearson of Kilmory Park', Henderson's Australian Families, p. 28.



Figure 8 'Mr. W. Pearson's Residence', an extract from the photographic feature 'Kilmory Park Estate, near Sale'. External view of the entrance front of the third 'Kilmory Park' house, looking north-west, shortly following its completion in 1906. Note the croquet hoops on the central lawn (left), indicating its original use as a croquet lawn, and the angled brick edging to the surrounding gardens beds (right). Source: *The Leader*, 7<sup>th</sup> July 1906, p. 33.



Figure 9 Internal view of the Drawing Room of the third 'Kilmory Park' house, looking west toward the entrance hall; photographer and date unknown. Source: Pearson-Trumble Family Collection (Image courtesy of Angus Trumble, Canberra)



Figure 10 View of wedding party gathered on the front steps of 'Kilmory Park', c. 1912; photographer unknown.  
The Hon. William Pearson (Jnr.) stands, at right, immediately in front of the car; his wife Sophie Emily Pearson is seated fourth from right. The father of Sophie, George Cornelius Gooch, stands at left of William Pearson. The man in oilskins left of Gooch is the chauffeur 'Old Sock'. William and Sophie's only son and principal heir, William Roy Pearson, stands immediately left of the nearest column.  
Source: Pearson-Trumble Family Collection (Image courtesy of Angus Trumble, Canberra)

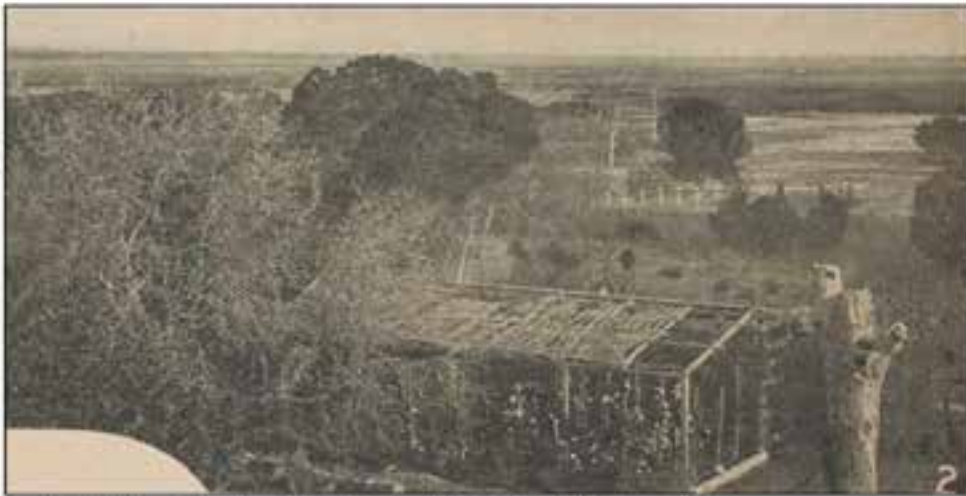


Figure 11 'Looking Across Kilmory', an extract from the photographic feature 'Kilmory Park Estate, near Sale'.  
External view across the gardens from the first-floor of the mansion house. The building in the foreground appears to be a shade house for the propagation of plants.  
Source: *The Leader*, 7<sup>th</sup> July 1906, p. 33.





Figure 12 'Stock Yard, Stables and Electric Power House', an extract from the photographic feature 'Kilmory Park Estate, near Sale'. External view of the rear yard of the 'Kilmory Park' homestead, looking north-east towards the Pearson racing stables. The electric power house is in the foreground, the stockyards are at right in the background of the stables. The height of the image indicates that it was taken from the first-floor verandah at the rear of the mansion. Source: *The Leader*, 7<sup>th</sup> July 1906, p. 33.



Figure 13 'Men's Quarters and Shropshire Ewes', an extract from the photographic feature 'Kilmory Park Estate, near Sale'. External view of the men's quarters, looking north-east. Note, the conical structure in the foreground is an underground water tank. Source: *The Leader*, 7<sup>th</sup> July 1906, p. 33.

**William Roy Pearson (1891 – 1923)**

Following William Pearson's death, the Pearson dynasty and its future at 'Kilmory Park' steadily began to unravel. The heir apparent, William (Roy) Pearson, despite his father's wishes, did not succeed to the estate.<sup>110</sup> Having survived World War I, he returned a chronic alcoholic and made the decision to sell 'Kilmory Park' as a consequence of settling his father's estate.<sup>111</sup>

Upon the estate's eventual sale to the Oser Settlement Board for further agricultural subdivision in 1920,<sup>112</sup> Sophie Pearson removed to the coastal town of Metung<sup>113</sup> in south Gippsland where she eventually died in 1923.<sup>114</sup> Roy Pearson would predecease his mother in 1923, dying at the age of 33 as a result of his alcoholism, at his property 'Commotion' (named by him after his grandfather's famous racehorse) at Kilsyth near Croydon.<sup>115</sup> His young bride, Maida Frances Blood Dowling<sup>116</sup> returned to her native Toowoomba, Queensland, childless, soon after.<sup>117</sup>

Pearson's sisters, Emily (Mim) and Helen, coincided their respective marriages with the disposal of 'Kilmory Park', both marrying at St. Paul's Cathedral, Sale in 1920, Mim in January<sup>118</sup> and Helen in October. Helen's reception was one of the last events hosted by the Pearsons at the mansion.<sup>119</sup>

In death, Helen would eventually return to 'Kilmory Park', her ashes scattered 'under a pretty tree on the edge of what was originally the croquet lawn at the front of the house' in 1975.<sup>120</sup>

<sup>110</sup> 'Commotion' in *The Turnbull Diaries*, Angus Turnbull, published 20 May 2011, <http://angus Turnbull.blogspot.com.au/2011/05/commotion.html>

<sup>111</sup> 'Commotion' in *The Turnbull Diaries*, Angus Turnbull, published 20 May 2011, <http://angus Turnbull.blogspot.com.au/2011/05/commotion.html>

<sup>112</sup> *Gippsland's Lucky City: A History of Sale*, p. 146.

<sup>113</sup> 'The Pearsons in London' in *The Turnbull Diaries*, Angus Turnbull, published 4 March 2009, <http://angus Turnbull.blogspot.com.au/2009/03/pearsons-in-london.html>

<sup>114</sup> 'Pearson of Kilmory Park', *Henderson's Australian Families*, p. 28.

<sup>115</sup> 'Commotion' in *The Turnbull Diaries*, Angus Turnbull, published 20 May 2011, <http://angus Turnbull.blogspot.com.au/2011/05/commotion.html>

<sup>116</sup> 'Pearson of Kilmory Park', *Henderson's Australian Families*, p. 28.

<sup>117</sup> 'The Pearsons in London' in *The Turnbull Diaries*, Angus Turnbull, published 4 March 2009, <http://angus Turnbull.blogspot.com.au/2009/03/pearsons-in-london.html>

<sup>118</sup> 'Weddings, Mr. Roy Leiflaw Davidson to Mrs. Laura Emily Jackson, Table Talk, 22 January 1920, p. 25.

<sup>119</sup> 'Wedding, Bothwick - Pearson', *Transition Record*, 2 November 1920, p. 4.

<sup>120</sup> 'Kilmory Park' in *The Turnbull Diaries*, Angus Turnbull, published 24 December 2008, [http://angus Turnbull.blogspot.com.au/2008/12/kilmory-park\\_24.html](http://angus Turnbull.blogspot.com.au/2008/12/kilmory-park_24.html)



#### 4.2.3 Closer Settlement Board

In 1904, the Premier of Victoria, Thomas Bent, introduced the Closer Settlement Estates acts, the gesture representing the revival of previous land settlement acts in an attempt to install small landholders on their own properties following the hardships faced by those during the 1890s depression.<sup>171</sup>

In 1910, the Lands Purchase and Management Board made an approach to acquire the western half of the 'Kilmany Park' estate for subdivision into 73 closer settlement agricultural allotments, ranging from 20 acres to 276 acres.<sup>172</sup> Representing 8,600 acres of the estate developed by his father, William Pearson initially refused the offer. However, the powers of the Closer Settlement Act, even for a sitting parliamentarian at that time, offered little recourse and Pearson sold, realising £12 per acre, approximately £103,200 in total.

Following World War I (1914-18), the influx of returned soldiers to the Sale district hastened the 'breaking up of the large estates'<sup>173</sup>, the 'national obligation to rehabilitate them and make Australia a land fit for heroes' increasing the necessity for further closer settlement in the district.<sup>174</sup> Of these, the remnant eastern-portion of 'Kilmany Park' was considered a prize to disperse amongst those more deserving. These opinions were expressed early amongst the citizens of Sale, the decision not to purchase the estate on the advice of the valuer to the Closer Settlement Board, shortly after William Pearson's death in 1919, inciting the 'astonishment and anger of Sale'.<sup>175</sup> The decision by the Board galvanised the community to convince it (the Board) otherwise, inciting 'rallies, deputations, even speeches at half time at the football'.<sup>176</sup> In 1920, the Board succumbed to the demands of the Sale community, overlooking the ability for the estate to be subdivided into viable farms (as noted by the Board's valuer) and the further questions associated with what to do with the homestead's vast mansion. The estate was initially subdivided into 36 allotments in an attempt to evenly subdivide the property between low-lying morass and high ground. The subdivision was subsequently increased by 5 allotments following the Board's sale of the homestead and some adjacent land.<sup>177</sup>

In 1923, the Closer Settlement Board sold the homestead and adjacent land to the Presbyterian Church of Victoria.<sup>178</sup> Prior to the church taking over the homestead, a clearing sale was held dispersing the remainder of the Pearson family's furniture that had presumably been left in the house following their departure.<sup>179</sup>

<sup>171</sup> Kilmany's Stories 1911-2011, p. 12.

<sup>172</sup> Kilmany's Stories 1911-2011, p. 4.

<sup>173</sup> Gippsland's Lucky City: A History of Sale, p. 147.

<sup>174</sup> Gippsland's Lucky City: A History of Sale, p. 146.

<sup>175</sup> Gippsland's Lucky City: A History of Sale, p. 146.

<sup>176</sup> Gippsland's Lucky City: A History of Sale, p. 148.

<sup>177</sup> Gippsland's Lucky City: A History of Sale, p. 146.

<sup>178</sup> Gippsland's Lucky City: A History of Sale, p. 148.

<sup>179</sup> Kilmany's Stories 1911-2011, p. 4.



Figure 14 Kilmory Park Estate, Parishes of Denison and Warrak Warrak, County of Tanjeil, 1923, by the Department of Lands and Survey. Plan of the original extent of the Kilmory Park estate showing the subdivision pattern of the property; the homestead block containing the mansion and outbuildings is indicated.  
Source: Centre for Gippsland Studies, Monash University



Figure 15 Extract of the map Kilmory Park Estate, parishes of Denison and Warrak Warrak, county of Tanjeil, 1923, by the Department of Lands and Survey. The extent of the homestead block is indicated. Note the original alignment of the driveway. The mansion (homestead) and stables are the only buildings indicated on the remnant property. The original Woolshed and Yards of the property (indicated by the red arrow) are shown on the neighboring property.  
Source: Centre for Gippsland Studies, Monash University

#### 4.2.4 The Kilmany Park Home for Boys (1924 – 1978)

In the early 1920s, the idea of repurposing the former Pearson homestead at 'Kilmany Park' as a boys' welfare home was initiated by local merchant and Presbyterian parishioner Mr. W.D. Leslie.<sup>130</sup> On 8<sup>th</sup> January 1923,<sup>131</sup> the homestead and some 200 acres of land<sup>132</sup> were subsequently purchased by the Rev. Donald A. Cameron M.A. on behalf of the Presbyterian Church of Victoria on the 8<sup>th</sup> January 1923 (refer Figure 14).

Opening in 1924<sup>133</sup> as the 'Kilmany Park Farm Home for Boys',<sup>134</sup> the Home was designed as a place 'to transplant city boys who were at social risk, to the wholesome atmosphere of a Gippsland farming property'.<sup>135</sup> The Home's farm, the 'McClelland Memorial Farm' was gifted to the institution in the memory of Thomas Hugh McClelland (1907-1924) by his parents Thomas and Elizabeth McClelland,<sup>136</sup> a plaque at the rear entrance to the homestead indicating the donation (refer Figure 66); a Mr. and Mrs. T. McClelland were members, respectively, of the Committee and Melbourne Ladies' Auxiliary of the Home at this time.<sup>137</sup> Overseen by a complicated management structure in both Melbourne and Sale, the management structure included: a Patron, Chairman, Hon. Secretary and Treasurer, Committee, Sale Advisory Committee, Melbourne Ladies' Auxiliary and a Sale Ladies' Auxiliary.<sup>138</sup> The first superintendent of the Home was Mr. H. Clyne.<sup>139</sup>

By 1925, numbers increased at the Home, 44 boys having passed through, for both long and short stays, in that year.<sup>140</sup> At the time, the Home's farm ran 30 milking cows, 25 pigs and Ayrshire cattle for breeding in addition to growing wheat (5 acres), barley (15 acres), oats for hay (10 acres), potatoes (2 acres), and maize, sugar mangolds, and pumpkins (5 acres). The wheat grown was ground at the local mill for the Home.<sup>141</sup> With constant pressure placed on the local school at Wumuk, to which the boys would travel for their schooling, the Victorian Education Department opened a school in 1927, the Kilmany Park School No. 4240,<sup>142</sup> at the rear entrance to the homestead; the school consisting of two buildings, a school house and a Sloyd (woodwork) room.<sup>143</sup> By 1944, average attendance at the school had increased to 40 boys and 3 girls.<sup>144</sup> Previously, in 1931, the numbers of students at the school had prompted discussions regarding the provision of a residence for the Head Teacher and the relocation of a vacant Closer Settlement Board house on 'O'Farrell's Block', a half mile away from the school, to facilitate this.<sup>145</sup> It is unclear whether the relocation of this residence occurred, however by the late-1930s a white weatherboard house had been constructed in the proximity of the school.<sup>146</sup> The original intended use of the house is uncertain.

In February 1944, significant grassfires in the East Kilmany – Rosedale area caused widespread damage, devastating the rural communities and causing significant livestock and infrastructure losses.<sup>147</sup> 'Kilmany Park' was not spared with significant damage caused to the Home and school. At the school, outhouses and the Sloyd room, with all its equipment, were destroyed with the school house escaping relatively unscathed, albeit for requiring repairing externally as a result of

<sup>130</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2016.

<sup>131</sup> Public Records Office of Victoria, LS25857 Kilmany Park Farm Home for Boys Presbyterian Church of Victoria Wumuk Wumuk 1 E 11 11A 206-3-30, VPRS 5714P0000612, 1923-1942.

<sup>132</sup> Gippsland's Lucky City: A History of Sale, p. 169.

<sup>133</sup> Gippsland's Lucky City: A History of Sale, p. 169.

<sup>134</sup> Public Records Office of Victoria, 'The Kilmany Park Farm Home for Boys', Sale, Gippsland, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>135</sup> Gippsland's Lucky City: A History of Sale, p. 169.

<sup>136</sup> Thomas Hugh McClelland, Find A Grave, accessed 19<sup>th</sup> February 2016 at <http://www.findagrave.com/cgi-bin/fg.cgi?page=g&GRid=11453888>.

<sup>137</sup> Public Records Office of Victoria, 'The Kilmany Park Farm Home for Boys', Sale, Gippsland, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>138</sup> Public Records Office of Victoria, 'The Kilmany Park Farm Home for Boys', Sale, Gippsland, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>139</sup> Public Records Office of Victoria, 'The Kilmany Park Farm Home for Boys', Sale, Gippsland, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>140</sup> Public Records Office of Victoria, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>141</sup> Public Records Office of Victoria, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>142</sup> Public Records Office of Victoria, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>143</sup> Gippsland's Lucky City: A History of Sale, p. 169.

<sup>144</sup> Public Records Office of Victoria, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>145</sup> Public Records Office of Victoria, 4240 Kilmany Park, Building Files: Primary Schools, VPRS795P00003004, 1924-67.

<sup>146</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2016.

<sup>147</sup> Devastating Grass Fires at Sale', Gippsland Times, 17 February 1944, p. 1.



the fire.<sup>143</sup> In comparison, the Home and its centre at the Pearson family's former homestead, which had been largely retained intact by the Presbyterian Church, saw significant damage. The architect-designed racing stables of William Pearson were largely left in ruins, albeit for the flanking wings either side of the central yard,<sup>144</sup> 1,200 bales of meadow contained within the building fuelling the fire.<sup>145</sup> The old woolshed of 'Kilmory Park', evident on 1923 maps of the property (refer Figure 15) was also destroyed during the fires, the building 'lled with hay'.<sup>146</sup> A series of timber outbuildings, dating from the Pearson era, which did survive the fires were subsequently demolished prior to 1949.<sup>147</sup>

Following the fire, improvements to the school were slow. While replacement of the Sloyd room was considered urgent in 1944, a design for a replacement Sloyd room was not prepared by the Chief Architect of the Public Works Department, Percy Everett, until June 1949. Reconstruction of the room was undertaken by Reconstruction Trainees at the Sale Technical College, however by April 1949 the building had been left unfinished following the closure of the vocational training centre at the College.<sup>148</sup> The subsequent result was a building that did not adhere with the final design prepared by the Public Works Department. The Sloyd room was eventually completed by February 1955.<sup>149</sup>

By mid-1956, the Kilmory Park School, albeit maintained by the Department of Education, had closed. As early as 1956, the Education Department discussed the removal of the school house from the site, however, for reasons unknown, this did not occur. In September 1959, the dormant state of the Sloyd room and its equipment raised the concern of then superintendent of the Home, J.C. Whimpey, to write to A.W. Woodhouse, Secretary of the Education Department indicating it had 'disturbed me for some time, to see the building and equipment out of use, and therefore deteriorating'. While Whimpey attempted to negotiate the rental of the Sloyd room, by the Home, to educate members of the local Scout Troop in woodwork, the Education Department had already negotiated the relocation of the timber furniture in the Sloyd room to the Sale High School for use in its new woodwork room.<sup>150</sup> In light of the removal of the furniture, it is unclear whether the Home proceeded with the lease of the Sloyd room for the Scout Troop.

During the 1960s, and despite the closure of the Kilmory Park School and the disbursement of its fixtures to the Sale High School, the continued investment in the Home's infrastructure continued. Under Superintendent Eric Frith's tenure during this period, significant attention was paid to the Home's grounds. These works included the realignment of the main driveway, constructed by the Pearson's, to accommodate a large oval on the east front of the house, the driveway skirting along its south-east edge. In addition to these works, an avenue of native trees was planted along the length of the drive, the avenue named Leslie Drive in honour of the philanthropic Leslie family of Sale, the family having served the Home for three generations.<sup>151</sup> The Home farm continued to operate with the institution providing a focus toward 'formal farm training'.<sup>152</sup> Construction was undertaken of several houses on the fringe of the homestead complex for various managers at the Home, including the 'William's House' in the mid-1960s, a red-brick house on the north-east edge of the homestead complex and the 'Spencer House' in the mid-1960s, an orange brick house (near the former Kilmory Park School) for share farmers on the property.<sup>153</sup>

In 1962, further construction works came in the form of a significant bequest to the Home, the R.M. Ainslie Bequest, which enabled the construction of a brick Recreation Centre for the boys at the rear of the mansion. Somewhat reflecting the architectural language of the nearby Pearson-era racing stables, the Centre was, presumably, designed by Melbourne architect Keith Reid, the architect having undertaken previous alterations to the mansion's kitchen, in 1948, as a result of a bequest to the Home by Miss Janet Stewart, the kitchen works were undertaken by Sale builder Mr W. Stephenson.<sup>154</sup> Undertaking another project for the Presbyterian Church in the Sale area at this time (St Columba's Presbyterian Church,

<sup>143</sup> Public Records Office of Victoria, 4240 Kilmory Park, Building Files: Primary Schools, VPRS795P0000/3004, 1824-67.

<sup>144</sup> Refer Figure 16.

<sup>145</sup> 'Devastating Grass Fires at Sale', *Gippsland Times*, 17 February 1944, p. 1.

<sup>146</sup> 'Devastating Grass Fires at Sale', *Gippsland Times*, 17 February 1944, p. 1.

<sup>147</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2018.

<sup>148</sup> Public Records Office of Victoria, 4240 Kilmory Park, Building Files: Primary Schools, VPRS795P0000/3004, 1824-67.

<sup>149</sup> Public Records Office of Victoria, 4240 Kilmory Park, Building Files: Primary Schools, VPRS795P0000/3004, 1824-67.

<sup>150</sup> Public Records Office of Victoria, 4240 Kilmory Park, Building Files: Primary Schools, VPRS795P0000/3004, 1824-67.

<sup>151</sup> Refer Figure 7D.

<sup>152</sup> 'Kilmory Park House Presbyterian Home for Boys', Victoria, Care Leavers Australia Network, accessed 19 February 2016 at <http://www.clnet.org.au/homeless?r=kilmory-park-house-presbyterian-home-for-boys>

<sup>153</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2018.

<sup>154</sup> 'Kilmory Park Kitchen', *Gippsland Times*, 20 April 1948, p. 1.

Sale; 1968), the architect had also undertaken multiple ecclesiastical projects, mostly for the Presbyterian Church, since 1931.<sup>100</sup> The Centre was opened by Councillor John Leslie J.P., Mayor of Sale, on 25<sup>th</sup> August 1962, a brass dedication plaque at the south entrance to the Centre denotes this contribution (refer Figure 70). Further investment was undertaken in the construction of a 'Manager's House' in the mid-1970s, a cream brick house in the gardens of the homestead.

Despite the value of the Home as a valued alternative to many metropolitan-based institutions during the mid-1960s, by the mid-1970s the Kilmany Park Farm Home for Boys was seen as an outdated care model.<sup>101</sup> In 1977, changes within the Church management hierarchy hastened decisions with regard to the Home, the responsibility of boys' homes and community organisations within Victoria having been transferred from the Presbyterian Church of Victoria to the Uniting Church in Australia (Synod of Victoria and Tasmania).<sup>102</sup>

The Kilmany Park Farm Home for Boys closed in 1978.<sup>103</sup>

Following the Uniting Church's decision to close the Home, the property was maintained as a dairy, the land being let to various tenant farmers during this period until the mid-1990s.

#### 4.2.5 The Page Family (1996 – Present)

In 1996, the Uniting Church in Australia placed 'Kilmany Park' for sale by tender, the value of the property unknown in light of its former institutional use and the significant number of buildings that now constituted the homestead complex; the mansion and its size particularly problematic.<sup>104</sup>

On December 18<sup>th</sup> 1996, 'Kilmany Park' was purchased by Dr. Daryl Page. Following his purchase of the property, significant restoration and repair works were undertaken to the mansion specifically and the homestead complex generally. Significant works to the homestead complex included the renewal of the formal gardens of the mansion, including their extension toward the east into what had previously been open paddocks. These works included the removal of existing trees and plantings, the establishment of the present east lawn and the installation of a water fountain, the fountain having been purchased by Dr. Page in East Melbourne in 2001.<sup>105</sup> Additional works included the demolition of the cream brick 'Manager's House', constructed during the mid-1970s in the final years of operation of the former Kilmany Park Farm Home for Boys.<sup>106</sup>

In late 2005, Dr. Page commenced a subdivision of the homestead complex into a series of six individual titles.<sup>107</sup> This subdivision resulted in the former Kilmany Park School, men's quarters, multiple caretaker and labourer houses; and the remainder of the homestead complex, including the mansion, being divided into a separate titles. A road easement, forming an extension of Reid Drive, provides access to these smaller properties.

'Kilmany Park' is maintained by Dr. Page as his home, a bed and breakfast and wedding and reception venue.

<sup>100</sup> Built Heritage Pty Ltd, Keith Reid (1906-1999), *Dictionary of Living Architects*, accessed online 23 February 2018. [http://www.builtheritage.com.au/bua\\_reid.html](http://www.builtheritage.com.au/bua_reid.html)

<sup>101</sup> Kilmany Park House Presbyterian Home for Boys', accessed 19<sup>th</sup> February 2018 at <http://www.ulan.org.au/homes/617/kilmany-park-house-presbyterian-home-for-boys>

<sup>102</sup> Pers. comm.: J. Wilson, Clerk of Assembly for Presbyterian Church of Victoria, to S. Nichols, via email, 27 January 2018.

<sup>103</sup> Kilmany Park House Presbyterian Home for Boys', accessed 19<sup>th</sup> February 2018 at <http://www.ulan.org.au/homes/617/kilmany-park-house-presbyterian-home-for-boys>

<sup>104</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2018.

<sup>105</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2018.

<sup>106</sup> Pers. comm.: D. Page to S. Nichols, via email, 29 January 2018.

<sup>107</sup> Proposed Subdivision 'Kilmany Park' Settlement Road, Wuruk, p. 1.



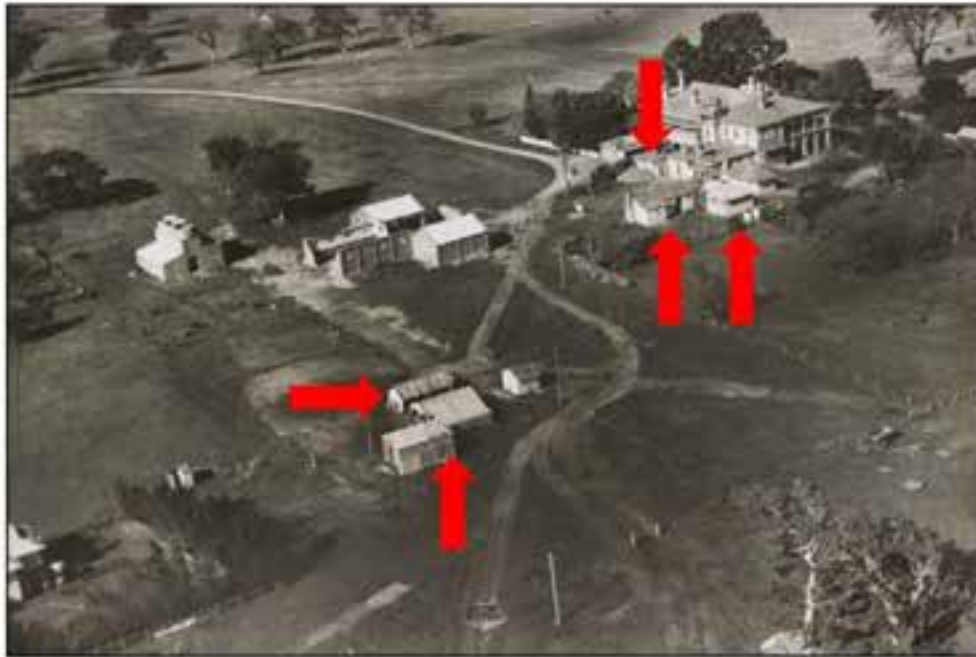


Figure 16 Image from the collection 'Kilmory Boys Home and typical farm in the Sale area', c. 1945, photographer: State Rivers and Water Supply Commission. Aerial view of the 'Kilmory Park' homestead, documenting damage following the c.1944 grass fires, including: the gutted Pearson racing stables, and charred trees along the boundary fence of the former Kilmory Park School. The buildings indicated by the red arrows have since been demolished.  
Source: State Library of Victoria



Figure 17 'Kilmory Park Farm Home, Sale', c. post-1923; photographer unknown.  
Exterior view of 'Kilmory Park' house, following its acquisition by the Presbyterian Church as the Kilmory Park Home for Boys. Note the shade-cloth on the first floor colonnade where these areas have been converted into dormitories for the boys. The original angled brick garden edging (c. 1900), dating from the original garden layout of the house, remains intact (refer Figure 8).  
Source: Presbyterian Church of Victoria



Figure 18 Aerial view of Kilmany Park from an extract of an aerial view of the Sale District, c. 1978; photographer unknown. The aerial shows the property immediately prior to the closure of the Kilmany Park Farm Home for Boys in 1978. Note the visible lack of the avenue along the extent of the main driveway. The approximate extent of the heritage overlay has been overlaid across the image. Source: Beveridge Williams Development and Environment Consultants (Sale Office)



Figure 19 External view of the completed Recreation Centre at the Kilmany Park Farm Home for Boys, looking south-west, toward the rear entrance, c. 1962; photographer unknown. Source: Care Leavers Australia Network website, accessed 19<sup>th</sup> February 2016 at: <http://www.clan.org.au/homes/vic/2/kilmany-park-house-prs/boys/in-home-for-boys>



Figure 20 External view of the Kilmany Park Farm Home for Boys, looking south toward the rear of the mansion; c.1962, photographer unknown. The presence of the Recreation Centre, at the right of the image, indicates the image was taken after the completion of the building. Source: Care Leavers Australia Network website, accessed 19<sup>th</sup> February 2016 at: <http://www.plan.org.au/home/vis?enkilmany-park-house-prebyterian-home-for-boys>



## 5. Subject Property

### 5.1 Context

The south-east area of Warrak is defined by broad acre subdivision, consisting of 1 acre allotments, bordered by open farm land. The remnant farm land on the edge of the subdivisions is typically higher level ground, dotted with single stands of old Eucalypt trees that are endemic to the area, that culminates in a promontory of sorts before descending into low-lying undulating ground and ultimately morass (marshes) on the southern side of Settlement Road. This natural topography is representative of the landscape quality of the 'Kilmory Park' property as defined by heritage overlay HO68 – hereafter referred to as the property. The homestead complex is located on the promontory.

The major thoroughfares in the area consist of a variety of major bitumen arterial roads, bitumen residential streets and gravelled rural roads. The major arterial roadway Settlement Road (a sealed road) runs the extent of the southern boundary of the property. In the north-east, Reid Drive (a sealed road) runs north-south, to the rear entrance to the property. Originally, Reid Drive was contained exclusively within the greater 'Kilmory Park' property, resulting in its straight alignment that does not deviate. The northern boundary of the property is bordered by Arnup Road (a gravelled road), the roadway surveyed as part of the closer settlement of 'Kilmory Park' in the 1920s. The odd alignment of the road, and its multiple deviations, are representative of it following the boundaries of the original allotments surveyed as part of the Closer Settlement scheme (refer Figure 15 and Figure 21).

The 'Kilmory Park' homestead is within the north-west corner of the property. The rear entrance to the property is defined by decorative concrete gateposts and plantings of Aloe Vera plants. The concrete posts are contemporary with the establishment of the Kilmory Park Farm Home for Boys in 1924 as seen in a dedication plaque; the planted borders of Aloe Vera are associated with beautification projects undertaken during the property's tenure as a boys' home (refer Figure 34). When viewed to the south, the location of the homestead on a promontory allows for uninterrupted views across the low lying farm land of the property to distant foothills. Below the promontory, the surrounding landscape is dotted with Eucalypts, of significant age, and remnant wind-break plantings of Macrocarpa and Silver Poplar (also of significant age), the wind breaks originally defining fence lines and the surrounding structure of paddocks. As one approaches the main entrance of the property, from the south along Settlement Road, continuous views of the homestead, and therefore its rear outbuildings, are obscured by established lines of old Macrocarpa cypress trees. At the end of the line of trees, the main entrance to the property is defined by two English Oak trees, of considerable age, and later horizontal paling fences with plantings of Aloe Vera. The driveway runs parallel with Arnup Road, the boundary line of the property extending between the two gravelled lanes. Views of the homestead complex, when travelling south along Settlement Road, are largely obscured due to the natural topography of the land and the established lines of Macrocarpa cypress.

As is the case with most rural properties, much of the aspect enjoyed by the homestead exists beyond the physical boundaries of the property. The majority of those important views from the homestead complex extend from the south-east, and the existing alignment of the main driveway to the property, to the north-west. To the north, and across the higher ground to the rear of the homestead complex, extensive residential subdivision on neighbouring properties has compromised views from the homestead. While regrettable, it is noted that in the 19<sup>th</sup> and early 20<sup>th</sup> century, views toward the rear of the homestead would have been considered of lesser significance as these areas represented the day to day operations of the property. The orientation of the mansion to the south, with views across the gardens and the countryside beyond, are representative of the significance of the southern view corridor from the property.



Figure 21 Aerial view of the property and surrounds; the extent of the property boundary, as defined by HO68, is indicated by the red outline. The homestead, consisting of the mansion, gardens and remnant outbuildings are visible. A wind break of *Macrocarpa cypripes* along the driveway are indicated by the red arrow (refer Figure 27).  
Source: Google Maps, 2016



Figure 22 View across 'Kilmory Park' toward the homestead complex, looking north-west, from Settlement Road. Note the prominence of the homestead is largely obscured by plantings. The mansion is indicated by the red arrow. The orange brick building to the right is the Recreation Centre (c.1962) of the former boys' home.  
Source: Trethowan, 2016





Figure 23 View of the entrance to the main drive to Kilmory Park.  
Note how views of the property are obscured by the old plantings of Macrocarpa cypress along the roadside and the English Oak trees that frame the entrance. The road at left is Armap Road.  
Source: Trethowan, 2016



Figure 24 View of the main entrance to 'Kilmory Park'. Note the established English Oak trees either side of the entry. The Aloe Vera plantings and paling fence are later additions. The avenue of indigenous tree varieties, Levite Drive, is visible in the background.  
Source: Trethowan, 2016



Figure 25 View from the corner of Arrup and Settlement Roads, looking along the northern boundary of the property; looking west. Note the deviation of the main driveway away from the property boundary. The paling fence is a later addition. Source: Trethowan, 2016



Figure 26 View of the adjoining farmland to the north of the property, looking north-west. The rooflines of houses on the adjoining subdivision to the north of this farmland are indicated by the red arrow. Source: Trethowan, 2016



Figure 27 View of the approach along the main drive, at the mid-point where a wind break of Macrocarpa cypress partially frame the approach, looking north-west. Note the sign on the fence indicating the name of the avenue as Leslie Drive.  
Source: Trethowan, 2016



Figure 28 View of the approach along the driveway, beyond the wind break of Macrocarpa cypress, looking north-west.  
Note the old stands of gum trees in the paddocks surrounding the homestead. The plants either side of the driveway (Agapanthus) were planted post-1990 by the Page family.  
Source: Trethowan, 2016





Figure 29 View of the approach along the driveway, below the ascension toward the base of the oval embankment and realigned driveway. The silhouette of the mansion is indicated by the red arrow.  
Source: Trethowan, 2010



Figure 30 View of the approach along the driveway, looking south-east, away from the homestead. Note the difference in the landscape either side of the driveway. The rooflines of houses in the nearby subdivision are indicated.  
Source: Trethowan, 2010



Figure 31 View of the homestead complex from the top of the oval embankment, looking west.  
Note the line of the realigned driveway to the right of the image. The men's quarters are indicated by the red arrow.  
Source: Trethowan, 2016



Figure 32 View of the neighbouring residential subdivision from the top of the oval embankment, looking north.  
The rooflines of the houses in the subdivision are indicated by the red arrow. The dry appearance of the paddocks immediately above the oval indicate the change in boundary between the property and neighbouring farmland.  
Source: Trethowan, 2016





Figure 23 View from the rear entrance of 'Kilmory Park' toward the junction of Reid Drive and Amup Road, looking north. The roof lines of houses in the adjacent subdivision, bordered by Reid Drive and Amup Road, are indicated by the red arrows. Source: Trethowan, 2016



Figure 24 View of the rear entrance to 'Kilmory Park', looking south-west. Note the original concrete gate posts dating from the establishment of the Kilmory Park Farm Home for Boys, c. 1924 (indicated by the red arrows). Source: Trethowan, 2016

## 5.2 Built Form

The homestead complex at 'Kilmany Park' consists of a variety of single and double-storey buildings of differing uses and construction typologies. These buildings date from the c. 1860s to the mid-1970s. All buildings and structures of significant size within the homestead complex are identified as subject buildings. In light of the age and contribution the formal gardens make toward the homestead complex, including the identified significance of the English Oak (planted by HRH The Duke of Cornwall and York), these has also been identified as subject buildings. In order to create a timeline and trace the development of the homestead, the subject buildings are numbered according to their age:

1. Meat House (c. 1847-70)
2. Men's Quarters (c. 1860 / alterations c. 1880-81)
3. Former Water Tower and Pump House (c. 1870-81)
4. In-ground water tanks (c. 1870-81)
5. Racing Stables (c. 1880-81)
6. English Oak (c. 1901)
7. Mansion (c. 1870-71 / additions and alterations c. 1905-06)
8. Gardens (c. 1870-1906)
9. Entrance Gates (c. 1906-08) and McClelland Memorial Farm dedication plaque (c. 1924)
10. Kilmany Park School No. 4240 – School house (c. 1927)
11. Kilmany Park School No. 4240 – Sloyd room (c. 1949)
12. Weatherboard house (c. 1930s)
13. Recreation Centre (c. 1962)
14. Spencer House (mid-1960s)
15. Williams House (mid-1960s)
16. Oval and Leslie Drive (mid-1960s).

The water retention basin, constructed during the property's tenure by the Kilmany Park Farm Home for Boys is not considered a significant feature that assists in interpreting the history or use of the property. As such, it has not been included in the legend or following analysis.



Figure 20 Aerial view of the homestead at 'Kilmany Park'. The legend is outlined in the body text above. The water retention basin is indicated by the red arrow.  
Image source: Google Maps, 2016

### 5.2.1 Meat House (c.1847-70)

Built after c. 1847, following the purchase of the homestead block by William Pearson, the Meat House would have been built in conjunction with the first 'Kilmory Park' residence; the close proximity of the Meat House to the residence is evident in an early photograph (refer Figure 5). The chimney is a potentially later addition to the building, the detail of the corbeled brickwork comparable with the chimneys of the c. 1870 house in the same early photograph.

Constructed from weatherboard and set low to the ground, the building has a hipped roof clad with galvanised corrugated metal sheet. A metal ridge vent is an early feature. Additional natural ventilation is achieved to the underside the eaves, which are open and lined with chicken wire.

The principal elevation has two door openings: a pair of early insulated timber doors open into the butchery or 'killing room' on the left, a single early insulated timber door opens into the remaining room on the right. Both rooms are naturally lit by small windows, originally lined with wire mesh. Early vents at the base of the principal elevation provide additional ventilation.

Internally, the building consists of two rooms with an open corridor at the mid-point of the building; the western most room is the 'killing room' as seen through suspended metal rails and meat hooks. Both rooms retain their Balic pine internal linings.

#### Comment

The building is the oldest extant building within the homestead complex. The location and construction typology of the building, evident in early photographs, are indicative of its existence, probably prior to the construction of the second 'Kilmory Park house' (c. 1870-71) and certainly prior to the construction of the mansion (c. 1905-06).

While the location of the building within the main gardens is odd, given its status as a back of house function (preparation and storage of meat), it's apparent that the siting of the building was based on the location of the first 'Kilmory Park' house, demolished in c. 1905.



Figure 36 View of the front (south) elevation of the Meat House. The door at the left leads to 'the killing room'. The door at the right leads to a room with an open fire place. Source: Tretlowan, 2016



Figure 37 View of the rear elevation of the Meat House, looking southwest. The details of the chimney are indicative of having been constructed c.1870. Source: Tretlowan, 2016



### 5.2.2 Men's Quarters (c. 1860 / additions c. 1880-81)

Located in the north-east corner of the homestead complex, the men's quarters initially consisted of a brick cottage constructed in c. 1860.<sup>101</sup> Between c. 1880 and c. 1894, the building was extended toward the north and west, by 1894 the building described as:

*A little distance away are the men's quarters, not the usual hut, but a comfortable brick cottage, containing a large dining room and several bedrooms, the comfort of the employees being well attended to.<sup>102</sup>*

Vent details in the gables of the north and west elevations of the cottage are contemporary with those of the racing stables, suggesting their design by the same architect and/or construction during a similar period.

Constructed from overpainted face brick, the men's quarters consist of a gabled roofed cottage, with three transverse gables at the rear, clad with Colorbond corrugated metal sheet. Each gable is topped with an original turned timber finial. The principal elevation has three window openings with early double-hung timber sash windows; the rear elevation also has three windows of similar dimensions, design, style and age. The building is entered from a single door off the front verandah, presumably to the dining room described in 1894, with three doors off the rear verandah providing access to bedrooms (also described in 1894). The hipped roof verandahs, with turned posts, run the extent of the front and rear elevations and are paved with red brick in a stretcher bond.

Despite minor alterations, the building largely retains the same appearance documented in the historical image of c. 1906 (refer Figure 13). Alterations include the painting of the building and the rendering of the west elevation, evident in the visible lack of a raised surround to the vent opening. Other alterations include the removal of the corbelled brickwork from the east chimney of the building; a small skillion roofed addition and secondary chimney at this end of the building have also been removed.

The men's quarters are contained within a small cottage garden of recent origins, as indicated in the c. 1906 image of the building which shows the building surrounded by an open paddock. The earliest reference of the building being contained within a garden is in c. 1945 (refer Figure 18).

The building was not inspected internally in light of its status as a rental property.

#### Comment

Early images of the rear yard of the homestead complex indicate that views from the mansion to the men's quarters were free of visual obstructions, such as trees and fences.



Figure 28 View of the front (south) elevation of the men's quarters. The east end of the building is the earliest, with details indicating it was extended toward the west, c. 1880-81. The door at the left leads to what would have been the original dining room. Source: Tretlowan, 2016



Figure 29 View of the rear elevation of the men's quarters, looking south-east. The acular vent details in the gables are contemporary with the acular vent details in the gables of the racing stables, constructed in c. 1880-81. Source: Tretlowan, 2016

<sup>101</sup> Helms, *Kilmany Park Sale, Review of heritage significance* – January 2009, p. 2.

<sup>102</sup> 'Kilmany Park', *The Leader*, 18 August 1894, pp. 6-7.



### 5.2.3 Former water tower (c. 1870-81)

Located on the eastern most extremity of the homestead complex, the building was constructed as a water tower, originally supporting three raised water tanks (known as header tanks) above its central section (refer Figure 12 and Figure 16). The water tower was more than likely constructed during the same period of improvements to the homestead which saw the construction of the second 'Kilmory Park' house (c. 1870-71) and the racing stables (c. 1880-81). Water was supplied to the header tanks via an underground 5' pipeline, the 10 chain easement of which extended all the way to the Thomson River, north of the Princes Highway.<sup>170</sup> The raised nature of the tanks created sufficient gravity to provide a reticulated water supply to the main house. A large pump would have been located in the middle of the central hall at the base of the building, the hall accessed at either end via arched openings. The header tanks were removed from the building after c. 1945 (refer Figure 16).

Constructed from unpainted face brick, originally the building consisted of a raised central section with two skillion roofed flanking wings, the south wing having a brick parapet (refer Figure 16). The roofs of the flanking wings have been extended over the central section of the building following the removal of the header tanks and their associated structure. The former raised central section has two arched openings on both elevations, providing external access to the building. There is evidence that the flanking rooms were originally accessed externally, independently of the central room, however the original openings have been altered. Despite the alterations to the external openings of the building, a series of early double-hung timber sash windows remain.

The central and southern rooms of the building were inspected internally. The central hall retains an original unglazed terracotta biscuit tiled floor. The rectangular concrete slab in the centre of the room is indicative of the location of former plant or equipment, likely a large water pump. The southern room has a concrete slab floor.

#### Comment

While altered, the building retains significant built fabric to the extent that it could be reconstructed to its original built form. Its original function as a water tower, no doubt with a pumping mechanism located within the central room, combined with its age is indicative of potential technological significance. Early images of the rear yard of the homestead complex indicate that views from the mansion to the former water tower were free of visual obstructions, such as trees and fences.



Figure 40 View of the front (east) elevation of the former water tower. The openings either side of the central arch are alterations of earlier openings.  
Source: Tretlowan, 2010



Figure 41 View of the rear (west) elevation of the former water tower. The central arch is concealed behind a modern brick skillion addition.  
Source: Tretlowan, 2010

<sup>170</sup> Public Records Office of Victoria, 96/93 School Site No 2 - Kilmory Park Estate Wurruk Wurruk Land Files Extracts, Closer and Soldier Settlement, 1925-28. VPRS 15762P00024.

#### 5.2.4 In-ground water tanks (c. 1870-81)

The homestead complex retains three in-ground water tanks of early date. Located within immediate proximity of the three major buildings in the homestead complex, the mansion (c. 1870-1906), racing stables (c. 1880-81) and men's quarters (c. 1870-81), the water tanks would have been constructed for the storage of water harvested from the rooves of these early buildings. In c. 1906, the water tanks possessed conical corrugated metal sheet roofs externally (refer Figure 12 and Figure 13).

The mansion water tank, located immediately behind the building, has a concrete slab roof that replaces the earlier conical corrugated sheet metal roof evident in c. 1906 (refer Figure 12). The current roof was installed after c. 1945 (Figure 15).

The stables water tank, located to the right of the entrance front of the building, retains a conical corrugated metal sheet roof. The details of this roof, comparable with earlier images of the structure (refer Figure 12), indicate that it was constructed prior to c. 1906.

The Men's Quarters water tank has a concrete slab roof that replaces the earlier conical corrugated sheet metal roof evident in c. 1906 (refer Figure 13). The current roof was likely constructed in line with the new roof installed to the mansion water tank.

The water tanks were not inspected internally.

#### Comment

While the majority of these structures have had their appearance altered above ground, the structures retain significant built fabric below ground with the ability for the altered elements above ground to be reconstructed to their original built form. Retaining their original function as water storage tanks, they represent an integral element of the homestead complex dating from the Pearson family's tenure.



Figure 42 View of the water tank on the entrance front of the racing stables. Note how the tank retains its early conical cover. Source: Trethowan, 2016



Figure 43 View of the water tank at the rear of the mansion. The concrete cover to the tank is a later addition. Source: Trethowan, 2016



Figure 44 View of the water tank on the west elevation of the Men's Quarters. The concrete cover to the tank is a later addition. Source: Trethowan, 2016

### 5.2.5 Racing Stables (c.1880-81 / alterations c. 1945)

Built in 1880-81 to a design by local Sale architect J.H.W. Pettit, the building was commissioned by William Pearson (Senior) and constructed by local Rosedale builder William Allen. The central section of the building was destroyed by a grass fire in 1944; the structure remained in ruins by c.1945 (refer Figure 16).

Constructed from expressed red face brick, the building consists of three large gable roofed buildings arranged around, what was originally, a central forecourt (refer Figure 12). The roofs are clad with corrugated asbestos sheet. Alterations to the building include the reconstruction of the rear (north) elevation, infilling of the central forecourt, and the construction of a galvanised corrugated metal sheet skillion at the end of the east wing of the building. While a concrete trough, and associated sliding door, are later additions to the east wing of the building, the concrete trough is not evident in c.1906 (refer Figure 12) it does appear a structure of some age. While reputedly used for 'the servicing of carriages or vehicles',<sup>171</sup> it is more probable the trough was utilised as a horse bath given its depth, raised edges and the building's continued utilisation as a thoroughbred horse stable by William Pearson (Junior).

The building was not inspected internally, however previous inspections have been undertaken by preceding consultants and have been described accordingly (refer David Helms Heritage Planning + Management, *Kilmany Park Sale: Review of heritage significance*, January 2009).

#### Comment

While significantly altered, the building retains integrity within those original sections of the building that remain. The previous arrangement of the building, around a central forecourt, combined with painted fencing, are indicative of the formal arrangement the building previously enjoyed with, albeit the rear, of the mansion. Later structures (in the old forecourt) and plantings, in the foreground, of the stables impact upon this formal relationship. Further additions, in the form of the corrugated metal sheet addition, are somewhat concealed from the principal elevation but none the less impact upon the appreciation of the building 'in the round'.

The building has architectural significance, in light of its design as a stables complex by a notable regional architect. However, there is the potential for considerable social significance in light of its early design specifically as a racing and thoroughbred stable and the notability of William Pearson (Senior) within the establishment years of the Melbourne metropolitan racing clubs, including the Victorian Racing Club (VRC).



Figure 45 View of the principal (south) elevation of the former Racing Stables, looking north. The forecourt between the two flanking wings has been infilled with a later structure. Source: Trefhowan, 2016



Figure 46 View of the east elevation of the former racing stables. The concrete trough, and skillion roofed shed at left, are later additions. Source: Trefhowan, 2016

<sup>171</sup> Helms, *Kilmany Park Sale, Review of heritage significance* – January 2009, p. 3.





Figure 47 View of the rear (north) elevation of the former racing stables. The stilted building at left is a later addition.  
Source: Trelhovan, 2016



Figure 48 View of the west elevation of the central block (at left) and north elevation of the west wing of the former racing stables, looking south.  
Despite the early fire damage to the central block, the side elevations retain the integrity of the original structure.  
Source: Trelhovan, 2016

### 5.2.6 'The Cornwall and York Oak' (c.1901)

The English Oak tree was planted by HRH The Duke of Cornwall and York, later King George V, in c. 1901 on the occasion of his visit to 'Kilmany Park'. The Duke's visit coincided with him opening the first Commonwealth Parliament at the Royal Exhibition Buildings, Melbourne in the same year. For the benefit of this analysis, the tree is referred to as 'The Cornwall and York Oak' to discern it from other Oak trees located elsewhere in the gardens.

A copper tablet at the base of the Oak, erected by representatives of the Victorian Bowling Association in February 1935, indicates 'This Oak Tree was planted by His Majesty King George V when visiting Kilmany Park as H.R.H. The Duke of York on 15<sup>th</sup> May 1901' (refer Figure 50).

#### Comment

The significance of 'The Cornwall and York Oak' tree has been previously identified, resulting in its inclusion within an individual heritage overlay on the Schedule to the Heritage Overlay of the Wellington Planning Scheme; HO151 – Oak Tree.



Figure 49 View of 'The Cornwall and York Oak', looking south.  
Source: Trelhovan, 2016



Figure 50 View of the copper dedication tablet at the base of 'The Cornwall and York Oak'.  
Source: Trelhovan, 2016



### 5.2.7 Mansion (c. 1870 / additions and alterations c. 1905-06 / minor alterations c. 1948)

The mansion at 'Kilmory Park' was commissioned by William Pearson (Junior) and constructed in c. 1905-06 to a design by pre-eminent Melbourne architects Harry B. Gibbs & Finlay Architects. The mansion involved the remodelling and extension of an earlier house, commissioned by William Pearson (Senior) and constructed in c. 1870-71 to a design by Sale architect J.H.W. Pettit. In 1948, during the mansion's tenure as the Kilmory Park Farm Home for Boys, minor alterations were undertaken to the mansion's kitchen to a design by Melbourne architect Keith Reid.

Retaining sections of the earlier 1870-71 house on the property, constructed from overpainted tuck-pointed brick, the majority of the mansion consists of that built in c. 1905-06. Constructed from rendered brickwork with applied cement decoration, the mansion is a significant two-storey building with decorative chimneys and a galvanised corrugated metal sheet clad roof. Executed in a conservative interpretation of Classical style architecture, the principal elevations of the mansion consist of the south (entrance front) and east (garden front) elevations. The west elevation consists of a secondary garden front whereas the rear elevation (north) addresses a rear yard framed on the opposite side by the stables. The south elevation is defined by a central bay that is adorned with a series of decorative cement pediments at ground and first floor levels, the ground floor pediment surmounting a four-bay arrangement of decorative stained and leadlight windows; the first-floor pediment topping what appears an arcaded balcony, the whole arrangement in-turn surmounted by a monumental stepped parapet. From this central bay, an arcaded loggia at ground floor level and an upper level arcade, with segmental arches supported on cast iron columns, extend along the extent of the south elevation, continuing along the east and west elevations. On the garden front, attention is drawn to a large stained and leadlight glass bay window that is centred on the elevation at ground floor level.

Internally, the mansion presents as a unified interior containing multiple notable features, indicative of the Art Nouveau influence on its interior decoration. At ground floor level, the entrance vestibule opens into a double height stair hall, the two areas separated by decorative plasterwork columns with bas relief details to dado height. The columns support an entablature of equally detailed bas relief features, the decoration of which incorporates a cornice that extends the perimeter of both rooms. At the centre of the hall, an elaborate timber staircase with timber panelling extends through the middle of the house and is overlooked by a gallery at first floor level. At right, the stair hall opens into the drawing room through an elaborate door case and doors, the drawing room retaining significant features including a fretwork screen with decorative wrought iron lanterns that frame a leadlight bay window. At left of the stair hall, the current billiard room is entered through an equally elaborate door case and doors, the room containing early features including joinery and decorative ceilings. At the rear of the stair hall, a corridor provides access to the dining room and the remainder of rooms on the ground floor which retain significant features, including a fretwork screen and bay window with leadlight glass in the dining room; and joinery, marble and timber mantle pieces and decorative ceilings to the remainder of the rooms. At first floor level, the rooms incorporate bedrooms and retain early features including joinery, marble and timber mantle pieces, leadlight glass and decorative ceilings. There have been few significant alterations to the interior since its completion c. 1906, however no original bathrooms, kitchens or service areas survive intact.

#### Comment

The mansion is a significant country house, notable for its size rather than the skill of its architectural composition. Internally, the interiors are a complete and highly notable example of the Art Nouveau turn of the century style and taste. The significance of the interiors lie in the extent, quality and profusion of stained and leadlight glass, decorative plaster work ceilings and columns, timber joinery (including fretwork screens, stair case and decorative panelling, balustrade and gallery; and door cases and surrounds) and decorative metal work lanterns in the drawing room.



Figure 51 View of the garden and entrance fronts of the mansion, looking north-west.  
Source: Trefhowan, 2016



Figure 52 View of the entrance front of the mansion, looking north-west.  
Source: Trefhowan, 2016



Figure 53 View of the secondary garden (west elevation) and entrance fronts of the mansion, looking north-west.  
Source: Trefhowan, 2016



Figure 54 View of the rear (north) elevation of the mansion, looking south. The concrete slab in the foreground replaces the corical cover of the in ground water tank visible in early images.  
Source: Trefhowan, 2016



Figure 55 Internal view of the stair hall from the entrance vestibule, looking through to the drawing room.  
Source: Trefhowan, 2016



Figure 56 Internal view of the entrance vestibule from the stair hall. The original stained glass and plasterwork are of note.  
Source: Trefhowan, 2016



Figure 57 Detail view of the Drawing Room bay window and fretwork screen, looking east. Note the original wrought iron lanterns.  
Source: Trefhowan, 2016



Figure 58 Internal view of the Dining Room, looking east. The original timber mantle piece (at right) and plasterwork are of note.  
Source: Trefhowan, 2016

### 5.2.8 Gardens (c.1870-1906) and landscape setting

The gardens of the homestead, in their current arrangement, were laid out in conjunction with the construction of the second 'Kilmory Park' house from c.1870.

In 1894, a feature on 'Kilmory Park', in *The Leader* newspaper, gave the following description of the homestead:

*The homestead at Kilmory Park is a fine large brick building erected on one of the highest points of the estate and commanding a pretty and extensive view of the neighbouring country. It is surrounded by a fine old orchard and garden, containing some of the largest fruit trees I have ever seen, one cherry tree in particular having a trunk as large as an average sheak [sic]. Mr Pearson's [senior] old favourite, Commotion, one of the stoutest [sic] and best racehorses ever bred in Australia, is buried in this garden.<sup>172</sup>*

In c.1905-06, the current formal arrangement of the garden was established with the creation of the elliptical front lawn at the centre of the driveway. Surrounded by a roughcast render retaining wall, a small inset star, framed with Arts and Crafts inspired cement spheres, align with the centre of the entrance front of the mansion. Cement curbing to the remainder of the garden paths replaced an earlier angled brick edging, apparent in c.1906 (refer Figure 6). The brick edging remained in place following the opening of the Kilmory Park Farm Home for Boys in 1923 (Figure 17). The internment of the famous racehorse 'Commotion' (d. October 1893) within the gardens, including the remains of Helen Pearson (1893-1975).

Sloping away from the house, the gardens, on the south front of the house in particular, have been designed to frame and therefore incorporate views of the surrounding landscape. This has largely been achieved through the placement of the elliptical front lawn framed by symmetrical plantings of Cedars (a Blue Atlas and a Himalayan Cedar) which would have originally drawn the eye of the viewer to the wider landscape and the former land holdings of the Pearson family, it is noted that this view is now partially obscured by low-lying branches of these trees. Elsewhere, the garden incorporates multiple plantings of exotic tree specimens, including: English Oak, Bunya Bunya Pine, Hoop Pine, Hazlenut, Monterey Cypress, Bhutan Cypress, Japanese Spindle-wood and Norfolk Island Hibiscus amongst others.<sup>173</sup> On the east front, the mansion was previously approached through open paddocks, however now incorporate a large lawn which also opens to the wider landscape.

#### Comment

The formal gardens retain a high degree of integrity. The central elliptical lawn with roughcast render retaining walls and cement curbing (c.1905-06) are a significant feature. Concrete curbing to the remainder of the garden, while constructed after 1923, are appropriate given the early use of cement curbing in the layout of the garden. While the majority of original and early plantings exist largely in established tree form, smaller plantings throughout the gardens (inc. roses, lavender and various succulents), while recent, are appropriate to the garden's setting.

Within the context of the wider landscape, the elevated location of the homestead above the surrounding plains results in the surrounding landscape making a significant contribution to the gardens. This is largely within the context as a backdrop to views framed by early plantings of trees. The wider landscape also provides a significant contribution to the sense of arrival at the homestead, and its location on the elevated promontory above the surrounding low-lying paddocks.

<sup>172</sup> 'Kilmory Park', *The Leader*, 18 August 1894, pp. 6-7.

<sup>173</sup> John Hawker, *Heritage Victoria, Kilmory Park, Sak - Plant Survey*, 20<sup>th</sup> March 1997, p. 1.





Figure 59 View of the garden front of the house, looking across the east lawn developed by the Page family. The Oak trees, indicated at left, frame the driveway entrance into the formal garden area.  
Source: Trefhowan, 2016



Figure 60 View of the entrance front of the mansion, looking west. Note the formal arrangement of the original gardens with relation to the entrance front of the mansion.  
Source: Trefhowan, 2016



Figure 61 View from the formal garden between the two English Oak that frame the driveway, looking east. Note how the trees perform the dual purpose of framing views of the wider landscape, in addition to that of the formal garden.  
Source: Trefhowan, 2016



Figure 62 View from the circular driveway, at the west end of the elliptical lawn, looking south. Note how the wider landscape creates a backdrop to the formal garden.  
Source: Trefhowan, 2016



Figure 63 View of the wider landscape from the first floor colonnade of the mansion, looking east. Note how the arrangement of the trees frames wider views of the landscape from the mansion.  
Source: Trefhowan, 2016



Figure 64 View of the wider landscape from the first floor colonnade of the mansion, looking south. The terraced nature of the elliptical lawn would have enabled uninterrupted views to the wider landscape.  
Source: Trefhowan, 2016



### 5.2.9 Entrance Gates (c.1906-08) and McClelland Memorial Farm dedication plaque

Reid Drive would have originally formed an internal farm road, connecting the homestead at 'Kilmory Park' with the Princes Highway. The road served as a farm entrance while the main entrance off Settlement Road provided access to the mansion during its time as a residence.

Following the Closer Settlement of the greater property, the farm entrance became one of a network of multiple rural roads across the former estate that now serviced multiple smaller farms. The entrance to the homestead is demarcated by two roughcast render concrete posts with decorative cement cappings. The use of this entrance, in lieu of the main driveway, may have been necessitated following the opening of the Kilmory Park Farm Home for Boys in 1924 and the closer proximity of the entrance to the Kilmory Railway Station. In this instance, the construction of a more elaborate entry would have necessitated the erection of the piers by 1924, as detailed in the bronze dedication plaque denoting the name of the farm as the 'McClelland Memorial Farm' p

#### Comment

The gateposts and dedication plaque are significant. The posts demarcate the north-west extent of the homestead complex, while denoting the main entrance to the homestead during its tenure as the Kilmory Park Farm Home for Boys. The nature of the gateposts as a memorial is important in demonstrating the various financial bequests provided to the Home in its early years.



Figure 65 View of the rear entrance to the homestead, at the end of Reid Drive. The roughcast render and cement capital gate posts frame the entrance  
Source: Trefhowan, 2016



Figure 66 McClelland Memorial Farm. Given by his parents in memory of Thomas Hugh McClelland 1907-1924. The bronze memorial plaque and concrete gateposts at the Reid Drive entrance to 'Kilmory Park', indicating the gift of the farm at the Home to the institution by a Mr and Mrs McClelland in memory of their son Thomas Hugh McClelland.  
Source: Trefhowan, 2016

### 5.2.10 Kilmany Park School No. 4240 – School house (c.1927) and Sloyd room (c.1949)

The Kilmany Park School No. 4240 was established at the entrance to the Kilmany Park Farm Home for Boys in c.1927. The school was established as a result of the number of boys accommodated at the Home, therefore justifying their own school. The school was not exclusively for the use of the children at the Home and as such, it is presumed, the school was located at the edge of the homestead complex within easy access of children from surrounding farms. The school included both a school house (refer Figure 67) and a Sloyd room. The original Sloyd, or woodwork, room was destroyed by fire in c.1944. The present Sloyd room, designed by prominent architect Percy Everett when Chief Architect of the Public Works Department, was designed in c.1949 and completed by c.1955 (refer Figure 68). Originally, the School was contained within its own fenced grounds, the south and west boundaries of the grounds bordered by a line of trees (refer Figure 16).

The school house consists of a symmetrical weatherboard clad building with a corrugated metal sheet roof with projecting eaves. The building has two unpainted brick chimneys at the north and south ends, further enforcing this symmetry. The end walls of the building, on the north, east and south elevations, retain large banks of original windows with hoppers. Unlike the school house, the Sloyd room is a simple rectangular building with a corrugated sheet metal clad roof. The principal (north) elevation consists of four bays, with one accommodating the entry and the other tall sets of windows. This fenestration arrangement is replicated on the south elevation, with a fourth window in lieu of a door.

The buildings are maintained amongst manicured grounds with garden beds to the base of the school house walls. All fencing and screen plantings associated with the earlier appearance of the School grounds have been removed.

The building was not inspected internally in light of its status as a rental property. Descriptions of the building interiors are provided in the previous heritage report *Kilmany Park Sale – Review of heritage significance – January 2009*, (David Helms Heritage Planning + Management); refer Appendix C.

#### Comment

The former Kilmany Park School No. 4240 and its individual buildings are of contributory significance to the homestead complex. While providing an understanding of their use within the overall structure of the former boys' home, the somewhat displaced location of the buildings on the edge of the homestead complex, including evidence of their visual separation from the homestead using fencing and screen plantings, indicate that they did not form an integrated relationship with the boys' home, most likely a result of the school's status as a government-run state school.



Figure 67 View of the former school house, from the main entrance to homestead complex, looking south-east. The Sloyd room is visible to the left of the school house.  
Source: Treflowan, 2016



Figure 68 View of the principal front of the Sloyd room, looking south.  
Source: Treflowan, 2016

### 5.2.11 Recreation Centre (c.1962)

The Recreation Centre was constructed in c. 1962. Presumably designed by notable Melbourne architect Keith Reid, in light of his previous work at the Home in the late 1940s and considerable catalogue of work for the Presbyterian Church of Victoria, including St. Columba's Church, Sale (1956). The building was opened in 1962 by Councillor John Leslie, J.P., Mayor of Sale, the Leslie family having a continuous involvement with the Kilmory Park Farm Home for Boys from its inception until its closure. A brass dedication plaque at the south entrance to the building indicates:

*This Recreation Centre built from The R.M. Ainslie Bequest was opened on 25<sup>th</sup> August 1962 by Cr. John Leslie J.P. Mayor of Sale whose family has served the home for three generations (refer Figure 70)*

The Recreation Centre is a simple unpainted expressed brick building with a central hipped roof section flanked by skillion roofed aisles that extend the length of the building. The roof of the buildings are clad with corrugated metal sheet. The building has low-level clerestory windows along the flanking skillions with high level clerestory windows above roof level of these skillions. The design of the east and west elevations of the building, include engaged brick pilasters with low parapets, drawing parallels with the design of the adjacent former racing stables (c.1880-81).

#### Comment

The building represents one of the last capital investments in the Kilmory Park Farm Home for Boys and makes a contribution toward understanding the philanthropy that informed the operations of the Home up until its closure. This is in light of a dedication plaque (refer Figure 70) detailing its construction as a result of a bequest (the R.M. Ainslie Bequest) and its opening by Councillor John Leslie. The documented role of the Sale-based Leslie family, from the inception of the school to its closure, is also worthy of note.

Attributed to architect Keith Reid, the design intent of the building, which includes blind walls with engaged pilasters, are reminiscent of the execution of the adjacent racing stables and an attempt to respond to the existing built context of the homestead complex, thereby suggesting the role of an architect. While attributed to Keith Reid, the building is not considered a work that is comparable with the successful designs achieved in many of his regional ecclesiastical buildings for the Presbyterian Church, predominantly churches, throughout Victoria.



Figure 68 View of the Recreation Centre, looking south-east. The canopy over the entrance on the left is a later addition. Note the engaged brick pilasters of the west elevation. Source: Trefrowan, 2016



Figure 70 View of the dedication plaque of the Recreation Centre, next to the south entrance. Source: Trefrowan, 2016

### 5.2.12 Oval and Leslie Drive avenue

The main driveway to the homestead was commissioned by William Pearson in May, 1903. The main entrance to the driveway off Settlement Road is framed by two English Oaks, the remainder of the drive extended on more or less a straight line, through open paddocks, toward the homestead.

During the mid-1960s, a concerted works campaign of improvements were undertaken at the Kilmory Park Farm Home for Boys by the Home's last superintendent, Eric Frith. This included the planting of the main driveway with assorted tree species, the new avenue named Leslie Drive in honour of the Sale-based Leslie family under whose philanthropy the Home had benefited. Further works included the construction of a large oval to north-east of the mansion, the earthworks requiring the diversion of the main drive around the southern edge of the new oval.

Given the instigation of these projects at the end of the Home's functional life, the avenue in particular appears not to have been maintained at a standard that would be typically associated with a continuously functioning institution. This is seen in the stunted growth and general condition of the trees along Leslie Drive. The oval is maintained as an extension of the large lawn on the east front of the mansion.

#### Comment

The oval provides insight into the life of the boys who resided at the home and the social activities undertaken by them during the homestead's tenure as the Kilmory Park Farm Home for Boys.

The main driveway and its entrance between the two English Oaks off Settlement Road is considered important. The driveway and Oak trees represent those works undertaken by William Pearson in 1903. While the age of the later avenue, Leslie Drive, and the indigenous nature of the plantings incorporated within do not conform to the early formality and European species of the initial design intent established by William Pearson in 1903, the avenue none the less defines the approach to the homestead complex at 'Kilmory Park'.



Figure 71 View along Leslie Drive, looking south-east.  
Source: Treflowan, 2016



Figure 72 View across the oval to the homestead, looking west.  
Source: Treflowan, 2016



### 5.2.13 Caretakers and labourers houses (c.1930s – mid-1960s)

The variety of free-standing houses located to the periphery of the homestead complex, from the Inter-war and Post-war periods, were constructed during the tenure of the Kilmany Park Farm Home for Boys. Two of these houses are individually known as 'Spencer House' and 'Williams House' (refer Figure 74 and Figure 75).

Subsequent subdivision has seen the houses incorporated on separate titles, resulting in separate addresses.

#### Comment

The houses are not considered significant. Architecturally, they are not significant as they represent a standard residential housing typology, examples of this type of housing are located throughout suburban Australia. In addition, the buildings show no indication of responding to the larger structure of the former Kilmany Park Farm Home for Boys or specific relationships with other buildings within the homestead / boy's home complex. Socially, the houses are not significant to understanding the function of the Kilmany Park Farm Home for Boys.



Figure 73 View of the weatherboard house, looking south, from the rear driveway into the homestead complex.  
Source: Trefhowan, 2016



Figure 74 View of 'Spencer House', looking south-east, from the rear driveway into the homestead complex.  
Source: Trefhowan, 2016



Figure 75 View of 'Williams House', looking north-east, from the homestead complex.  
Source: Trefhowan, 2016

## 6. Analysis

The Analysis consists of three components:

- Assessment of the ascribed significance of the heritage overlay
- Identification of significant elements within the heritage overlay
- Review of the extent of the heritage overlay, and
- Subdivision potential of the property with relation to the extent of the heritage overlay.

## 7. Assessment of Heritage Significance

### 7.1 Analysis of findings with relation to the ascribed significance of the heritage overlay

#### 7.1.1 Current Statement of Significance

The current Statement of Significance indicates that 'Kilmany Park' is of historical and aesthetic significance to the Wellington Shire and the Gippsland region. Subsequently, it has been indicated as being of 'State' significance (refer Section 3 – Heritage Listings and Controls).

Historically, this significance is based on the associations of the property with the pastoral settlement of Gippsland in the mid-19<sup>th</sup> century and the property's ability to demonstrate the status of pastoralists within Gippsland society. These historic associations include those with the Pearson family and their influence in local and Victorian commerce and politics.

Aesthetically, the classically derived mansion on the property, with a multitude of external details being evidence of this architectural pretension, and a variety of Art Nouveau inspired plaster and decorative elements, is notable as one of 'the last conservative Classical mansions erected in Victoria'.<sup>11</sup>

#### 7.1.2 Analysis of findings

These findings have been analysed in accordance with the assessment criteria and guidelines endorsed by Heritage Victoria. The analysis is outlined below.

The property demonstrates importance to the course or pattern of Victoria's cultural history (Criterion A) for:

- Its status as one of the earliest pastoral properties established in the Gippsland region and formerly one of the largest in the State of Victoria, at its zenith in the early 20<sup>th</sup> century.
- Its associations with the Pearson family, one of the more important 'squattocratic' Victorian pastoral families of the late-19<sup>th</sup> and early 20<sup>th</sup> centuries.
- One of the earliest professional thoroughbred horse racing studs established in Victoria (c. 1880-81), the centre piece being the stable block designed by architect J.H.W. Pettit.

The property demonstrates possession of uncommon, rare or endangered aspects of Victoria's cultural history (Criterion B) for:

- The stables as an early example of architect-designed horse racing facility (c. 1880-81, architect J.H.W. Pettit), despite its altered state.

The property demonstrates importance in demonstrating the principal characteristics of a class of cultural places/objects (Criterion D) for:

- The classically derived mansion, being a substantial residential project completed by the pre-eminent Melbourne architecture firm of Gibbs and Finlay, being more widely known for their commercial architecture (predominantly banks).
- The classically derived mansion as one of the last and most outstanding examples, in scale and detail, of a Federation-era country house in Victoria.
- The significant Art Nouveau interiors of the mansion, the composition of the whole being to a high level of detail and retaining the vast majority of this detail.

<sup>11</sup> Wellington Shire Council, HERMES database record no. 129982, Place Citation Report 'Kilmany Park', p. 2.d

The property demonstrates importance in exhibiting particular aesthetic characteristics (Criterion E) for:

- The significant Art Nouveau interiors of the mansion, the composition of the whole being to a high level of detail and retaining the vast majority of this detail.
- The homestead complex and relationship within the wider landscape setting of parkland and surrounding pastoral land.

The property demonstrates strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Criterion G) including:

- Representation of the role of the squattocracy in Victorian society during the late 19<sup>th</sup> and early 20<sup>th</sup> century and their role, and perceived role, within community life, including as representatives within state parliament, local council and charitable work.
- Hosting of part of the official royal visit of HRH The Duke of Cornwall and York (later King George V) on the occasion of the opening of the first federal parliament at the Royal Exhibition Buildings, Melbourne, in 1901.
- Representative of the displacement of many large land owners during the early 20<sup>th</sup> century as a result of the Coser Settlement Scheme.
- The association of the property with the Presbyterian Church of Victoria and its adaptation as a boys' home, the Kilmany Park Farm Home for Boys, from 1923 until 1978.

Criterion C, F and H have been found to be not applicable in this case.

On the basis of this analysis, 'Kilmany Park' can be considered to be of historical, architectural, aesthetic and social significance to the State of Victoria.

## 7.2 Review of the extent of the existing heritage overlay

The following review of the extent of the heritage overlay relates to the extent of heritage overlay HO68 – Kilmany Park; no review of heritage overlay HO151 (Oak Tree) is proposed. The review of the extent of heritage overlay HO68 is based on an analysis of those elements identified as being significant and the grading of those elements accordingly. The grading utilised are:

- **Primary elements**, being those elements identified as being intrinsic to understanding the significance of 'Kilmany Park'.
- **Contributory elements**, being those elements that contribute to the understanding of the significance of 'Kilmany Park'.
- **No significance**, being those elements that do not form part of the understanding of the significance of 'Kilmany Park'.

### 7.2.1 Primary elements

Those elements considered of primary significance relate to the development of the homestead complex by the Pearson family from the mid-19<sup>th</sup> century, with further improvements undertaken during the early 20<sup>th</sup> century, and the setting of the property.

Elements of primary significance include:

- Various 19<sup>th</sup> and 20<sup>th</sup> century buildings and structures of the homestead complex, including:
  - o Federation-era mansion and interiors.
  - o Late-Victorian racings stables.
  - o Mid-Victorian meat house, with extant internal fittings and fixtures.
  - o Mid-Victorian men's quarters (with late-Victorian additions).
  - o Late-Victorian former water tower.
  - o Mid-Victorian in-ground water tanks.
- Visual connections between the mansion, outbuildings and various elements of the homestead complex, including:
  - o Service area at the rear of the mansion.
  - o Late-Victorian racings stables.
  - o Mid-Victorian meat house, with extant internal fittings and fixtures.
  - o Mid-Victorian men's quarters (with late-Victorian additions).
  - o Late-Victorian former water tower.

- Formal gardens, including:
  - o Victorian-era plantings, including sizeable exotic specimens.
  - o 'The Cornwall and York Oak' (HO151 – Oak Tree)
  - o Federation-era formal landscaping, including:
    - Elliptical lawn.
    - Visual relationship with the wider landscape which has been designed to form a backdrop to the elliptical lawn.
    - Symmetrical placement of cypress trees that frame the backdrop of views to the elliptical lawn.
- Visual connections between the homestead complex and the wider landscape, including:
  - o Views of the homestead on arrival from the driveway.
  - o Views from the homestead to the surrounding landscape.
- Main driveway (c. 1903) and the formal approach to the homestead from Settlement Road, a sense of arrival within the formal homestead complex, including:
  - o English Oak trees denoting the entrance to the driveway off Settlement Road.
  - o Remnant plantings of lines of *Macrocarpa cypress*, denoting the former structure of paddocks surrounding the homestead.
  - o Remnant stands of old Eucalypts, being a reminder of the indigenous vegetation of the area.

### 7.2.2 Contributory elements

Those elements of contributory significance relate to the subdivision of the 'Kilmany Park' estate for Gosser Settlement from the early 1920s and the redevelopment of the homestead complex as the Kilmany Park Farm Home for Boys from 1923, until the Home's closure in 1978.

Elements of contributory significance include:

- Buildings associated with the Gosser Settlement of the area, including:
  - o Kilmany Park School No. 4240, including the school house and the Sloyd room; the design of the Sloyd room is a variation of that designed by Chief Architect of the Public Works Department, Percy Everett.
- Buildings and structures associated with the former Kilmany Park School No. 4240, including:
  - o Early-20<sup>th</sup> century 'McClelland Gate Posts' and dedication plaque (c. 1924), at the rear entrance to the homestead complex, off Reid Drive.
  - o Kilmany Park School No. 4240, including the school house and sloyd room.
  - o Recreation Centre (c. 1962), attributed to modernist Melbourne architect Keith Reid.
- Leslie Drive (c. mid-1960s), being the avenue of trees along the main driveway, for its contribution to a sense of arrival at the homestead complex despite their later date.

While contributory elements do reflect the change and development of the property after its sale by the Pearson family, they do not directly contribute to the property's significance and need not necessarily be retained either in part or in full.

### 7.2.3 No significance

Elements that are of no significance to 'Kilmany Park' include:

- Views to the homestead from the surrounding landscape are not considered to be significant given the homestead is not highly visible from Settlement Road.
- Caretaker and labourers houses, associated with the Kilmany Park Farm Home for Boys and dairy farming activities undertaken by the Presbyterian Church of Victoria.





Figure 76 Analysis of significant view lines within the immediate context of the homestead complex. The red arrows denote view lines of primary significance, being those views between significant buildings in the homestead complex, views from the homestead to the wider landscape and views to the homestead from the main driveway. Source: Google Maps, 2016



Figure 77 Analysis of significant view lines within the boundaries of the larger property, including views along the main driveway and from the homestead to the wider landscape. The extent of the heritage overlay H008 is outlined in red. Source: Google Maps, 2016



Figure 75 Analysis of significant view lines overlaid with a potential realignment of the boundary to the heritage overlay.  
Source: Google Maps, 2016

## 8. Concluding Comments

The 'Kilmany Park' estate at Wurruk, near Sale, constituting the area contained under heritage overlay HO68 on the Schedule to the Heritage Overlay of the Wellington Planning Scheme, is of significance to the State of Victoria.

'Kilmany Park' incorporates a substantial land area including the homestead complex, developed from the mid-1840s until the early 20<sup>th</sup> century by the Pearson family, a significant pastoral, horse racing and political family within the history of the State of Victoria. Following the disposal of the homestead by the Pearson family in the 1920s, the homestead was repurposed as a boys' home, the Kilmany Park Farm Home for Boys, with multiple buildings constructed in conjunction with this new function.

While the property is considered of significance to the State of Victoria, it is noted not all land and buildings within the heritage overlay contribute to the understanding of this significance. On this basis, it is recommended that the extent of the heritage overlay be reviewed to include only those elements that contribute to the significance of 'Kilmany Park'. Such a review should only be considered on the basis of specific guidelines being established to facilitate works both within the curtilage of the heritage overlay area and within the proximity of the heritage overlay area (refer Section 9. Recommendations).





## 9. Recommendations

### 9.1 Realignment of the boundary to heritage overlay HO68

It is recommended that the boundaries of the heritage overlay area be realigned to include only those elements identified as significant to heritage overlay HO68.

In light of the proposed realignment of the heritage overlay, it is recommended that the existing alignment of the main driveway from Settlement Road to the 'Kilmory Park' homestead be retained as a primary access road within any proposed subdivision. The primary access road could be planted with appropriate tree species to denote a continued sense of arrival at a new entrance to the main drive to the homestead complex. The primary access road would provide access to secondary access roads only; the secondary roads would provide access to residential properties of the subdivision.

The two English Oaks currently framing the entrance to the main drive should be retained as part of any subdivision proposal. This is in light of them constituting the only early formal planting associated with the construction of the drive.

### 9.2 Recommended guidelines for the development of land adjoining heritage overlay HO68

Given the impending subdivision of land in the immediate proximity of the heritage overlay area and the intrusive nature of the already existing subdivision development, it is recommended that a series of development controls be put in place to ensure that works related to any neighbouring subdivision do not have a negative impact on the heritage significance of HO68. Controls should include but not necessarily be limited to the following:

- Subdivision allotment sizes [0.5 acre (2000m<sup>2</sup>) or more]
- Boundary fences (should be rural in character with no standard paling fences)
- Building controls to houses and any outbuildings (houses to be single storey with attics only and/or with hipped or gabled roofs; outbuildings to have hipped or gabled roofs)
- Street lighting
- Landscaping

### 9.3 Recommended guidelines for the development of land within heritage overlay HO68

A series of guidelines should be put in place to retain the significance of the heritage overlay area.

In addition to applying the general heritage overlay controls and guidelines encapsulated within the Wellington Planning Scheme, guidelines should include but not necessarily be limited to the following:

- Subdivision within the heritage overlay area should be sensitively managed
- Fences between properties located within the heritage overlay area
- Roadways within the heritage overlay area
- Street lighting
- Landscaping



## 10. Appendices





10.1 Appendix A – Citations for Statutory Listings



## HERITAGE CITATION REPORT

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<b>Name</b>	Kilmany Park	<b>Significance Level</b>	State
<b>Address</b>	Settlement Road Wurrak		
<b>Place Type</b>	House		
<b>Citation Date</b>	2005		



Kilmany Park

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**Recommended Heritage Protection**      **VHR - HI - PS -**

### History and Historical Context

William Pearson, 'resolute Scot, successful pastoralist, politician and mining entrepreneur', took up Kilmany Park at Sale in September 1841 at a time when East Gippsland was virtually unoccupied and it became one of the first pastoral estates in this part of Victoria. Pearson built the original timber single storey homestead in the 1840s and his son William junior erected the substantial stucco rendered two storey mansion house adjacent to the original homestead in 1901-06 in a late conservative Classical style. (1)

The status of the Pearsons within Australian society was illustrated by the visit to Kilmany by the Duke of York (later King George V) on 15 May 1901. He planted an English Oak to mark the occasion (2). The Duke had come to Australia as the King's representative to open the first Federal Parliament in Melbourne.

'Kilmany Park' at Sale has been adapted as a home for boys and conducted by the Presbyterian church since 1923. The arcade has been almost completely enclosed and the interior converted to dormitory Accommodation. (1)

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Kilmany Park  
Hermes No 128082

Place Citation Report

24-Feb-2016

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Page 1

## HERITAGE CITATION REPORT

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Not inspected during the Wellington Heritage Study: Sale Review (2004). See also place record for the English Oak in this Study (Place ID 1468).

### REFERENCES

- (1) Register of the National Estate, Place ID 004772
- (2) National Trust of Australia (Victoria) Register, T11099

### REFERENCES

Context Pty Ltd, 2004. Wellington Heritage Study: Sale Review

## Description

### Physical Description

Scottish pastoralist William Pearson took up Kilmany Park at Sale in September 1841 at a time when East Gippsland was virtually unoccupied. Pearson built the original timber single storey homestead in the 1840s and his son William junior erected the substantial stucco rendered two storey mansion house adjacent to the original homestead in 1901-06 in a late conservative Classical style. (RNE 004772)

'Kilmany Park' at Sale has been adapted as a home for boys and conducted by the Presbyterian church since 1923. The arcade has been almost completely enclosed and the interior converted to dormitory Accommodation. (RNE 004772)

Not inspected during the Wellington Heritage Study: Sale Review (2004). See also place record for Quercus robur at Kilmany Park, place id. 1468.

## Statement of Significance

Kilmany Park is of considerable historical and aesthetic significance to Wellington Shire and the Gippsland region. Historically, it has associations with the pastoral settlement of Gippsland in the mid-nineteenth century and illustrates the status of the pastoralists within Gippsland society. It has important associations with the locally important Pearson family who were influential in local and Victorian commerce and politics. Aesthetically, the present Classically derived mansion with the wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and ponderous central pediment, is notable as one of the last of the conservative Classical mansions erected in Victoria. (RNE criteria A.4, B.2, D.2, E.1 & H.1))

(The Commission is in the process of developing and/or upgrading official statements for places listed prior to 1991. The above data was mainly provided by the nominator and has not yet been revised by the Commission.)

Notable for the variety of its art nouveau plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony, now partially built in. . (National Trust Register, B2969)

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Kilmany Park  
Hermes No 128082

Place Citation Report

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Page 2



## HERITAGE CITATION REPORT

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### Recommendations 2005

External Paint Controls  
Internal Alteration Controls  
Tree Controls  
Fences & Outbuildings  
Prohibited Uses May Be Permitted  
Incorporated Plan  
Aboriginal Heritage Place

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This information is provided for guidance only and does not supersede official documents, particularly the planning scheme. Planning controls should be verified by checking the relevant municipal planning scheme.

## HERITAGE CITATION REPORT

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**Name** English Oak (*Quercus robur*)  
**Address** Settlement Road Wurrak  
**Place Type** Tree  
**Citation Date** 2005



English Oak (*Quercus robur*)

---

**Recommended** VHR - HI - PS -  
**Heritage Protection**

### History and Historical Context

This English Oak commemorates King George V who planted the tree when visiting the property as the Duke of York on 15 May 1901 (1).

Please see the separate citation in this Study for further information about Kilmany Park.

#### REFERENCES

(1) National Trust of Australia (Victoria) Register, T11099

#### REFERENCES

Context Pty Ltd, 2004. Wellington Heritage Study: Sale Review

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English Oak (*Quercus robur*)  
Hermes No 128012 Place Citation Report

24-Feb-2016

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Page 1

## HERITAGE CITATION REPORT

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### Description

#### Physical Description

This large English Oak (*Quercus robur* - family: Fagaceae) is located within Kilmany Park, Pearsondale Road, Sale, on the west side of the main residence. Estimated to be 100 years old, it has the following dimensions:

Spread: 24.40  
Girth: 2.72  
Height: 11.75

The condition and form are good.

It was not inspected during the Wellington Heritage Study: Sale Review (2004).

#### Recommended Management

On National Trust Significant Trees Register, therefore of sufficient significance to be protected under Planning Scheme.

#### Statement of Significance

This English Oak (*Quercus robur*) at Kilmany Park planted by King George V when visiting the property as the Duke of York on 15 May 1901 is of historical and scientific (horticultural) significance to Wellington Shire. Historically, it is significant for its associations with King George V and a reminder of his visit to Sale at the time of Federation. It demonstrates the importance of Sale as city and Kilmany Park. Scientifically, it is of horticultural significance as a fine mature specimen of this species. (RNE criteria A.4, D.2 and H.1)

#### Recommendations 2005

External Paint Controls  
Internal Alteration Controls  
Tree Controls  
Fences & Outbuildings  
Prohibited Uses May Be Permitted  
Incorporated Plan  
Aboriginal Heritage Place

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#### Other Recommendations

On National Trust Significant Trees Register, therefore of sufficient significance to be protected under Planning Scheme.

This information is provided for guidance only and does not supersede official documents, particularly the planning scheme. Planning controls should be verified by checking the relevant municipal planning scheme.



10.2 Appendix B – Citations for Non-Statutory Listings



**Place Details**

[View record](#) [Add record](#)

**Grid Coordinates**

Kilnsey Park, Road Dr, Warrack, VIC, Australia

<b>Photographic</b>	None
<b>List</b>	Register of the National Estate (Non-statutory listing)
<b>Class</b>	House
<b>Legal Status</b>	Registered (11/11/1978)
<b>Place ID</b>	4773
<b>Place File No</b>	L1962/00002

**Statement of Significance**

Kilnsey Park is one of the finest established properties in eastern Victoria and largely founded by William Francis, Australia's first, successful pastoralist, politician and mining entrepreneur. The grounds (distinctly derived in essence with the wide graded steps of ground level and esplanade level) are one of the best of the conservative (classical) mansions erected in Victoria and notable for the fact, William Francis junior was a member of the house's interior.

(The Commission is in the process of developing and/or upgrading official statements for places listed prior to 1980. The above data was merely provided for the convenience and has not yet been revised by the Commission.)

**Official Values Not Available**

**Description**

South-east Victorian William Francis took up Kilnsey Park at Sale in September 1846 at a time when such settlement was virtually unknown. Francis built the original house single storey (completed in the 1850s) and the present William junior entered the substantial 1870s version two storey mansion house adjacent to the original homestead in 1871. He is a late conservative (classical) style.

**History Not Available**

**Condition and Integrity**

Kilnsey Park 'at Sale' has been adapted as a home for boys and conducted by the Presbyterian church since 1923. The estate has been almost completely destroyed and the interior converted to dormitory accommodation.

**Location**

Road Road, Warrack, 15km south-west of Sale.

**Bibliography**

NATIONAL TRUST OF AUSTRALIA (VICTORIAN) FILE NO. 2008.  
 HERITAGE AUSTRALIA, HERITAGE AUSTRALIA FILE NO. 469000000.  
 MELBOURNE, 2005. NP/2/02.  
 COMMON LAWNS DEVELOPMENT, COMMON PLANS (VIC), RUN FILE 243.  
 WILES, A.V. AND BEAVON, A. E. PASTORAL PIONEERS OF FREE MOUNTAIN.  
 STOCKLAND PRESS, MELBOURNE, 1974. 491/4. 226.

Search Protocol: WARRACK 01 01-06-17 2016

HERITAGE CITATION REPORT

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<b>Name</b>	Kilmany Park Homestead	<b>File No</b>	B2969
<b>Address</b>	1613 Settlement Road SALE	<b>Significance Level</b>	Unknown
<b>Place Type</b>	Homestead building		



B2969 Kilmany Park Homestead

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**Recommended Heritage Protection**      VHR - HI - PS -

**Statement of Significance**

A two-storeyed mansion on a particularly grand scale, built in 1901 for the major squatter William Pearson, and notable for the variety of its art nouveau plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony, now partially built in.

Classified: 07/12 1972

See also: T11099

## HERITAGE CITATION REPORT

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### Recommendations

External Paint Controls  
Internal Alteration Controls  
Tree Controls  
Fences & Outbuildings  
Prohibited Uses May Be Permitted  
Incorporated Plan  
Aboriginal Heritage Place

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This information is provided for guidance only and does not supersede official documents, particularly the planning scheme. Planning controls should be verified by checking the relevant municipal planning scheme.



## HERITAGE CITATION REPORT

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<b>Name</b>	Quercus robur	<b>File No</b>	T11099
<b>Address</b>	'Kilmany Park' 1613 Settlement Road, SALE	<b>Significance Level</b>	Unknown
<b>Place Type</b>	Tree		



T11099 Quercus robur

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**Recommended Heritage Protection** VIIR - III - PS -

### Statement of Significance

#### Historical value

This commemorative planting dominates the western side of the historic property. The sign reads "This oak was planted by His Majesty King George V when visiting the property as HRH the Duke of York on 15 May 1901. This tablet was erected by the representatives of the Victorian Bowling Association February 1935".

'Kilmany Park' was settled by William Pearson in September 1841 and is one of the oldest established properties in eastern Victoria. The imposing residence was built by Pearson in 1901 is classified by the National Trust.

Measurements: 21/03/1997

Spread (m): 24.4

Girth (m): 2.72

Height (m): 11.25

Estimated Age (yrs): 96

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Quercus robur  
Hermes No 70605

Place Citation Report

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Page 1

## HERITAGE CITATION REPORT

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Condition: Good

Access: Restricted  
Classified: 10/04/1997

### Recommendations

External Paint Controls  
Internal Alteration Controls  
Tree Controls  
Fences & Outbuildings  
Prohibited Uses May Be Permitted  
Incorporated Plan  
Aboriginal Heritage Place

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10.3 Appendix C – Previous Heritage Studies





# ANNE NAPIER ARCHITECT

1<sup>st</sup> December 2005

John Traa  
Town Planner  
Wellington Shire Council  
PO Box 506  
Sale VIC 3850

Dear John

**RE: P313/2005  
PROPOSED SUBDIVISION  
"KILMANY PARK"  
SETTLEMENT ROAD, WURRUK**

I refer to your recent correspondence regarding this planning application.

## **THE PROPOSAL**

The proposal is to subdivide the "Kilmany Park" property to create six new lots, each containing an existing house or building/s. I inspected the property with the owner (Daryl Page) on Monday 14<sup>th</sup> November 2005 in fine conditions. Please note that this was an external inspection only, and that it does not constitute a structural assessment of any of the buildings on this property.

## **HERITAGE LISTINGS**

The property is wholly contained in the Heritage Overlay (HO68) of the Wellington Planning Scheme.

The property was listed by The National Trust of Australia (Victoria) in 1972. The File No. is B2969 and the statement of significance reads:

*"A two-storeyed mansion on a particularly grand scale, built in 1901 for the major squatter William Pearson, and notable for the variety of its art nouveau plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony, now partially built in."*

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Registered Architect in Victoria and Tasmania



It was also included on the Register of the National Estate back in 1978. The citation is as follows:

*"Kilmany Park is one of the oldest established properties in eastern Victoria and largely founded by William Pearson. Resolute Scot, successful pastoralist, politician and mining entrepreneur. The present Classically derived mansion with the wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and ponderous central pediment, is one of the last of the conservative Classical mansions erected in Victoria and notable for this fact. William Pearson junior was a model of his father's career."*

*"Scottish pastoralist William Pearson took up Kilmany Park at Sale in September 1841 at a time when east Gippsland was virtually unoccupied. Pearson built the original timber single storey homestead in the 1840s and his son William junior erected the substantial stucco rendered two storey mansion house adjacent to the original homestead in 1901-06 in a late conservative Classical style."*

*"Kilmany Park' at Sale has been adapted as a home for boys and conducted by the Presbyterian Church since 1923. The arcade has been almost completely enclosed and the interior converted to dormitory Accommodation."*

#### **BACKGROUND HISTORY**

In order to understand the likely cultural heritage significance of the existing buildings on this site, it is important to firstly examine the history of the property.

The following extract is taken from "Vision and Realisation Volume 3 – A Centenary of History of State Education in Victoria" (1973) by the Education Department.

*"In 1841 W. Pearson settled on the land stretching from Sale in the E to Rosedale in the W and from the Latrobe River in the S to the Thomson River in the N. This enormous run needed many hands and Pearson began his own private school for his employees in the 1880s. The schoolhouse and attached residence still exist. After 1900 the station was slowly but surely subdivided by the Government and by private enterprise. In 1924 the Government bought the magnificent Kilmany Park Mansion and turned it into a home for orphaned boys. As many of these boys were emotionally disturbed and needed a special education, a special school was provided. On 29<sup>th</sup> April 1925 the school was opened in three rooms. Two rooms in one building were divided by a folding door and a separate third room was a sloyd room. Richard Costelloe was the first HT. The school is behind the Kilmany Park Mansion which is approximately 3 miles W of Sale. The initial enrolment*

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*of approximately 40 formed eight grades. The Committee was an unusual one. Throughout the history of the school it consisted of the HM, the Home Superintendent and one parent because some children from the district attended the school. Enrolment reached a peak of 53 but when the school was closed in 1956 the enrolment was 11. At this point it was decided the boys would lead a more normal life if they went to Sale schools. The school had an excellent Junior Young Farmer's Club which won many State prizes for cattle judging. The school gardens won the ANA prize for the most improved garden in 1929. the children showed particular skill in sloyd during the school. History. During the 1940s the boys made toys for children in other orphanages. The boys earned money fashioning garden tools making up to £90 per year. Of the boys at this school one became a bank manager in England (who has a standing invitation to any boy interested in banking for free passage to England and his support when he arrives) and Head of a Victorian country High School. Herbert Williams won a Sun Farmer trip to England in 1937"*

Peter Synan's book "Gippsland's Lucky City – A History of Sale" also describes the educational aspects of Kilmany Park:

*"In 1923 the Presbyterian Church bought the Kilmany Park mansion and some 200 acres around the homestead for the purpose of a welfare home for boys. The idea was to transplant city boys who were at social risk, to the wholesome atmosphere of a Gippsland farming property where they would have opportunities to continue their schooling. The first boys were welcomed to the home by supervisors Mr and Mrs J. Styne in early 1924. By 1925 numbers had built up to twenty-five. It was now apparent that Wurruk State School could not cope with the influx so the Education Department opened a school at the homestead in 1927."*

The main building on the Kilmany Park property is the mansion-like homestead which has already been adequately described in the various heritage listings above. It has seen various uses over its life - as a private residence, as a home for disadvantage boys, and most recently as a bed and breakfast establishment and function centre. It is surrounded by many outbuildings, most notably splendid brick stables. These stables were devastated by bushfires c1940s with only the original brickwork remaining. New roofing timbers, a corrugated asbestos roof, and timber joinery were all re-built at this time.

The garden surrounding the homestead is also of interest. It was inspected by John Hawker (horticulturalist with Heritage Victoria) in 1997 and it contains many fine specimens including a Bunya Bunya Pine, Hoop Pine, Lilly Pilly, Flame Tree, Hazelnut, Blue Atlas Cedar, Himalayan Cedar, Monterey

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Cypress, Bhutan Cypress, Sugar Gum, Japanese Spindle-wood, Loquat, Liquidambar, Norfolk Island Hibiscus, Pear, Chinese Hawthorn, Tortured Willow, Weeping Elm and Purple Elm. Most notable of the trees is a large English Oak to the west of the homestead planted by King George V when visiting the property as the Duke of York on 15<sup>th</sup> May 1901. It is proposed that all these buildings and the significant garden remain together on the proposed Lot 1. Together, the mansion, outbuildings and surrounding gardens form a complex of high heritage significance.

Lot 2 contains a painted timber weatherboard-clad house with a tiled hipped roof. It is presumed that this house dates from the 1950s-1960s and is of little heritage significance.

Lot 3 contains a cream brick house with tiled hipped roof. This would appear to date from the 1960s and is also considered to be of little heritage significance.

Lot 4 contains two old weatherboard school buildings. The larger of the two has a gabled hip roof of corrugated iron with exposed rafters on the eaves. Windows are timber-framed and configured with three four-pane sashes. The double doors are solid timber planked. The two brick chimneys are without adornment and the steel flue in one of them is evidence of a later heating device having been inserted in the fireplace. This building was not inspected internally, but it is currently lived in by a tenant, so is presumably habitable and serviceable. Based on architectural style, it is estimated that this building may date from the period 1890-1915.<sup>1</sup> The second school building is of a simpler style, with a simple hipped roof of corrugated iron with a ventilated ridge. It too has painted timber weatherboard-clad walls and double-hung sash windows with hopper-style glazed windows above. The style of the windows and the enclosed eave may suggest that this building is from a later period than the other school building. It is believed that this building is currently used as a storage facility by one of the tenants. These buildings form an integral part of the history of the Kimany Park property. It would be ideal if they could remain on the same Lot as the homestead and other outbuildings, however, the future significance of any of these buildings (most importantly the mansion) will not be diminished by the subdivision. However, it would be advisable for the heritage overlay to remain on this site so that future development is appropriately managed. Any future application to demolish these two school buildings should be refused.

Lot 5 contains an old style cottage with rendered brick walls and a steeply pitched corrugated iron roof. The timber vent detail on the gable is identical to

<sup>1</sup> *A Pictorial Guide to Identifying Australian Architecture - Styles and Terms from 1788 to the Present*, Richard Apperly, Robert Irving, Peter Reynolds, Angus & Robertson 1989

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that on the brick stables, indicating that it was probably constructed around the same time. Its previous use is not known, but it is assumed that it may have been a farm manager's cottage. It is currently rented out on a short-term basis as holiday accommodation or alternatively on a longer-term basis to visitors. It is anticipated that this arrangement will continue. Based on architectural style, it is estimated that this building dates from a period **pre-1890**. This building is integral to the complex of buildings that comprise Kilmany Park, and it would be ideal if it could remain on the same Lot as the homestead and other outbuildings. **However, the future significance of any of these buildings (most importantly the mansion) will not be diminished by the subdivision. However, it would be advisable for the heritage overlay to remain on this site so that future development is appropriately managed. Any future application to demolish this cottage should be refused.**

**Lot 6 contains an orange brick house with a tiled hipped roof, thought to date from c1970s. It is of little heritage significance.**

#### **RELEVANT GUIDELINES**

The following extract is from the Heritage Victoria document "Guidelines For The Assessment of Heritage Planning Applications":

#### ***"Subdivision and Consolidation of Land***

##### ***Guideline basis***

*A permit is required for subdivision or consolidation of places listed in the Schedule to the Heritage Overlay of local planning schemes and for places on the Victorian Heritage Register.*

##### ***Subdivision: Background***

*Subdivision, if approved, is not a readily reversible change, and should be approached with extreme care. While subdivision itself is merely lines on a map, the purpose of subdivision is generally to enable the sale or disposal of the separate lots. There is usually an expectation of the construction of either fencing and/or buildings on the separate lots created by the subdivision. It is often the impact of this future development rather than the subdivision itself which may prejudice the significance of the place.*

*It is important for decision makers when assessing a subdivision application to be mindful that while heritage controls may still apply to the subdivided*

<sup>2</sup> *A Pictorial Guide to Identifying Australian Architecture - Styles and Terms from 1788 to the Present*, Richard Apperly, Robert Irving, Peter Reynolds, Angus & Robertson 1989

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*property, it may be too late and too difficult to refuse a permit for new development once the subdivision has occurred. It is therefore desirable to understand as much as possible what development is proposed for the site at the time of the subdivision application. The outcome of the subdivision is crucial to the possible setting of the site and all possible development options should be explored.*

*The true significance of a place is often reliant upon it being seen in its original setting or context, with all its related elements including gardens, trees, grounds, surrounding pastures, outbuildings, fences, paths, gates or paving. If the place is isolated from its setting, its significance may be diminished or even lost. Cultural significance of a place may also relate to its visual prominence, in such a case setting is of special importance. Consequently the development that results on the subdivided or consolidated land has the potential to destroy or diminish the significance of a place.*

*This means that development on that land should be controlled to minimise any adverse impact. The physical relationship of separate structures to each other as well as the space between structures needs to be considered in assessing permit applications.*

**To assess an application to subdivide a heritage place information may be required as to:**

- **All significant elements of the place, including those elements that contribute to the setting (eg buildings, outbuildings, pathways, driveways, plantings etc)**
- **Important views to and from the place (The placement of the features on a heritage place can be significant due to the views obtained from or to that place.); and**
- **An appropriate curtilage to maintain the significance of the place**

*In the urban context the issue of subdivision will more typically arise in relation to larger residential, commercial or industrial properties and institutional sites such as church complexes, schools or hospitals.*

*Subdivision may result in development that affects the consistent rhythm and pattern of buildings in the street where the property is located in an important streetscape characterised by consistent property sizes and building forms. For example, a historic commercial or residential street may be characterised by properties of a consistent width and buildings of a consistent scale and form.*

*In the rural context the issue is more likely to arise in relation to large*

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acreages where there are economic pressures to subdivide. This may include coastlines and areas under pressure from expanding towns or resorts.

Depressed farm incomes may mean that subdivision will lead to an injection of capital necessary to maintain existence. For example, there may be an historical setting of open farm space between residential areas and coast lines.

Applicants often suggest that the need to subdivide is justified by the need to maintain financial viability of the place (ie the property is too large for the current owner to maintain). Consideration should be given to whether the subdivision is the only way of ensuring long term conservation of the most significant element(s) of the place or whether other options may exist. If no other options exist it may be beneficial to obtain a type of bond to ensure that the conservation works do occur. Subdivision may ultimately be seen as the only means of conserving a place, by providing funds for its long term conservation. In this case the gains from subdivision should outweigh any losses pertaining to significance in order to be justified.

The same principles apply to the realignment of property boundary lines."

#### **Objectives of guidelines**

- To ensure that the potential negative effects of subdivision on cultural heritage significance of a place are minimised
- To ensure that an appropriate setting and context for heritage places is maintained.
- To ensure that an appropriate setting and context for heritage places is maintained
- To ensure that heritage places continue to be used and conserved

#### **Guidelines: Subdivision**

- Subdivision should not impact negatively on the significance of the place.
- Subdivision should be avoided or limited if it is detrimental to the associational or historical links which are essential to maintaining significance and understanding of the place (ie if it leads to the physical separation and isolation of important elements of the historic place - for example, the separation of a historic house from its stables or outbuildings, garden etc).
- Subdivision should be avoided or limited if resulting development, including boundary fences and buildings, will be detrimental to the

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*visual appearance of the heritage place or be detrimental to the significant view lines to and from the heritage place. Maintenance of an appropriate visual setting is essential.*

- *Subdivision should be avoided or limited if it, or any resulting development, will impact on the significance of an adjacent or surrounding heritage place.*
- *All applications for subdivision involving protected land should be accompanied by design guidelines that include proposals for building envelopes, materials, colours and fences for the subdivided lots*
- *Subdivision in the midst of an important group of buildings or streetscape should be avoided if it may result in development that affects the consistent rhythm and pattern of buildings. Subdivision should also be avoided in this situation where it adversely affects the historically important views and interrelationship of a group of buildings*
- *For larger properties such as homesteads and the "home paddock", all the main structures associated with the property which may include the homestead, stables, woolshed, barn, original fences, paths and dry stone walls should be retained in single ownership. This may also include parts of the site of archaeological significance such as the sites of earlier houses, underground water storage vessels etc. Plantings such as driveway avenues, an important garden associated with the place, walled gardens, hedges and the like should also be retained in the same ownership as the main building with which they are associated*
- *If subdivision is put forward as the only means of ensuring the long term preservation of a property, evidence of having examined the feasibility of other alternatives should be submitted with a permit application or conservation management plan*
- *The history of the property's boundaries should be taken into consideration. If, for example, the original property had increased in size over time, it may be appropriate to subdivide along original lines and return the property to its original size*

**Where subdivision is permitted:**

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- *Site new boundaries away from existing vegetation. Create new boundaries that are located in a way to develop the lot for the intended purpose without losing the existing significant vegetation*
- *The heritage place should be given visual prominence over potential development on the subdivided land. This should be shown on a planning application showing vistas to the settings that are to be retained to the place and the location of all significant features.*
- *An undeveloped space should exist between the heritage place and any potential development on the subdivided land. Landscaping may be appropriate where it does not alter the significance of the surrounding landscape*
- *Development envelopes (that is, areas in which development may occur on a site) should ensure a transition between potential new development and the significant building or structures in terms of scale, height and massing so that the heritage place is not overwhelmed or dominated by the new*
- *Provide adequate land and access for existing buildings and vegetation to protect their setting and possible options for future use\**

#### **RECOMMENDATIONS**

Whilst it is unfortunate to see any historic property subdivided, it is believed that in this instance the proposed subdivision will not diminish the cultural heritage significance of the place. This is subject to the following conditions:

- That the heritage overlay remain on all six Lots so that inevitable future development on these Lots can be appropriately managed.
- That building envelopes be created on some or all of the Lots numbered 2, 3, 4, 5 and 6.
- That current and/or future owners of Lots 4 and 5 be encouraged to retain and enhance the existing buildings so that their cultural heritage significance is not diminished. In particular, any future development on these sites needs to be sensitive to the heritage significance of the existing buildings. Any future application to demolish these buildings should be refused.
- The Schedule to the Heritage Overlay does not include controls over internal alterations. This situation should remain for all Lots.
- The schedule to the Heritage Overlay includes external paint colours for this property. It is recommended that these need not apply to the

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newly created Lots 2, 3, and 6. External paint controls should remain on Lots 1, 4 and 5.

- The schedule to the Heritage Overlay includes tree controls, however, it is recommended that these need not apply to the newly created Lots 2, 3, 4 and 6. The tree controls should remain on Lots 1 and 5.

Please don't hesitate to contact me should you require any additional heritage advice regarding this planning application.

Yours sincerely

[original signed by Anne Napier]

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## KILMANY PARK SALE

Review of heritage significance – January 2009

### Introduction

This report has been prepared for Jelaryl Pty Ltd and provides the initial findings of the review of significance of Kilmany Park at Sale in order to provide the basis for recommendations to change the extent of the Heritage Overlay that currently applies to the property.

A revised draft statement of significance has been prepared, which provides a more comprehensive understanding of the significant elements associated with the place.

This report has been prepared in accordance with the principles and procedures set out in the *Australia ICOMOS Charter for Places of Cultural Significance 1999* (the Burra Charter), and the assessment of significance has applied the Hercon criteria. Specifically, the investigation carried out has included a site inspection on 16 December 2009, a review of existing documentation in relevant studies including the Wellington Shire Heritage Study, and a review of relevant planning controls and policy in the Wellington Planning Scheme. The current owner provided further information about the history of the site. The scope of this study did not allow further research to be carried out and it is noted that further research into the history of this fascinating place would be beneficial.

### History

William Pearson, 'resolute Scot, successful pastoralist, politician and mining entrepreneur', took up Kilmany Park at Sale in September 1841 at a time when East Gippsland was virtually unoccupied and it became one of the first pastoral estates in this part of Victoria. Pearson built the original timber single storey homestead in the 1840s and his son William junior erected his substantial stucco rendered two storey mansion house adjacent to the original homestead in 1901-06 in a late conservative Classical style (RNE).

Over time the Pearsons established a complex of buildings on the property, which included a large brick stables, and a small timber structure adjacent to the kitchen used for the killing and storage of animals.

The status of the Pearsons within Australian society was illustrated by the visit to Kilmany by the Duke of York (Later King George V) on 15 May 1901. He planted an English Oak to mark the occasion (NT). The Duke had come to Australia as the King's representative to open the first Federal Parliament in Melbourne.

In 1923 Kilmany Park was converted to a home for boys conducted by the Presbyterian Church. The Church made alterations to the house including enclosing the upper balconies to provide bedrooms for the boys and constructing a gabled brick extension extending from the north-west corner containing toilets and showers. Internally, much of the original detailing was covered over, but fortunately, it appears that little was removed.

In 1925 a school was established on part of the site. The predominance of boys was reflected in the addition of a Sloyd Room in the 1930s.

In the 1940s a fire partially destroyed the stables, which was rebuilt and extended. Further additions included the construction in the 1960s of a brick assembly hall by the Church.



The current owners purchased Kilmany Park in 1996. Since then they have carried out extensive restoration and renovation works, most significantly removing the enclosures to the upper balcony. Internally, ensuite bathrooms have been sensitively integrated, and some minor doorways closed (and others opened), but the overall form and layout and detailing remains largely intact. This is particularly true of the main downstairs rooms leading off the grand central hall.

*Sources*

Register of the National Estate (RNE), Site ID: 004772

National Trust of Australia (Victoria) (NT), B2969

Dr Daryl Page

**Description**

Kilmany Park is situated on the west side of Settlement Road, to the south-west of Sale. The entrance to the driveway is marked by a pair of semi-mature English Oaks (*Quercus robur*) and the driveway is lined with informal plantings of Eucalypts and *Melaleucas*.

The driveway leads to a complex of buildings set on a rise overlooking the Latrobe River plains, which includes the mansion, constructed in 1901-06, the original c.1860 cottage, the former Kilmany Park School, and a complex of outbuildings including the 'killing room' adjacent to the house and the former stables. There are also three post-war houses and a brick hall constructed by the Presbyterian Church.

The mansion is a substantial two storey building in the conservative Classical style. It has a wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and a central pediment. Notable internal features include the variety of its art nouveau plaster decoration, the art nouveau timber screens in the drawing room and dining, the imposing stair lobby and the great balcony. The flora employed in the plaster decoration includes many Australian species such as gum leaves, reflected the nationalistic sentiments that were expressed in design around the time of Federation.

The mansion is in good condition and has a relatively high degree of integrity both internally and externally. The major change to the exterior of the mansion is the c.1920s single storey gabled addition extending from the north-east corner made by the Presbyterian Church to accommodate amenities including toilets and showers. Adjoining this addition is the brick 1960s Hall.

The mansion is set within the remnants of original gardens that include a number of magnificent exotic trees including a Bunya Bunya Pine, a Hoop Pine (close to the south-east corner of the mansion) and the English Oak (immediately to the west) planted by the Duke of York. Other notable trees include the pair of Cedars set within an elliptical shaped lawn framed by the carriage driveway on the south side of the Mansion, and a Norfolk Island Hibiscus just to the east of the Mansion. The elliptical Cedar lawn is enclosed by a concrete border, which features steps on the south side. Most of the other garden plants (which include acanthus, euphorbia, various succulents, roses, lavender etc.) are recent plantings, but are nonetheless appropriate for the era of the house.

To the north of the house is an open gravelled courtyard, which is partially enclosed on the east side by the c.1920s ablutions wing and the c.1960s hall. At the centre of courtyard is

an underground brick-lined well, now covered with a concrete cover. A second brick-lined well is situated close to the south-east corner of the former stables.

The 'Killing Room' is a small weatherboard building just to the west of the kitchen wing. It has a hip roof with a small 'rocket' shaped ventilator (apparently original, this appears in an early photograph in the possession of the current owner). It has small covered windows, and chicken wire under the eaves providing further ventilation. Internally, the walls and ceiling are lined with narrow tongue and groove pine boards, and the original frame and hooks for hanging animal carcasses is still intact.

The c.1860 cottage is constructed of brick with three stretcher courses alternating with one soldier course. The cottages comprises one long traverse gable oriented east-west, with three subsidiary gables extending at right angles to the north. There are skillion verandahs to both the north and south elevations verandah structures, which appear to be early, if not original, are supported by chamfered timber posts and have brick floors. There are external chimneys in either end wall. The front door and hallway is placed off-centre. Windows are six-pane double hung sash. The three gable ends have ocular vents

Significant outbuildings include the former stables, which appear to originally have been symmetrical in layout with a large central barn flanked by two wings containing accommodation for the stable hands. The flanking wings have double hung sash windows with an oculus vent above. The area to the south of the barn and between the flanking wings has now been enclosed, and a large new steel framed roof built over the barn. Internally, the barn retains its original brick floor - the stable bays have been removed but evidence of the divisions still exists in the walls and floors. An unusual feature at one side is a concrete 'trough', which reputedly was used for the servicing of carriages or vehicles.

Behind the stables is another very altered brick outbuilding, the original use of which is not known, though it was possibly a bakery for the house<sup>1</sup>. Surviving original fabric includes the inner and out walls, which however, have been shortened and a new roof place above. Window and doorway openings have been altered, but some original arched doorway openings remain. The building was evidently used during the tenure of the Presbyterian Church as a workshop of sorts.<sup>2</sup>

The former Kilmaly Park School comprises the original two room school house and the adjacent Sloyd Room. The school house is symmetrical in plan, with two rooms separated by a folding bank of doors, which open off a porch on the west side of the building. Each room retains its original raised platform for the teacher in front of the chalkboard, with a fireplace set into opposite corners. These are marked by plain brick chimneys at either end of the building, which adds to the symmetry of the composition. In each end wall (including the north end, which is unusual) are large banks of multi-paned windows with hoppers above. The east side elevation features four high set multi-paned windows, which are also used in the porch. Alterations to the interior include the subdivision of the porch into two rooms, one now converted to an ensuite, and the installation of a kitchen in one part of the northern room.

The adjacent Sloyd Room is a simple rectangular building with a hip iron roof. It also is essentially symmetrical in plan with four tall windows in the south elevations and three windows and a door in place of the fourth in the north elevation. The windows have

<sup>1</sup> Daryl Page, pers. comm. 16 December 2009.

<sup>2</sup> *ibid*

horizontal glazing bars, which illustrate the Moderne influence upon school design in the 1930s under the direction of Chief Architect, Percy Everett. Internally, the building retains a number of features that demonstrate its original function including the large bench along the south wall, the built in cupboards (once used for storing tools) and what appear to be large shelving units along the east end wall. Otherwise the interior is typical of schools of this period with vertical lining boards to the lower part of the wall and plasterboard above. A blackboard is set into the west end wall. The ceiling has been replaced.

Other buildings include three post-war houses of typical design.

### **Significance [Draft]**

#### *What is significant?*

Kilmany Park at Settlement Road, Sale. The following elements contribute to the significance of the place:

- ▶ The c.1860 cottage.
- ▶ The mansion of 1901-06 excluding the later additions by the Presbyterian Church.
- ▶ The form and concrete border and steps to the elliptical lawn to the south of the mansion and the remnant mature trees including the Quercus robur, Bunya Bunya Pine, Hoop Pine, Norfolk Island Hibiscus and two Cedars.
- ▶ The two brick underground water tanks.
- ▶ The outbuildings associated with the Pearson ownership including the 'Killing Room', former stables (excluding the later additions and alterations), and the brick outbuilding immediately to the north of it (excluding the later additions and alterations).
- ▶ The former Kilmany Park School and the Sloyd Room. The interior of the Sloyd Room is also significant.

The three post-war houses on the property are not significant.

#### *How is it significant?*

Kilmany Park is of historical, architectural, aesthetic and social significance to the Gippsland region.

#### *Why is it significant?*

Historically, it is significant for its associations with the pastoral settlement of Gippsland in the mid-nineteenth century and illustrates the status of pastoralists within Gippsland society. It has important associations with the Pearson family who were influential in Victorian commerce and politics. (Criteria A & H)

It is also historically and socially significant for its long association with the Presbyterian Church and provides evidence of the facilities created by church organisations for the welfare of children in the twentieth century. This association is demonstrated by the school buildings, which also provide evidence of the closer settlement of this area in during the 1920s. The former Sloyd room is of particular significance as a rare example of its type, which is notable for the relatively high degree of external and internal integrity. (Criteria A, D G & H)

Aesthetically and architecturally, the mansion with a wide arcaded loggia at ground level and superimposed upper arcade with segmental arches and ponderous central pediment, is notable as one of the last of the conservative Classical mansions erected in Victoria and one of the finest private houses in the Gippsland region. Internally, the mansion is notable

for the variety of its art nouveau plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony, now partially built in. (Criteria D & F)

The mansion, garden and outbuildings is aesthetically significant as a fine example of a substantial Federation homestead complex in a picturesque rural setting. (Criterion E)




**South Wurruk Stormwater Plan**  
**Concept Stormwater Management Strategy**

*Date 04/07/2016*



## DOCUMENT CONTROL DATA

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## APPENDICES

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- APPENDIX B. RATIONAL METHOD CALCULATIONS

## **Glossary of terms**

Alphabetical list of terms and abbreviations used in report

AHD	Australian Height Datum A common national surface level datum approximately corresponding to mean sea level.
ARI	Average Recurrence Interval - <i>The average, or expected, value of the periods between exceedances of a given rainfall total accumulated over a given duration.</i>
Authorities	Organisations responsible for supply and management of sewer, water, gas, electricity and telecommunications, roads and transport
BPEMG	Best Practice Environmental Management Guidelines
BWCo	Beveridge Williams & Co Pty Ltd
WGCMA	West Gippsland Catchment Management Authority
Client	Jelaryl Pty. Ltd. Park Ridge Investments Pty. Ltd. Pearsondale Heights Pty. Ltd. Reyela Pty. Ltd.
Council	Wellington Shire Council
IDM	Infrastructure Design Manual
LSIO	Land Subject to Inundation Overlay
NTWL	Normal Top Water Level
Q <sub>10</sub>	Storm water flow generated from 10 year ARI storm event.
Q <sub>100</sub>	Storm water flow generated from 100 year ARI storm event.
Q <sub>diff</sub>	Flow difference between Q <sub>10</sub> and Q <sub>100</sub> storm event.
SEPP	State Environment Protection Policy
WLRB	Wetland Retention Basin
WSUD	Water Sensitive Urban Design

## 1 INTRODUCTION

Beveridge Williams has been commissioned by Wellington Shire Council to prepare a Concept Stormwater Management Strategy (SWMS) for a South Wurruk Development Plan, based on the **Sale, Wurruk and Longford Structure Plan** (August, 2010). The total site area is approximately 122.85 ha and as stated in the Structure Plan, 'opportunity exists for establishment of urban residential and some rural residential development to form a complete neighbourhood that is integrated with the existing urban area and local facilities'.

This SWMS report is intended to provide a conceptual drainage strategy for the development plan. The strategy aims to retain post-development stormwater runoff to pre-development level, to meet stormwater quality Best Practice Environmental Management Guidelines (BPEMG) to the satisfaction of West Gippsland Catchment Management Authority (WGCMA), Wellington Shire Council (WSC) and other relevant authorities.

### 1.1 Site Overview

The proposed development plan is located in Wurruk, 1.3km west of Sale and predominantly bound by Settlement road on the south east and Princes highway on the north. There are currently two existing residential areas adjacent to the subject site, Sovereign Estate to the west and Park Ridge Estate on the eastern side. There is also an existing heritage site (Kilmany Park Heritage Estate) towards the southern west area of the site (which is excluded from the subject site area) (Refer to Figure 1 for the location plan and Figure 2 for the Site Analysis Plan).

The overall site is largely characterised by paddocks with scattered trees and plantings, and some flood prone land area to the south. There are some existing water bodies surrounding the site as shown in Figure 2.



Figure 1: Location Plan – Not to Scale (Source: Near Map)





The subject site is currently zoned Low Density Residential, however the Sale, Wurruk and Longford Structure Plan highlights for some higher density residential development to the northern half of the site.

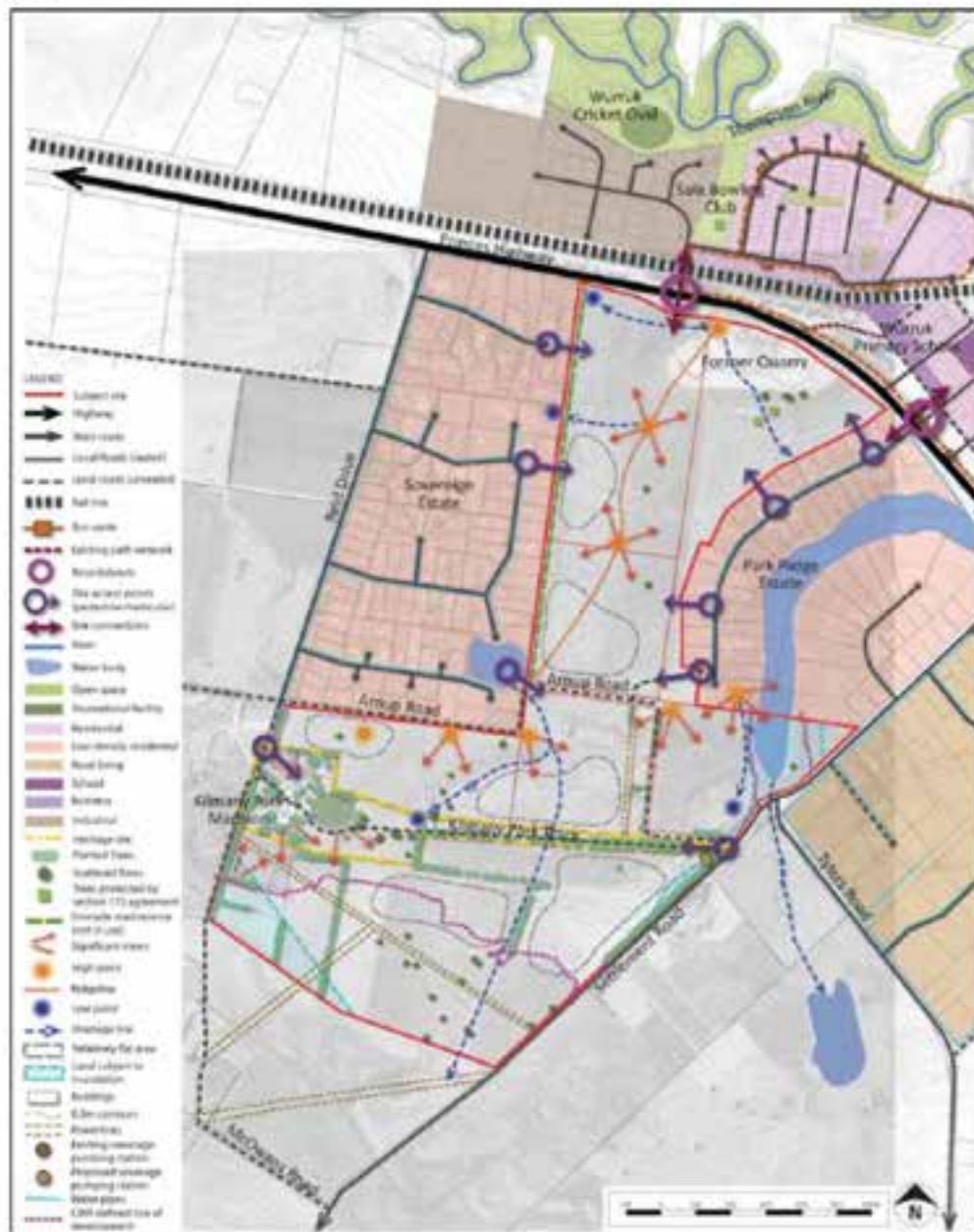


Figure 2: Site Analysis Plan

## 2 EXISTING CONDITIONS

### 2.1 Topography

The overall subject site is relatively flat, with varying topographical features throughout the area. The contours generally fall from north to south direction (Refer to Figure 3 below for Site Topography Plan).

On the northern part, a ridgeline extends through the centre of the site with a number of high points across the site. The land around this consists of undulating terrain, with areas of steep gradient as well as some flat open spaces further towards the middle section of the site.

The southern part of the site is much flatter with some low points and drainage basins, falling towards the floodplains area on the further south, where the land is covered by a Land Subject to Inundation Overlay (LSIO).

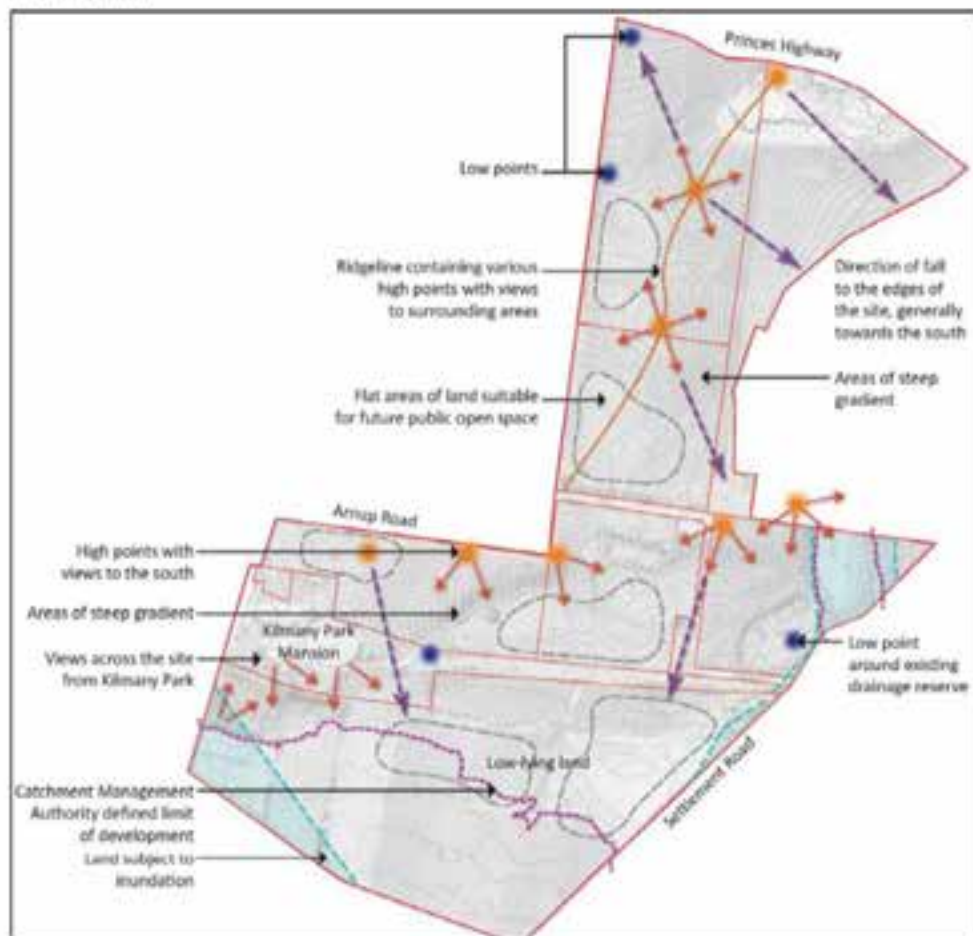


Figure 3: Site Topography Plan

## 2.2 Surface Water and Drainage

As previously mentioned, the site topographical map shows a series of highpoints that form a major ridge line through the middle of the northern part of the subject site. This resulting in two opposing drainage paths on either side of the ridge line. Surface drainage water on the western part of the ridgeline flows towards northwest direction while on the eastern part of the ridgeline flows towards east and south east directions (Refer to Figure 4 below).

Surface water on the middle part of the site generally flows towards to the southern direction where the low points are located. Drainage water on the southern part (south of Kilmany Park Mansion) generally runs towards to the south, where the floodplain (LSIO) area is located.



Figure 4: Existing Site Surface Water Plan

### **3 DESIGN INTENT**

#### **3.1 Proposed Development**

The proposed indicative residential development plan, with total area of approximately 122.85 ha is to form high and medium residential density lots. The high density lots are predominantly located on the northern part and also the eastern part of the middle section. The low density lots are located on the western part of the middle section and southern part.

This preliminary development layout will also include an oval and a few reserve and drainage reserve areas. The proposed road network will be designed to minimise traffic flow whilst maintaining simple and direct access for local residents.

#### **3.2 Proposed Stormwater Management Strategy**

The main objectives of this SWMS are to satisfy the requirements from Council and CMA, which include controlling the rate of the 1 in 100 year ARI stormwater runoff for the post development peak flows to pre development levels and providing stormwater treatment to meet the best practice guidelines.

For stormwater quantity management, it is proposed to indicatively provide 7 stormwater detention basins throughout the subject site. Each of these basins will be located on the lowest point of each of the designated sub-catchment within the site.

For stormwater quality management, it is proposed to provide 7 wetlands located within the stormwater retardation basins.

Details of both stormwater quantity and quality management are discussed in Sections 4 and 5.



## **4 STORMWATER QUANTITY MANAGEMENT**

As part of the West Gippsland CMA (WGCMA) and Council requirements, stormwater runoff for the 1 in 100 year ARI event will need to be retarded from the post development to pre development conditions. Details of stormwater detention are discussed in the following sections.

### **4.1 Sub-surface Drainage**

The Legal Point of Discharges for the subject site will be to existing open channel on the east, existing floodplain area on the south and existing drainage system on the north-western corner (Refer to Figure 6).

The subsurface drainage networks for the development will convey all pipe flows to these discharge points, via the proposed water quality treatment facilities located within the proposed retarding basins throughout the site. The pipe networks will be adequately sized to convey the 1 in 5 year ARI flows through the network.

### **4.2 Subject Site Overland Flow**

Overland flows from each of the sub-catchment area of the proposed development site will be directed via the road network or easements as required to proposed designated retarding basins.

The internal roads for the development, and associated lot finished surface levels, will be designed to ensure that the 1 in 100 year ARI overland flows through the site are within the safe hydraulic capacity of road floodway.

### **4.3 Rational Method Calculations**

The total proposed development area of 122.85 ha was divided into 7 different sub-catchments based on the existing contours topography. The post-development catchment plan (the Concept Stormwater Management Plan) has been developed to indicate where the stormwater discharge within each of the sub-catchment area is channelled into the designated retarding basin (See Figure 7 below, also Appendix B).

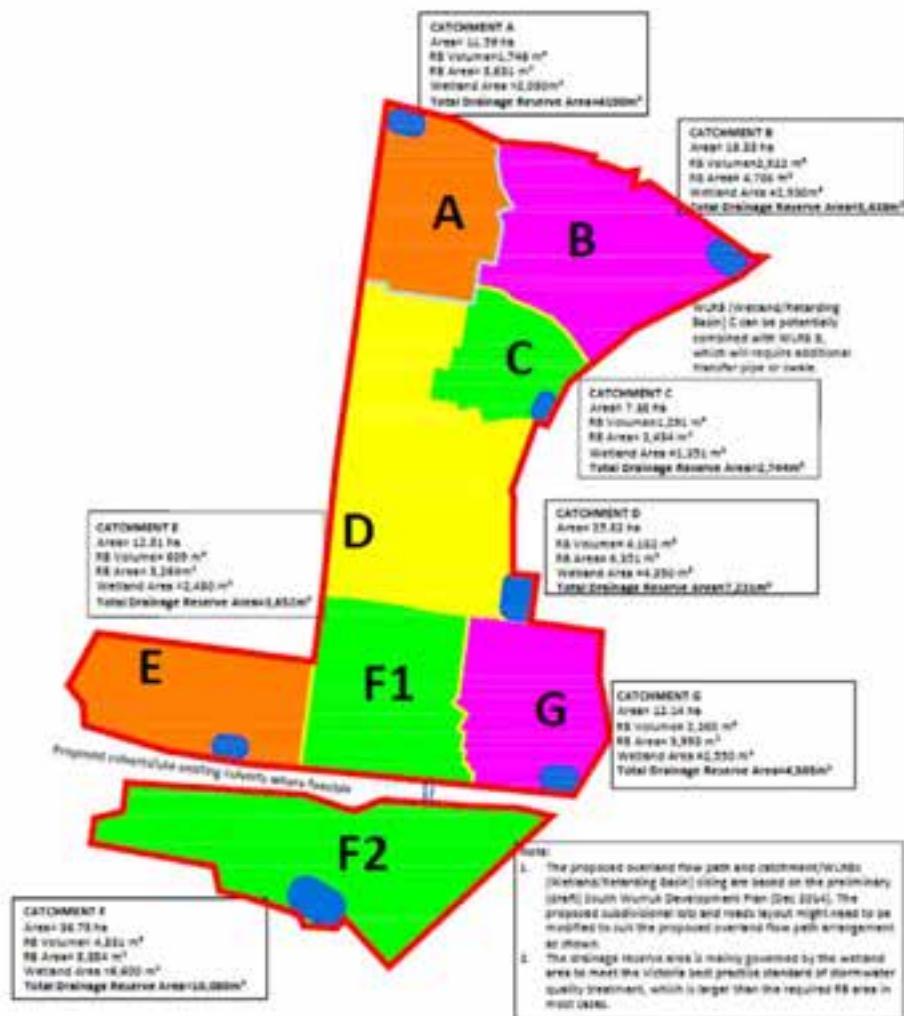


Figure 5: Concept Stormwater Management Plan for South Wurruk Development Plan (Not to Scale)

The calculations for the 1 in 100 year ARI flows of the subject site were undertaken using Rational Method to determine the design flows for the pre-developed and post developed scenarios.

The parameters determined for the rational method calculation are shown in Table 1.

Parameters for Rational Method Calculations						
Catchment	Pre-Development Scenario			Post Development Scenario		
	T <sub>r</sub>	Average C <sub>100</sub>	Rainfall intensity	T <sub>r</sub>	Average C <sub>100</sub>	Rainfall intensity
A	20.11	0.282	95.38 mm/hr	10.30	0.64	137.51 mm/hr
B	22.90	0.282	88.38 mm/hr	10.02	0.67	139.44 mm/hr
C	16.94	0.282	105.23 mm/hr	9.56	0.72	142.75 mm/hr
D	27.26	0.282	79.65 mm/hr	10.33	0.67	137.31 mm/hr
E	20.88	0.282	93.30 mm/hr	9.50	0.35	143.19 mm/hr
F	31.18	0.282	73.41 mm/hr	10.56	0.54	135.78 mm/hr

G	20.46	0.282	94.41 mm/hr	9.56	0.72	142.75 mm/hr
---	-------	-------	-------------	------	------	--------------

Table 1: Parameters for the Rational Method

Details of total catchment and sub- catchment areas for the pre and post development scenarios are also provided in Table 2 below.

Total Catchment and Sub-catchment Areas for the Rational Method Calculations	
Total Catchment Area	122.85 ha
Sub-catchment area A	11.59 ha
Sub-catchment area B	16.33 ha
Sub-catchment area C	7.38 ha
Sub-catchment area D	25.82 ha
Sub-catchment area E	12.81 ha
Sub-catchment area F	36.78 ha
Sub-catchment area G	12.14 ha
Fraction Impervious (Rural)	0.1
Fraction Impervious (Medium density lots)	0.6
Fraction Impervious (Low density lots)	0.2
Fraction Impervious (Reserve)	0.1

Table 2: Catchment Area and Fraction Impervious for the Rational Method Calculations

#### 4.4 100 year ARI Peak Flows and Storage Volume Required

The results of 1 in 100 year ARI peak pre-development and post development flows from the Rational Method Calculations are shown in Table 3. The detention storage required was calculated using the Rational method. Details of both Rational Method and detention storage calculations are shown in Appendix C.

1 in 100 year ARI Peak Flows for South Wurruk Development			Volume of Detention Required
Sub-Catchment	Pre Development Peak Flow	Post Development Peak Flow	
A	0.87 m <sup>3</sup> /s	2.80 m <sup>3</sup> /s	1,746 m <sup>3</sup>
B	1.13 m <sup>3</sup> /s	4.32 m <sup>3</sup> /s	2,922 m <sup>3</sup>
C	0.61 m <sup>3</sup> /s	2.09 m <sup>3</sup> /s	1,291 m <sup>3</sup>
D	1.61 m <sup>3</sup> /s	6.09 m <sup>3</sup> /s	4,182 m <sup>3</sup>
E	0.94 m <sup>3</sup> /s	1.79 m <sup>3</sup> /s	609 m <sup>3</sup>
F	2.12 m <sup>3</sup> /s	6.82 m <sup>3</sup> /s	4,331 m <sup>3</sup>
G	0.90 m <sup>3</sup> /s	3.45 m <sup>3</sup> /s	2,260 m <sup>3</sup>
<b>Total</b>			<b>17,341 m<sup>3</sup></b>

Table 3: Pre & Post Development Peak Flows and Detention Storage Calculations Results for the 100 year ARI

The above peak flows results indicate that the 1 in 100 year ARI post development peak flows can be detained to the pre development level by providing a total combined detention storage of 17,341 m<sup>3</sup>.

#### 4.5 Sizing of the Detention Storages

The sizing of the basins have mainly been governed by the required wetlands area to meet the Victoria best practice standard of stormwater quality treatment, in which are larger than the required RBs area in some cases. The calculations for the wetlands are further details in the next Section 5. Each of the basin has been sized with a 1 in 6 batter slope.

Details of the retarding basins for each of the sub-catchment is in Table 4 below. Plan of indicative locations of the WLRBs are provided in the previous Figure 7.

Indicative Details of Retarding Basins (RB) for South Wurruk Development			
Sub-Catchment	Storage Required (m <sup>3</sup> )	RB Top Surface Area (m <sup>2</sup> )	RB Depth (m)
A	1,746 m <sup>3</sup>	3,631 m <sup>2</sup>	1.0 m
B	2,922 m <sup>3</sup>	4,786 m <sup>2</sup>	1.3 m
C	1,291 m <sup>3</sup>	2,434 m <sup>2</sup>	1.1 m
D	4,182 m <sup>3</sup>	6,351 m <sup>2</sup>	1.2 m
E	609 m <sup>3</sup>	3,264 m <sup>2</sup>	0.6 m
F	4,331 m <sup>3</sup>	8,884 m <sup>2</sup>	1.1 m
G	2,260 m <sup>3</sup>	3,993 m <sup>2</sup>	1.1 m

Table 4: Indicative Details of Retarding Basins

The design of retarding basins will be in accordance with the specific technical details contained in the Council Infrastructure Design Manual and WGCMA Standards. Detailed designs of these stormwater detention devices have not yet been completed and these will be submitted to Council and WGCMA during detailed design phase.



## 5 STORMWATER QUALITY MANAGEMENT

It is a Victorian Government requirement that Quality of stormwater runoff from the proposed development meets the Urban Stormwater Best Practice Environmental Management Guidelines (BPEMG), which are required under Clause 56 of the Victorian Planning Provisions (VPP). The targets are:

- 70% removal of the Total Gross Pollutant Load (Litter);
- 80% removal of Total Suspended Solids (TSS);
- 45% removal of Total Phosphorus (TP); and
- 45% removal of Total Nitrogen (TN).

Stormwater quality modelling was conducted using MUSIC (Model for Urban Stormwater Improvement Conceptualisation) for the proposed development site. The layout of the MUSIC Model is shown in Figure 8 below and results of the MUSIC model are shown in Table 5. The proposed treatment will be 7 wetlands (each with a sedimentation basin) located within the base of the RB for each of the 7 sub-catchment areas.

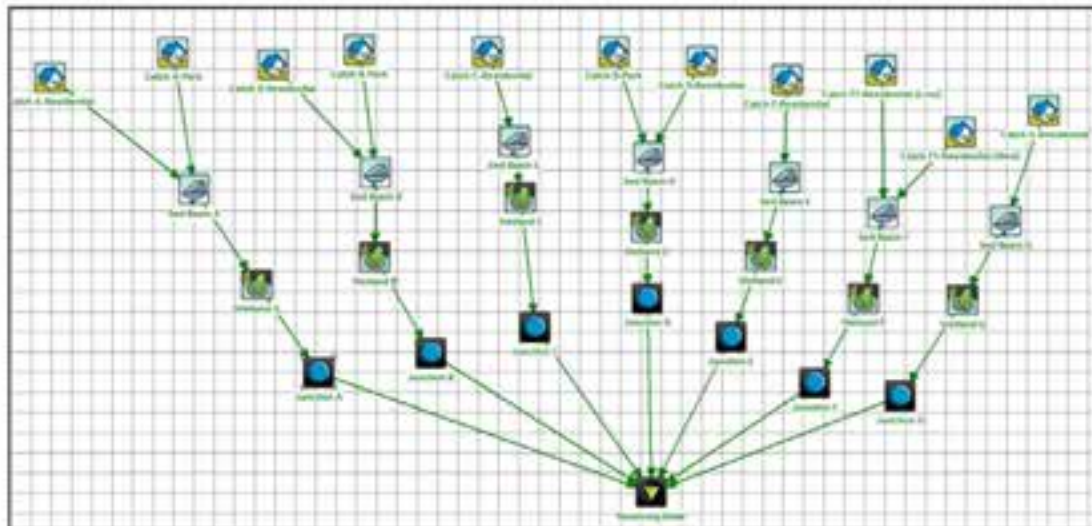


Figure 6: MUSIC Model Layout

Parameter	% Removal at Receiving Outlet	BPEMG Target % Removal
Gross Pollutants (Kg/yr)	100.0	70
Total Suspended Solids (Kg/yr)	89.9	80
Total Phosphorus (Kg/yr)	74.9	45
Total Nitrogen (Kg/yr)	45.8	45

Table 5: MUSIC Model Results – Compared with BPEMG Target

As shown in Table 5 the proposed wetlands and sedimentation basins can meet the best practice BPEMG standard. Details of the wetlands and sedimentation basins are shown in Table 6. Location of the wetlands are shown in the previous Figure 7 and Appendix B.

Indicative Details of Wetlands for South Wurruk Development			
Sub-Catchment	Sedimentation Basin Area (m <sup>2</sup> )	Wetland Area (m <sup>2</sup> )	Total Area Required (m <sup>2</sup> )
A	230 m <sup>2</sup>	1,800 m <sup>2</sup>	2,030 m <sup>2</sup>
B	330 m <sup>2</sup>	2,600 m <sup>2</sup>	2,930 m <sup>2</sup>
C	151 m <sup>2</sup>	1,200 m <sup>2</sup>	1,351 m <sup>2</sup>
D	450 m <sup>2</sup>	3,900 m <sup>2</sup>	4,350 m <sup>2</sup>
E	180 m <sup>2</sup>	2,300 m <sup>2</sup>	2,480 m <sup>2</sup>
F	600 m <sup>2</sup>	6,000 m <sup>2</sup>	6,600 m <sup>2</sup>
G	250 m <sup>2</sup>	2,300 m <sup>2</sup>	2,550 m <sup>2</sup>
<b>Total</b>			<b>22,291 m<sup>2</sup></b>

**Table 6: Details of Wetlands and Sedimentation Basins**

A total of approximately 22,291 m<sup>2</sup> of water surface area for the proposed wetlands (including sedimentation basins) will be required to provide stormwater treatment for the development site.

The design of the sedimentation basins and wetlands will be in accordance with the specific technical details contained in the design and construction WSUD Technical Manual. The detailed designs of these WSUD assets have not yet been completed and these will be submitted to Council and WGCMA during the detailed design phase of the project.

## 6 CONCLUSION

This report has provided a concept drainage management strategy for the proposed South Wurruk Development Plan. The strategy provides a methodology for the management of stormwater on the subject site, which would result in:

- Construction of drainage assets to meet the likely requirements of West Gippsland CMA and Council, including 1 in 100 year ARI capacity road reserves and underground drainage for the 1 in 5 year ARI storm event as required;
- Volumes of stormwater detention requirements of 17,341m<sup>3</sup> will be required to detain the proposed development site. This volume will be contained within the proposed 7 retarding basins located throughout the site, to cater for the designated sub-catchment areas;
- Stormwater quality treatment system required to meet BPMEG standard will be 7 wetlands and 7 sedimentation basins with total area of 22,291 m<sup>2</sup>. The wetlands and the basins will be located within the proposed retarding basins; and
- Construction of WSUD assets and Retarding Basins to meet the retardation and overall water quality treatment.

The above strategy can be implemented and all of WGCMA and Council's development requirements can be achieved, with no net effect on the downstream properties.

### BEVERIDGE WILLIAMS & CO PTY LTD

Prepared by

*Lola Nurhalim*  
*Surface Water Engineer*

Approved for issue by

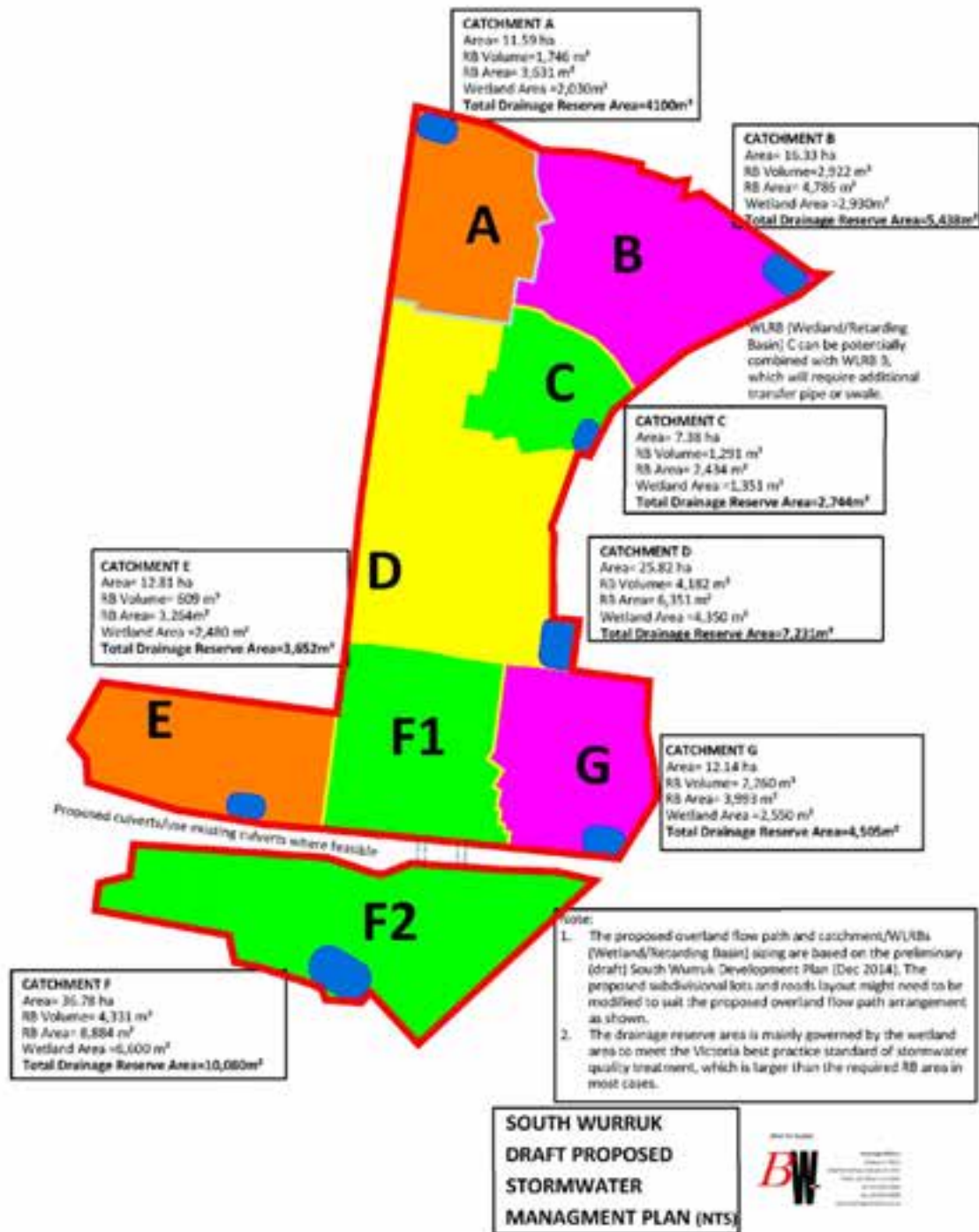
*Chris Curnow*  
*Project Manager*

Reviewed by

*Aram Manjikian*  
*Senior Surface Water Engineer*

**APPENDIX A.  
Draft Proposed SWMS Plan**





**APPENDIX B.  
Rational Method Calculations**



SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Meridian Water Council	Date:	13/03/2016
Project:	South Marshes - Catchment A		
Location:	South Marshes, Catchment A - Method Detection Requirement Calculation		
Job No:	100147	No:	1/1

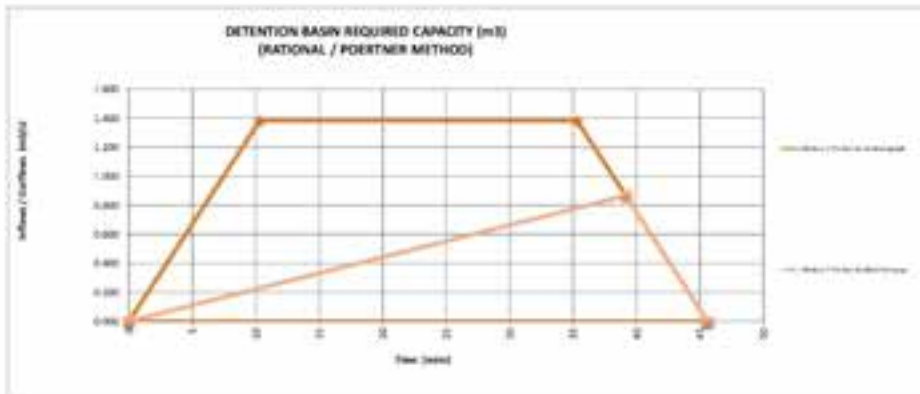
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>1</sub>	f	Input Manual/Retentive Outflow	Calculated Retentive Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
12,190	3,325	21,326	45.34	0.000	0.87

Flow Interval Start	00	0000
Storm Duration Flow Interval (d)	1	0000
Pump / Outflow Delay Duration (d)	0	0000
Pump / Outflow Delay Duration (h)	0.00	000

Change only if required (check = 0)  
 (d) This field set with maximum storage volume to determine the pump delay  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>1</sub>	f	Q	Q <sub>1</sub>
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
12,190	3,325	21,326	121.101	2.766	

Formula used:  $Q_{1i} = 0.1 + 0.0133 \times (T_{1i} - 25)$  ;  $Q_{1i} = 0.09 \times f + 0.1 \times (1 - f)$



TOTAL DETENTION STORAGE REQUIRED (m <sup>3</sup> )	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	min		m <sup>3</sup> /s	min	
1,746	0.000	00		0.000	00	
1,746	1.364	00.7	0.1	0.868	30.7	0.000
1,746	1.364	01.4	0.0	0.868	41.4	0.000
1,746	0.000	45.0		0.000	45.0	
	0.000	6.0				

**TOTAL STORAGE REQUIRED**  
 1,746 m<sup>3</sup> (from 0.000 to 0.000 m<sup>3</sup>/s)  
**RATIONAL / POERTNER METHOD**  
 m<sup>3</sup>  
**1,746**



Fast-Developed Flow Calculations

Client:	Wellington Storm Council	Date:	27/03/2016
Project:	South Wairua - Catchment A		
Subject:	POST-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400017	Rev:	1/0

Location:   
 All Year:

Coefficients							
A	B	C	D	E	F	G	H
0.0	1.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000

Catchment	Area		Length (L)	Slope (S)	Surface	n (m <sup>-1</sup> )	AS	BS	Manual Input	Selected	Catchment Category (for Fc)	Selected $f_p$	Weighted $f_p$	Calculated	Manual Input	Selected	AS		BS		
	sqm	ha					sqm	sqm						sqm			sqm	sqm	sqm	sqm	sqm
A1	2.47	0.0003	0.01	Asphalt	0.012	18.21	7.00	7.01	7.01	7.01	Res/Medium Density	0.4	0.128	0.716	0.716	1.01	1.768	105.32	0.716	0.716	
A2	1.25	0.0002	0.01	Asphalt	0.012	46.99	7.00	7.00	7.00	7.00	Res/Medium Density	0.4	0.129	0.716	0.716	1.01	1.467	105.21	0.716	0.716	
A3	1.39	0.0002	0.01	Asphalt	0.012	40.88	7.00	7.01	7.01	7.01	Res/Medium Density	0.4	0.067	0.716	0.716	1.01	1.138	104.87	0.716	0.716	
AM	1.98	0.0003	0.01	Asphalt	0.012	10.10	7.00	6.98	6.98	6.98	Res/Medium Density	0.4	0.103	0.716	0.716	1.02	1.417	106.01	0.716	0.716	
AO	1.17	0.0002	0.01	Asphalt	0.012	34.21	7.00	30.37	30.37	30.37	Res/Medium Density	0.4	0.071	0.716	0.716	0.98	0.961	127.54	0.716	0.716	
AD	1.11	0.0002	0.01	Dense Grass	0.024	86.71	10.00	86.30	86.30	86.30	Public Park	0.1	0.048	0.240	0.200	0.51	0.100	107.51	0.100	0.100	
<b>TOTAL</b>	<b>11.36</b>	<b>0.0004</b>						<b>30.00</b>					<b>0.548</b>		<b>0.64</b>		<b>0.420</b>	<b>107.140</b>	<b>2.708</b>		

$f = 6.54 \cdot \frac{(L \times n^2)^{0.167}}{f^{0.167} \times S^{0.167}}$

- Directions:
- 1
  - 2
  - 3

$C_{10} = 0.1 + 0.0133 \left( \frac{L}{S} - 2 \right)$   
 $C_{10} = 0.9 \times f + C_{10} \times (1 - f)$

- 1 Error longest length of Catchment  
 2 Error average slope of Catchment (Watershed)  
 3 Choose surface type of catchment from drop down list (See n value table)

$Q = \frac{A_p \times f}{360}$

- 1
- 2
- 3

Weighted Fraction Impervious using:  
 $f = \sum \left( f_{imp,i} \times \frac{A_{imp,i}}{A_{tot,i}} \right) + \left( f_{imp,t} + \frac{A_{imp,t}}{A_{tot,t}} \right)$

- Go to Fraction Impervious Table  
 1 Error Area of Catchment (A)  
 2 Choose Catchment Category to determine Fraction Impervious  
 3 Sum of fraction areas of catchments to determine Q





Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment A		
Subject:	PRE DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05198	0.00214	0.00020

INPUT      500      0.002      0.015      1.289      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>0</sub>	ΣA <sub>0</sub>	I <sub>0</sub> (mm/hr)	Q <sub>0</sub> (m <sup>3</sup> /s)
	ha			mins	mins	mins			mm	mm					
Sub catchment A	11.590	RURAL1	Rural Zone	20.11		20.11	0.1	0.300	0.282		0.282	0.27	1.269	95.38	0.366
<b>TOTAL</b>	11.590	RURAL1		20.11		20.11		0.300	0.282				1.269	95.38	0.366

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>1</sub> Input using:

$$f = \sum \left( f_{min-1} \times \frac{A_{sub-1}}{A_{tot}} \right) + \left( f_{min-2} \times \frac{A_{sub-2}}{A_{tot}} \right)$$

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.013 \times (T_c - 2)^{\frac{1}{2}}$$

$$C_{10} = 0.9 \times f + C_{10} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q<sub>0</sub> Calculated using:

$$Q = \frac{A_{0} \times I}{360}$$

Rational Method



SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.44211	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.44211	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Strategic Flow Control	Date:	13/09/2016
Project:	South Island - Catchment B		
Location:	Bullfinch, Catchment B - Method Detection Requirement Calculation		
Job No:	10014	No:	1/1

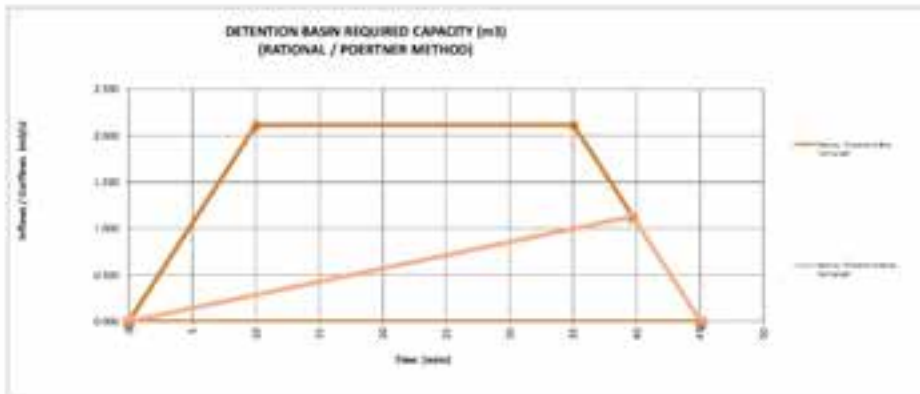
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Input Manual Retention Outflow	Calculated Retention Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
16,330	4,607	22,928	88.38	0.000	3.33

Flow Retention Start	0.0	min
Storm Duration Flow Retention (d)	1	days
Pump / Outflow Delay Duration (d)	0	days
Pump / Outflow Delay Duration (h)	0.00	hrs

Change only if required (check 4-5)  
 (4) This value will adjust retention volume to account for a pump delay  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Q	
ha	ha	min	mm/hr	m <sup>3</sup> /s	
16,830	11,871	22,928	129.436	6.321	

Formula used:  $C_{10} = 0.1 + 0.0133 \ln \left( \frac{f}{f_0} - 25 \right)$  ;  $C_{10} = 0.09 \ln \left( \frac{f}{f_0} - 10 - f \right)$



TOTAL DETENTION STORAGE REQUIRED (m³)	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	hrs	min	m <sup>3</sup> /s	hrs	min
2,922	0.000	0.0		0.000	0.0	
2,922	1.118	66.7	60	1.120	66.7	0.00
2,922	2.118	126.7	60	0.000	45.0	0.00
2,922	3.000	180.0		0.000	45.0	
	3.280	196.8				

**TOTAL STORAGE REQUIRED**  
 1 x 100 Year ARI (100 Year Flow) 100 Year Flow  
**RATIONAL / POERTNER METHOD**  
 m<sup>3</sup>  
**2,922**



Fast-Developed Flow Calculations

Client:	Wellington Storm Council	Date:	27/03/2016
Project:	South Murrumbidgee Catchment B		
Subject:	POST DEVELOPMENT FLOW CALCULATIONS		
Job No:	140001	Rev:	1/0

Location:

RAI Year:

Coefficients					
RAI	1	2	3	4	5
200	1.4000	0.8417	0.7049	0.6070	0.5070

INPUT: 140 0.01 0.01 1.268

Catchment	Area		Slope (S)	Surface	n (m <sup>-1</sup> )	RAI	Calculated T <sub>1</sub>	Manual Input T <sub>1</sub>	Selected T <sub>1</sub>	Catchment Category (for F <sub>1</sub> )	Selected F <sub>1</sub>	Weighted F <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>1</sub>		I	Q
	m <sup>2</sup>	ha														m <sup>2</sup>	ha		
A1	1.64	0.0004	0.01	Asphalt	0.012	15.87	7.00	0.38	0.14	Best Medium Density	0.4	0.060	0.716		0.716	1.07	1.170	105.78	0.105
A2	1.88	0.0004	0.01	Asphalt	0.012	23.52	7.00	0.30	0.20	Best Medium Density	0.4	0.060	0.716		0.716	1.05	1.326	107.04	0.106
A3	1.89	0.0004	0.01	Asphalt	0.012	45.30	7.00	0.31	0.13	Best Medium Density	0.4	0.060	0.716		0.716	1.05	1.316	116.57	0.116
A4	1.42	0.0004	0.01	Asphalt	0.012	39.26	7.00	0.28	0.28	Best Medium Density	0.4	0.051	0.716		0.716	1.03	1.054	104.80	0.104
A5	1.05	0.0003	0.01	Asphalt	0.012	42.07	7.00	0.31	0.04	Best Medium Density	0.4	0.058	0.716		0.716	0.74	0.707	147.40	0.147
A2	1.55	0.0004	0.01	Asphalt	0.012	41.37	7.00	0.28	0.20	Best Medium Density	0.4	0.057	0.716		0.716	1.03	1.228	108.40	0.108
B1	1.17	0.0003	0.01	Demol Sites	0.021	31.69	7.00	0.25	0.25	Public Park	0.1	0.007	0.260		0.260	0.20	0.205	101.04	0.101
B2	1.02	0.0003	0.01	Asphalt	0.012	13.56	7.00	0.38	0.18	Best Medium Density	0.4	0.007	0.716		0.716	0.71	0.726	104.26	0.104
B3	1.38	0.0004	0.01	Asphalt	0.012	45.67	7.00	0.34	0.18	Best Medium Density	0.4	0.051	0.716		0.716	0.88	0.888	105.78	0.106
B4	3.38	0.0008	0.01	Asphalt	0.012	34.18	7.00	0.31	0.02	Best Medium Density	0.4	0.123	0.716		0.716	1.00	0.820	109.01	0.109
TOTAL	34.420					34.025						0.344		0.67		10.105	109.406	4.302	

T<sub>1</sub> Calculated using:

$$T_1 = 6.54 \cdot \frac{(L \times n^{-1})^{0.75}}{S^{0.5}}$$

Where:

- 1
- 1
- 1

- Enter length of Catchment
- Enter average slope of Catchment (m/m/ft/m)
- Choose surface type of catchment from drop-down list (See 6 below table)

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.0133 \left( \frac{L}{S} - 2 \right)$$

$$C_{10} = 0.9 + f \times C_{10} + (1 - f)$$

Q Calculated using:

$$Q = \frac{A_{10} \times I}{360}$$

- 1
- 1
- 1

- Enter Area of Catchment (m<sup>2</sup>)
- Choose Catchment category to determine Fraction Impervious
- Sum a fraction area of catchments to determine Q

Weighted Fraction Impervious using:

$$f = \sum \left( f_{imp,i} \times \frac{A_{imp,i}}{A_{tot,i}} \right) + \left( f_{imp,s} \times \frac{A_{imp,s}}{A_{tot,s}} \right)$$

See 6 below Impervious Table



Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment B		
Subject:	PRE DEVELOPMENT FLOW CALCULATIONS		
Job No:	140014	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05194	0.00214	0.00020

INPUT      500      0.002      0.015      1.289      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>u</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>u</sub>	ΣA <sub>u</sub>	I <sub>100</sub>	Q <sub>100</sub>
	ha			mins	mins	mins			mm	mm	mm				
Sub-catchment B	16.130	RURAL1	Rural Zone	22.90		22.90	0.1	0.100	0.282		0.282	4.61	4.607	88.38	1.131
<b>TOTAL</b>	16.130	RURAL1		22.90		22.90		0.100	0.282				4.607	88.38	1.131

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>u</sub> Input using:

$$f = \sum \left( f_{run-1} \times \frac{A_{run-1}}{A_{tot}} \right) + \left( f_{run-2} \times \frac{A_{run-2}}{A_{tot}} \right)$$

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.013 \left( \frac{I_{100}}{2.5} \right)^{0.7}$$

$$C_{10} = 0.9 \times f + C_{10} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q Calculated using:

$$Q = \frac{A_{u} \times I}{360}$$

Rational Method



SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.44217	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.44217	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Meridian Water Council	Date:	13/03/2016
Project:	Dale Water - Catchment C		
Location:	Buckley, Catchment with 100% DETENTION REQUIREMENT CALCULATION		
Job No:	100147	No:	1/1

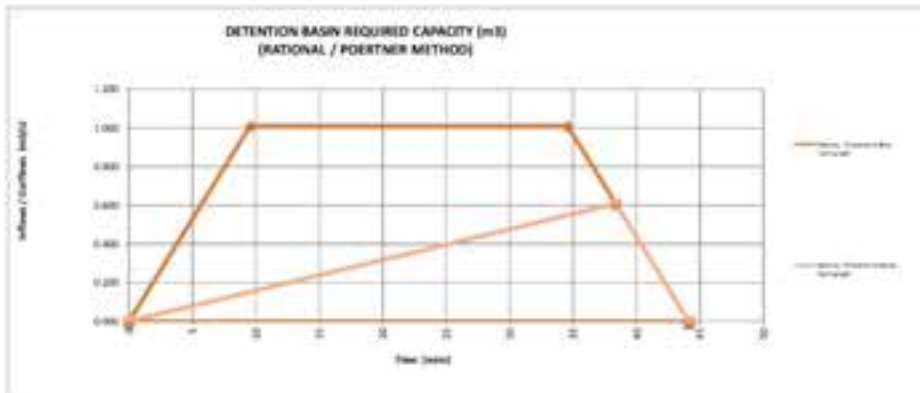
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Input Manual/Retentive Outflow	Calculated Retentive Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
3.200	3.200	14.337	105.23	0.000	0.43

Flow Interval Start	00	0000
Storm Duration Time Interval (d)	1	0000
Pump / Outflow Delay Duration (d)	0	0000
Pump / Outflow Delay Duration (d)	0.00	0000

Change only if required (check = 0)  
 (d) This value will default to the value entered in adjacent line when blank  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Q	Q <sub>100</sub>
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
3.200	3.200	9.340	142.740	0.000	0.294

Formula used:  $Q_{100} = 0.1 + 0.0133 \times \left[ \left( f \times T_c \right)^{0.75} \right]$  ;  $Q_{100} = 0.09 \times f + 0.1 \times (1 - f)$



TOTAL DETENTION STORAGE REQUIRED (m <sup>3</sup> )	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	min		m <sup>3</sup> /s	min	
1.291	0.000	0.0	0.000	0.0	0.0	0.000
1.291	1.011	9.3	0.0	0.000	34.4	0.000
1.291	1.011	44.4	0.0	0.000	44.1	0.000
1.291	0.000	44.1		0.000	44.1	
	0.000	0.0				

**TOTAL STORAGE REQUIRED**  
 1.291 m<sup>3</sup> from Rational / Poertner Inflow Hydrograph  
**RATIONAL / POERTNER METHOD**  
 1.291 m<sup>3</sup>

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StormCAD Version 11.01.00.00





Fast-Developed Flow Calculations

Client:	Wellington Storm Control	Date:	27/03/2016
Project:	South Wairarapa - Catchment C		
Subject:	POST DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400017	Rev:	1/0

Location:

RAI Year:

Coefficients							
1	2	3	4	5	6	7	8
0.0	1.0000	0.24107	0.20449	0.07091	0.00178	0.00010	0.01010

Catchment	Area		Length (L)	Slope (S)	Surface	n (m <sup>-1</sup> )	RAI	Calculated T <sub>1</sub>	Manual Input T <sub>1</sub>	Selected T <sub>1</sub>	Catchment Category (for F <sub>1</sub> )	Selected f <sub>1</sub>	Weighted f <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>1</sub>		I	Q
	m <sup>2</sup>	ha															m <sup>2</sup>	ha		
08	2.25	0.56	171.00	0.01	Asphalt	0.062	64.71	7.00	6.50	6.50	Base-Medium Density	0.8	0.275	0.716		0.716	1.54	1.109	111.54	0.550
05	1.76	0.44	164.00	0.01	Asphalt	0.062	55.89	7.00	6.11	6.11	Base-Medium Density	0.8	0.208	0.716		0.716	1.48	1.001	106.07	0.514
47	2.67	0.67	201.00	0.01	Asphalt	0.062	57.54	7.00	6.16	6.16	Base-Medium Density	0.8	0.217	0.716		0.716	1.50	1.013	102.75	0.512
<b>TOTAL</b>	<b>7.58</b>	<b>1.88</b>								<b>6.12</b>			<b>0.699</b>					<b>1.227</b>	<b>143.20</b>	<b>1.664</b>

T<sub>1</sub> Calculated using:

$$T_1 = 6.94 \cdot \frac{(L \cdot n^2)^{0.75}}{S^{0.5}}$$

- Dimensions:
- 1
  - 2
  - 3

Enter longest length of Catchment  
 Enter average slope of Catchment (Meters/Strain)  
 Choose surface type of catchment from drop down list (See n value table)

C10-Catchment using:

$$C_{10} = 0.1 + 0.0133(X - 2)^2$$

$$C_{10} = 0.9 \cdot f + C_{10} \cdot (1 - f)$$

Q Calculated using:

$$Q = \frac{A \cdot C \cdot I}{360}$$

- 4
- 5
- 6

Enter Area of Catchment (ha)  
 Choose Catchment category to determine friction parameter  
 Use effective area of catchments to determine Q

Weighted Friction Parameter using:

$$f = \sum \left( f_{w1} \cdot \frac{A_{w1}}{A_{tot}} \right) + \left( f_{w2} \cdot \frac{A_{w2}}{A_{tot}} \right)$$

[See Friction Parameter Table](#)



Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment C		
Subject:	PRE-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05194	0.00214	0.00020

INPUT      500      0.002      0.015      1.289      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>0</sub>	ΣA <sub>0</sub>	I <sub>0</sub> (mm/hr)	Q <sub>0</sub> (m <sup>3</sup> /s)
	ha			mins	mins	mins			mm	mm					
Sub-catchment C	7.380	RURAL1	Rural Zone	15.94		15.94	0.1	0.300	0.282		0.282	2.08	2.082	105.21	0.006
<b>TOTAL</b>	<b>7.380</b>	<b>RURAL1</b>		<b>15.94</b>		<b>15.94</b>		<b>0.300</b>	<b>0.282</b>				<b>2.082</b>	<b>105.21</b>	<b>0.006</b>

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>1</sub> Input using:

$$f = \sum \left( f_{\text{area } i} \times \frac{A_{\text{area } i}}{A_{\text{total}}} \right) + \left( f_{\text{area } j} \times \frac{A_{\text{area } j}}{A_{\text{total}}} \right)$$

C<sub>10</sub> Calculated using:

$$C_{10}^* = 0.1 + 0.013 \mathcal{R}^{(1/3)} (S_1 - 2.5)$$

$$C_{10} = 0.9 \times f + C_{10}^* \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q<sub>0</sub> Calculated using:

$$Q_0 = \frac{A_{00} \times I}{360}$$

Rational Method



SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Merrigay New (Local)	Date:	13/03/2016
Project:	South Island - Carbondale D		
Location:	South Island, CHADFIELD METHOD WITH DETENTION REQUIREMENT CALCULATION		
Job No:	100147	No:	1/1

PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Input Manual Retention Outflow	Calculated Retention Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
21,820	1,284	27.25	75.0	0.000	0.00

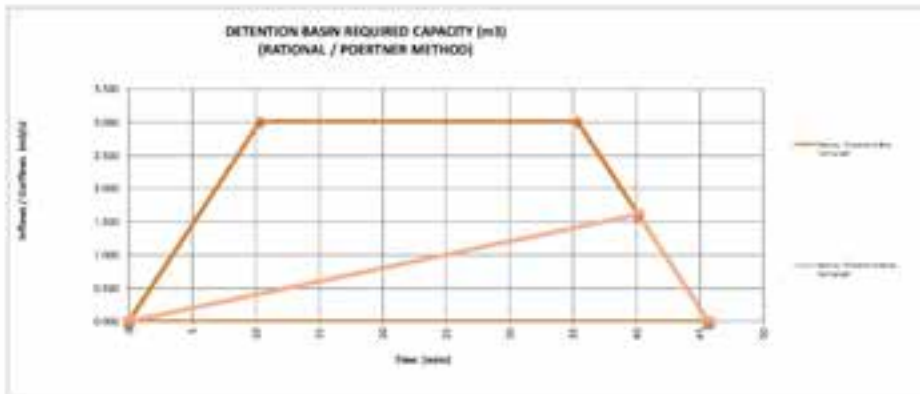
Flow Retention Start	0.0	min
Storm Duration Flow Retention (d)	1	days
Pump / Outflow Delay Duration (d)	0	days
Pump / Outflow Delay Duration (hr)	0.00	hrs

Change only if required (check = 1)  
 (d) This value will adjust detention storage volume to account for a rain delay  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Q	
ha	ha	min	mm/hr	m <sup>3</sup> /s	
21,820	11,942	30.750	127.000	4.188	

Formula used:  $Q = C^* I A$

$$C^*_{in} = 0.1 + 0.0133 \ln \left( \frac{I_{in}}{25} \right) \quad C^*_{out} = 0.75 C^*_{in} + 0.25 (1 - f)$$



TOTAL DETENTION STORAGE REQUIRED (m <sup>3</sup> )	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	hrs		m <sup>3</sup> /s	hrs	
4,182	0.000	0.0		0.000	0.0	
4,182	1.014	10.7	30.0	1.014	40.7	3000
4,182	0.000	21.4	30.0	0.000	40.7	3000
4,182	0.000	31.7	0.0	0.000	40.7	
	0.000	40.0	0.0			

**TOTAL STORAGE REQUIRED**  
 (m<sup>3</sup>)  
**4,182**

**RATIONAL / POERTNER METHOD**  
 m<sup>3</sup>  
**4,182**

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Fast-Developed Flow Calculations

Client:	Wellington Water Council	Date:	27/03/2016
Project:	South Wairua - Catchment 6		
Subject:	POST DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400047	Rev:	1/1

Location:

RAI Year:

Coefficients					
1	2	3	4	5	6
0.0	1.0000	0.0417	0.0042	0.0001	0.0010
0.0	0.0000	0.0000	0.0000	0.0000	0.0000

Catchment	Area		Length (L) m	Slope (S) m/m	Surface	n (m <sup>2</sup> )	RAI	Calculated T <sub>1</sub> min	Manual Input T <sub>2</sub> min	Selected T <sub>3</sub> min	Catchment Category (for F <sub>1</sub> )	Selected f <sub>1</sub>	Weighted f <sub>1</sub>	Calculated C mm	Manual Input C mm	Selected C mm	A <sub>1</sub>		I mm	Q m <sup>3</sup> /s
	No	m															No	m		
AG	242	216.00	0.01	Asphalt	0.061	32.92	7.00	5.78	5.78	5.78	Basic Medium Density	0.8	0.061	0.716	8.794	1.88	1.875	121.54	0.755	
AP	137	121.00	0.01	Asphalt	0.061	30.82	7.00	6.50	6.50	6.50	Basic Medium Density	0.8	0.040	0.716	8.794	1.40	1.410	101.09	0.593	
AB	235	164.00	0.01	Asphalt	0.061	42.06	7.00	10.31	10.31	10.31	Basic Medium Density	0.8	0.055	0.716	8.794	1.68	1.682	127.31	0.612	
AC	120	114.00	0.01	Asphalt	0.061	31.96	7.00	5.73	5.73	5.73	Basic Medium Density	0.8	0.046	0.716	8.794	1.49	1.493	101.50	0.594	
AD	135	171.00	0.01	Asphalt	0.061	41.51	7.00	6.44	6.44	6.44	Basic Medium Density	0.8	0.040	0.716	8.794	1.23	1.217	141.44	0.600	
AE	139	97.00	0.01	Asphalt	0.061	39.29	7.00	6.27	6.27	6.27	Basic Medium Density	0.8	0.041	0.716	8.794	1.27	1.274	154.08	0.600	
AF	131	106.00	0.01	Asphalt	0.061	40.20	7.00	6.63	6.63	6.63	Basic Medium Density	0.8	0.050	0.716	8.794	1.29	1.289	155.01	0.611	
AG	533	376.00	0.01	Asphalt	0.061	65.36	8.00	5.94	5.94	5.94	Public Park	0.1	0.021	0.260	8.260	1.99	1.468	193.28	1.349	
AH	272	429.00	0.01	Asphalt	0.061	35.89	7.00	6.54	6.54	6.54	Basic Medium Density	0.8	0.063	0.716	8.794	1.89	1.967	155.89	0.640	
AI	300	301.00	0.01	Asphalt	0.061	69.06	7.00	10.29	10.29	10.29	Basic Medium Density	0.8	0.070	0.716	8.794	2.03	2.207	189.26	0.691	
<b>TOTAL</b>		<b>25,420</b>								<b>30,137</b>			<b>0.491</b>		<b>9.97</b>		<b>15,942</b>	<b>157,336</b>	<b>4,068</b>	

T<sub>1</sub> Calculated using:

$$T_1 = 6.54 \cdot \frac{(L \times n^{0.75})^{0.75}}{S^{0.48}}$$

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.0133 \left( \frac{L}{S} - 2 \right)$$

$$C_{10} = 0.09 = f + C_{10} \cdot (1 - f)$$

Q Calculated using:

$$Q = \frac{A_{10} \cdot I}{360}$$

Weighted Fraction Impervious using:

$$f = \sum \left( f_{area} \cdot \frac{A_{area}}{A_{total}} \right) + \left( f_{area} \cdot \frac{A_{area}}{A_{total}} \right)$$

[Go to previous Impervious Table](#)

- 1 Enter length (m) of Catchment
- 2 Enter weight slope of Catchment (m/m)
- 3 Choose surface type of catchment from drop-down list (See 0-surface table)
- 4 Enter Area of Catchment (m<sup>2</sup>)
- 5 Choose Catchment category to determine Fraction Impervious
- 6 Sum a fraction area of catchments to determine f



Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment D		
Subject:	PRE-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05198	0.00214	0.00020

INPUT      500      0.002      0.015      1.289      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>0</sub>	ΣA <sub>0</sub>	I <sub>0</sub>	Q <sub>0</sub>
	ha			mins	mins	mins			mm	mm	mm	mm <sup>2</sup> /s	mm <sup>2</sup> /s	mm <sup>3</sup> /s	mm <sup>3</sup> /s
Sub catchment D	25.820	RURAL	Rural Zone	27.26		27.26	0.1	0.300	0.282		0.282	7.28	7.284	79.65	1.012
<b>TOTAL</b>	25.820	RURAL		27.26		27.26		0.300	0.282				7.284	79.65	1.012

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>1</sub> Input using:

$$f = \sum \left( f_{run-1} \times \frac{A_{run-1}}{A_{tot}} \right) + \left( f_{run-2} \times \frac{A_{run-2}}{A_{tot}} \right)$$

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.013 \times (T_c - 2)^{\frac{1}{2}}$$

$$C_{10} = 0.9 \times f + C_{10} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q<sub>0</sub> Calculated using:

$$Q_0 = \frac{A_{0} \times I}{360}$$

Rational Method





SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Morgan Valley Council	Date:	15/03/2016
Project:	South Island - Catchment 2		
Location:	South Island, Catchment 2 - Method Detection Requirement Calculation		
Job No:	100147	No:	1/1

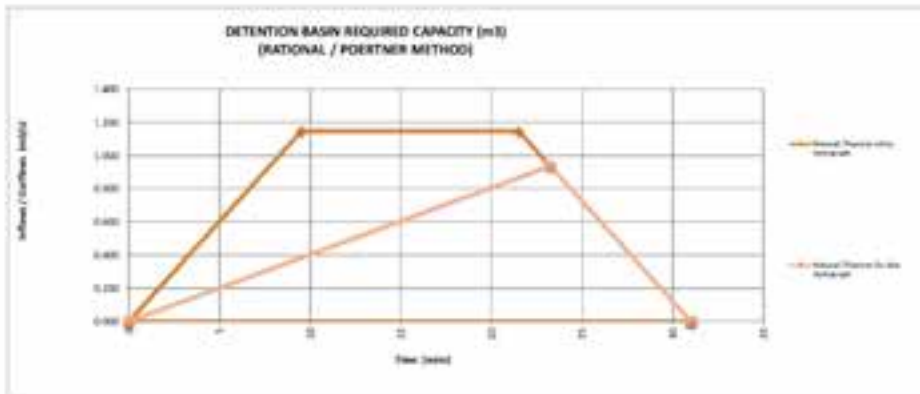
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Input Manual/Retentive Outflow	Calculated Retentive Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
12,810	3,684	20.400	81.30	0.000	0.000

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	f	Q	Q <sub>ret</sub>
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
12,810	4,100	9.500	140.100	1.700	1.700

Flow Manual Start	0.0	min
Storm Duration Flow Manual (d)	1	days
Pump / Outflow Delay Duration (d)	0	days
Pump / Outflow Delay Duration (hr)	0.00	hrs

Change only if required (check 4-5)  
 (4) This value will default to 0 unless storage volume is defined for a rain tank.  
 Change only if required.  
 Change only if required.

Formula used:  $Q_{ret} = 0.1 + 0.0133 \times (T_c - 25)$   $Q_{ret} = 0.09 \times f + 0.1 \times (1 - f)$



TOTAL DETENTION STORAGE REQUIRED (m <sup>3</sup> )	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	hrs		m <sup>3</sup> /s	hrs	
400	0.000	0.0		0.000	0.0	
400	1.147	9.5	1.700	0.000	18.5	1.700
400	1.147	18.5	1.700	0.000	18.5	1.700
400	0.000	24.0		0.000	24.0	
	0.000	0.0				

**TOTAL STORAGE REQUIRED**  
 1,147,000 m<sup>3</sup> (1,147,000,000 Litres)  
**RATIONAL / POERTNER METHOD**  
 m<sup>3</sup>  
**400**

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South Island Detection Requirement



Fast-Developed Flow Calculations

Client:	Wellington Storm Council	Date:	27/03/2016
Project:	South Wairua - Catchment B		
Subject:	POST-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	Rev:	1/0

Location:   
 50i Year:

Coefficients							
1k	2	3	4	5	6	7	8
0.0	1.0000	0.84477	0.73446	0.65501	0.59176	0.54010	0.50000

Catchment	Area		Length (L) m	Slope (S) m/m	Surface	n (m <sup>2</sup> )	40.4 Calculated T <sub>1</sub> min	Manual Input T <sub>2</sub> min	Selected T <sub>3</sub> min	Catchment Category (for F <sub>1</sub> )	Selected f <sub>s</sub>	Weighted C <sub>s</sub> %	Calculated C <sub>s</sub> %	Manual Input C <sub>s</sub> %	Selected C <sub>s</sub> %	A <sub>1</sub>		I <sub>1</sub> mm/h	Q <sub>1</sub> m <sup>3</sup> /s
	No	m														No	m		
1	3.08	229.00	0.01	Asphalt	0.062	46.17	7.00	6.50	6.50	Res Low Density	0.2	0.061	0.916	8.951	1.08	0.364	121.05	0.101	
2	3.24	171.00	0.01	Asphalt	0.062	34.90	7.00	6.60	6.60	Res Low Density	0.2	0.051	0.916	8.951	1.04	0.119	121.00	0.101	
6	2.54	457.00	0.01	Asphalt	0.062	42.40	7.00	6.21	6.21	Res Low Density	0.2	0.040	0.916	8.951	0.89	0.891	151.56	0.101	
5	5.15	78.00	0.01	Asphalt	0.062	14.86	7.00	6.67	6.67	Res Low Density	0.2	0.049	0.916	8.951	1.01	1.107	149.72	0.106	
TOTAL	11.01	11.848						6.50			0.200				4.50	144.188	1.791		

T<sub>1</sub> Calculated using:  

$$T_1 = 6.54 \cdot \frac{(L \times n^2)^{0.38}}{S^{0.77}}$$

Directions:

- 1
- 2
- 4

Enter longest length of Catchment  
 Enter average slope of Catchment (m/m)  
 Choose surface type of catchment (see drop down list (see n value table))

C<sub>s</sub> Calculated using:  

$$C_{s1} = 0.1 + 0.0133 \left( \frac{T_1}{T_2} - 2 \right)$$

$$C_{s2} = 0.9 - f + C_{s1} \times (1 - f)$$

Q Calculated using:  

$$Q = \frac{A \times I}{360}$$

- 1
- 2
- 4

Enter Area of Catchment (m<sup>2</sup>)  
 Choose Catchment Category to determine friction impedance  
 Give friction areas of catchments to determine Q

Weighted Friction Impedance using:  

$$f = \sum \left( f_{res,i} \times \frac{A_{res,i}}{A_{tot}} \right) + \left( f_{res,r} \times \frac{A_{res,r}}{A_{tot}} \right)$$

Go to Friction Impedance Table



Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment E		
Subject:	PRE DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05194	0.00214	0.00020

INPUT      500      0.002      0.015      1.288      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>u</sub>	ΣA <sub>u</sub>	I <sub>100</sub>	Q <sub>100</sub>
	ha			mins	mins	mins			mm	mm	mm				
Sub-catchment C	11.830	RURAL1	Rural Zone	20.88		20.88	0.1	0.100	0.282		0.282	0.01	1.824	85.30	0.100
<b>TOTAL</b>	11.830	RURAL1		20.88		20.88	0.100	0.100	0.282			1.824	85.30	0.100	

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>100</sub> Imperv using:

$$f = \sum \left( f_{imp, i} \times \frac{A_{imp, i}}{A_{tot}} \right) + \left( f_{non-imp} \times \frac{A_{non-imp}}{A_{tot}} \right)$$

C<sub>100</sub> Calculated using:

$$C_{100} = 0.1 + 0.013 \times (T_c - 2)^{1.5}$$

$$C_{100} = 0.9 \times f + C_{100} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q Calculated using:

$$Q = \frac{A_u \times I}{360}$$

Rational Method



SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.4421	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Morgan Valley Council	Date:	13/03/2016
Project:	South Island - Catchment T1 & T2		
Location:	South Island, Catchment T1 & T2		
Job No:	100147	No:	1/1

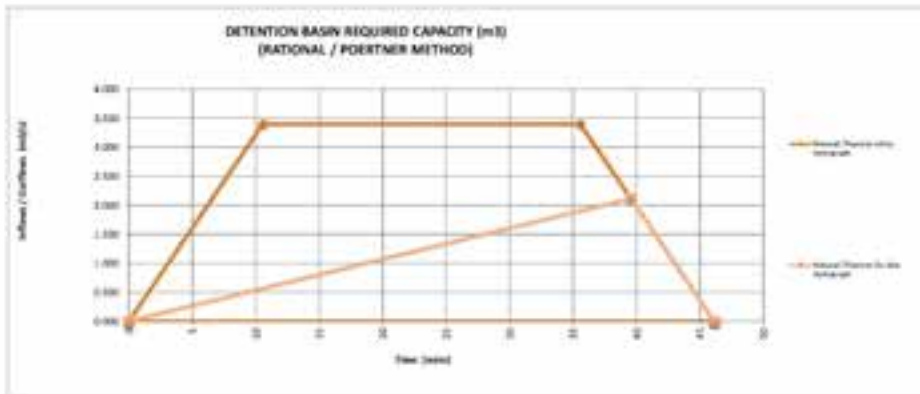
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>1</sub>	f	Input Manual/Retentive Outflow	Calculated Retentive Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
36,760	12,075	12,360	71.46	0.000	2.12

Flow Interval (min)	15	0.000
Storm Duration (Flow Interval x I)	4	0.000
Pump / Outflow Delay Duration (hr)	0	0.000
Pump / Outflow Delay Duration (hr)	0.00	0.00

Change only if required (check = 1)  
 (0) This value will default to zero unless otherwise specified in a sign below  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>1</sub>	f	Q	Q <sub>1</sub>
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
36,760	18,188	12,360	151.776	6.832	6.832

Formula used:  $Q_{10} = 0.1 + 0.0133 \times (T_{10} - 25)$  ;  $Q_{10} = 0.09 \times f + 0.1 \times (1 - f)$



TOTAL DETENTION STORAGE REQUIRED (m <sup>3</sup> )	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	min		m <sup>3</sup> /s	min	
4,331	0.000	0.0	0.000	0.0	0.0	0.000
4,331	1,402	15.0	0.1	1,128	15.0	0.000
4,331	4,402	30.0	0.1	0.000	46.1	0.000
4,331	0.000	46.1	0.000	0.000	46.1	0.000
	0.000	61.2				

**TOTAL STORAGE REQUIRED**  
 4,331 m<sup>3</sup>  
**RATIONAL / POERTNER METHOD**  
 4,331 m<sup>3</sup>



Fast-Developed Flow Calculations

Client:	Wellington Storm Council	Date:	27/03/2016
Project:	South Wairua - Catchment F3 & F2		
Subject:	POST DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400017	No:	1/5

Location:

RAI Year:

Coefficients					
RAI	1	2	3	4	5
200	1.4000	0.8400	0.5600	0.4200	0.3000

Catchment	Area		Length (L)	Slope (S)	Surface	n (m <sup>-1</sup> )	RAI		Selected T <sub>2</sub>	Catchment Category (for F <sub>2</sub> )	Selected T <sub>1</sub>	Weighted T <sub>2</sub>	C		Selected C	A <sub>2</sub>		I <sub>2</sub>	Q <sub>2</sub>
	no	m					40.4	Calculated T <sub>1</sub>					Manual Input T <sub>1</sub>	Calculated C		Manual Input C	A <sub>1</sub>		
A	1.84	321.00	0.01	Asphalt	0.042	33.33	7.00	8.29	8.29	Best Low Density	0.2	0.200	0.310	8.291	0.37	0.388	131.71	0.211	
B	1.48	88.00	0.01	Asphalt	0.042	18.70	7.00	7.84	7.84	Best Low Density	0.2	0.200	0.310	8.291	0.37	0.128	156.99	0.321	
C	1.81	99.00	0.01	Asphalt	0.042	30.64	7.00	8.07	8.07	Best Low Density	0.2	0.200	0.310	8.291	0.37	0.207	151.89	0.278	
D	1.39	113.00	0.01	Asphalt	0.042	18.52	7.00	8.21	8.21	Best Low Density	0.2	0.200	0.310	8.291	0.37	0.209	153.56	0.338	
E	1.48	211.00	0.01	Asphalt	0.042	48.59	7.00	8.21	8.21	Best Low Density	0.2	0.200	0.310	8.291	1.37	1.121	149.31	0.541	
F	1.76	211.00	0.01	Asphalt	0.042	48.79	7.00	8.58	8.58	Best Low Density	0.2	0.200	0.310	8.291	1.67	1.673	142.75	0.587	
G	1.09	126.00	0.01	Asphalt	0.042	15.42	7.00	10.21	10.21	Best Low Density	0.2	0.200	0.310	8.291	1.28	1.281	138.20	0.691	
H	1.26	271.00	0.01	Asphalt	0.042	33.87	7.00	10.58	10.58	Best Low Density	0.2	0.201	0.310	8.291	1.43	1.427	125.76	0.738	
I	1.39	97.00	0.01	Asphalt	0.042	16.26	7.00	8.28	8.28	Best Medium Density	0.8	0.001	0.710	8.794	1.61	1.424	154.89	0.612	
J	2.02	206.00	0.01	Asphalt	0.042	15.41	7.00	8.58	8.58	Best Medium Density	0.8	0.001	0.710	8.794	1.65	1.498	139.88	0.582	
K	2.02	118.00	0.01	Asphalt	0.042	14.09	7.00	8.21	8.21	Best Medium Density	0.8	0.001	0.710	8.794	1.49	1.498	132.77	0.641	
L	1.52	171.00	0.01	Asphalt	0.042	22.82	7.00	8.84	8.84	Best Medium Density	0.8	0.001	0.710	8.794	1.26	1.266	138.32	0.598	
M	1.12	211.00	0.01	Asphalt	0.042	48.21	7.00	8.29	8.29	Best Medium Density	0.8	0.001	0.710	8.794	0.98	0.880	161.47	0.511	
N	1.11	238.00	0.01	Asphalt	0.042	19.48	7.00	8.78	8.78	Best Medium Density	0.8	0.001	0.710	8.794	0.94	0.628	161.34	0.508	
O	1.47	125.00	0.01	Asphalt	0.042	15.13	7.00	8.67	8.67	Best Medium Density	0.8	0.001	0.710	8.794	0.98	0.974	148.72	0.598	
P	1.34	169.00	0.01	Asphalt	0.042	12.88	7.00	8.00	8.00	Best Medium Density	0.8	0.001	0.710	8.794	1.02	1.117	147.94	0.608	
Q	1.18	94.00	0.01	Asphalt	0.042	15.79	7.00	8.44	8.44	Best Medium Density	0.8	0.001	0.710	8.794	0.84	0.645	151.65	0.588	
<b>Total</b>	<b>46.780</b>		<b>22.81</b>					<b>10.165</b>			<b>0.251</b>		<b>0.34</b>	<b>18.088</b>	<b>135.738</b>	<b>4.611</b>			

T<sub>1</sub> Calculated using:

$$T_1 = 6.94 \cdot \frac{(L \times n^2)^{0.75}}{S^{1.49}}$$

Where:

- 1 Enter longest length of Catchment
- 2 Enter average slope of Catchment (Mains/Storm)
- 3 Choose surface type of catchment from table above for (See n value table)

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.0133(T_1 - 2)^2$$

$$C_{10} = 0.9 + f + C_{10} \cdot (1 - f)$$

Q<sub>2</sub> Calculated using:

$$Q_2 = \frac{A_2 \times I_2}{360}$$

Weighted Fraction Impermeable using:

$$f = \sum \left( f_{wi} \times \frac{A_{wi}}{A_{tot}} \right) + \left( f_{un} \times \frac{A_{un}}{A_{tot}} \right)$$

Go to Fraction Impermeable Table

- 4 Enter Area of Catchment (A<sub>2</sub>)
- 5 Choose Catchment category to determine Fraction Impermeable
- 6 Sum of Fraction areas of catchments to determine (2)





Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment F1 & F2		
Subject:	PRE-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
0.84205	0.64107	0.21084	0.05198	0.00214	0.00020

INPUT      500      0.002      0.015      1.288      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>u</sub>	ΣA <sub>u</sub>	I <sub>mm</sub> /h	Q <sub>mm</sub>
	ha			min	min	min			mm	mm	mm				
Sub-catchment C	16.780	RURAL1	Rural Zone	31.18		31.18	0.1	0.330	0.282		0.282	16.78	10.37%	73.41	2.118
<b>TOTAL</b>	16.780	RURAL1		31.18		31.18		0.330	0.282				10.37%	73.41	2.118

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>10</sub> Imperv using:

$$f = \sum \left( f_{imp,1} \times \frac{A_{imp,1}}{A_{tot}} \right) + \left( f_{imp,2} \times \frac{A_{imp,2}}{A_{tot}} \right)$$

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + 0.013 \mathcal{R}^{(1/3)} (I_c - 2.5)$$

$$C_{10} = 0.9 \times f + C_{10} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q Calculated using:

$$Q = \frac{A_u \times I}{360}$$

Rational Method



**Detection Storage Calculator**

SELECT LOCATION:

PRE-DEVELOPMENT ARI:

POST-DEVELOPMENT ARI:

Coefficients						
1	2	3	4	5	6	7
0.0000	0.44217	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.44217	0.0000	0.0000	0.0000	0.0000	0.0000

Client:	Merrigay New (Local)	Date:	13/03/2016
Project:	South Island - Carriwell 0		
Location:	South Island, CHARTERED METHOD DETENTION REQUIREMENT CALCULATION		
Job No:	100147	No:	1/1

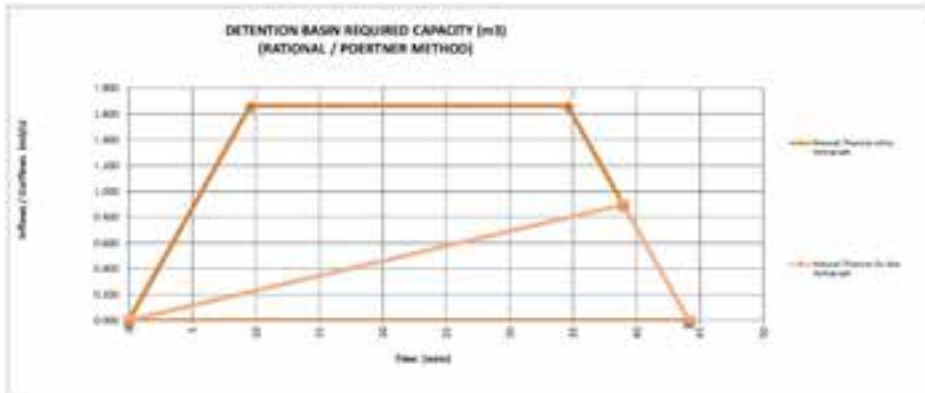
PRE-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	I	Input Manual Retention Outflow	Calculated Retention Outflow
ha	ha	min	mm/hr	m <sup>3</sup> /s	m <sup>3</sup> /s
12,140	3,425	20.40	34.30	0.000	0.00

Flow Manual Start	0.0	min
Storm Duration Time Interval (s)	1	min
Pump / Outflow Delay Duration (s)	0	min
Pump / Outflow Delay Duration (s)	0.00	min

Change only if manual start = 0  
 (s) This value will be multiplied by 60 to get the value in minutes  
 Change only if required  
 Change only if required

POST-DEVELOPMENT					
Total Catchment Area	CA	T <sub>c</sub>	I	Q	
ha	ha	min	mm/hr	m <sup>3</sup> /s	
12,140	3,425	20.40	34.30	0.00	

Formula used:  $C_{100} = 0.1 + 0.0133 \ln \left( \frac{I}{24} \right)$  ;  $C_{100} = 0.09 \ln I + 0.10 - (I - 1)$



TOTAL DETENTION STORAGE REQUIRED (m³)	Rational / Poertner Inflow Hydrograph			Rational / Poertner Outflow Hydrograph		
	Q	Time		Q	Time	
	m <sup>3</sup> /s	min		m <sup>3</sup> /s	min	
2,260	0.000	0.0		0.000	0.0	
2,260	1.400	10	0.1	0.000	30.0	0.000
2,260	1.400	30.0	0.0	0.000	40.0	0.000
2,260	0.000	40.0		0.000	40.0	
	0.000	0.0				

**TOTAL STORAGE REQUIRED**  
 2,260 m<sup>3</sup>  
**RATIONAL / POERTNER METHOD**  
 2,260 m<sup>3</sup>

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Fast-Developed Flow Calculations

Client:	Wellington Storm Council	Date:	27/03/2016
Project:	South Wairua - Catchment G		
Subject:	POST DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400017	No:	15

Location:

RAI Year:

Coefficients					
1	2	3	4	5	6
0.0	1.0000	0.0417	0.0043	0.0001	0.0010
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Catchment	Area			Surface	n (m <sup>2</sup> )	RAI	Calculated T <sub>1</sub>	Manual Input T <sub>2</sub>	Selected T <sub>3</sub>	Catchment Category (for P <sub>1</sub> )	Selected t <sub>4</sub>	Weighted t <sub>5</sub>	Calculated C	Manual Input C	Selected C	A <sub>1</sub>		I <sub>100</sub>	Q <sub>100</sub>
	No	m	%													No	m <sup>2</sup>		
1	1.71	100.00	0.01	Asphalt	0.042	15.90	7.00	6.22	6.22	Best Medium Density	0.8	0.086	0.716		0.716	1.26	1.240	105.52	0.103
10	7.08	40.00	0.01	Asphalt	0.042	27.96	7.00	6.56	6.56	Best Medium Density	0.8	0.089	0.716		0.716	1.64	1.429	141.75	0.176
5	2.15	100.00	0.01	Asphalt	0.042	33.52	7.00	6.96	6.96	Best Medium Density	0.8	0.105	0.716		0.716	1.52	1.525	146.56	0.141
1	1.69	113.00	0.01	Asphalt	0.042	33.52	7.00	7.84	7.84	Best Medium Density	0.8	0.083	0.716		0.716	1.37	1.347	108.86	0.100
2	2.24	176.00	0.01	Asphalt	0.042	42.58	7.00	8.57	8.57	Best Medium Density	0.8	0.112	0.716		0.716	1.62	1.618	147.28	0.164
44	2.27	176.00	0.01	Asphalt	0.042	36.51	7.00	8.21	8.21	Best Medium Density	0.8	0.117	0.716		0.716	1.59	1.696	151.51	0.174
<b>TOTAL</b>		<b>31.10</b>						<b>6.22</b>				<b>0.670</b>			<b>0.699</b>		<b>113.10</b>		<b>0.141</b>

T<sub>1</sub> Calculated using:

$$T_1 = 6.94 \cdot \frac{(L \times n)^{0.75}}{S^{0.16}}$$

- Directions:
- 1
  - 2
  - 3

C<sub>10</sub> Calculated using:

$$C_{10} = 0.1 + (0.133)^{(T_1 - 2)}$$

$$C_{10} = 0.9 \cdot f + C_{100} \cdot (1 - f)$$

- Directions:
- 1 Error longest length of Catchment
  - 2 Error average slope of Catchment (Meters/Minute)
  - 3 Error surface type of Catchment from drop-down list (See n value table)

Q Calculated using:

$$Q = \frac{A_{100} \times I}{360}$$

- Directions:
- 1

Weighted Fraction Interpolated using:

$$f = \sum \left( f_{avg, i} \times \frac{A_{i, catch}}{A_{total}} \right) + \left( f_{avg, j} \times \frac{A_{j, catch}}{A_{total}} \right)$$

- Directions:
- 1 Error Area of Catchment (A<sub>1</sub>)
  - 2 Choose Catchment category to determine friction exponent
  - 3 Sum of fraction areas of catchments to determine f



Pre-Developed Flow Calculations

Client:	Wellington Shire Council	Date:	17/03/2016
Project:	South Warrak - Catchment G		
Subject:	PRE-DEVELOPMENT FLOW CALCULATIONS		
Job No:	1400147	By:	SH

Location:

ARI Year:

Coefficients					
$\alpha$	$\beta$	$\gamma$	$\delta$	$\epsilon$	$\zeta$
1.8425	0.64117	0.21284	0.05194	0.00214	0.00020

INPUT      500      0.002      0.015      1.289      0.4      0

Catchment	Area	Catchment Category	Catchment Type (For F <sub>1</sub> )	Calculated T <sub>c</sub>	Manual Input T <sub>c</sub>	Selected T <sub>c</sub>	Selected S <sub>1</sub>	Weighted S <sub>1</sub>	Calculated C	Manual Input C	Selected C	A <sub>u</sub>	ΣA <sub>u</sub>	I <sub>100</sub>	Q <sub>100</sub>
	ha			mins	mins	mins			mm	mm	mm				
Sub-catchment C	11.140	RURAL1	Rural Zone	20.46		20.46	0.1	0.100	0.282		0.282	3.43	3.425	94.41	0.098
<b>TOTAL</b>	11.140	RURAL1		20.46		20.46	0.100	0.100	0.282			3.425	3.425	94.41	0.098

T<sub>c</sub> Calculated using:

$$T_c = 0.76 \times A^{0.118}$$

Equation 5.4 AR&R

Weighted F<sub>100</sub> Imperv using:

$$f = \sum \left( f_{imp, i} \times \frac{A_{imp, i}}{A_{tot}} \right) + \left( f_{non-imp} \times \frac{A_{non-imp}}{A_{tot}} \right)$$

C<sub>100</sub> Calculated using:

$$C_{100} = 0.1 + 0.013 \left( \frac{I_{100}}{2.5} \right)^{0.7}$$

$$C_{100} = 0.9 \times f + C_{100} \times (1 - f)$$

Equation 14.11 and 14.12 AR&R

Q Calculated using:

$$Q = \frac{A_u \times I}{360}$$

Rational Method

---

## Vegetation Assessment for Rezoning Application – Wurruk



Prepared For: Beveridge Williams and D. Page, B.Hollonds &  
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June 2014

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ENVIRONMENTAL, PLANNING & NATURAL RESOURCE MANAGEMENT  
CONSULTANTS



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Cover Photo: Scattered Tree (Red Gum) at the Study Site

**Ethos NRM Pty Ltd**

**Document Control**

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## EXECUTIVE SUMMARY

Ethos NRM has undertaken a vegetation assessment of the following land parcels (comprising the study site) which are the subject of a rezoning application to develop the land for residential use:

- Lots 6 and 7 on PS702630;
- Lot 1 on PS410216;
- CA21, Section E, Parish of Wurruk Wurruk;
- Lot 2 on PS610634;
- CA19, Section E, Parish of Wurruk Wurruk; and,
- Lots 1 & 2 on PS415183.

The land has historically been cleared and is currently used for agricultural purposes. On-site assessment of vegetation at the study site recorded:

- Native Vegetation
  - 44 Scattered Trees representative of the EVC *Plains Grassy Woodland*.
  - Remnant vegetation does not meet the definition of the EPBC listed *Gippsland Red Gum Grassy Woodland* ecological community.
  - No particular significant vegetation values were recorded, however many of the scattered trees are very large with hollows that may provide habitat for native fauna.
- Planted Vegetation
  - Exotic and native tree species are planted along roadsides, in shelterbelts along fences, and in paddocks.
- Introduced pasture species dominate the groundcover across the entire study site, reflecting the current and past agricultural land use (grazing and cropping).

No rare or threatened flora or fauna species were recorded by Ethos NRM during the site visit. It is not expected that there will be any significant impacts on Commonwealth Matters of National Environmental Significance identified from the desktop search.

Potential implications of native vegetation removal under the *Guidelines* include:

- Removal of any of the identified Scattered Trees will require a permit from Wellington Shire Council and a commensurate Offset under the *Guidelines*.
- Two native trees on Lot 7 PS702630 are protected by a Section 173 Agreement and cannot be removed (excluded from the Scattered Trees assessment).
- The study site is entirely within Location A for determining the risk-based pathway for an application to remove native vegetation.
- The removal of less than 15 trees will result in the low-risk pathway requiring:
  - No detailed Habitat Hectares Assessment required
  - General offset required only
  - Simpler reporting requirements
- The removal of 15 or more trees will result in the moderate-risk pathway requiring:
  - Habitat Hectares Assessment required
  - General and/or Specific offset required
  - More complex reporting requirements
  - Increasing Offset requirement

- Calculation of the extent of native vegetation removal for determination of the risk-based pathway must include any permitted vegetation removal on any of the properties contributing to the study site within the previous five years.
- Total impacts on native vegetation from the development and use of the land that must be offset needs to consider any indirect impacts such as:
  - Changes to hydrology
  - Effluent discharge
  - Stormwater runoff
  - Excessive shading of vegetation
  - Adequacy of protection of retained vegetation during construction and use

The DEPI Online NVIM tool was used to compare the relative value of Scattered Trees across each land parcel under a **low-risk pathway**. This indicated that:

- the removal of trees from Lots 6 and 7 on PS702630 and Lot 1 PS410216 would result in the lowest offset requirement per tree removed,
- the highest offset requirements will most likely be generated by the removal of trees from Lot 1 PS415183 and Crown Allotment 19 Section E.

It is recommended that vegetation removal is avoided as far as practicable, and both direct and indirect impacts on native vegetation are minimised through subdivision design, in order to reduce the complexity of further vegetation assessment and offset requirements and inherent costs associated with these.



## 1 INTRODUCTION

Ethos NRM has been engaged by Beveridge Williams on behalf of the landowners of eight parcels of land (the Study Site) located between the Princes Highway and Settlement Road in Wurruk, to undertake an assessment of vegetation quality and significance. The land is the subject of a proposal to rezone and develop the land for residential use.

Where possible the proposed development is intended to retain most of the native vegetation through subdivision design, however complete avoidance may not be practicable.

A preliminary assessment of vegetation at the study site has been undertaken by Ethos NRM, to identify the presence of, and map the location of, native vegetation, and to categorise native vegetation in accordance with the *Permitted Clearing of Native Vegetation - Biodiversity Assessment Guidelines* (DEPI, 2013a) herein referred to as the 'Guidelines'.

This report provides an outline of the legislative requirements for potential native vegetation removal and likely Offset Requirement in Biodiversity Equivalence Units (BEUs).

### 1.1 Objectives

The broad objectives of this Vegetation Assessment are to:

- identify and map any native vegetation (remnant patch or scattered trees) across the study site,
- identify any areas of significant vegetation,
- provide advice on the potential approval requirements for any vegetation removal and likely offset requirements.

### 1.2 Site Location and Description

The study site is located approximately 4km east of Sale, and comprises the following eight parcels of land in Wurruk:

- Lots 6 and 7 on PS702630;
- Lot 1 on PS410216;
- CA21, Section E, Parish of Wurruk Wurruk;
- Lot 2 on PS610634;
- CA19, Section E, Parish of Wurruk Wurruk; and,
- Lots 1 & 2 on PS415183.

The site is accessible from The Ridge, Arnup Road, Kilmany Park Track and Settlement Road, see Figure 1. The properties are currently utilised for agricultural use (cropping/grazing).

The site has historically been cleared of most native vegetation, with remnant scattered trees throughout all but one of the land parcels. Grasses are dominated by a mixture of introduced pasture species, reflective of current and prior agricultural land use. The adjacent roadside vegetation is also comprised predominantly of introduced pasture species, other weed species or planted vegetation (exotic and native species).

### 1.3 Planning Context

The study site is located within the Wellington Shire Council area, with the current zoning of land either in Low Density Residential Zone (LDRZ) or Farming Zone (FZ), as



summarised for each lot in Table 1 below. Planning Zones and Overlays were sourced from Planning Maps Online (DTPLI, 2014).

There are existing planning controls related to vegetation across Lots 1 & 2 on PS415183 under the Heritage Overlay, which includes non-native planted vegetation around Kilmory Park.

The study site is entirely within a Designated Bushfire-prone Area, which requires certain Building Standards to be met, but does not trigger specific planning controls in relation to native vegetation.

**Table 1: Summary of Planning Zones and Overlays**

Land parcel/lot	Zoning		Overlays	Notes
	Current	Proposed		
Lot 6 PS702630	LDRZ	R1Z	DDO6 DPO1 PAO1	The portion of land excised under PAO1 was excluded from the assessment.
Lot 7 PS702630	LDRZ	R1Z	DDO6 DPO1	This parcel is within, or affected by, one or more areas of cultural heritage sensitivity as described in the Aboriginal Heritage Regulations 2007.
Lot 1 PS410216	LDRZ	R1Z	DDO6 DPO1	
CA21, Section E, Parish of Wurruk Wurruk	FZ	R1Z	DDO6 DPO1 FO LSIO	FO and LSIO applies to eastern half of parcel. This parcel is within, or affected by, one or more areas of cultural heritage sensitivity as described in the Aboriginal Heritage Regulations 2007.
Lot 2 PS610634	FZ	R1Z	DDO6	
CA19, Section E, Parish of Wurruk Wurruk	FZ	LDRZ	DDO6	
Lot 1 PS415183	FZ	LDRZ	DDO6 FO LSIO HO151 HO68	FO and LSIO applies to eastern extent of parcel at Settlement Rd. HO68 applies tree controls at Kilmory Park, and HO151 refers specifically to an Oak Tree.
Lot 2 PS415183	FZ	LDRZ	DDO6 FO LSIO HO68	FO and LSIO applies to eastern extent of parcel at Settlement Rd and southwest corner near Mcowans Rd. HO68 applies tree controls at Kilmory Park.

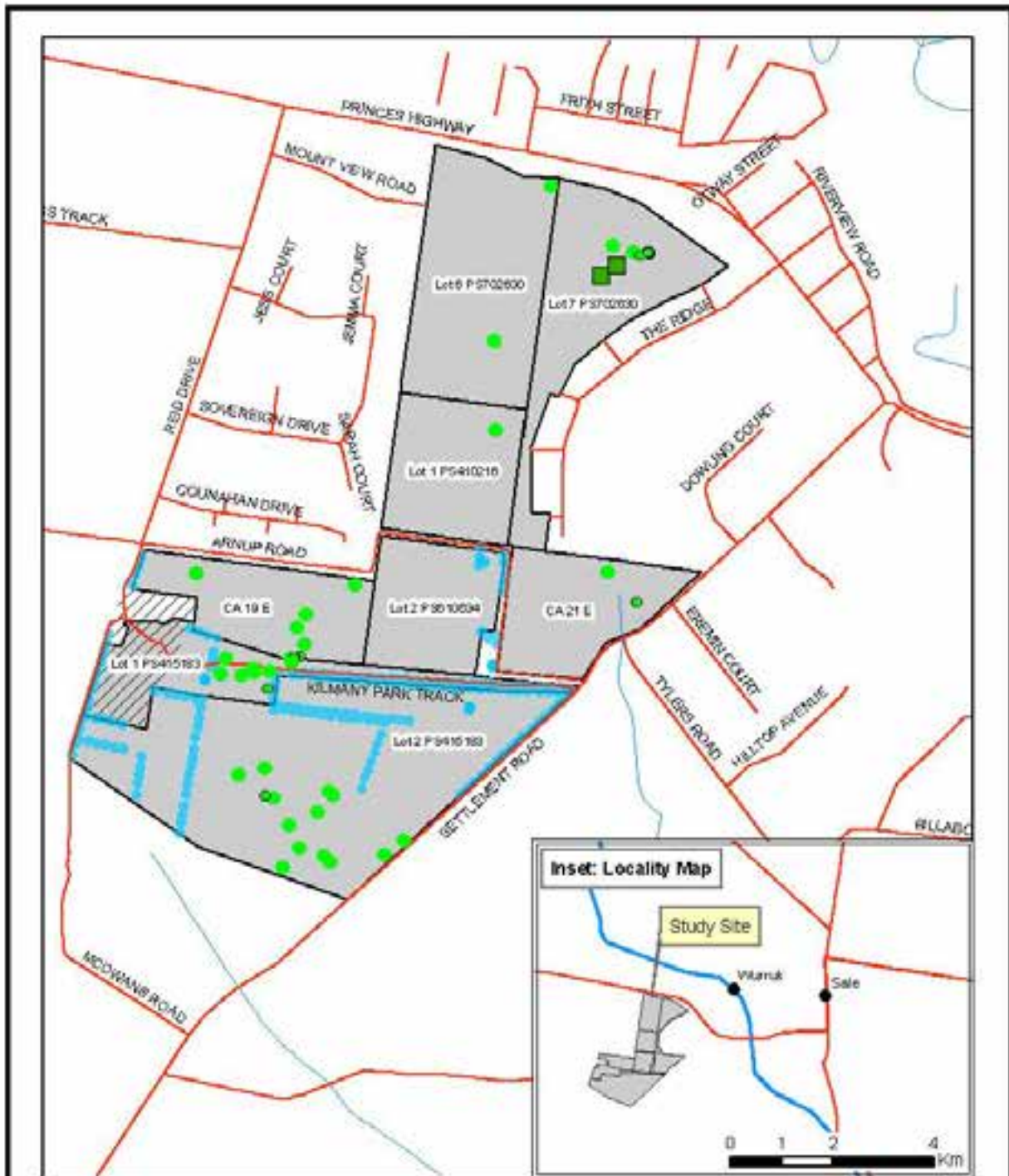
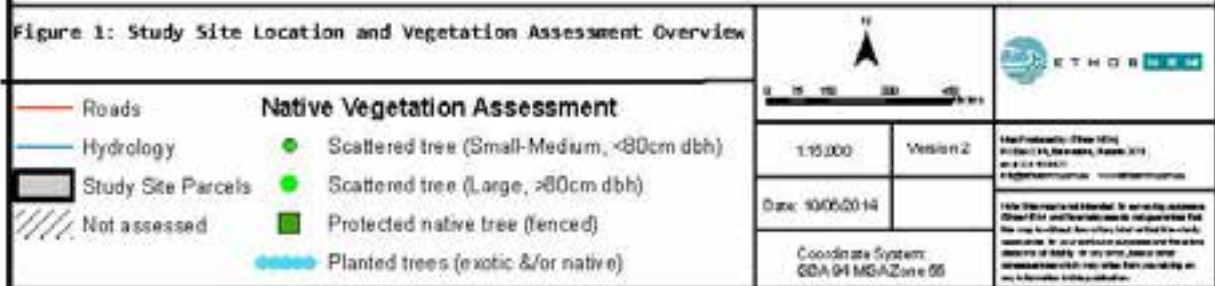


Figure 1: Study Site Location and Vegetation Assessment Overview



## 2 ASSESSMENT METHODOLOGY

The following steps have been undertaken to assess potential vegetation values on the 8 land parcels comprising the study site:

- Desktop Investigation
- Field Survey – Identification of native vegetation and assessment of significance of vegetation
- Provide advice regarding the Risk-based Pathway and approval of native vegetation removal and offsetting under the *Guidelines*

Results of the desktop and field investigations are detailed Sections 3 and 4 of this report.

### 2.1 Desktop Investigation

Desktop investigation of flora data was initially used to gather information on the site prior to undertaking vegetation assessments and preparation of this report. Ethos NRM has obtained data for the occurrence and description of bioregions, EVCs, Rare or Threatened flora and Threatened Ecological Communities from a number of sources, including:

- Planning Maps on-line (DTPLI, 2014)
- EPBC on-line Protected Matters Search Tool (SEWPAC, 2014)
- DEPI Interactive Maps – Biodiversity Interactive Maps (DEPI, 2014a)
- DEPI Ecological Vegetation Class Benchmark Descriptions (DEPI, 2014b)
- DEPI Bioregion Descriptions (DEPI, 2014b)
- DEPI Native Vegetation Information Management Tool (DEPI, 2014c)

### 2.2 Field Survey

Vegetation on-site was assessed as planted (exotic and/or native species), pasture or 'native vegetation' in accordance with the *Guidelines (DEPI, 2013a)*. Any native vegetation identified was mapped and categorised as a remnant patch or scattered trees. Diameter at Breast Height (DBH<sup>1</sup>) of trees was measured where possible.

The sites were surveyed by a DEPI Accredited Native Vegetation Assessor on the 6<sup>th</sup> May 2014.

### 2.3 Taxonomy

Common and scientific names for terrestrial vascular plants within this report follow the Victorian Biodiversity Atlas (VBA) of the Department of Environment and Primary Industries (DEPI).

### 2.4 Survey Limitations

The survey effort combined with information gathered from other sources is considered adequate to assess the significance of vegetation and flora values within the study site, to meet the objectives in Section 1.3.

---

<sup>1</sup> DBH – Diameter at Breast Height of a tree, which is measured at 1.3m off the ground.



## 3 RESULTS

### 3.1 Desktop Investigation

A desktop investigation was conducted to identify potential significant biodiversity values at the study site, with regard to relevant Commonwealth and State legislation and policies.

#### 3.1.1 Commonwealth Biodiversity Values

The *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* is the Australian Government's environmental legislation which provides a legal framework to protect and manage nationally and internationally significant flora, fauna, ecological communities and heritage places, defined in the EPBC Act as Matters of National Environmental Significance.

If a proposed action has the potential to have a significant impact on a Matter of National Environmental Significance, then an EPBC Referral is required to determine whether approval will be required to undertake the activity (i.e. controlled action).

An online EPBC Protected Matters Search was undertaken and the results identified the following Matters of National Environmental Significance within 5km of the study site (see Appendix 1). Results of the EPBC Protected Matters Search included:

- 1 Wetland of International Importance (RAMSAR – Gippsland Lakes)
- 1 Listed Threatened Ecological Communities
- 1 Threatened Flora Species
- 12 Threatened fauna species
- 11 Listed Migratory Species

#### 3.1.2 State Biodiversity Values

Legislation relevant to native vegetation conservation and management in Victoria include the *Flora and Fauna Guarantee Act 1988*, *Planning and Environment Act 1987* and *Catchment and Land Protection Act 1994*. Relevant policy documents include the '*Permitted Clearing of Native Vegetation Biodiversity Assessment Guidelines*' (DEPI, 2013a).

DEPI databases (Biodiversity Interactive Maps) were reviewed to identify rare and threatened species and communities that are modelled to occur or have been previously recorded at the study site. There are no previous records of rare or threatened flora or fauna species within the study site on DEPI databases (DEPI, 2014a).

DEPI Ecological Vegetation Class (EVC) mapping (see Appendix 2) at the study site indicates small areas of Plains Grassy Woodland (EVC 55) within each property, and small patches of Deep Freshwater Marsh on Crown Allotment 21 Section E and Lot 2 PS415183. The majority of the study site is mapped as being devoid of native vegetation.

Impacts of native vegetation removal on State biodiversity values, such as rare and threatened species and communities, are integrated into the provisions of the *Guidelines*.

### 3.2 Field Survey

On-site assessment of vegetation was conducted to identify the presence and significance of any native vegetation present at the site, as well as other potential biodiversity values identified through the desktop assessment.

#### 3.2.1 Native Vegetation Assessment

The field assessment of the study site undertaken by Ethos NRM identified that native vegetation is present, as defined by the *Guidelines* (see below). All native vegetation

met the definition of **Scattered Trees**, representative of the EVC *Plains Grassy Woodland*.

**Native vegetation** is defined in the Victoria Planning Provisions as:

*plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses*

A **remnant patch** of native vegetation is either:

- an area of vegetation where at least 25% of the total perennial understorey plant cover is native
- any area with three or more native canopy trees\* where the canopy foliage cover is at least 20% of the area

A **scattered tree** is:

- a native canopy tree\* that does not form part of a remnant patch

\*A **canopy tree** is a mature tree that is greater than 3 meters in height and is normally found in the upper layer of the relevant vegetation type.

Definitions from Section 2.2, page 5 of the Guidelines

A total of 44 scattered canopy trees (living) were recorded across the study site (Refer to Figure 1 and Appendices 3 and 4), predominantly Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*), River Red Gum (*Eucalyptus camaldulensis*), or hybrids between the 2 species. Due to recent cropping and grazing, flowering material was difficult to find, absent, or out of reach. Some of the flower buds appeared intermediate between the two Red Gum species, and hence may be hybrids.

There are an additional two native trees (Red Gums) in Lot 7 PS702630 which are fenced off and protected by an existing Section 173 Agreement. These trees were excluded from the native vegetation assessment, but their locations are indicated in Figure 1 and Appendix 4a.

DBH was measured for 41 of the scattered trees and estimated for 3 trees (see Appendix 3), and ranged from 19cm to 158 cm. Large old trees in the EVC *Plains Grassy Woodland* in the Gippsland Plains are classified as 80cm or larger; 32 Scattered Trees had a DBH of 80cm or larger. Most of the very large trees had several hollows, which may provide habitat for some native fauna species including birds and possums. While none of the trees are rare or threatened species, they do have values associated with their age and size.

### 3.2.2 Planted Vegetation and Exotic Species

There is planted vegetation (predominantly exotic with some native species) along Arnup Road, Kilmany Park Track and Settlement Road, as well as shelterbelts between paddocks and scattered pine trees in paddocks within Lots 1 and 2 on PS415183. There was no native vegetation recorded on Lot 2 PS610634, only shrubs of the weed species Boxthorn (*Lycium ferocissimum*) and pasture species were recorded within this parcel.

There are also several planted trees in the grounds immediately surrounding the buildings at Kilmany Park, comprising mostly exotic species, with some native tree species, although these were not assessed (see Figure 1).

Under Clause 52.17 of the Planning Scheme, removal of planted native vegetation (which has not been government funded) is exempt from a permit and hence does not need to meet the requirements of the Guidelines (and thus does not need an offset).



It should be confirmed with the landowners that planted vegetation has not been planted as part of a government funded project before assuming that it is exempt under Clause 52.17 of the Planning Scheme from requiring a planning permit and offset.

Some of the exotic trees within the Kilmany Park grounds are protected by Heritage Overlays; hence it should not be assumed that non-native trees in this area are exempt from a planning permit.

### 3.3 Native Vegetation Description

#### 3.3.1 Bioregion

The study site is located within the Gippsland Plain bioregion which consists of flat low lying coastal and alluvial plains with gently undulating terrain dominated by barrier dunes and floodplains and swampy flats. The soils associated with the upper terrain support Lowland Forest vegetation types, and while the dunes are predominantly sandy soils supporting Heathy Woodland and Damp Sands Herb-rich Woodland vegetation types. The fertile floodplains and swamps support Swamp Scrub, Plains Grassy Woodland, Plains Grassy Forest, Plains Grassland and Gippsland Plains Grassy Woodland/Gilgai Wetland Mosaic vegetation types (DEPI, 2014b).

#### 3.3.2 Ecological Vegetation Classes

Remnant vegetation, soil and site characteristics indicate that the DEPI EVC mapping is reasonably accurate, and the site is consistent with Plains Grassy Woodland (EVC 55). However the DEPI mapping overestimates the occurrence of native vegetation at the study site.

The freshwater marsh in CA21E appears to be a freshwater wetland which has been modified through past land use and development of the adjacent subdivision, and is currently grazed. The single pixel mapped in Lot 2 PS415183 did not correspond to a wetland.

Bioregional Conservation Status describes how threatened or rare an EVC is within a Victorian bioregion, by comparing the current extent of an EVC compared to the predicted extent pre-European settlement (pre-1750). Plains Grassy Woodland (EVC 55) is listed as Endangered, the highest rating, and Deep Freshwater Marsh is listed as Vulnerable in the Gippsland Plains bioregion.

### 3.4 Native Vegetation Significance

No rare or threatened flora or fauna species were recorded during the field survey.

#### 3.4.1 Commonwealth Legislation

The study site is located within the catchment of the Gippsland Lakes Ramsar site. While it is unlikely that the scale of development of the site would have a significant impact on the Ramsar site, it should be considered in subdivision design.

The EVC *Plains Grassy Woodland* is recognised as contributing to the Commonwealth listed ecological community *Gippsland Red Gum Grassy Woodland and Associated Native Grassland*, however native vegetation at the study site did not meet the definition of the EPBC listed community.

The landscape within and surrounding the study site is largely cleared of vegetation and utilised for either agriculture or housing; the remaining vegetation is scattered and isolated with highly modified structure. It is not likely that the study site provides important habitat for threatened flora or fauna species, or migratory species.

Hence, it is not expected that any of the Protected Matters with potential to occur at the study site, as listed in Appendix 1, will be impacted upon by removal of Scattered Trees at the study site.

### 3.4.2 State Legislation

Removal of any of the identified Scattered Trees will require a permit to remove native vegetation from the Wellington Shire Council. Impacts of native vegetation removal on State biodiversity values, such as rare and threatened species and communities, are integrated into the provisions of the *Guidelines*. The *Guidelines* are described in more detail in Section 4 below.

## 4 IMPLICATIONS OF NATIVE VEGETATION REMOVAL

### 4.1 Victoria's Native Vegetation Permitted Clearing Regulations

State Policy for vegetation removal requires that the impacts on biodiversity from proposals to remove native vegetation, including scattered trees, are assessed according to the *Guidelines* (DEPI, 2013a). Application requirements for a permit to remove native vegetation are determined by the relevant risk-based pathway, low, moderate and high risk, as defined by the *Guidelines*. The risk-based pathway is identified from a combination of extent risk (the amount of vegetation proposed to be removed) and location risk (DEPI modelled strategic landscape value) of a site.

The risk-based pathway dictates the detail of information required, including the need for detailed on-site vegetation condition assessment (Habitat Hectares), and the decision guidelines for assessment of that application (DEPI, 2013b).

#### 4.1.1 Identification of the Risk-based Pathway and Application Requirements

Preliminary examination of the online DEPI *Native Vegetation Information Management (NVIM) Tool* (DEPI, 2014c) *Location Risk Map* indicated the entire study site to be within Location A. The Location Risk is then combined with the number of scattered trees proposed to be removed (Extent Risk), which would result in an application to remove vegetation to follow either the Low- or Moderate-risk pathway, as defined in Table 3 in the *Guidelines*.

For determination of the risk pathway, the extent includes the total amount of approved native vegetation removal on the same property under the same ownership within the previous five years (from the date an application to remove native vegetation is lodged).

The Study Site is entirely within Location A.

The risk-based pathway for removal of Scattered Trees in Location A will be either:

<15 trees removed = Low-risk pathway OR

≥15 trees removed = Moderate-risk pathway.

There are substantial differences between the requirements for applications under the low and moderate pathways. Applications under the low-risk pathway can essentially be completed as a desktop assessment, whereas the moderate-risk pathway requires more detailed on-site assessment and mapping of vegetation extent using GIS, and more involved reporting.

#### 4.1.2 Direct and Indirect Loss of Native Vegetation

The total loss of native vegetation resulting from land development includes both direct removal, and indirect impacts on native vegetation, such as; changes to hydrology, effluent discharge, stormwater runoff and excessive shading on vegetation (DEPI, 2013b).



All retained vegetation must be adequately protected during construction, due to potential impacts from compaction and excavation close to tree roots. The measure used to protect retained vegetation are *Tree Retention Zones*, which are defined as a radius around a Scattered Tree based on the size (diameter) of the tree, and must be demonstrated in an application to remove vegetation. Any retained trees which cannot be adequately protected during construction resulting from the proposed development must be assumed to be lost.

Tree Retention Zones are calculated as a radius of 12 times the diameter at breast height, from a minimum of 2 metres up to a maximum of 15 metres (DEPI, 2013b). These zones have been calculated for all recorded Scattered Trees (except for fenced protected trees) across the study site based on measured or estimated DBH of each tree, and are indicated in Appendices 3 and 4.

## 4.2 Offsetting Native Vegetation Losses

Where vegetation removal cannot be avoided, provision of offsets is required to compensate for the impacts on biodiversity; the purpose of an offset is to achieve a 'no net loss' in the contribution made by native vegetation to Victoria's biodiversity.

Offsets are achieved through the long-term protection, enhancement and management of the quality and quantity of native vegetation. Offsets can be achieved on private land owned by the proponent or a third party, or sourced as Native Vegetation Credits through accredited native vegetation Offset Brokers.

A formal agreement is required in all instances to secure the ongoing protection and management of the nominated offset site.

### 4.2.1 Calculating offset requirements for scattered trees

Offset requirements cannot be calculated for the proposed development of the study site without knowing which vegetation may be removed, as the location and extent of vegetation proposed for removal must be accurately mapped. The general process for calculating offsets is described below. In addition, an example of potential offset requirements for the study site under the low-risk pathway is provided in Section 4.2.4.

Native vegetation losses for Scattered Trees are calculated by using a purpose-built *Native Vegetation Information Management Tool* developed by DEPI, which attributes each Scattered Tree with a standard area of loss of 0.071 hectares. The tool assesses the mapped area of vegetation proposed to be removed against DEPI models to determine the type, quantity and attributes of the offset required.

Offsets under the *Guidelines* comprise two types:

- general biodiversity equivalence units (GBEUs) and/or
- specific biodiversity equivalence units (SBEUs)

Vegetation removal under the low-risk pathway comprises only general units (GBEUs), whereas under the moderate-risk pathway may comprise one or both of general units (GBEUs) and/or specific units (SBEUs). Specific units may be more difficult to source than general units.

At the time of preparing this report, all vegetation loss data for moderate and high risk-based pathway applications are processed by DEPI to provide the offset calculations under the *Guidelines*, in the form of a *Biodiversity impact and offset requirements report*. DEPI requires the proponent to provide a GIS Shapefile of the Scattered Trees proposed for removal. A report covering the vegetation removal is then supplied by DEPI which defines the offset requirements.

#### 4.2.2 Offset Attributes

When a general offset is required the offset secured must meet the *minimum strategic biodiversity score* and *vicinity* attributes.

Any general offsets required for the removal of Scattered Trees at the Study Site must:

- be located within the West Gippsland Catchment Management Authority boundary, or Wellington Shire boundary, AND
- have a minimum strategic biodiversity score as stated in the *Biodiversity assessment report* generated by the NVIM tool (not yet known; will depend on the individual trees proposed for removal, refer to Table 2 for indicative values).

When a specific offset is required the offset secured must meet the number of *Specific Biodiversity Equivalence Units* for each species listed in the *Biodiversity impact and offset requirements report*.

#### 4.2.3 Timing

A compliant offset must be secured, to the satisfaction of the responsible or referral authority, before the native vegetation is removed (DEPI, 2013a), by either:

- A security agreement for the site including an onsite (Offset) management plan, or
- Evidence of a secured third party offset, e.g. Native Vegetation Credit Register extract.

#### 4.2.4 Example of potential offset requirements for scattered tree removal

The DEPI NVIM tool (DEPI, 2014c) was used to obtain indicative values (offset units) of scattered trees within each land parcel, to enable a relative comparison between trees across the study site (see Table 2) under the *low-risk pathway* (assumes total loss of less than 15 scattered trees). The 2 protected trees in the north-east of the site (Lot 7 PS702630) have not been included in the table below.

Table 2: Summary of Potential Offset Requirements for Scattered Tree Removal (low-risk)

Land parcel	No. Scattered Trees	Risk-pathway for application	Maximum offset for removal of all trees/ parcel (GBEUs)	Average minimum Strategic Biodiversity Score	Average offset (GBEUs) per tree removed
Lot 6 PS702630	2	LOW	0.017	0.322	0.009
Lot 7 PS702630	8	LOW	0.017	0.060	0.002
Lot 1 PS410216	1	LOW	0.002	0.060	0.002
CA21, Section E	2	LOW	0.023	0.222	0.012
Lot 2 PS610634	0	LOW	n/a	n/a	N/A
CA19, Section E	5	LOW	0.066	0.497	0.013
Lot 1 PS415183	12	LOW	0.183	0.572	0.015
Lot 2 PS415183	14	LOW	0.138	0.370	0.010
ALL	44	MCOERATE		To be determined	

The summary in Table 2 suggests that the removal of trees from Lots 6 and 7 on PS702630 and Lot 1 PS410216 would result in the lowest offset requirement per tree removed, whereas the highest offset requirements will be generated by the removal of trees from Lot 1 PS415183 and Crown Allotment 19 Section E. Individual trees may have higher or lower offset requirements than the average shown in Table 2.

If it is anticipated that 15 or more Scattered Trees will be removed for development of the land (including any permitted clearing within the previous 5 years), which would trigger an



application under the moderate-risk pathway, it is recommended that spatial data is submitted to DEPI early in the subdivision design phase to obtain indicative offset requirements for the removal of native vegetation.

## 5 CONCLUSION

Ethos NRM has been engaged by Beveridge Williams on behalf of the landowners of eight parcels of land (the Study Site) located between the Princes Highway and Settlement Road in Wurruk, to undertake an assessment of vegetation quality and significance. The land is the subject of a proposal to rezone and develop the land for residential use.

The study site is currently utilised for agricultural purposes, and has been historically cleared of most native vegetation, with the understorey dominated by a mixture of introduced pasture species, and several areas of planted vegetation.

Native vegetation was identified by Ethos NRM to be present at the study site during the site assessment. The native vegetation comprised 44 Scattered Trees (*Eucalyptus* spp.), which were observed to be representative of the Ecological Vegetation Class (EVC) *Plains Grassy Woodland*, which is endangered in the Gippsland Plain bioregion. The native vegetation at the study site did not meet the definition of the EPBC listed *Gippsland Red Gum Grassy Woodland and Associated Native Grassland* ecological community.

No threatened species were recorded by Ethos NRM at the study site during the site assessment, and it is not expected that the native vegetation provides important habitat for threatened species (flora or fauna) which are known or likely to occur within 5km of the study site.

Removal of any of the Scattered Trees for the proposed development of the study site will require approval to remove native vegetation from Wellington Shire Council, and commensurate native vegetation offset, in accordance with the *Permitted clearing of native vegetation – biodiversity assessment guidelines* (DEPI, 2013a). Two additional native trees on Lot 7 PS702630 are fenced and protected by an existing Section 173 Agreement, and cannot be removed.

Subdivision design will be important in avoiding and minimising the quantity of native vegetation removal from the proposed development of the land. The number of trees to be removed will impact on the risk-based pathway determination for an application to remove native vegetation, and the resulting offset requirements to compensate for any proposed loss of native vegetation (resulting from direct and indirect impacts).

The DEPI *Native Vegetation Information Management (NVIM)* on-line tool (DEPI, 2014c) identifies the entire study site as being in **Location A** for determining the risk-based pathway. Therefore if less than 15 Scattered Trees are proposed for removal, an application to remove native vegetation will follow the **low-risk pathway**, whereas more than 15 Scattered Trees would require the **moderate-risk pathway** to be followed.

The **low-risk pathway** has far less onerous and costly assessment and reporting requirements associated with the application to remove native vegetation than the **moderate-risk pathway**. The **low-risk pathway** also requires offsets to be only in **General Biodiversity Equivalence Units**, whereas the **moderate-risk pathway** may require threatened species to be protected as part of the offset requirement (known as **Specific Biodiversity Equivalence Units**).

Offset requirements can also be minimised by ensuring that the highest quality vegetation is retained. The DEPI NVIM tool (DEPI, 2014c) identified that vegetation located in Lot 1 PS415183 and Crown Allotment 19 Section E have, on average, the highest modelled Habitat Scores and Strategic Biodiversity Scores, and hence would result in the highest offset requirements. Conversely, the removal of trees from Lots 6 and 7 on PS702630 and Lot 1 PS410216 would result in the lowest offset requirement per tree removed.

---

**ETHOS NRM**  
ENVIRONMENTAL, PLANNING & NATURAL RESOURCE MANAGEMENT CONSULTANTS



## 6 REFERENCES

- DEPI, 2013a. *Permitted clearing of native vegetation Biodiversity Assessment Guidelines*. Victorian Government Department of Environment and Primary Industries, Melbourne, May 2013.
- DEPI, 2013b. *Biodiversity Assessment Handbook*. Victorian Government Department of Environment and Primary Industries, Melbourne, September 2013.
- DEPI, 2014a. *Online Mapping - Biodiversity Interactive Map*. <http://www.dse.vic.gov.au/about-depi/interactive-maps> Viewed on 11/4/2014). Victorian Government Department of Environment and Primary Industries.
- DEPI, 2014b. *Native Vegetation Information* [www.depi.vic.gov.au](http://www.depi.vic.gov.au) Victorian Government Department of Environment and Primary Industries, Melbourne.
- DEPI, 2014c. *Native Vegetation Information Management online tool*. [www.depi.vic.gov.au](http://www.depi.vic.gov.au) Victorian Government Department of Environment and Primary Industries, Melbourne.
- DSE, 2004. *Vegetation Quality Assessment Manual – Guidelines for applying the habitat hectares scoring method. Version 1.3*. Victorian Department of Sustainability and Environment, Melbourne.
- DTPLI 2014. Planning Maps Online tool. <http://services.land.vic.gov.au/maps/pmo.jsp> Viewed 5/5/2014. Victorian Department of Planning, Transport and Local Infrastructure.
- SEWPAC 2014. EPBC on-line Protected Matters Search Tool, EPBC Protected Matters Report. Report created 5/5/2014.

## **7 APPENDICES**

### **7.1 Appendix 1: EPBC Protected Matters Search Report**



## EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 20/05/14 14:24:01

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are  
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[Coordinates](#)  
Buffer: 5.0Km



## Summary

### Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Areas:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	1
<a href="#">Listed Threatened Species:</a>	13
<a href="#">Listed Migratory Species:</a>	11

### Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As [heritage values](#) of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Land:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	13
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

<a href="#">Place on the RNE:</a>	26
<a href="#">State and Territory Reserves:</a>	2
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Invasive Species:</a>	36
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">Key Ecological Features (Marine)</a>	None

## Details

### Matters of National Environmental Significance

#### Wetlands of International Importance (RAMSAR) [\[ Resource Information \]](#)

Name	Proximity
<a href="#">Gippsland lakes</a>	Within Ramsar site

#### Listed Threatened Ecological Communities [\[ Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
<a href="#">Gippsland Red Gum (Eucalyptus tereticornis subsp. mediana) Grassy Woodland and Associated Native Grassland</a>	Critically Endangered	Community likely to occur within area

#### Listed Threatened Species [\[ Resource Information \]](#)

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat likely to occur within area
<b>Fish</b>		
<a href="#">Galaxiella pusilla</a> Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Prototroctes maraena</a> Australian Grayling [26179]	Vulnerable	Species or species



Name	Status	Type of Presence
habitat known to occur within area		
<b>Frogs</b>		
<a href="#">Litoria raniformis</a> Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828]	Vulnerable	Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
<a href="#">Potorous tridactylus tridactylus</a> Long-nosed Potoroo (SE mainland) [66645]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pseudomys novaehollandiae</a> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
<b>Plants</b>		
<a href="#">Prasophyllum correctum</a> Gaping Leek-orchid [64533]	Endangered	Species or species habitat likely to occur within area
<b>Listed Migratory Species</b>		<b>[ Resource Information ]</b>
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat likely to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

#### Other Matters Protected by the EPBC Act

##### Listed Marine Species [Resource Information]

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
<b>Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat likely to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat likely to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

### Extra Information

#### Places on the RNE [ [Resource Information](#) ]

Note that not all Indigenous sites may be listed.

Name	State	Status
<b>Natural</b>		
<a href="#">Gippsland Lakes Area</a>	VIC	Indicative Place
<a href="#">Lake Guthridge</a>	VIC	Indicative Place
<b>Historic</b>		
<a href="#">Australian Mutual Provident Society Building</a>	VIC	Indicative Place
<a href="#">Bishops Court</a>	VIC	Indicative Place
<a href="#">Colonial Club Hotel</a>	VIC	Indicative Place
<a href="#">Continuing Education Centre</a>	VIC	Indicative Place
<a href="#">Gables</a>	VIC	Indicative Place
<a href="#">King George V Jubilee Avenue</a>	VIC	Indicative Place
<a href="#">Mechanics Institute Group</a>	VIC	Indicative Place
<a href="#">Sale Cemetery</a>	VIC	Indicative Place
<a href="#">St Annes and Gippsland Grammar School</a>	VIC	Indicative Place
<a href="#">St Marys Cathedral Complex</a>	VIC	Indicative Place
<a href="#">St Patricks College</a>	VIC	Indicative Place
<a href="#">St Pauls Anglican Cathedral</a>	VIC	Indicative Place
<a href="#">Victoria Park</a>	VIC	Indicative Place
<a href="#">Victoria Park Water Towers</a>	VIC	Indicative Place
<a href="#">Cobb and Company Stables</a>	VIC	Registered
<a href="#">Criterion Hotel</a>	VIC	Registered
<a href="#">Fulham Park</a>	VIC	Registered
<a href="#">Grassdale Homestead</a>	VIC	Registered
<a href="#">Kilmany Park</a>	VIC	Registered
<a href="#">Our Lady of Sion Convent</a>	VIC	Registered
<a href="#">Powder Magazine</a>	VIC	Registered
<a href="#">Sale Canal</a>	VIC	Registered
<a href="#">Sale and District Museum</a>	VIC	Registered
<a href="#">Victoria Hall</a>	VIC	Registered

#### State and Territory Reserves [ [Resource Information](#) ]

Name	State
Herb Guyatt F.R.	VIC
Sale Common N.C.R.	VIC

#### Regional Forest Agreements [ [Resource Information](#) ]

Note that all areas with completed RFAs have been included.

Name	State
<a href="#">Gippsland RFA</a>	Victoria

## Invasive Species

## [ Resource Information ]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Acridotheres tristis</a> Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
<a href="#">Alauda arvensis</a> Skylark [656]		Species or species habitat likely to occur within area
<a href="#">Anas platyrhynchos</a> Mallard [974]		Species or species habitat likely to occur within area
<a href="#">Carduelis carduelis</a> European Goldfinch [403]		Species or species habitat likely to occur within area
<a href="#">Carduelis chloris</a> European Greenfinch [404]		Species or species habitat likely to occur within area
<a href="#">Columba livia</a> Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
<a href="#">Passer domesticus</a> House Sparrow [405]		Species or species habitat likely to occur within area
<a href="#">Passer montanus</a> Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
<a href="#">Streptopelia chinensis</a> Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
<a href="#">Sturnus vulgaris</a> Common Starling [389]		Species or species habitat likely to occur within area
<a href="#">Turdus merula</a> Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
<a href="#">Turdus philomelos</a> Song Thrush [597]		Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Bos taurus</a> Domestic Cattle [16]		Species or species habitat likely to occur within area
<a href="#">Canis lupus familiaris</a> Domestic Dog [82654]		Species or species habitat likely to occur within area
<a href="#">Capra hircus</a> Goat [2]		Species or species habitat likely to occur within area
<a href="#">Felis catus</a> Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area



Name	Status	Type of Presence
<a href="#">Lepus capensis</a> Brown Hare [127]		Species or species habitat likely to occur within area
<a href="#">Mus musculus</a> House Mouse [120]		Species or species habitat likely to occur within area
<a href="#">Oryctolagus cuniculus</a> Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
<a href="#">Rattus norvegicus</a> Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
<a href="#">Rattus rattus</a> Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
<a href="#">Sus scrofa</a> Pig [6]		Species or species habitat likely to occur within area
<a href="#">Vulpes vulpes</a> Red Fox, Fox [18]		Species or species habitat likely to occur within area
<b>Plants</b>		
<a href="#">Asparagus asparagoides</a> Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
<a href="#">Carrichtera annua</a> Ward's Weed [9511]		Species or species habitat may occur within area
<a href="#">Chrysanthemoides monilifera</a> Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
<a href="#">Chrysanthemoides monilifera subsp. monilifera</a> Boneseed [16905]		Species or species habitat likely to occur within area
<a href="#">Cytisus scoparius</a> Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
<a href="#">Genista monspessulana</a> Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
<a href="#">Genista sp. X Genista monspessulana</a> Broom [87538]		Species or species habitat may occur within area
<a href="#">Lycium ferocissimum</a> African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
<a href="#">Nassella trichotoma</a> Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
<a href="#">Olea europaea</a> Olive, Common Olive [9160]		Species or species habitat may occur within area
<a href="#">Rubus fruticosus aggregate</a> Blackberry, European Blackberry [88408]		Species or species habitat likely to occur within area



Name	Status	Type of Presence
<a href="#">Salix spp. except S. babylonica, S. x calodendron &amp; S. x reichardtii</a> Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
<a href="#">Ulex europaeus</a> Gorse, Furze [7693]		Species or species habitat likely to occur within area
<b>Nationally Important Wetlands</b>		<b>[Resource Information]</b>
Name		State
<a href="#">Lake Wellington Wetlands</a>		VIC

## Coordinates

-38.11587 147.02687

## Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World Heritage and Register of National Estate properties, Wetlands of International Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

## Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [Department of Environment, Climate Change and Water, New South Wales](#)
- [Department of Sustainability and Environment, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment and Natural Resources, South Australia](#)
- [Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [Environmental and Resource Management, Queensland](#)
- [Department of Environment and Conservation, Western Australia](#)
- [Department of the Environment, Climate Change, Energy and Water](#)
- [Birds Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- [Natural history museums of Australia](#)
- [Museum Victoria](#)
- [Australian Museum](#)
- [SA Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Atherton and Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [State Forests of NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

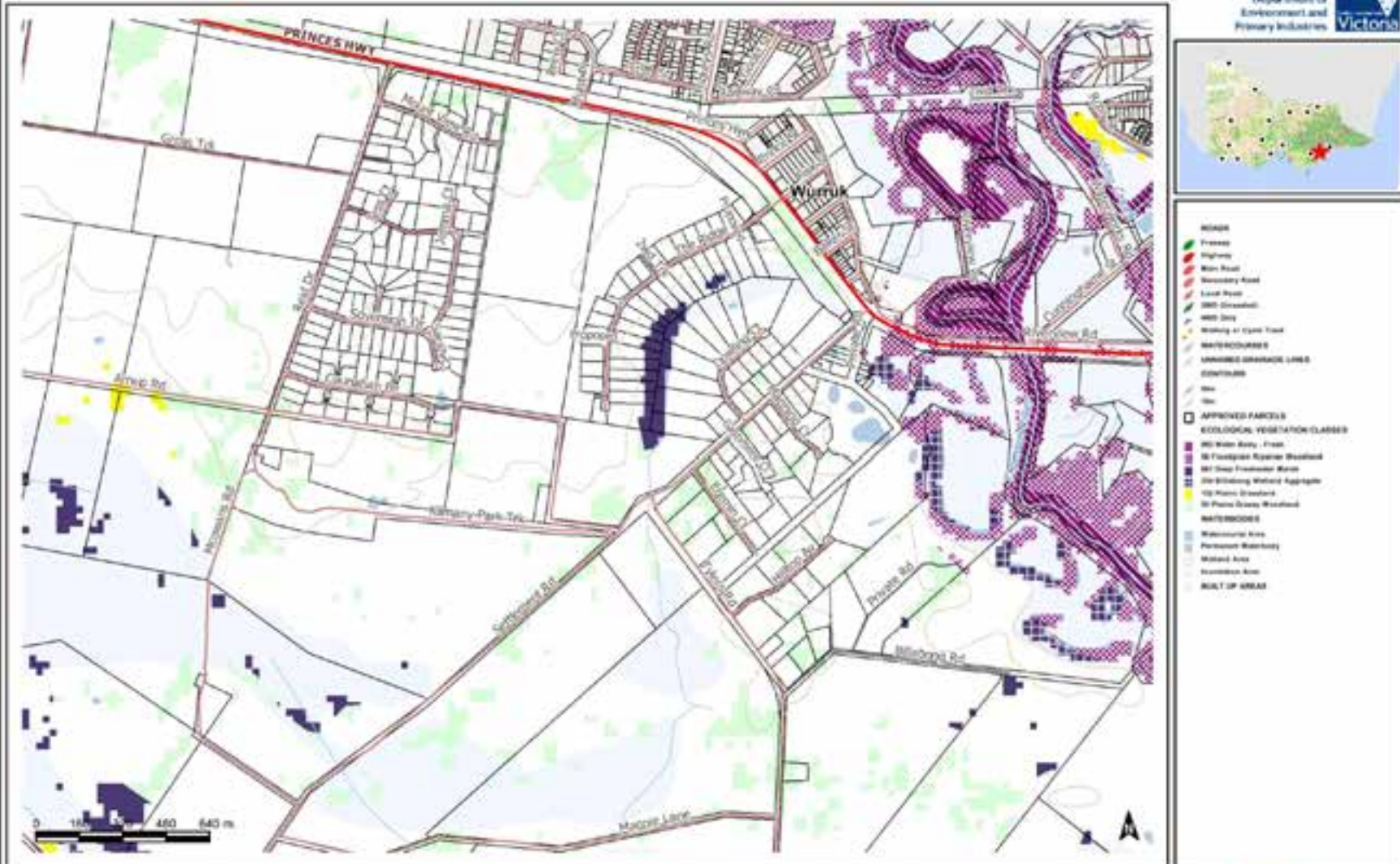
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## 7.2 Appendix 2: DEPI EVC Mapping



Map created Mon May 05 16:56:09 EST 2014



Department of Environment and Primary Industries  
Victoria



- ROADS**
- Freeway
- Highway
- Main Road
- Secondary Road
- Local Road
- 200' Clearance
- 400' Clearance
- Working or Open Road
- WATERCOURSES**
- UNASSIGNED CHANNELS
- Channel
- Wet
- Other
- APPROVED PARCELS**
- ECOLOGICAL VEGETATION CLASSES**
- 90 Water Body - Fresh
- 92 Floodplain Riparian Woodland
- 93 Deep Freshwater Marsh
- 94 Shallow Wetland Riparian
- 95 Marsh Woodland
- 96 Fresh Grass Woodland
- WATERBODIES**
- Watercourse Area
- Perennial Waterbody
- Wetland Area
- Intermittent Area
- BUILT UP AREAS**

Disclaimer: This map is a map generated from Victorian Government data. This material may be of assistance to you but the State of Victoria does not guarantee that the information is without error or is wholly appropriate for your particular purposes and therefore disclaims all liability for error, loss or damage which may arise from reliance upon it. All persons accessing this information should make appropriate enquiries to assess the currency of the data.

Biodiversity Interactive Map A4 Landscape (c) The State of Victoria Department of Environment and Primary Industries 2014

Map Scale 1:18,221  
Produced on Mon May 05 16:56:18 EST 2014

GDA Victoria



### 7.3 Appendix 3: Scattered Tree Measurements and Locations

Tree No. refers to Appendix 4. \*denotes estimated DBH. GPS location accuracy  $\pm$  5m.

Parcel_ID	Tree No	category	dbh_cm	Tree_ret_zone_m	Easting_GDA	Northing_GDA
CA 19 E	14	Scattered tree	122	15	502133	5781289
CA 19 E	15	Scattered tree	98	12	501986	5781182
CA 19 E	16	Scattered tree	93	11	501962	5781144
CA 19 E	17	Scattered tree	129	15	501984	5781094
CA 19 E	18	Scattered tree	90*	11*	501663	5781286
CA 21 E	12	Scattered tree	90*	11*	502852	5781307
CA 21 E	13	Scattered tree	60*	7*	502989	5781203
Lot 1 PS410216	11	Scattered tree	80	10	502547	5781725
Lot 1 PS415183	19	Scattered tree	87	10	501942	5781050
Lot 1 PS415183	20	Scattered tree	25	3	501948	5781054
Lot 1 PS415183	21	Scattered tree	44	5	501952	5781054
Lot 1 PS415183	22	Scattered tree	89	11	501943	5781041
Lot 1 PS415183	23	Scattered tree	60	7	501967	5781055
Lot 1 PS415183	24	Scattered tree	147	18	501752	5781050
Lot 1 PS415183	25	Scattered tree	101	12	501737	5781004
Lot 1 PS415183	26	Scattered tree	158	19	501798	5781004
Lot 1 PS415183	27	Scattered tree	145	17	501830	5781021
Lot 1 PS415183	28	Scattered tree	125	15	501838	5781008
Lot 1 PS415183	29	Scattered tree	130	16	501882	5781013
Lot 1 PS415183	30	Scattered tree	68	8	501874	5780963
Lot 2 PS415183	31	Scattered tree	115	14	502276	5780512
Lot 2 PS415183	31	Scattered tree	125	15	502041	5780467
Lot 2 PS415183	32	Scattered tree	117	14	502220	5780471
Lot 2 PS415183	33	Scattered tree	111	13	502058	5780447
Lot 2 PS415183	35	Scattered tree	101	12	502068	5780647
Lot 2 PS415183	36	Scattered tree	102	12	502056	5780661
Lot 2 PS415183	37	Scattered tree	87	10	502020	5780598
Lot 2 PS415183	38	Scattered tree	94	11	501969	5780493
Lot 2 PS415183	39	Scattered tree	91	11	501920	5780434
Lot 2 PS415183	40	Scattered tree	104	12	501936	5780558
Lot 2 PS415183	41	Scattered tree	95	11	501892	5780641
Lot 2 PS415183	42	Scattered tree	70	8	501863	5780647
Lot 2 PS415183	43	Scattered tree	149	18	501866	5780726
Lot 2 PS415183	44	Scattered tree	129	15	501789	5780707
Lot 6 PS702630	1	Scattered tree	125	15	502711	5782449
Lot 6 PS702630	2	Scattered tree	80	10	502543	5781960
Lot 7 PS702630	n/a	Protected tree	n/a	n/a	502860	5782182
Lot 7 PS702630	n/a	Protected tree	n/a	n/a	502905	5782213
Lot 7 PS702630	3	Scattered tree	109	13	502695	5782269

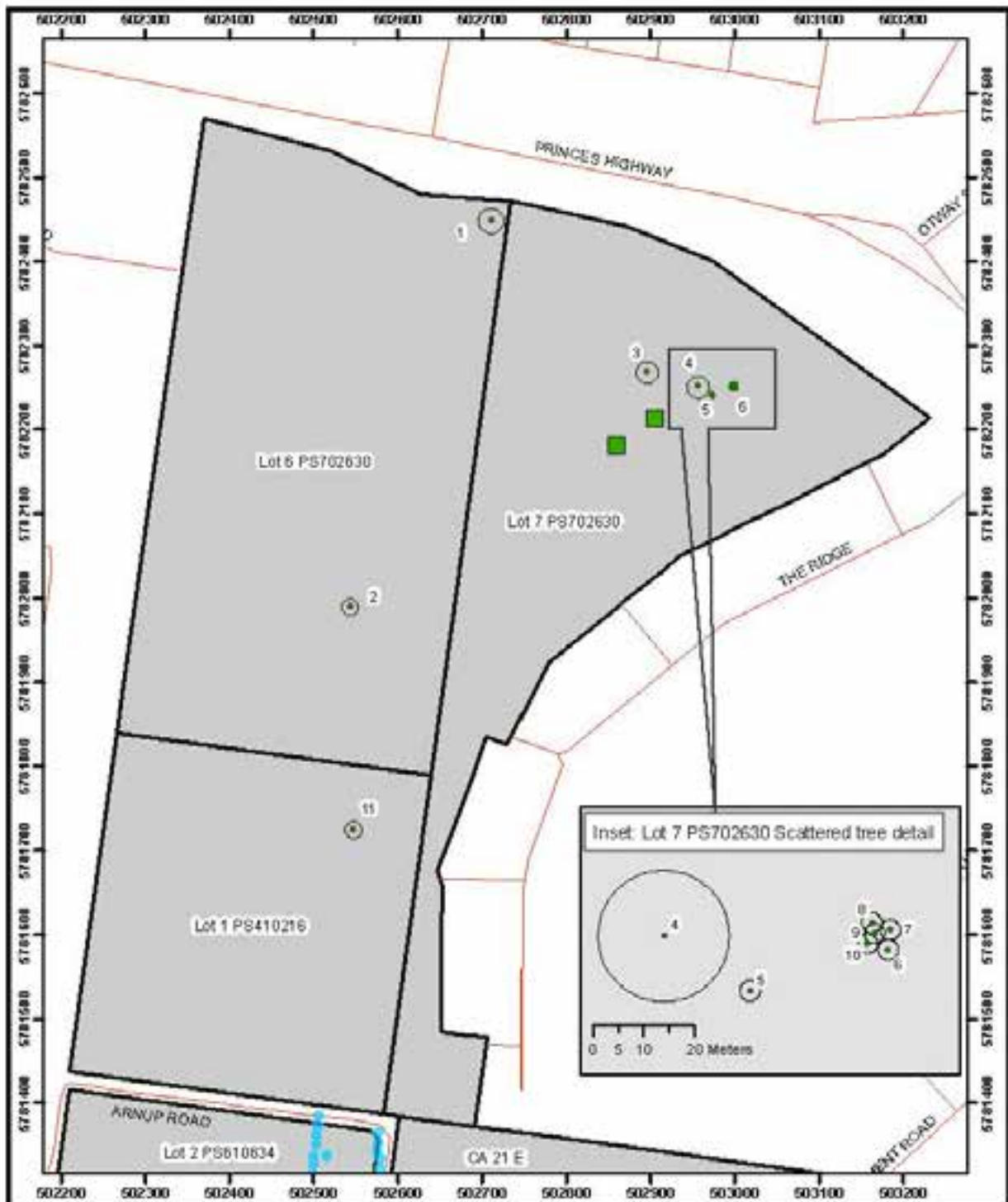
Parcel_ID	Tree No	category	dbh_cm	Tree_ret_zone_m	Easting_GDA	Northing_GDA
Lot 7 PS702630	4	Scattered tree	108	13	502955	5782252
Lot 7 PS702630	5	Scattered tree	19	2	502972	5782241
Lot 7 PS702630	6	Scattered tree	20	2	503000	5782249
Lot 7 PS702630	7	Scattered tree	20	2	503000	5782253
Lot 7 PS702630	8	Scattered tree	20	2	502997	5782254
Lot 7 PS702630	9	Scattered tree	20	2	502997	5782252
Lot 7 PS702630	10	Scattered tree	20	2	502996	5782250

**7.4 Appendix 4: Scattered Tree Locations and Tree Retention Zone Maps**

4A – Lots 6 & 7 PS702630 and Lot 1 PS410216

4B – Lot 2 PS610634, Crown Allotments 19 Section E and 21 Section E

4C – Lots 1 & 2 PS415183



Appendix 4A: Scattered Tree Locations and Tree Retention Zones - Lots 6 & 7 PS702630, Lot 1 PS410216

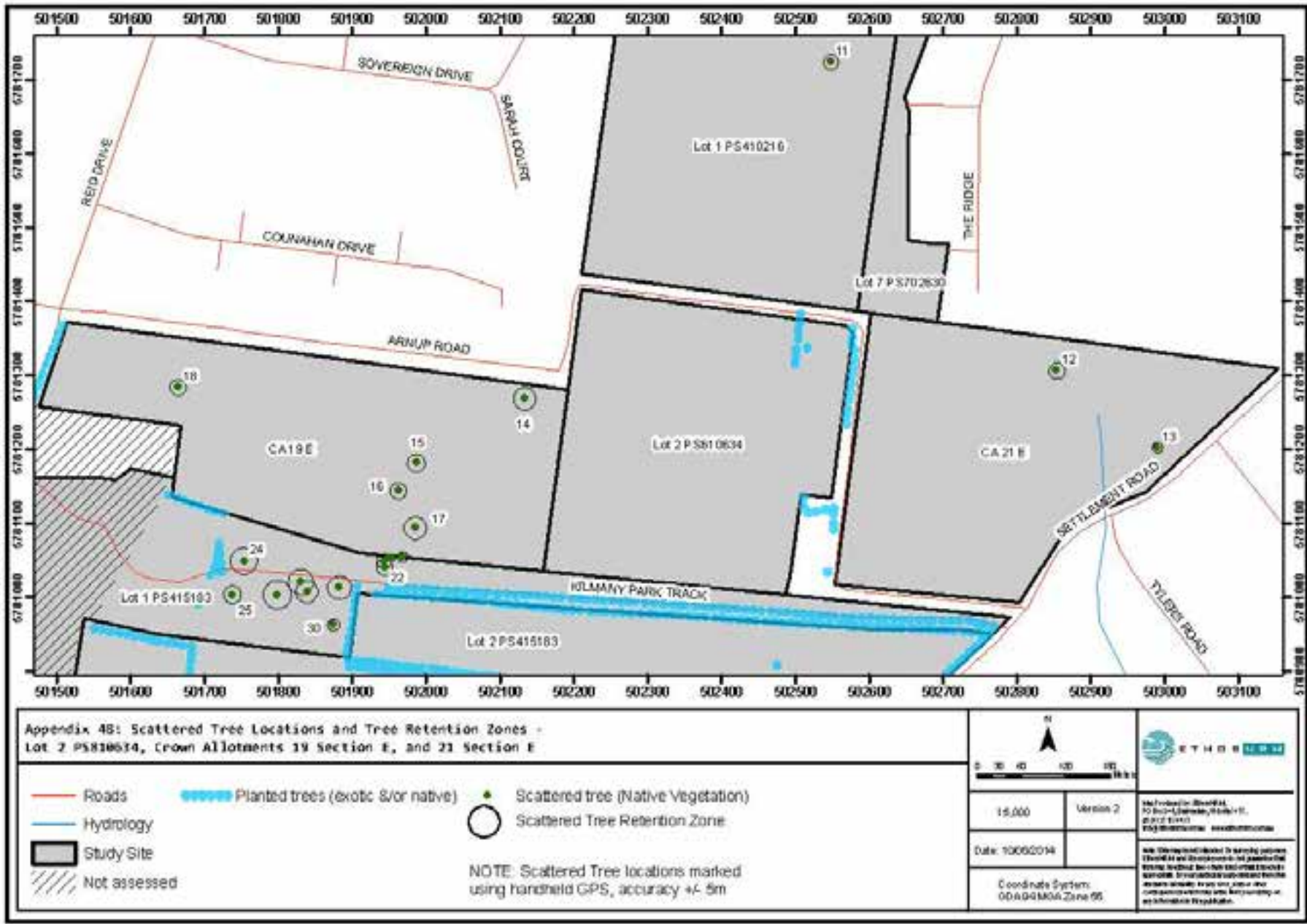
	Roads		Planted trees (exotic &/or native)
	Hydrology		Protected native tree (fenced)
	Study Site		Scattered tree (Native Vegetation)
	Not assessed		Scattered Tree Retention Zone

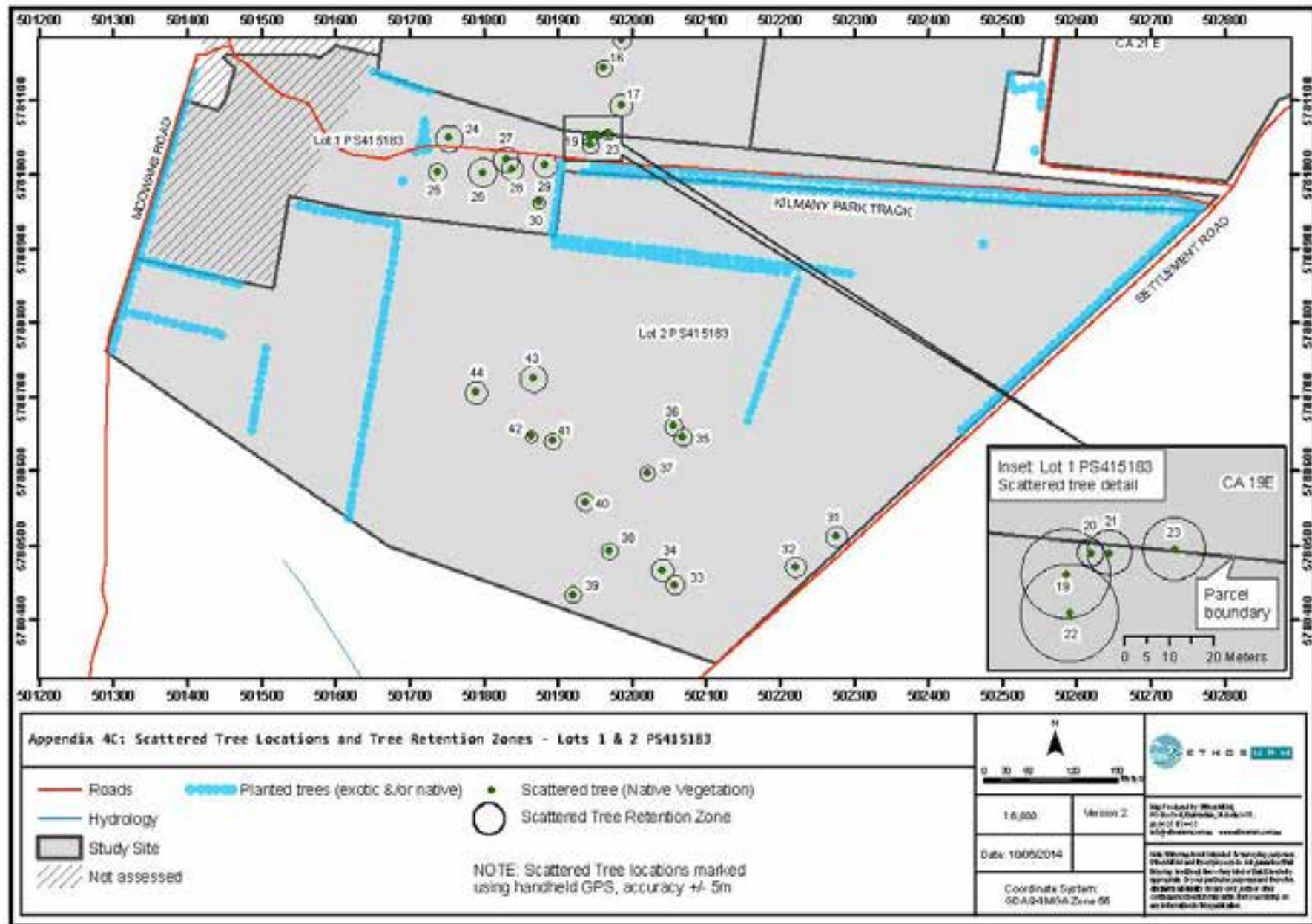
NOTE: Scattered Tree locations marked using handheld GPS, accuracy +/- 5m

10,000	Version 2
Date: 10/06/2014	
Coordinate System: GDA 94 MGA Zone 55	

 ETOR Environmental & Technical Resources
Map Produced: 08/10/14 Project No: 14000001, Phase 2/3 Drawn by: ETOR Project Manager: [Name]
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geoscience and environmental

Land Capability Assessment, Onsite Wastewater Management Plan and  
Concept System Designs for

**Proposed Rezoning  
Settlement Road  
Wurruk**

March 2016

**Important Notes:**

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## **Executive Summary**

Strata Geoscience and Environmental Pty Ltd was commissioned to perform a Planning Stage Land Capability Site Reconnaissance and Onsite Wastewater System Concept Designs for a proposed rezoning of land at Settlement Road Wurruk "the site" to a minimum lot size of 4000m<sup>2</sup>.

The investigation involved desktop research, field reconnaissance, geotechnical drilling, permeability testing and soil sampling for laboratory chemical analysis.

The investigation has found that secondary treatment of effluent with onsite disposal are suitable concept designs to support the application.

Suitable systems include:

- Approved commercially available AWTS system with minimum daily flow capacity of 1500L.

OR:

- Min 4000L dual purpose septic tank with outlet filter
- Min 22m<sup>2</sup> gravity dosed EPA endorsed sand filter (for 5 bed dwelling)
- Min 1000L pump well

Suitable land application area concept designs include:

- Min 420 m<sup>2</sup> of subsurface irrigation with appropriate buffer zones  
OR
- Min 90 m<sup>2</sup> trench/bed basal area.
- Provision for 50% reserve area (must remain free from development)

The investigation has found that the nominated land application area (LAA) derived from the water balance method is large given low permeability subsoils and high rainfall with low evaporation throughout the winter months. However given the minimum lot size of 4000 m<sup>2</sup> this investigation has concluded that:

- Adequate land area is available for sustainable long term land application of wastewater from residential dwellings, given the proposed rezoning.
- **If the prescriptions of this report are followed the likely human and environmental health risks associated with effluent disposal over the site is low.**

## **1. Introduction and Background**

### **1.1 Purpose of Report**

It is the objective of this report to assess the ability of the land to be used for sustainable on-site domestic wastewater management systems given a proposal for rezoning with minimum 4000m<sup>2</sup> lot size.

### **1.2 Background**

The proponents, Jelaryl P/L, have engaged Strata Geoscience & Environmental Pty Ltd to conduct a Land Capability Assessment in support of an application to Council.

### **1.3 Codes, Guidelines and Standards Referenced**

The investigation with reference to the following documents:

1. EPA Victoria (2013) Code of Practice for Onsite Wastewater Management
2. Australian Standard AS1547-2012 Onsite Wastewater Management

The investigation also follows the principles outlined in:

1. MAV & DSE 2006 (as amended) Model LCA Report
2. AS1728-1993 Geotechnical Site Investigations.

## 2. Description of the Proposed Development

Table 1 Site Description	
Site Address	Settlement Road Wurruk
Owner/Developer/Agent	Beveridge Williams
Address	As above
Authorities:	
Council Area	Wellington
Water Supply	Gippsland Water
Sewage	Gippsland Water
CMA	West Gippsland Catchment Management Authority
Zoning	FZ
Overlays	FO, HO, DDO, LSIO, AEO, DPO
Proposed Allotment Size	Min 0.4 Ha approx.
Proposed Domestic Water Supply	Onsite roof water collection
Anticipated Wastewater Load	1080 L/D (See Section 6)
Availability of Sewer	Unsewered and unlikely to be unsewered in mid term

## 3. Key Property Features

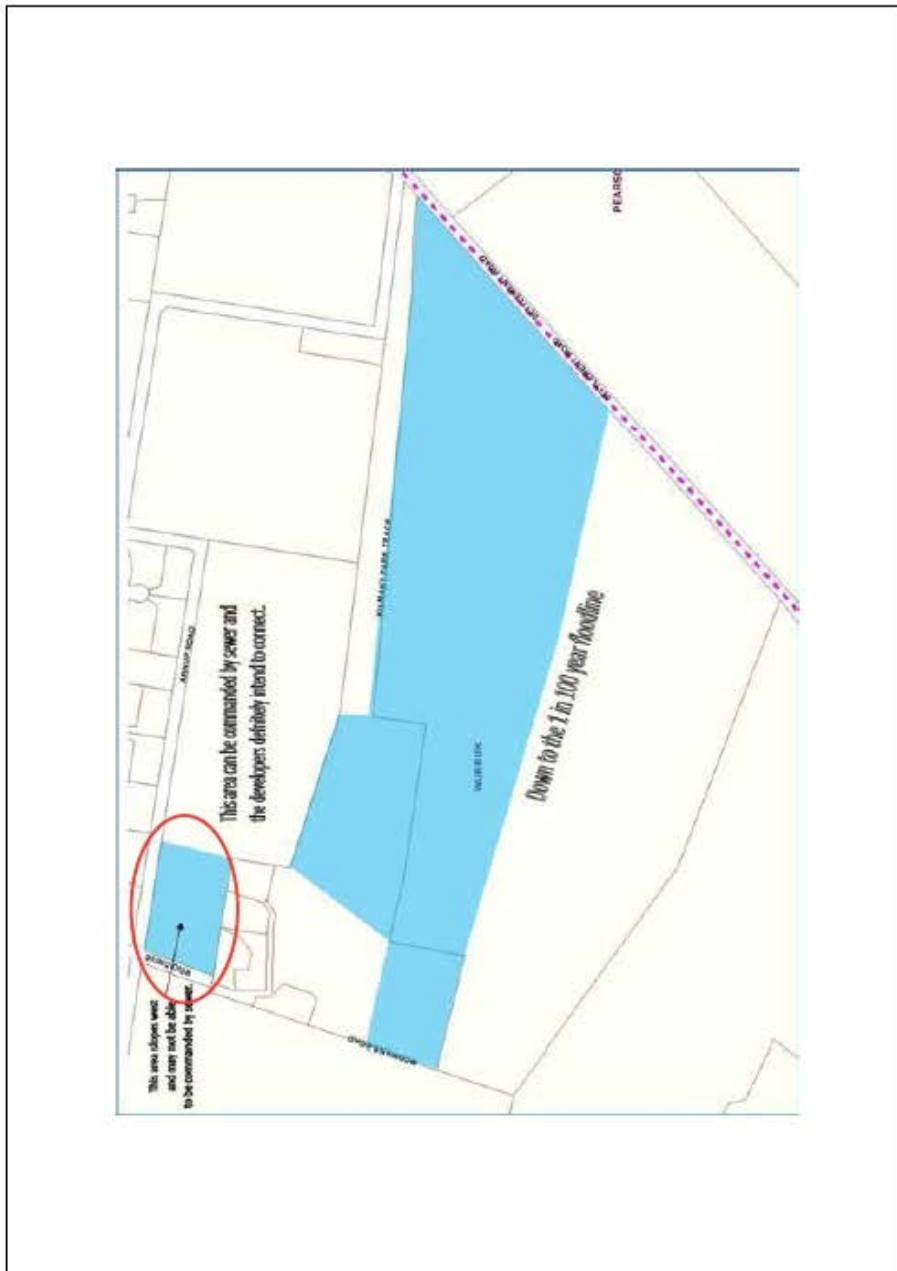
S Nielsen (MEngSc, CPSS-2) undertook a site investigation in March 2016. A range of soil and landscape features were assessed for their potential to impact upon land application area siting and level of wastewater treatment required over the site. Figures 1 & 2 give locality and site plans respectively whilst Table 2 summarises key features as in relation to effluent management over the site.

Figure 1 Locality Plan





**Figure 2 Aerial/Development Plan**



**Table 2 Site Features**

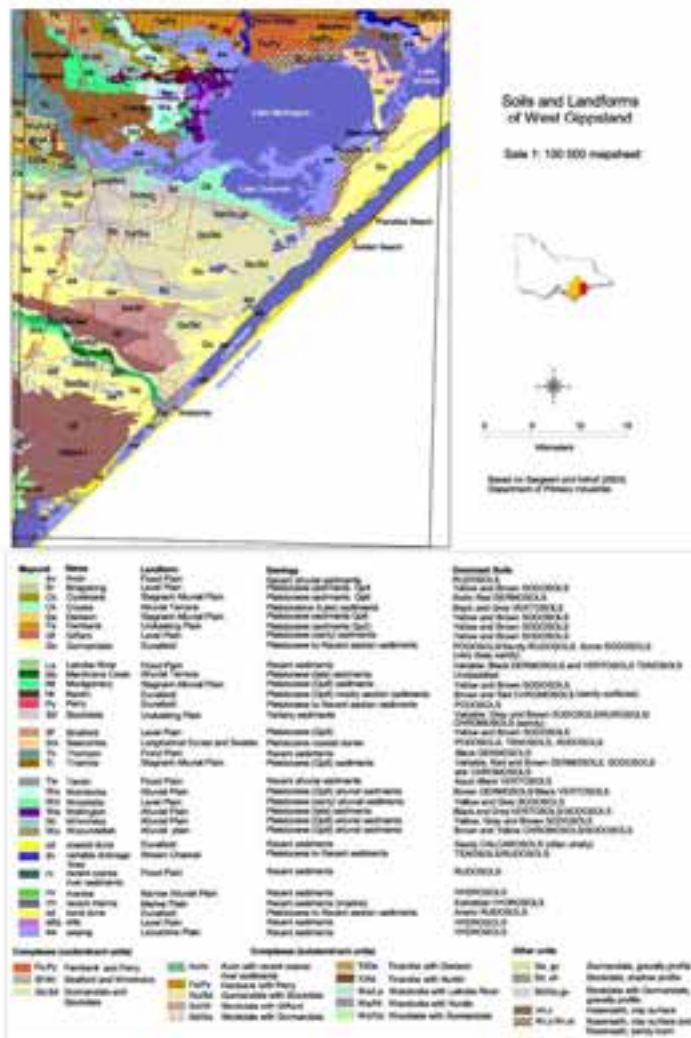
<b>Climate</b>	The nearest weather station with long term data is the Sale Station with a mean annual rainfall of 598.1 mm (BOM 2016) and no evaporation data. Sale Airport has the closest evaporation data. The region has a near Mediterranean climate with maximum temperatures and minimum rainfall in the summer.
<b>Exposure</b>	The site is relatively unshielded with exposure to winds which predominate from the NW/SW directions
<b>Vegetation</b>	Improved Pasture
<b>Landform</b>	Rolling Hills
<b>Slope</b>	Slight to moderate slopes
<b>Fill</b>	No fill evident
<b>Rocks and Rock Outcrops</b>	None evident
<b>Erosion Potential</b>	None observed
<b>Surface Water</b>	Several dams over site. Site not in a water catchment
<b>Flood Potential</b>	<1:100 AEP
<b>Site Drainage and Subsurface Drainage</b>	The site is likely to receive significant run on and shows signs of springs/Dams or other areas of ephemeral subsurface water retention. Given clay subsoils ephemeral perched watertables may exist in some areas of the site.
<b>Stormwater Run-on and Upslope Seepage</b>	Run on from slopes to flatter areas. Drainage likely required
<b>Groundwater</b>	
• <i>Permanent Groundwater Table</i>	Unknown, likely several metres below ground surface contained within fractured rock
• <i>Perched Watertables</i>	Flatter areas likely to suffer from seasonal perched water table given clay subsoils
• <i>Groundwater Quality</i>	Unknown, possible high TSS and saline
<b>Geology and Soils</b>	
• <i>Site Geology</i>	Pleistocene Sediments
• <i>Soil Classification (Isbell)</i>	Yellow, Brown and Grey Sodosols, Brown/Red Chromosols
<b>Recommended Buffer Distances</b>	Given the significant land area, all buffer distances as stipulated in EPA (2013) are achievable.
<b>Available Land Application Area</b>	There is surplus space to land application area requirements (including reserves).

### 3. Soil Assessment and Constraints

Soils have been assessed for their suitability for onsite wastewater management through both desktop review and intrusive field investigation.

#### 3.1 Published Soil Information

Reconnaissance land system mapping carried out by DEPI (2003) at a scale of 1:100,000, indicates the subject land is underlain by Yellow/Brown Sodosols and/or Brown/Red Chromosols weathering from Pleistocene aged sediments.



### 3.2 Soil Classification and Physical Properties

Field investigation consisted of drilling 20 soil bores using a Dando Terrier percussion drilling rig driving 50mm soil probes to 1.5m (or refusal on rock) with retrieval of undisturbed soil cores for logging, sampling and testing for pH, EC and Emmerson Aggregate Class using a handheld meter to measure 1:5 soil:water solutions.

Bore logs and soil permeability data/soil dispersion test results (where relevant) are presented in Appendix 2/4.

With reference to the classification system of Isbell (2002) soils are classified as either:

1. Yellow and Brown **Sodosols** - strong textural contrast into structured subsoils with a high exchangeable Sodium complex. Soils had duplex increases in texture with soils depth grading to silty clays/clayey silts to approximately 1500mmbgs. Soils are moderately structured and may show the existence of vertical macropores throughout drier periods, significantly increasing their unsaturated hydraulic conductivities. These soils will show a moderate cation exchange complex for the absorption of nutrients, are non dispersive and a slightly acidic pH trend.

<b>Table 3 Key Soil Characteristics - Sodosols</b>	
Soil Depth (m)	1.5m+ (variable)
Depth to Water Table (m)	2.5m+
Coarse Fragments (%)	0-5%
Soil Permeability and Design Loading Rates	Approximately 0.1m/d DIR of 3mm/d suitable

	<b>Topsoils (A1-A3)</b>	<b>Subsoils (B1-B3)</b>
Description	Clayey SAND (SC)	Silty CLAYS (CL/CH)
Soil Category (AS1547-2012)	1	5
DIR (mm/d)/DLR (L/D) (Secondary Effluent)	4.5/30	3/12
Colour	Brown	Yellow
Mottling	Absent	Present
pH (units)	4.5	5.1
EC (microsiemens/cm)	33	68
Emmerson Class (units)	8	5
CEC (meq/100g)	5	20
ESP (%)	1	6
SAR	20	80



2. Red/Brown **Chromosols** – Weaker textural contrast, low- to moderate CEC grading to clayey sands with quartz rock inclusions. These soils will show a low to moderate cation exchange complex for the absorption of nutrients, are non dispersive and a slightly acidic pH trend.

Table 4 Key Soil Characteristics – Chromosols	
Soil Depth (m)	1.0m+ (variable- auger refusal in quartz gravels)
Depth to Water Table (m)	2.5m+
Coarse Fragments (%)	25%
Soil Permeability and Design Loading Rates	Approximately 0.75m/d DIR of 3.5mm/d suitable

	Topsoils (A1-A3)	Subsoils (B1-B3)
Description	Clayey SAND (SC)	SANDS (SW/SP)
Soil Category (AS1547-2012)	4	2
DIR (mm/d)/DLR (L/D) (Secondary Effluent)	4.5/30	5/50
Colour	Brown	Red
Mottling	Absent	Absent
pH (units)	4.5	5.1
EC (microsiemens/cm)	49	47
Emmerson Class (units)	8	8
CEC (meq/100g)	0.84	2.5
ESP (%)	1	6
SAR	29	7.5

#### **4. Land Capability Assessment Matrix**

Referring to MAV & DSE (2006) and EPA Victoria Publication 746.1 Land Capability Assessment (LCA) for Onsite Domestic Wastewater Management, the following LCA assessment table has been produced for the site:

LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk

<b>Table 5: Risk Assessment of Site Characteristics (MAV, DEPI, EPA 2014)</b>				
<b>Characteristic</b>	<b>Level of Constraint</b>			<b>Assessed Level of Constraint for Site and Mitigation if required</b>
	<b>Nil or Minor</b>	<b>Moderate</b>	<b>Major</b>	
<b>Aspect (affects solar radiation received)</b>	North / North-East / North-West	East / West / South-East / South-West	South	Moderate
<b>Climate (difference between annual rainfall and pan evaporation)</b>	Excess of evaporation over rainfall in the wettest months	Rainfall approximates to evaporation	Excess of rainfall over evaporation in the wettest months	Moderate
<b>Erosion <sup>1</sup> (or potential for erosion)</b>	Nil or minor	Moderate	Severe	Moderate
<b>Exposure to sun and wind</b>	Full sun and/or high wind or minimal shading	Dappled light	Limited patches of light and little wind to heavily shaded all day	Minor
<b>Fill <sup>2</sup> (imported)</b>	No fill or minimal fill, or fill is good quality topsoil	Moderate coverage and fill is good quality	Extensive poor quality fill and variable quality fill	Minor
<b>Flood frequency (ARI) <sup>3</sup></b>	Less than 1 in 100 years	Between 100 and 20 years	More than 1 in 20 years	Minor – above 1:100
<b>Groundwater bores <sup>4</sup></b>	No bores onsite or on neighbouring properties	Setback distance from bore complies with requirements in EPA Code of Practice 891.3 (as amended)	Setback distance from bore does not comply with requirements in EPA Code of Practice 891.3 (as amended)	Minor

LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk

Characteristic	Level of Constraint			Assessed Level of Constraint for Site and Mitigation if required
	Nil or Minor	Moderate	Major	
Land area available for LAA	Exceeds LAA and duplicate LAA and buffer distance requirements	Meets LAA and duplicate LAA and buffer distance requirements	Insufficient area for LAA	Minor
Landslip (or landslip potential) <sup>5</sup>	Nil	Minor to moderate	High or Severe	Minor
Rock outcrops (% of surface)	<10%	10-20%	>20%	Minor
Slope Form (affects water shedding ability)	Convex or divergent side-slopes	Straight side-slopes	Concave or convergent side-slopes	Minor
<b>Slope gradient<sup>6</sup> (%)</b>				
(a) for absorption trenches and beds	<6%	6-15%	>15%	Minor
(b) for surface irrigation	<6%	6-10%	>10%	Minor
(c) for subsurface irrigation	<10%	10-30%	>30%	Minor
Soil Drainage <sup>7</sup> (qualitative)	No visible signs or likelihood of dampness, even in wet season	Some signs or likelihood of dampness	Wet soil, moisture-loving plants, standing water in pit, water ponding on surface, soil pit fills	Minor

LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk

Characteristic	Level of Constraint					Assessed Level of Constraint for Site and Mitigation if required
	Nil or Minor		Moderate	Major		
Stormwater run-on	Low likelihood of stormwater run-on			High likelihood of inundation by stormwater run-on		Minor
Surface waters - setback distance (m) *	Setback distance complies with requirements in EPA Code of Practice 891.3 (as amended)			Setback distance does not comply with requirements in EPA Code of Practice 891.3 (as amended)		Minor – 30m upslope setback
Vegetation coverage over the site	Plentiful vegetation with healthy growth and good potential for nutrient uptake		Limited variety of vegetation		Sparse vegetation or no vegetation	Moderate
Characteristic	Level of Constraint					Assessed Level of Constraint for Site and Mitigation if required
	Nil or Minor		Moderate	Major		
Soil Drainage * (Field Handbook definitions)	Rapidly drained. Water removed from soil rapidly in relation to supply, excess water flows downward rapidly. No horizon remains wet for more than a few hours after addition	Well drained. Water removed from the soil readily, excess flows downward. Some horizons may remain wet for several days after addition	Moderately well drained. Water removed somewhat slowly in relation to supply, some horizons may remain wet for a week or more after addition	Imperfectly drained. Water removed very slowly in relation to supply, seasonal ponding, all horizons wet for periods of several months, some mottling	Poorly/Very poorly drained. Water remains at or near the surface for most of the year, strong gleying. All horizons wet for several months	Moderate



LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk

Table 6: Risk Assessment of Soil Characteristics				
Characteristic	Level of Constraint			Assessed Level of Constraint for Site and Mitigation if required
	Nil or Minor	Moderate	Major	
Electrical Conductivity (ECe) (dS/m) as a measure of soil salinity <sup>1</sup>	<0.8	0.8 - 2	>2	Minor
Emerson Aggregate Class (consider in context of sodicity)	4, 5, 6, 8	7	1, 2, 3	Minor
Gleying <sup>2</sup> (see Munsell Soil Colour Chart)	Nil	Some evidence of greenish grey / black or bluish grey / black soil colours	Predominant greenish grey / black, bluish grey / black colours	Minor
Mottling (see Munsell Soil Colour Chart)	Very well to well-drained soils generally have uniform brownish or reddish colour	Moderately well to imperfectly drained soils have grey and/or yellow brown mottles and in the mottled areas occur higher in the profile the less well-drained the soil	Poorly drained soils have predominant grey colours with yellow brown or reddish brown mottles located along root channels, large pores and cracks	Minor
pH <sup>3</sup> (favoured range for plants)	5.5 - 8 is the optimum range for a wide range of plants, 4.5 - 5.5 suitable for many acid-loving plants		<4.5, >8	Minor

*LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk*

Characteristic	Level of Constraint			Assessed Level of Constraint for Site and Mitigation if required
	Nil or Minor	Moderate	Major	
Rock Fragments (size & volume %)	0 – 10%	10 – 20 %	>20%	Moderate
Sodicity <sup>4</sup> (ESP %)	<6%	6 – 8%	>8%	Minor
Soil Depth to Rock or other impermeable layer (m) <sup>3</sup>	>1.5 m	1.5 – 1 m	<1 m	Moderate
Soil Structure (pedality)	Highly or Moderately structured	Weakly-structured	Structureless, Massive or hardpan	Minor
Soil Texture, <sup>4</sup> Indicative Permeability	Cat. 2b, 3a, 3b, 4a	Cat. 4b, 4c, 5a	Cat. 1, 2a, 5b, 5c, 6	Moderate
Watertable Depth (m) below the base of the LAA	>2 m	2 – 1.5 m	<1.5 m	Moderate

**Legend:**

Nil or Minor: If all constraints are minor, conventional/standard designs are generally satisfactory.

Moderate: For each moderate constraint an appropriate design modification over and above that of a standard design, should be outlined.

Major: Any major constraint might prove an impediment to successful on-site wastewater management, or alternatively will require in-depth investigation and incorporation of sophisticated mitigation measures in the design to permit compliant onsite wastewater management.

#### **4.2 Land Capability Constraints**

Qualitative LCA matrix have identified the following site constraints:

- **Low permeability soils**
- **Possible high seasonal water tables and waterlogged soils**
- **Climate**
- **Soil Texture**
- **Potential erosion**
- **Aspect**
- **Drainage**
- **Rock Fragments**

Given the above secondary treatment is deemed appropriate for the site.

Please refer to See Section 6 and Appendices for specific system recommendations.

## 5. Proposed Onsite Wastewater System Concept Designs and Management Plan

### 5.1 General System Recommendations

Given the results of the LCA, the following recommendations are made for a suitable wastewater treatment system:

- That secondary treatment of effluent with appropriate land application design is suitable given site constraints

Adoption of designs considering these recommendations will limit the public and environmental health risks associated with effluent treatment and disposal over the site and provide for a sustainable long term solution to effluent treatment and land application.

### 5.2 Onsite Wastewater Flow and Land Application Area Modelling

#### 5.2.1 Flow and Land Application Area Requirement

The modelling below allows for the construction of a wastewater system to service a 5 bedroom equivalent dwelling with provision for future mains water availability and standard water savings fixtures and a design flow allowance under EPAV 2013 of 180 L per person per day. Therefore the calculated effluent flows and required disposal area is as follows:

<b>Wastewater System Modeling</b>	
Proposed Number of Bedrooms	5
Number of Equivalent Persons (EP)	6
Water Source (Tank/Reticulated Mains)	R
Water Saving Fixtures (None/Standard/Full)	S
Total Daily Loading	1080
Soil Category (AS1547-2012)	5
Indicative Permeability (m/d)	1
Design Irrigation Rate/ Design Loading Rate (DIR/DLR)	3.5
Required Effluent Disposal Area (m <sup>2</sup> )	309

As a result of these calculations, at least **309 m<sup>2</sup>** of area is required dispose of these flows on a daily basis via subsurface irrigation

#### 5.2.2 Water Balance and Land Application Area Modelling

Please refer to Appendix 2 for the water balance modelling for each lot based upon VLCAF (2013). The nominated area method is used to calculate the area required to balance all inputs and outputs, without the need for wet weather storage. As a result of these calculations, at least 420 m<sup>2</sup> of area is required to achieve zero wet weather storage.

#### 5.2.3 Nutrient Balance and Land Application Area Modelling

Please refer to Appendix 2 for the nutrient balance modelling (Nitrogen and Phosphorus) for each lot based upon VLCAF (2013). The methodology aims to ensure that the LAA is of sufficient size to ensure all nutrients from the applied effluent are assimilated by soils and vegetation. As a result of these calculations, at least 358 m<sup>2</sup> of area is required to achieve sustainable assimilation of N and P over the nominated system design life.

**BASED UPON THE ABOVE MODELLING THE MAXIMUM MODELLED  
LAA REQUIREMENT IS 420 m<sup>2</sup> FOR SECONDARY TREATED EFFLUENT  
BASED UPON THE WATER BALANCE MODEL.**

#### 5.2.4 Mound/Bed/Trench Area Sizing

Based upon Trench/Bed Area Sizing Spreadsheet (EPA 2013) the modelled loading would require 90 m<sup>2</sup> of bed/mound basal area based upon loading secondary treated effluent into Category 4 clay loams.

#### 5.2.5 Wastewater BOD

Based upon a loading of 60 g BOD/person/day under EPAV 2013 maximum daily influent BOD would be 360 g BOD/day.

#### 5.2.6 Alternative Loadings and LAA Modelling

Given that the water balance model produces the most conservative LAA, it has been used to calculate the subsurface drip irrigation area for a range of



loadings based upon the "Number of bedrooms plus 1" model at 180L/person/day. Results are detailed in Table 6 below:

Table 6 LAA Requirement for Various Dwelling Sizes		
Number of Bedrooms	Theoretical Loading (L/day)	Required LAA (m <sup>2</sup> of irrigation)
3	720	280
4	900	350
5	1080	420
6	1260	490
7	1440	560

### 5.3 Proposed System Concept Designs

#### 5.3.1 Treatment Systems

Given the above modelling the following treatment system would be appropriate:

- Min DN100 gravity fed sewer pipe
- Approved commercially available AWTS system with minimum daily flow capacity of 1500L.

OR:

- Min 4000L dual purpose septic tank with outlet filter
- Min 22m<sup>2</sup> gravity dosed EPA endorsed sand filter (for 5 bed dwelling)
- Min 1000L pump well

#### 5.3.2 Land Application Areas

- Min 420 m<sup>2</sup> of subsurface irrigation with appropriate buffer zones

OR:

- Min 90m<sup>2</sup> trench/bed basal area.
- Provision for 50% reserve area (must remain free from development)
- Interceptor drainage where necessary

### 5.3.3 Provision of Adequate Setback Distances and Reserve Area

Given the minimum land application areas modelled above combined with the current development plan, setback distances complying with the minimum requirements of EPA Vic (2013) are achievable (see Figure 2 and Appendix 4). Further more there is adequate room for the modelled reserve requirements as modelled above.

### 5.4 Monitoring, Operation and Maintenance

It is imperative that regular servicing of the AWTS unit compliant with the prescriptions of the manufacturer and Council permit occur.

To ensure that the treatment system functions adequately and provides effective treatment and disposal of effluent over its design life, asset owners have the following responsibilities:

- Suitably qualified maintenance contractors must be engaged to service the AWTS every three months, as required by Council under the approval to operate.
- Keep as much fat and oil out of the system as possible; and
- Conserve water.

To ensure that the land application area (LAA) functions adequately and provides effective treatment and disposal of effluent over its design life, asset owners have the following responsibilities:

- Irrigation areas should be checked regularly to ensure that effluent is draining freely, including flushing of irrigation lines and cleaning of inline filters
- All vehicles, livestock and large trees should be excluded from around the irrigation area.
- Low sodium/phosphorous based detergents should be used to increase the service life of irrigation area.
- Regularly harvest (mow) vegetation within the LAA and remove this to

maximise uptake of water and nutrients;

- Not to erect any structures over the LAA;
- Ensure that the LAA is kept level by filling any depressions with good quality topsoil (not clay).

Excessive surface dampness, smell or growth of vegetation around the LAA may indicate sub-optimal performance and professional advice should be sought.

#### 5.5 Stormwater Management

Stormwater flows are to be captured and diverted around any land application area. Given the variable slopes of the site combined with low permeability clay soils, interceptor drainage or barrier diversion of stormwater or surface/subsurface water will likely be required on a lot specific basis.

It is further recommended that:

- adequate capture and reticulation of stormwater to approved discharge points is achieved
- rainwater capture be a part of the design of the future dwellings and buildings, with the aim of supplying at least the toilet cisterns and laundry with rainwater, with the excess rainwater from the tanks going to a soak trench(es) appropriately sized via the Australian rainfall and runoff method.
- An integrated communal stormwater management system following water sensitive urban design principals be installed for the entire proposed subdivision.

## 6. Conclusions and Further Recommendations

In conclusion the following comments and recommendations are made:

- The LCA has found that the site is suitable for secondary effluent disposal.
- The maximum wastewater flow rate (MWWF) modelling shows that the generated flows from the proposed 5 bedroom equivalent dwelling is likely to be no more than 1080 L/day.
- Modelled flows will likely require a land application area comprising:
  - Min 420 m<sup>2</sup> of irrigation derived from the water balance

OR

- Min 90m<sup>2</sup> trench/bed basal area
- Provision for min 50% reserve area (must remain free from development)
- It is likely that peak flows associated with the modelled development on each 4000m<sup>2</sup> lot should be within the buffering capacity of proposed systems both in terms of the system sizing as well as for their acceptance into the disposal area.
- Given the proposed lot size of 0.4 ha adequate setback distances and reserve provisions can be met.
- It is likely that bulk earthworks and drainage installation associated with development proposal will alter conditions of the site and as a result the recommendations of this report **MUST** be reconfirmed after these works have occurred. Stormwater diversion or interceptor drain installation may be appropriate at this time.

*LCA, Onsite Wastewater Management Plan and Concept System Designs for  
Proposed Rezoning Settlement Road Wurruk*

- **If the prescriptions of this report are followed the likely human and environmental health risks associated with effluent disposal over the site is low.**



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## 7. References

- AS1726-1993- Geotechnical Site Investigations
- AS 1547-2012 Onsite Wastewater Disposal
- Bureau of Meteorology Website- Monthly Climate Statistics
- EPA (2013) Vic Code of Practice for Onsite Wastewater Management
- MAV & DSE 2006 (as amended) Model LCA Report
- VLCAF (2013) Victorian Land Capability Assessment Framework – Calculation of Water and Nutrient Balances
- Isbell (2002) Australian Soil Classification (Revised Edn) CSIRO Publishing

Appendix 1 Water and Nutrient Balance Method Calculations (after  
VLCAF 2013)

Irrigation area sizing using Nominated Area Water Balance & Storage Calculations																																																																																																	
Site Address:		Settlement Road Wurruk																																																																																															
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Irrigation Water Flow: 0.0 L/s Design Irrigation Area: 200 m <sup>2</sup> Nominated Land Application Area: 0.0 m <sup>2</sup> Crop Factor: 0.0 Annual Rainfall Factor: 0.0 Mean Monthly Rainfall Data: 0.0 mm Mean Monthly Max P-precipitation Data: 0.0 mm																																																																																																	
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Daily P Load	5	Daily P Load	kg/ha	100	100	100	100	100	100	100	100	100	100	100	100	1200																																																																																																																			
Daily P Uptake	6	Daily P Uptake	kg/ha	100	100	100	100	100	100	100	100	100	100	100	100	1200																																																																																																																			
Assumed P-uptake capacity	7	Assumed P-uptake capacity	kg/ha	100	100	100	100	100	100	100	100	100	100	100	100	1200																																																																																																																			
Site P-uptake capacity	8	Site P-uptake capacity	kg/ha	100	100	100	100	100	100	100	100	100	100	100	100	1200																																																																																																																			
P need to be added	9	P need to be added	kg/ha	100	100	100	100	100	100	100	100	100	100	100	100	1200																																																																																																																			

LCA and Onsite Wastewater Management Plan and System Design for  
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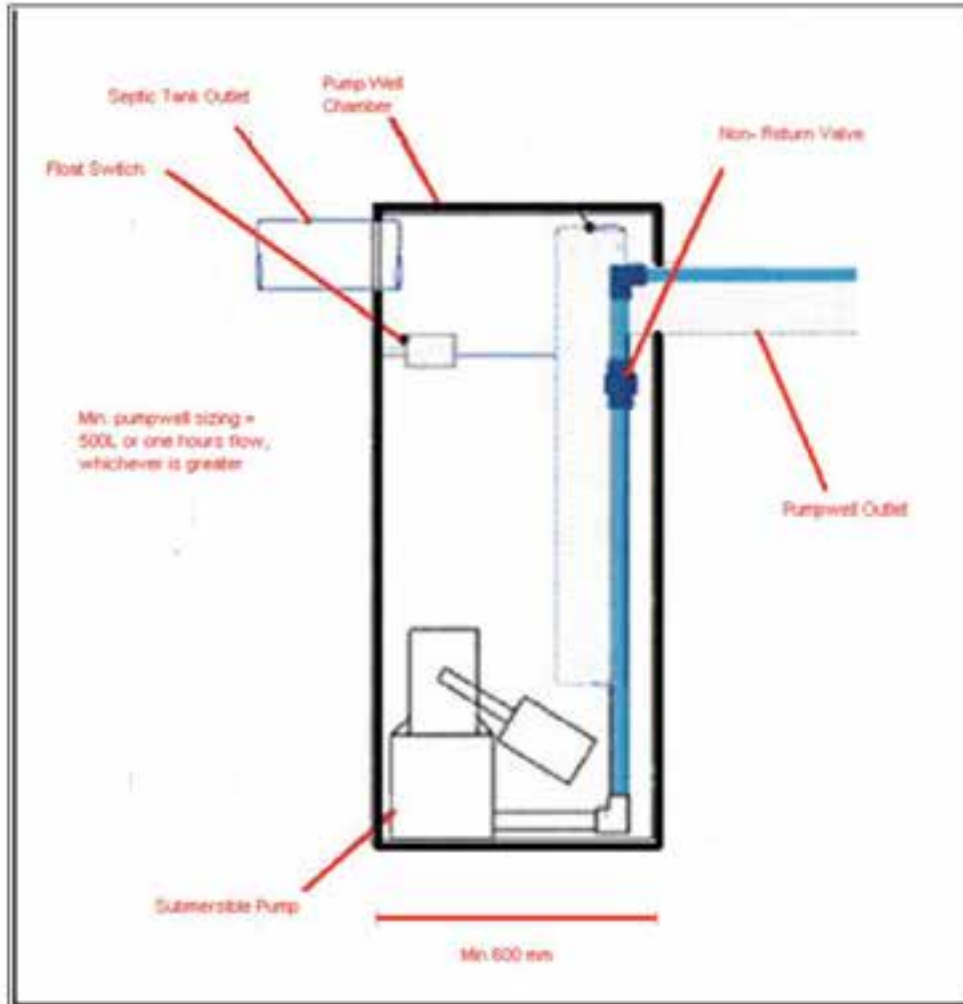
VLCAF Trench & Bed Sizing				
<b>FORMULA FOR TRENCH AND BED SIZING</b>				
$L = QDCR \times W$				
From AS/NZS 1547:2012				
<b>Where:</b>				
L = Trench or bed length	m		Total trench or bed length required	
Q = Design Wastewater Flow	L/day		Based on maximum potential occupancy and derived from Table 4 in the EPA Code of Practice (2011)	
DCR = Design Loading Rate	mm/day		Based on soil texture (silt permeability) and derived from Table 5 in the EPA Code of Practice (2011)	
W = Trench or bed width	m		As selected by design/installer	
<b>INPUT DATA</b>				
Design Wastewater Flow	Q	890	L/day	Based on maximum potential occupancy and derived from Table 4 in the EPA Code of Practice (2011)
Design Loading Rate	DCR	12.0	mm/day	Based on soil texture (silt permeability) and derived from Table 5 in the EPA Code of Practice (2011)
Trench (bed) area required	A	74.2	m <sup>2</sup>	
Selected trench or bed width	W	2.0	m	As selected by design/installer
<b>OUTPUT</b>				
Required trench or bed length	L	44.6	m	

## Appendix 2 Wastewater System Concept Design and Construction Notes

### Septic Tank and Pumpwell Installation

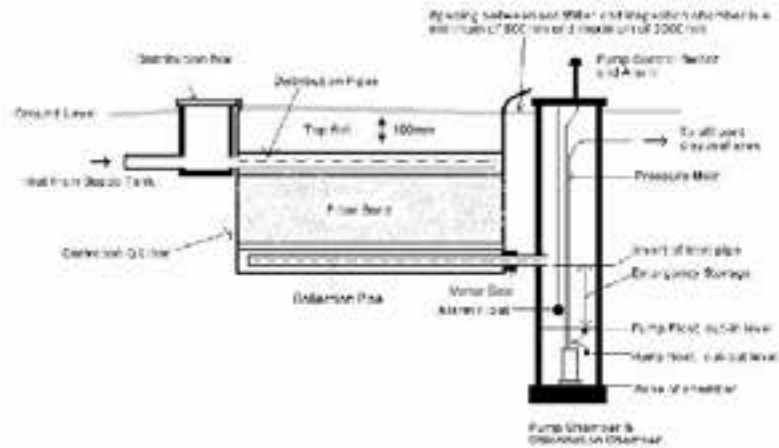
1. Septic Tanks should be installed in firm ground and/or on a uniform layer of sand of minimum thickness 100mm.
2. Septic Tanks should be surrounded by sand or compacted soil by watering and tamping to the firmness of the surrounding soil.
3. The influent pipe should be installed with a minimum grade of 1.65% or 1 in 60.
4. It is recommended that septic tanks are installed a minimum of 3 meters from foundations and for systems utilising a pump well, away from bedrooms.
5. The effluent pipe **MUST** have an outlet filter fitted. This **MUST** be cleaned every month.
6. Fiberglass or plastic tanks set in urban or Aboriginal Housing in Remote Area Communities shall be fitted with concrete lids or collars.
7. All vehicles and livestock should be excluded from septic tank areas.
8. The Septic Tank **MUST** be a dual purpose design with a minimum capacity compliant with the stipulations of AS1547-2000 Appendix 4.3 A.
9. An outflow filter and pump well shall be connected to the outflow of the sand filter. The pump well shall:
  - i. Have the minimum emergency storage capacity of 1000L or one days flow, whichever is greater, to provide for situations such as pump or power failure.
  - ii. Contain a pumpset of the submersible type, driven by motors not less than 0.3 Kw, activated by a float switch, with plastic impellers to minimise corrosion problems.
  - iii. Contain a non return valve to be fitted to the discharge pipe.
  - iv. Have a high level alarm light and/or audible device (bell or buzzer) connected to the pumpset and located within the serviced dwelling so that failure of the pumpset is readily observed. All electrical cabling shall be resistant to moisture and gas penetration and control switches shall be installed in accordance with the manufacturer's specifications and to the requirements of the local electricity supply authority.

LCA and Onsite Wastewater Management Plan and System Design for  
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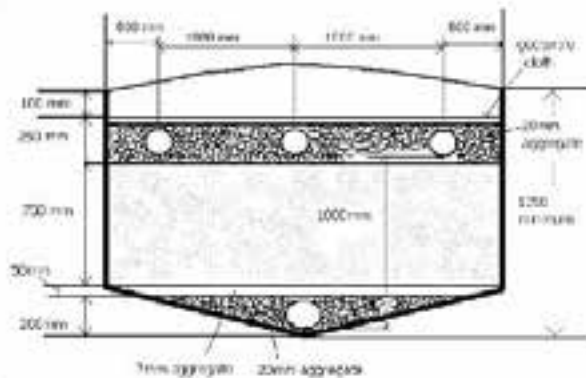
**Sand Filter Design and Construction Notes**



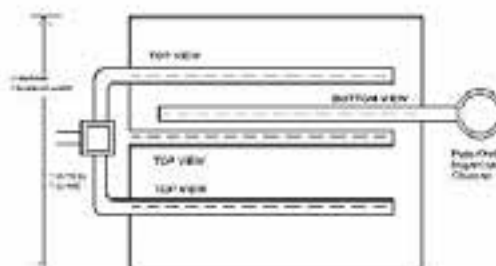
	Construction Specifications	Filter Sand Specifications
Liner	Carvacron required if water table is close to surface	Use clean washed sand complying with these requirements. For sand filters loaded at less than 50kg/m <sup>2</sup> use metro-day sand <ul style="list-style-type: none"> <li>Must contain less than 5% of clay and fine silt by volume</li> <li>Must have an effective size between 0.25 and 0.60mm</li> <li>Must have a uniformity coefficient less than 4</li> </ul>
Distribution box	Minimum internal width 250 mm	
Distribution pipes	Slotted 90 mm plastic pipe (Complying with AS 2439)	
Inlet from Septic	100 mm Sewer Grade Plastic Pipe (Complying with AS 1260)	
Collection Pipe	100 mm Sewer Grade Slotted Pipe (Complying with AS 2439)	
Pump chamber	<ul style="list-style-type: none"> <li>Minimum internal diameter 750 mm</li> <li>Base of Chamber 1000 mm below sand filter outlet invert</li> </ul>	
Alarm Float	100 mm above out in	
Pressure Man	Minimum 40 mm diameter	
Alarm	An alarm or light indicating a pump failure must be fitted to the pump well or within the building being serviced by the septic system	

LGA and Onsite Wastewater Management Plan and System Design for Proposed Subdivision Settlement Road Warruk

CROSS SECTION OF SAND FILTER



TOP VIEW OF SAND FILTER



### Irrigation Area Concept Designs

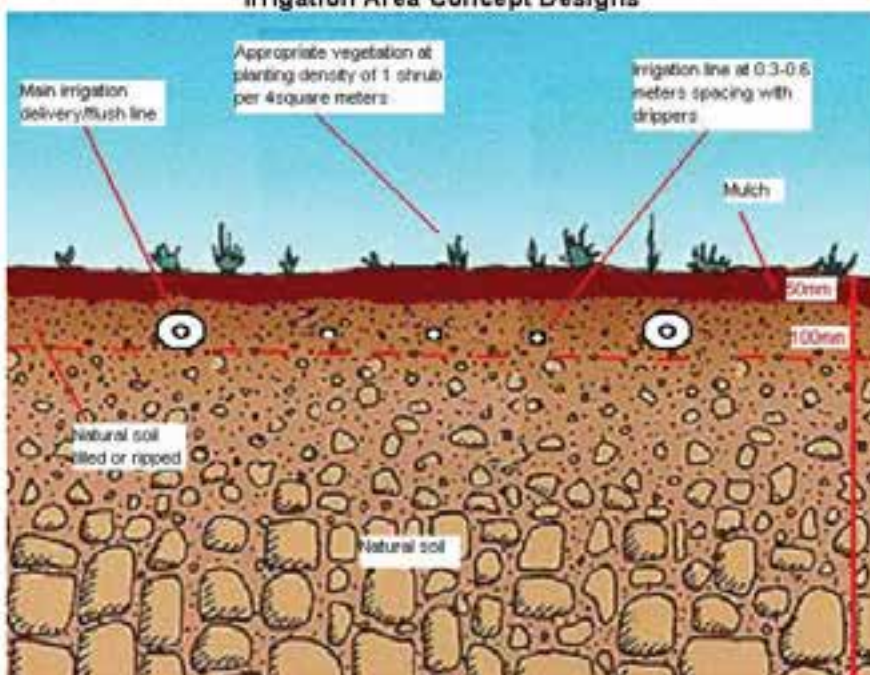


Figure 1 Irrigation cross section showing major delivery/flush lines and irrigation lines.

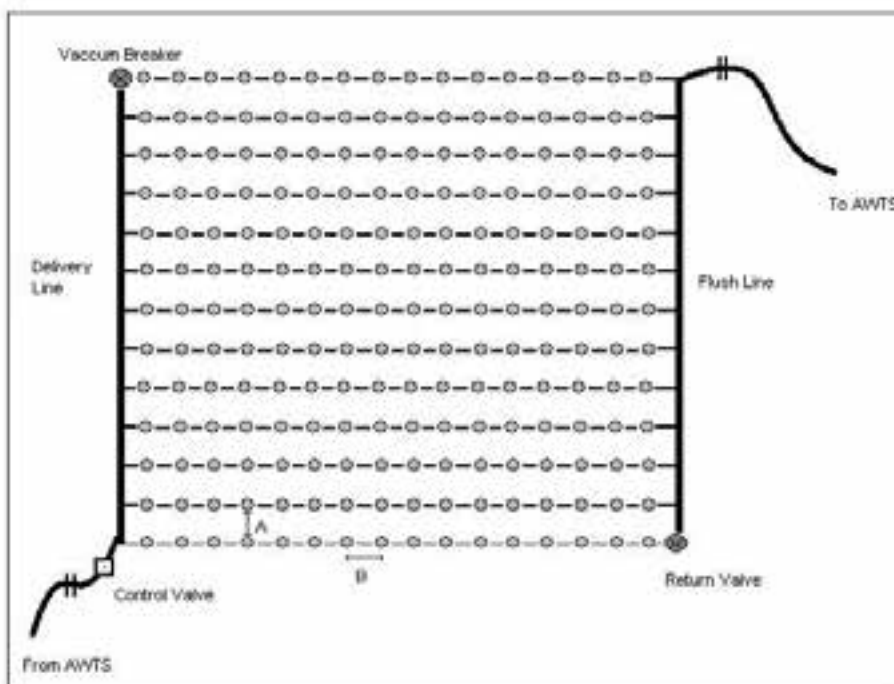
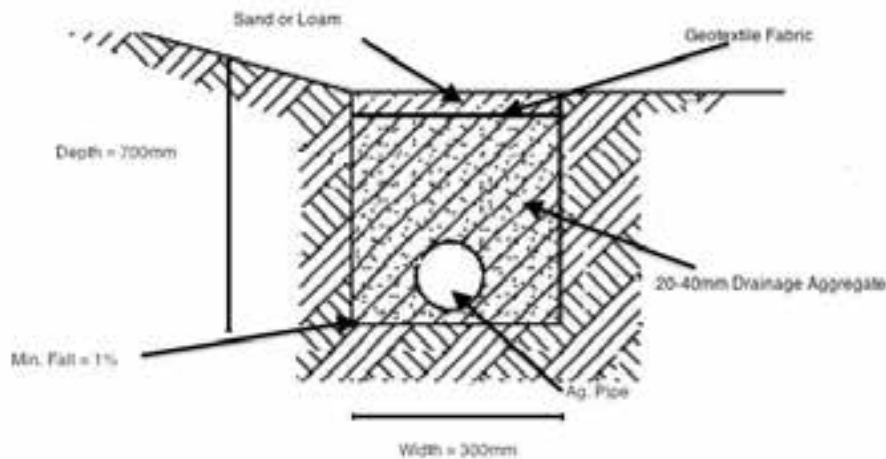


Figure 2 Irrigation Plan View

### Land Application Area Design and Construction Notes

1. Delivery/flush line diameter = 25 -30 mm
2. Irrigation line diameter = 12-16mm
3. Irrigation line spacing (A) =300 mm for Sands, Sandy Loams and Loams to 600mm for Clay Loams, Light Clays and Heavy Clays (see the wastewater flow modeling section of this report for soil classification).
4. Dripper/Sprinkler spacing (B) as per manufacturers specifications.
5. A vacuum breaker should be installed at the highest point of the irrigation area (or in the case of multiple irrigation lots at each lot). This breaker should be protected and marked).
6. A flush line should be installed at the lowest point of the irrigation area incorporating a return valve for back flushing of the system back into the treatment chamber.
7. **All lateral lines MUST be installed parallel to the contours of the land. All minimum setbacks MUST be adhered to.**
8. An inline filter must be inserted into the delivery line.
9. The first 100mm of the natural soil below the ground surface should be mechanically tilled to aid line installation and soil permeability.
10. Gypsum should be incorporated at the rate of 1kg/5m<sup>2</sup> in dispersive soils.
11. Selected vegetation should be planted at a density of approx. 1 plant per 4m<sup>2</sup>. Recommendation regarding suitable species is made in this report.
12. Irrigation areas greater than 400 m<sup>2</sup> should be split into 100 m<sup>2</sup> cells with effluent flows switched between irrigation lots with an automatic valve system.
13. Where practical a 50% reserve area should be identified on the site to allow movement of the irrigation area if required.
14. In areas of moderate to steep slopes (>10%) then upslope cut off drainage should be installed to minimise shallow ground water recharge of the irrigation area from upslope.

### Interceptor Ag Drain Design and Construction Notes




**Figure 2 Ag drain cross section showing key dimensions**

1. Ag drain should be located upslope of the proposed irrigation area/trenches/beds as shown in site plan.
2. Ag drain should be 300mm wide and 700mm deep. The base of the trench **MUST** be excavated evenly with a minimum fall to the discharge point of 1%. In clay soils smearing of walls and floors of bed **MUST** be avoided. Gypsum **MUST** be applied to base of trench at a rate of  $1\text{kg/m}^2$ .
3. Ag drains are best employed for areas where significant subsurface groundwater recharge is anticipated.
4. Ag drains should be constructed to ensure adequate fall to appropriate stormwater discharge points or other suitable areas provided that any water is not disposed of over site boundaries.







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 <b>strata</b>		Bore Log					BHZ		
Client: See Section 1 Project: see report Drill Type: RA Drilling Met: Nil Fluid: Nil							Coords: Bearing: Dip: R.L.: SEE WS Logged by: SN Date:		
RL	Depth (mm)	Graphic Log	Material Description	Soil	Rock	Weathering	Fract. Spacing	Sampling and Tests	Test Results and Comments
				Very Loose Loose Medium Dens Dense Very Dense Hard Very Hard Unconsolidated Consolidated	Very Soft Soft Medium Stiff Stiff Very Stiff Hard Very Hard Unconsolidated Consolidated	S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 S46 S47 S48 S49 S50	S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 S46 S47 S48 S49 S50		
	0		Brown Clayey SAND (SC) loose-MD, NP						
	50		Reddish Brown SAND (SW), MD, NP rock inclusions, Gravel Refusal						
	100		Harding Clayey SAND(SC)						
	1500		BORE TERMINATED AT 1.0 m						


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 <b>strata</b>		Bore Log					BHD	
<b>Client:</b> See Section 1 <b>Project:</b> see report Drill Type: HA Drilling Method: Fluid: Nil							Coords:  Bearing:      Dip: R.L. SEE WS Logged by:      SN Date:	
Depth (mm)	Graphical Log	Material Description	Soil		Rock	Weathering	Fract. Spacing	Sampling and In situ Testing
			Gravel %	Clay %	Gravel %	Gravel %	Gravel %	Gravel %
0		Brown Clayey SAND (SC) 1000-140, NP						
80		Reddish Brown SAND (SW), MD, NP rock inclusions, Gravel Refusal						
100								
150								
200								
250								
300								
350								
400								
450								
500								
550								
600								
650								
700								
750								
800								
			BORE TERMINATED AT 8.6m					

LCA and Onsite Wastewater Management Plan and System Design for  
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 <b>strata</b>		Bore Log						BH4				
Client: See Section 1		Coords										
Project: see report		Bearing: Dip:										
DRI Type: HA		R.L. SEE WS										
Drilling Met:		Logged by: SN										
Fluid: Nil		Date:										
Depth (mm)	Geotech Log	Material Description	Soil		Rock		Weathering		Pore Spacing		Sampling and In Situ Testing	
			USCS	Moisture Content	Rock Type	Rock Strength	Weathering Class	US	EU	CS	IS	VS
0		Brown Clayey SAND (SC) loose-MD, NP										
80		Reddish Brown SAND (SP), MD, NP rock inclusions,										
100		Brown CLAY (CL) firm, LP LBU										
200												
300												
400												
500												
600												
700												
800												
900												
1000												
1100												
1200												
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9300												
9400												
9500												
9600												
9700												
9800												
9900												
10000												

LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk

 <b>strata</b> <small>Geoscience and Environmental</small>		Bore Log					BHS		
Client: See Section 1							Coords		
Project: see report							Bearing: Dip:		
Drill Type: RA							R.L.: SEE WS		
Drilling Met:							Logged by: SN		
Fluid: Nil							Date:		
RL	Depth (mm)	Material Description	Soil	Rock	Weathering	Fract.	Spalling	Sampling and Tests Testing	Test Results and Comments
	0	Brown Clayey SAND (SC) loose-MD, NP	Very Loose	None	None				
	100	Reddish Brown SAND (SW) MD, NP	Loose	None	None				
	150	Yellowish LBU	Very Loose	None	None				
	1500	BORE TERMINATED AT 1.5 m							



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strata		Bore Log					BH6		
Client: See Section 1							Coords		
Project: see report							Bearing: Dip:		
DRI Type: HA							R.L. SEE WS		
Drilling Met							Logged by: SN		
Fluid: Nil							Date:		
Depth (mm)	Geoplot Log	Material Description	Soil		Rock	Weathering	Fract. Spacing	Sampling and In-situ Testing	Test Results and Comments
			USDA Texture	USDA Plasticity	USDA Plasticity	USDA Plasticity	USDA Plasticity	USDA Plasticity	
0		Brown Clayey SAND (SC) 100% MO, NP							
80		Reddish Brown SAND (SW), MO, NP							
100									
150									
200									
250									
300									
350									
400									
450									
500									
550									
600									
650									
700									
750									
800									
850									
900									
950									
1000									
BORE TERMINATED AT 6.3 m									

LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk

Appendix 4 Laboratory Results



Strata Geoscience and Environmental P/L  
17 Little Arthur Street  
North Hobart  
TAS 7000



Certificate of Analysis

NATA Accredited  
Accreditation Number 1281  
Site Number 1284

Accepted to complete the required work  
The results of the tests, calculations and/or  
measurements included in this document are traceable  
to Australia national standards.

Attention: Sven Nielsen  
Report: 491387-S  
Project name: SETTLEMENT ROAD WURRUK  
Received Date: Mar 03, 2016

Client Sample ID			BH2 (500) Soil M16-Ma02700 Feb 24, 2016	BH4 (500) Soil M16-Ma02701 Feb 24, 2016
Sample Matrix				
Eurofins   mgt Sample No.				
Date Sampled				
Test/Reference	LOR	Unit		
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	49	47
pH (1:5 Aqueous extract)	0.1	pH Units	4.5	5.1
Calcium (exchangeable)*	0.1	meq/100g	0.3	1.9
Magnesium (exchangeable)*	0.1	meq/100g	0.2	0.3
Potassium (exchangeable)*	0.1	meq/100g	0.2	0.1
Sodium (exchangeable)*	0.1	meq/100g	0.2	0.2
% Moisture	1	%	2.0	5.3
Emerson Class Number	1	units	See attached	See attached
<b>Ion Exchange Properties</b>				
Cation Exchange Capacity	0.05	meq/100g	0.84	2.5
Exchangeable Sodium Percentage (ESP)*	0.1	%	29	7.5

Date Reported: Mar 16, 2016

Eurofins | mgt 2-5 Kingston Town Close, Oakleigh, Victoria, Australia, 3106  
ABN: 50 005 085 021 Telephone: +61 3 8584 5000 Facsimile: +61 3 8584 5080

Page 1 of 8  
Report Number: 491387-0

LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk



**Sample History**

When samples are submitted/analysed over several days, the last date of extraction and analysis is reported.  
A recent review of our LMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).  
If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Conductivity (1:5 aqueous extract at 25°C) - Method: LTM-60-099	Melbourne	Mar 03, 2016	7 Day
Ion Exchange Properties	Melbourne	Mar 07, 2016	
pH (1:5 Aqueous extract) - Method: LTM-GIN-7090 pH in soil by ISE	Melbourne	Mar 03, 2016	7 Day
Calcium (exchangeable)*	Melbourne	Mar 07, 2016	0 Day
Magnesium (exchangeable)*	Melbourne	Mar 07, 2016	0 Day
Potassium (exchangeable)*	Melbourne	Mar 07, 2016	0 Day
Sodium (exchangeable)*	Melbourne	Mar 07, 2016	0 Day
% Moisture - Method: LTM-GIN-7090 Moisture	Melbourne	Mar 03, 2016	14 Day

LCA and Onsite Wastewater Management Plan and System Design for Proposed Subdivision Settlement Road Wuiruk



11427

0800 552 888 | info@eurofins.com.au | www.eurofins.com.au

**Address:** 17/18a Arthur Street, North Sydney, NSW 1585, Australia  
**Phone:** +61 2 9550 8888  
**Fax:** +61 2 9550 8889  
**Website:** www.eurofins.com.au

<b>Company Name:</b> Strata Geoscience and Environmentals Pty	<b>Order No.:</b> 80107	<b>Received:</b> 10/11/2016 11:29:58
<b>Address:</b> 17/18a Arthur Street, North Sydney, NSW 1585	<b>Region:</b> Oceania	<b>Date:</b> 10/11/2016
<b>Project Name:</b> SETTLEMENT ROAD WUIRUK	<b>Client:</b> Eurofins	<b>Product:</b> 11427
		<b>Contact Name:</b> Sam Walker

Sample Detail	Sample ID	11427-001	11427-002	11427-003	11427-004	11427-005	11427-006	11427-007	11427-008	11427-009	11427-010
	Sample Date	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016
	Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Location	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10

Sample ID	Sample Date	Sample Type	Matrix	LAB ID	1	2	3	4	5	6	7	8	9	10
11427-001	10/11/2016	Soil	Soil	11427-001	1	2	3	4	5	6	7	8	9	10
11427-002	10/11/2016	Soil	Soil	11427-002	1	2	3	4	5	6	7	8	9	10

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LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk



**Internal Quality Control Review and Glossary**

**General**

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. This report replaces any interim results previously issued.

**Holding Times**

Please refer to 'Sample Preservation and Container Guide' for holding times (229300).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

\*\*NOTE: pH duplicates are reported as a range NCT as RPD

**Units**

mg/kg: milligrams per kilogram	mg/L: milligrams per litre
µg/l: micrograms per litre	ppm: Parts per million
ppb: Parts per billion	%: Percentage
org/100ml: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units
MPN/100ml: Most Probable Number of organisms per 100 millilitres	

**Terms**

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPRKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPRKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (Timothy) 1 mg/l uses NATA accredited in-house method LTM-GEN-7010
TCLP	Toxicity Characteristic Leaching Procedure
DOC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Permit - QC was performed on samples pertaining to this report
NCP	Non-Client Permit - QC performed on samples not pertaining to this report. QC is representative of the sequence or batch that client samples were analysed within
TBO	Toxic Equivalency Quotient

**QC - Acceptance Criteria**

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

- Results <10 times the LOR: No LOR
- Results between 10-20 times the LOR: RPD must be between 0-50%
- Results >20 times the LOR: RPD must be between 0-60%
- Surrogate Recoveries: Recoveries must be between 50-150% - Phenols 20-150%

**QC Data General Comments**

1. Where a result is reported as a less than (<), higher than the nominal LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "MATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Permit and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - when reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - when reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C10-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
5. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
6. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "NT" appears against that analyte.
7. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
8. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
9. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.



LCA and Onsite Wastewater Management Plan and System Design for  
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Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code			
<b>Method Blank</b>									
Conductivity (1.5 aqueous extract at 25°C)	uS/cm	<10		10	Pass				
Calcium (exchangeable)*	meq/100g	<0.1		0.1	Pass				
Magnesium (exchangeable)*	meq/100g	<0.1		0.1	Pass				
Potassium (exchangeable)*	meq/100g	<0.1		0.1	Pass				
Sodium (exchangeable)*	meq/100g	<0.1		0.1	Pass				
<b>Method Blank</b>									
<b>Ion Exchange Properties</b>									
Cation Exchange Capacity	meq/100g	<0.05		0.05	Pass				
Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
% Moisture	M16-Ma02637	NCP	%	13	13	3.0	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Conductivity (1.5 aqueous extract at 25°C)	M16-Ma02791	CP	uS/cm	47	48	4.0	30%	Pass	
pH (1.5 Aqueous extract)	M16-Ma02791	CP	pH Units	5.1	5.1	pass	30%	Pass	

LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk



**Comments**

Emerson Class : analysed by SESL Australia NATA accreditation number 15633, Report Number 38249

**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Sample received within HoldingTime	Yes
Some samples have been subcontracted	Yes

**Authorised By**

Our Metrol	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)

**Glenn Jackson**

**National Operations Manager**

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Sample integrity and use is subject to laws, rules, changes or updates internal to the client, or another person or company, including those that are of a different or incompatible jurisdiction. It is the client's responsibility to keep the sample integrity and use up to date. The client is responsible for ensuring that the sample is used in accordance with the relevant laws, rules, changes or updates internal to the client, or another person or company, including those that are of a different or incompatible jurisdiction. It is the client's responsibility to keep the sample integrity and use up to date.

## Appendix 5 Extract from EPAV 2013

### Code of Practice Onsite Wastewater Management

Table 4: Minimum daily wastewater flow rates and organic loading rates<sup>1-10</sup>

Source	Design hydraulic flow rates for all water supplies <sup>1-4,9</sup> (L/person.day)	Organic material loading design rates (g BOD/person.day) <sup>7</sup>
Households with extra wastewater producing fixtures <sup>1</sup>	220	60
Households with standard water fixtures	160	40
Households with full water-reduction fixtures <sup>2</sup>	100	40
Hotels/hotels/guesthouse		
- per bar attendant	1000	120
- bar meals per diner	10	10
- per resident guest and staff with in-house laundry	150	80
- per resident guest and staff with self-sourced laundry	100	80
Restaurants (per potential diner) <sup>3</sup>		
- premises 150 seats	40	50
- premises 150 seats	30	40
- tearooms, cafes per seat	10	10
- conference facilities per seat	25	30
- function centre per seat	30	35
- take-away food shop per customer	10	40
Public areas (with toilet, but no showers and no safe) <sup>4</sup>		
- public toilets	6	3
- theatres, art galleries, museum	3	2
- meeting halls with kitchenette	10	5
Premises with showers and toilets		
- golf clubs, gyms, pools etc. (per person)	60	10
Hospitals - per bed	350	150
Shops/shopping centres		
- per employee	15	10
- public access	5	3
School - child care		
- per day pupil and staff	20	20
- resident staff and boarders	100	80
Factories, offices, day training centres, medical centres	20	15
Camping grounds		
- fully serviced	150	60
- recreation areas with showers and toilets	100	40

1. Based on EPA Code of Practice for Small Wastewater Treatment Plants, Publication 500 (1997).

2. When calculating the flow rate for an existing commercial premise, use this table or metered water usage data from the premise's actual or pro-rata indoor use.

3. WELS-rated water-reduction fixtures and fittings - minimum 4 Stars for dual-flush toilets, shower-flow restrictors, aerator taps, flow/pressure control valves and minimum 3 Stars for all appliances (e.g. water-conserving automatic clothes washing machines).

4. These flow rates take into consideration the likelihood of a reliable water supply being currently provided to a premises or in the future (e.g. from groundwater, surface water or reticulated water supply, or a tankered water supply).

5. Where Council is satisfied a household or premises is unlikely to be provided with a reliable water supply (e.g. a rural farming property where groundwater or surface water is unavailable or used only for stock) the design flow rates for Onsite Roof Water Tank Supply listed in the most current version of AS/NZS 1547 may be used.

6. Extra water producing fixtures include, but are not limited to, spa baths.

7. Based on Crites & Tchobanoglous (1998) and EPA Publication 500 (1997).

8. For premises such as public areas, factories or offices that have showers and toilets, use the flow rates for 'Premises with showers and toilets' in the calculations.

9. Number of seats multiplied by the number of sittings i.e., may include multiple sittings for breakfast, morning and afternoon teas, lunch and/or dinner.

10. The organic loading rate must be considered as well as the hydraulic flow rate when selecting the most suitable treatment system.

## Code of Practice Onsite Wastewater Management

Table 5: Setback distances for primary and secondary treatment plants and effluent disposal/irrigation areas <sup>1, 2, 4, 5, 6</sup>

Landscape feature or structure	Setback distances (m)		
	Primary treated effluent	Secondary sewage and greywater effluent	Advanced secondary greywater effluent <sup>3</sup>
<b>Buildings</b>			
Wastewater field up-slope of building	6	3	3
Wastewater field down-slope of building	3	1.5	1.5
Wastewater up-slope of cutting/escarpment <sup>4</sup>	15	15	15
<b>Adjacent land</b>			
Wastewater field up-slope of adjacent lot	6	3	1
Wastewater field down-slope of adjacent lot	3	1.5	0.5
<b>Supply lines</b>			
Water supply pipe	3	1.5	1.5
Wastewater up-slope of potable supply channel	300	150	150
Wastewater field down-slope of potable supply channel	20	10	10
Gas supply pipe	3	1.5	1.5
In-ground water tank <sup>5</sup>	15	4	3
Stormwater drain	6	3	2
<b>Recreational areas</b>			
Children's grassed playground <sup>6</sup>	6	3 <sup>6</sup>	2 <sup>6</sup>
In-ground swimming pool	6	3 <sup>6</sup>	2 <sup>6</sup>
<b>Surface waters (up-slope etc)</b>			
Dam, lake or reservoir (potable water supply) <sup>1, 2</sup>	300	150 <sup>7</sup>	150
Waterways (potable water supply) <sup>1, 2</sup>	300	100 <sup>4, 7</sup>	50
Waterways, wetlands (continuous or ephemeral, non-potable); estuaries, ocean beach at high-tide mark; dams, lakes or reservoirs (stock and domestic, non-potable) <sup>1, 2</sup>	60	30	30
<b>Groundwater levels</b>			
Category 1 and 2a soils	NA <sup>8</sup>	50 <sup>1</sup>	20
Category 2b to 6 soils	20	20	20
<b>Water table</b>			
Vertical depth from base of trench to the highest seasonal water table <sup>9</sup>	1.5	1.5	1.5
Vertical depth from irrigation pipes to the highest seasonal water table <sup>9</sup>	NA	1.5	1.5

- Distances must be measured horizontally from the external wall of the treatment system and the boundary of the disposal/irrigation area, except for the 'water table' category which is measured vertically through the soil profile. For surface waters, the measuring point shall be from the 'bank-full level'.
- Primary water-based sewerage systems must only be installed in unsewered areas; secondary sewerage systems must only be installed and managed in sewer areas by Water Corporations; secondary greywater systems can be installed in sewer and unsewered areas (see Section 3.12.3).
- Advanced secondary treated greywater of 10/10/10 standard.
- The setback distances are conditional on the following requirements (otherwise the setbacks distances for primary effluent apply):
  - effluent is secondary treated to 20/30 standard as a minimum
  - effluent is applied to land via pressure-compensating sub-surface irrigation installed along the contour and
  - a maintenance and service contract, with a service technician accredited by the manufacturer, is in place to ensure the system is regularly serviced in accordance with the relevant CA and Council Septic Tank Permit conditions.

LCA and Onsite Wastewater Management Plan and System Design for  
Proposed Subdivision Settlement Road Wurruk



## Appendix 6 Terms and Conditions

### Scope of Work

These Terms and Conditions apply to any services provided to you ("the Client") by Strata Geoscience and Environmental Pty Ltd ("Strata"). By continuing to instruct Strata to act after receiving the Terms and Conditions or by using this report and its findings for design and/or permit application processes and not objecting to any of the Terms and Conditions the Client agrees to be bound by these Terms and Conditions, and any other terms and conditions supplied by Strata from time to time at Strata's sole and absolute discretion. The scope of the services provided to the Client by Strata is limited to the services and specified purpose agreed between Strata and the Client and set out in the correspondence to which this document is enclosed or annexed ("the Services"). Strata does not purport to advise beyond the Services.

### Third Parties

The Services are supplied to the Client for the sole benefit of the Client and must not be relied upon by any person or entity other than the Client. Strata is not responsible or liable to any third party. All parties other than the Client are advised to seek their own advice before proceeding with any course of action.

### Provision of Information

The Client is responsible for the provision of all legal, survey and other particulars concerning the site on which Strata is providing the Services, including particulars of existing structures and services and features for the site and for adjoining sites and structures. The Client is also responsible for the provision of specialised services not provided by Strata. If Strata obtains these particulars or specialised services on the instruction of the Client, Strata does so as agent of the Client and at the Client's expense. Strata is not obliged to confirm the accuracy and completeness of information supplied by the Client or any third party service provider. The Client is responsible for the accuracy and completeness of all particulars or services provided by the Client or obtained on the Client's behalf. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever suffered by the Client or any other person or entity resulting from the failure of the Client or third party to provide accurate and complete information. In the event additional information becomes available to the Client, the Client must inform Strata in writing of that information as soon as possible. Further advice will be provided at the Client's cost. Any report is prepared on the assumption that the instructions and information supplied to Strata has been provided in good faith and is all of the information relevant to the provision of the Services by Strata. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever if Strata has been supplied with insufficient, incorrect, incomplete, false or misleading information.

### Integrity

Any report provided by Strata presents the findings of the site assessment. While all reasonable care is taken when conducting site investigations and reporting to the Client, Strata does not warrant that the information contained in any report is free from errors or omissions. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from errors in a report. Any report should be read in its entirety, inclusive of any summary and annexures. Strata does not accept any responsibility where part of any report is relied upon without reference to the full report.

### Project Specific Criteria

Any report provided by Strata will be prepared on the basis of unique project development plans which apply only to the site that is being investigated. Reports provided by Strata do not apply to any project other than that originally specified by the Client to Strata. The Report must not be used or relied upon if any changes to the project are made. The Client should engage Strata to further advise on the effect of any change to the project. Further advice will be provided at the Client's cost. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever where any change to the project is made without obtaining a further written report from Strata. Changes to the project may include, but are not limited to, changes to the investigated site or neighbouring sites, for instance, variation of the location of proposed building envelope/footprints, changes to building design which may impact upon building settlement or slope stability, or changes to earthworks, including removal (site cutting) or deposition of sediments or rock from the site.

### Classification to AS2870-2011

It must be emphasised that the site classification to AS2870-2011 and recommendations referred to in this report are based solely on the observed soil profile at the time of the investigation for this report and account has been taken of Clause 2.1.1 of AS2870 - 2011. Other abnormal moisture conditions as defined in AS2870 - 2011 Clause 1.3.3 (a) (b) (i) and (ii) may need to be considered in the design of the structure. Without designing for the possibility of all abnormal moisture conditions as defined in Clause 1.3.3, distresses will occur and may result in non "acceptable probabilities of serviceability and safety of the building during its design life", as defined in AS2870 - 2011, Clause 1.3.1. Furthermore the classification is preliminary in nature and needs verification at the founding surface inspection phase. The classification may be changed at this time based upon the nature of the founding surface over the entire footprint of the project area. Any costs associated with a change in the site classification are to be incurred by the client. Furthermore any costs associated with delayed works associated with a founding surface inspection or a change in classification are to be born by the client. Where founding surface inspections are not commissioned the classifications contained within this report are void.

### Subsurface Variations with Time

Any report provided by Strata is based upon subsurface conditions encountered at the time of the investigation. Conditions can and do change significantly and unexpectedly over a short period of time. For example groundwater levels may fluctuate over time, affecting latent soil bearing capacity and ex-situ/in-situ fill sediments may be placed/removed from the site. Changes to the subsurface conditions that were encountered at the time of the investigation void all recommendations made by Strata in any report. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from any change to the subsurface conditions that were encountered at the time of the investigation. In the event of a delay in the commencement of a project or if additional information becomes available to the Client about a change in conditions becomes available to the Client, the Client should engage Strata to make a further investigation to ensure that the conditions initially encountered still exist. Further advice will be provided at the Client's cost. Without limiting the generality of the above statement,



## LCA and Onsite Wastewater Management Plan and System Design for Proposed Subdivision Settlement Road Wurruk

Strata does not accept liability where any report is relied upon after three months from the date of the report, (unless otherwise provided in the report or required by the Australian Standard which the report purports to comply with), or the date when the Client becomes aware of any change in condition. Any report should be reviewed regularly to ensure that it continues to be accurate and further advice requested from Strata where applicable.

### Interpretation

Site investigation identifies subsurface conditions only at the discrete points of geotechnical drilling, and at the time of drilling. All data received from the geotechnical drilling is interpreted to report to the Client about overall site conditions as well as their anticipated impact upon the specific project. Actual site conditions may vary from those inferred to exist as it is virtually impossible to provide a definitive subsurface profile which accounts for all the possible variability inherent in earth materials. This is particularly pertinent to some weathered sedimentary geologies or colluvial/alluvial clast deposits which may show significant variability in depth to refusal over a development area. Rock incongruities such as joints, dips or faults may also result in subsurface variability. Soil depths and composition can vary due to natural and anthropogenic processes. Variability may lead to differences between the design depth of bored/driven piers compared with the actual depth of individual piers constructed onsite. It may also affect the bounding depth of conventional strip, pier and beam or slab footings, which may result in increased costs associated with excavation (particularly of rock) or materials costs of foundations. Founding surface inspections should be commissioned by the Client prior to foundation construction to verify the results of initial site characterisation and failure to ensure this will void the classifications and recommendations contained within this report. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from any variation from the site conditions inferred to exist.

Strata is not responsible for the interpretation of site data or report findings by other parties, including parties involved in the design and construction process. The Client must seek advice from Strata about the interpretation of the site data or report.

### Report Recommendations

Any report recommendations provided by Strata are only preliminary. A report is based upon the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete. Where variations in conditions are encountered, Strata should be engaged to provide further advice. Further advice will be provided at the Client's cost. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever if the results of selective point sampling are not indicative of actual conditions throughout an area or if the Client becomes aware of variations in conditions and does not engage Strata for further advice.

### Geo-environmental Considerations

Where onsite wastewater site investigation and land application system designs are provided by Strata, reasonable effort will be made to minimise environmental and public health risks associated with the disposal of effluent within site boundaries with respect to relevant Australian guidelines and industry best practise at the time of investigation. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from:

- (i) changes to either the project or site conditions that affect the onsite wastewater land application system's ability to safely dispose of modelled wastewater flow; or
- (ii) seepage, pollution or contamination or the cost of removing, nullifying or clearing up seepage, polluting or contaminating substances; or
- (iii) poor system performance where septic tanks have not been de-sludged at maximum intervals of 3 years or A/WTS systems have not been serviced in compliance with the manufacturers recommendations; or
- (iv) failure of the client to commission both interim and final inspections by the designer throughout the system construction; or
- (v) the selection of inappropriate plants for irrigation areas; or
- (vi) damage to any infrastructure including but not limited to foundations, walls, driveways and pavements; or
- (vii) land instability, soil erosion or dispersion; or
- (viii) design changes requested by the Permit Authority.

Furthermore Strata does not guarantee septic trench and bed design life beyond 5 years from installation, given the influence various household chemicals have on soil structural decline and premature trench failure in some soil types. Sand filters are not warranted for more than 2 years given the large impact pre-filtration and septic tank loading and de-sludging has on sand filter performance.

Strata does not consider site contamination, unless the Client specifically instructs Strata to consider the site contamination in writing. If a request is made by the Client to consider site contamination, Strata will provide additional terms and conditions that will apply to the engagement.

### Copyright and Use of Documents

Copyright in all drawings, reports, specifications, calculations and other documents provided by Strata or its employees in connection with the Services remain vested in Strata. The Client has a licence to use the documents for the purpose of completing the project. However, the Client must not otherwise use the documents, make copies of the documents or amend the documents unless express approval in writing is given in advance by Strata. The Client must not publish or allow to be published, in whole or in part, any document provided by Strata or the name or professional affiliations of Strata, without first obtaining the written consent of Strata as to the form and context in which it is to appear.

If, during the course of providing the Services, Strata develops, discovers or first reduces to practice a concept, product or process which is capable of being patented then such concept, product or process is and remains the property of Strata and:

- (i) the Client must not use, infringe or otherwise appropriate the same other than for the purpose of the project without first obtaining the written consent of Strata; and
- (ii) the Client is entitled to a royalty free licence to use the same during the life of the works comprising the project.

### Digital Copies of Report

If any report is provided to the Client in an electronic copy except directly from Strata, the Client should verify the report contents with Strata to ensure they have not been altered or varied from the report provided by Strata.



**West Gippsland**  
Catchment Management Authority

CMA Application No: WG-F-2014-0420  
Date: 18 February 2016

Chris Curnow,  
Beveridge Williams and Co Pty Ltd  
PO Box 47  
Sale, Victoria 3850

[curnow@bevwil.com.au](mailto:curnow@bevwil.com.au)

Dear Chris,

**Application Number (CMA Ref):** WG-F-2014-0420

**Property: Street:** Various properties in Wurruk, Victoria 3850

Thank you for your enquiry, received at the West Gippsland Catchment Management Authority (the Authority) on 27 January 2016 seeking updated advice for the proposed rezoning and future subdivision of the land.

The 1% Annual Exceedance Probability (AEP<sup>3</sup>) flood level (commonly known as the 1 in 100 year flood) under current climatic conditions ranges from 3.8 metres AHD<sup>4</sup> south of Settlement Road to 4.2 metres AHD north of Settlement Road.

**The applicable 1% AEP flood level for this development ranges from 3.8 metres AHD to 4.2 metres AHD.**

The following advice is based on the final results of the Latrobe River Flood Study 2015, and supersedes the advice previously provided in relation to this matter, dated 9 September 2014.

Please note: This document contains flood level advice only and does not constitute approval or otherwise of any development at this location.

Please refer to the attached explanatory report for further detail.

Should you have any queries, please do not hesitate to contact Penny Phillipson on 1300 094 262. To assist the Authority in handling any enquiries please quote **WG-F-2014-0420** in your correspondence with us.

Yours sincerely,

**Adam Dunn**  
Statutory Planning Manager

Cc: Wellington Shire Council

The information contained in this correspondence is subject to the disclaimers and definitions attached.

ABN 88 062 514 481

Correspondence PO Box 1374, Traralgon VIC 3844

Telephone 1300 094 262 | Facsimile (03) 5175 7899 | Email [westgippy@wgcma.vic.gov.au](mailto:westgippy@wgcma.vic.gov.au) | Website [www.wgcma.vic.gov.au](http://www.wgcma.vic.gov.au)

Traralgon Office 16 Hotham Street, Traralgon VIC 3844 | Leongatha Office Corner Young & Bair Streets, Leongatha VIC 3953

## EXPLANATORY REPORT

Figure 1 – 1% AEP flood extent



### Decision Guidelines

The West Gippsland Catchment Management Authority assesses all applications against the following National, State and Local Policies, Guidelines and Practice Notes:

1. 'Technical Flood Risk Management Guideline: Flood Hazard' (Australian Emergency Management Institute, 2014).
2. 'Victoria Flood Management Strategy' (DNRE, 1998).
3. Council Planning Schemes, including the:
  - i. State Planning Policy Framework
  - ii. Local Planning Policy Framework
  - iii. Relevant Zones and Overlays.
4. 'Guidelines for Coastal Catchment Management Authorities: Assessing development in relation to sea level rise' (DSE, 2012).
5. 'Applying for a Planning Permit under the Flood Provisions – A Guide for Councils, Referral Authorities and Applicants' (DTPLI, 2000).
6. 'Flood Guidelines - Guidelines for development in flood prone areas' (West Gippsland Catchment Management Authority, 2013).

### 1% AEP<sup>3</sup> Flood Level Determination

Floods are classified by the frequency at which they are likely to occur. In Victoria, all proposals for development on floodplains are assessed against a flood that, on average, will occur once every 100 years. A flood of this size has a 1% chance of occurring in any given year, and is known as either the 100 year Average Recurrence Interval (ARI<sup>5</sup>) flood or the 1% Annual Exceedance Probability (AEP) flood.



Please note that the 1% AEP flood is the minimum standard for planning in Victoria, and is not the largest flood that could occur. There is always a possibility that a flood larger in height and extent than the 1% AEP flood may occur in the future.

Flood levels for the 1% Annual Exceedance Probability (AEP) flood event (commonly known as the 1 in 100 year flood) have not been designated or declared for this area under the *Water Act 1989*. Flooding at the property is influenced by both the Thomson and Latrobe Rivers.

The portion of the subject land downstream of Settlement Road is predominantly influenced by flooding in the Latrobe River. The estimated 1% Annual Exceedance Probability (AEP) flood level for this area is 3.8 metres AHD, which was obtained from the Latrobe River Flood Study 2015.

For the property upstream of Settlement Road the Thomson River is the dominant influence. The estimated 1% Annual Exceedance Probability (AEP) flood level for this area is 4.2 metres AHD, which was estimated from historic flood levels recorded in the area.

**The applicable 1% AEP flood level for this development therefore ranges from 3.8 metres AHD to 4.2 metres AHD.**

The Authority holds no information in relation to the arrangement and capacity of stormwater drainage infrastructure in the area and recommends that you contact Council for more information.

#### **Flood Hazard Assessment**

The West Gippsland Catchment Management Authority's *Flood Guidelines - Guidelines for development in flood prone areas* (2013) require all new residential lots to be located outside the 1% AEP flood extent.

As demonstrated in Figure 2, a significant portion of Lot 7 on PS 602219 is likely to be subject to inundation during a 1% AEP flood event. The Authority considers it inappropriate to rezone this portion of the land for residential purposes, as it is not suitable for future residential development. The Authority recommends that the portion of Lot 7 on PS 602219 below 3.5m AHD remain zoned for farming purposes.

It is also noted (Figure 2) that the eastern portion of CA 21 Sec E is likely to be subject to flooding, however it is understood that this land is currently zoned for residential purposes (LDRZ). Given that this portion of the property contains a designated waterway, the Authority will require that any future subdivision proposal for the land must incorporate the waterway, and all land within the 1% AEP flood extent (i.e. all land below 3.8m AHD), within a reserve.

#### **Protection of designated waterways**

To ensure the long term protection of the designated waterway, and to minimise future maintenance requirements for this reserve, a Waterway Management Plan (WMP) is required. The WMP must identify the timing and frequency of actions required to establish and maintain the ecological reserve, and must include a landscape plan for revegetation of the waterway, with a species list and proposed density of the plantings. The vegetation must be representative of the Ecological Vegetation Class for the site.

All works within 30 metres of the designated waterway require a Works on Waterways permit from the West Gippsland Catchment Management Authority, issued under the *Water Act 1989*. This includes (but is not limited to) construction of any recreational paths and crossings, construction of any vehicle access over a designated waterway, and installation of any water, stormwater or sewer infrastructure within 30 metres of a designated waterway. A Works on Waterways permit application must be accompanied by a satisfactory Waterway Management Plan, and detailed construction drawings of the proposed works.

### Stormwater management

With regards to the management of stormwater discharge, the Authority requires consideration of the following principles:

- Water Sensitive Urban Design (WSUD) features should be integrated in the development to provide a high level of landscape amenity, and environmental and recreational benefits.
- The long term maintenance and operation costs must be considered when designing and locating WSUD features.
- The applicant must demonstrate (e.g. using Model for Urban Stormwater Improvement Conceptualisation, MUSIC) that stormwater discharged to a designated waterways will meet the *'Urban Stormwater Best Practice Environmental Management Guidelines'* (CSIRO, 1999).

Prior to the Certification of any Plan of Subdivision, a Stormwater Management Plan must be developed to the satisfaction of the West Gippsland Catchment Management Authority, which will identify appropriate Water Sensitive Urban Design features to provide stormwater treatment to meet best practice guidelines. The applicant must clearly identify how stormwater runoff from the entire development will be managed and treated, prior to discharge to the designated waterways.

Any proposed discharge of stormwater requiring a direct connection to a designated waterway (as defined by the *Water Act 1989*) will require approval by the Authority. A Works on Waterways application should be submitted to the Authority for assessment. This is a separate process to that under the *Planning and Environment Act 1987* and needs to be considered early in the project development phase.



#### **Definitions and Disclaimers**

1. The area referred to in this letter as the 'proposed development location' is the land parcel(s) that, according to the Authority's assessment, most closely represent(s) the location identified by the applicant. The identification of the 'proposed development location' on the Authority's GIS has been done in good faith and in accordance with the information given to the Authority by the applicant(s) and/or the local government authority.
2. While every endeavour has been made by the Authority to identify the proposed development location on its GIS using VicMap Parcel and Address data, the Authority accepts no responsibility for or makes no warranty with regard to the accuracy or naming of this proposed development location according to its official land title description.
3. **AEP** as Annual Exceedance Probability – is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as the reciprocal of ARI (Average Recurrence Interval).

Please note that the 1% probability flood is not the probable maximum flood (PMF). There is always a possibility that a flood larger in height and extent than the 1% probability flood may occur in the future.

4. **AHD** as Australian Height Datum - is the adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.
5. **ARI** as Average Recurrence Interval - is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large as or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100 year ARI flood will occur on average once every 100 years.
6. Nominal Flood Protection Level – is the minimum height required to protect a building or its contents, which includes a freeboard above the 1% AEP flood level.
7. No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this letter and, to the maximum extent permitted by law, the Authority disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other person through relying on anything contained in or omitted from this letter.
8. This letter has been prepared for the sole use by the party to whom it is addressed and no responsibility is accepted by the Authority with regard to any third party use of the whole or of any part of its contents. Neither the whole nor any part of this letter or any reference thereto may be included in any document, circular or statement without the Authority's written approval of the form and context in which it would appear.
9. The flood information provided represents the best estimates based on currently available information. This information is subject to change as new information becomes available and as further studies are carried out.
10. Please note that land levels provided by the Authority are an estimate only and should not be relied on by the applicant. Prior to any detailed planning or building approvals, a licensed surveyor should be engaged to confirm the above levels.

## ATTACHMENT 2

*Planning and Environment Act 1987*

### WELLINGTON PLANNING SCHEME AMENDMENT C84 EXPLANATORY REPORT

#### Who is the planning authority?

This Amendment has been prepared by the Wellington Shire, which is the planning authority for this Amendment.

The Amendment has been made at the request of Beveridge Williams & Co. Pty. Ltd. On behalf of Jelaryl. Pty. Ltd; Park Ridge Investments Pty. Ltd; Reyela Pty.Ltd and Pearsondale Heights Pty.Ltd.

#### Land affected by the Amendment

The Amendment applies to the Wurruk Growth Area as identified in the Sale, Wurruk Longford Structure Plan (2010), with the specific land parcels proposed for rezoning listed below.

Title Details	Property Address	Proposed
LOT: 6 PS: 702630C	Princes Highway, Wurruk	Rezoned from LDRZ to GRZ1 Remove DPO1, apply DPO9
LOT:7 PS: 702630C	Princes Highway, Wurruk	Rezoned from LDRZ to GRZ1 Remove DPO1, apply DPO9
CA: 21 SEC: E	Settlement Road, Wurruk	Rezoned part from LDRZ to GRZ1 (western area above flood level) Remove DPO1, apply DPO9, update LSIO and FO
Lot:2 PS: 610634F	Arnup Road, Wurruk	Rezoned from FZ to GRZ1 Apply DPO9
Lot: 1 PS: 61034F	402 Arnup Road, Wurruk	Rezoned from FZ to GRZ1 Apply DPO9
CA: 19 SEC: E	Arnup Road, Wurruk	Rezoned from FZ to LDRZ Apply DPO9
Lot: 1 PS: 602219P	148E Settlement Road, Wurruk	Rezoned from FZ to RAZ, LDRZ and GRZ1 Apply to part the FO, LSIO and DPO9
Lot: 2 PS: 602219P	148F Reid Drive, Wurruk	Rezoned from FZ to RAZ
Lot: 3 PS: 602219P	148B Reid Drive, Wurruk	Rezoned from FZ to RAZ
Lot: 4 PS: 602219P	148A Reid Drive, Wurruk	Rezoned from FZ to RAZ
Lot: 5 PS: 602219P	148C Reid Drive, Wurruk	Rezoned from FZ to RAZ
Lot: 6 PS: 602219P	148D Reid Drive, Wurruk	Rezoned from FZ to RAZ
Lot: 7 PS: 602219P	1613 Settlement Road, Wurruk	Rezoned from FZ to RAZ, LDRZ Remove part of HO, apply to part the FO, LSIO and DPO9



Figure 1. Area to which the amendment applies

### What the amendment does

The Amendment proposes to rezone the Wurruk Growth Area, as identified in the Sale, Wurruk and Longford Structure Plan (2010) to the General Residential Zone 1 and Low Density Residential Zone - including the application of the Development Plan Overlay – Schedule 9. The Amendment seeks to rezone the Kilmarny Park Estate to the Rural Activity Zone to recognise and better reflect its existing use. The Amendment removes the Development Plan Overlay - Schedule 1 and amends the Heritage Overlay, Flood Overlay and Land Subject to Inundation Overlay to reflect the most up-to-date information.

The Amendment proposes to:

- Rezone land at Princes Highway, Wurruk being Lots 6 and 7 PS:702630C from Low Density Residential Zone to General Residential Zone Schedule 1.
- Rezone part of land at Settlement Road, Wurruk being CA:21 SEC: E, Parish of Wurruk Wurruk from Low Density Residential Zone to General Residential Zone Schedule 1.
- Rezone land at 402 Arnup Road and Arnup Road, Wurruk being Lots 1 and 2 PS: 61034F from Farming Zone to General Residential Zone Schedule 1.
- Rezone land at Arnup Road, Wurruk being CA: 19 SEC: E Parish of Wurruk Wurruk from Farming Zone to Low Density Residential Zone.
- Rezone land at 148E Settlement Road, Wurruk being Lot:1 PS:602219P from Farming Zone to part Rural Activity Zone, Part Low Density Residential Zone and Part General Residential Zone Schedule 1.
- Rezone land at 148F, 148B,148A, 148C and 148D Reid Drive, Wurruk being Lots: 2,3,4,5 and 6 PS:602219P from Farming Zone to Rural Activity Zone.
- Rezone land at 1613 Settlement Road, Wurruk being Lot:7 PS: 602219P from Farming Zone to part Rural Activity Zone and part Low Density Residential Zone.
- Delete Clause 43.04- Development Plan Overlay - Schedule 1 from Lots: 6 and 7 PS: 702630C being Princes Highway, Wurruk and CA:21 SEC: E, Parish of Wurruk Wurruk being Settlement Road, Wurruk.
- Apply Clause 43.04 -Development Plan Overlay – Schedule 9 to land at Princes Highway, Wurruk being Lots 6 and 7 PS:702630C; Settlement Road, Wurruk being CA:21 SEC: E, Parish of Wurruk Wurruk; 402 Arnup Road and Arnup Road, Wurruk being Lots 1 and 2 PS: 61034F; 148E Settlement Road, Wurruk being Lot:1 PS:602219P; and 1613 Settlement Road, Wurruk being Lot:7 PS: 602219P.
- Amend the Schedule to Clause 43.01 Heritage Overlay to update the heritage controls and reduce the extent of HO68 "Kilmarny Park Estate".



- Amend the Schedule to Clause 81.01 to replace the incorporated document *Individual Heritage Place (Rural areas) Permit Exemptions*, to include the updated heritage citation for HO68 - "Kilmany Park Estate".
- Amend Planning Scheme Maps 92, 92LSIO-FO, 92DPO, 93, 93DPO, 93LSIO-FO, 125, 125DPO, 125HO, 125LSIO-FO, 126, 126DPO, 126HO and 126LSIO-FO.

## **Strategic assessment of the Amendment**

### **Why is the Amendment required?**

The Amendment is required to allow the land, all located within the Wurruk Growth Area, to be developed for residential purposes at a mixture of low and standard densities. This Amendment is consistent with the Sale, Wurruk & Longford Structure Plan (2010).

### **How does the Amendment implement the objectives of planning in Victoria?**

The Amendment is consistent with and implements the objectives of planning in Victoria specified in Section 4 of the *Planning and Environment Act 1987*. In particular, the Amendment implements:

- Objective 4(1) (a) – by providing for the fair and orderly, economic and sustainable use and development of the land.
- Objective 4(1) (c) – by securing a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria.
- Objective 4(1) (d) – by conserving and enhancing those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value.

The rezoning of the identified land will make provision for the residential development of the land at a range of densities within the identified Growth Area in Wurruk.

### **How does the Amendment address any environmental, social and economic effects?**

The Amendment gives consideration to the potential environmental, social and economic impacts of the long-term development of the land.

The proposed rezoning will change the long-term use from agricultural to residential. In order to avoid negative outcomes, the proposal includes the application of a Development Plan Overlay. A specific Schedule to the Development Plan Overlay has been prepared for this area, which includes key design principles to achieve a distinctive, attractive neighbourhood with a centrally located community area. The community area will provide benefits for the whole Wurruk community and therefore the movement network will be required to connect the older, more established areas with the new development.

Assessments have already been undertaken in relation to overall drainage, flooding, native scattered trees and the historic Kilmany Park Estate. The draft Schedule to the Development Plan Overlay and the proposed application of the Heritage Overlay, Flood Overlay and Land Subject to Inundation Overlay reflect and facilitate the recommendations of those assessments. Further specialist assessments will be required in relation to traffic, native vegetation and cultural heritage. The recommendations of these specialist reports will be required to be incorporated into the final Development Plan. As such, all potential environmental and social impacts will be considered in detail during the preparation of the Development Plan itself.

Overall, it is expected that the Growth Area will provide a net community benefit for the Wurruk and broader community as:

- It will provide sufficient housing opportunities for the projected population growth within the Sale area;
- The population growth will provide opportunities for the improvement and expansion of commercial and community facilities; and

- During development and construction there will be associated economic benefits to local businesses.

#### **Does the Amendment address relevant bushfire risk?**

The land within the Study Area is currently not affected by the Bushfire Management Overlay (BMO). Although the subject land is not recognized as having any bushfire risk through the Wellington Planning Scheme, it is located within a Designated Bushfire Prone Area. On this basis, all buildings will need to be constructed to a minimum standard to provide protection from bushfire events.

The Country Fire Authority will be formally consulted during the public exhibition stage of the Amendment process.

#### **Does the Amendment comply with the requirements of any Minister's Direction applicable to the amendment?**

The Amendment complies with the requirements of the Ministerial Direction on the Form and Content of Planning Scheme pursuant to s 7(5) of the *Planning and Environment Act 1987* (the Act).

Pursuant to Section 12 of the *Planning and Environment Act 1987*, the Amendment complies with the following applicable Ministerial Directions:

- Ministerial Direction No. 11 - Strategic Assessment of Amendments; and
- Ministerial Direction No. 15 - The Planning Scheme Amendment Process.

This Planning Scheme Amendment is accompanied by all of the required information.

#### **How does the Amendment support or implement the State Planning Policy Framework and any adopted State policy?**

The Amendment supports the State Planning Policy Framework as follows:

**Clause 11 – Settlement:** The proposed Amendment will increase the supply of urban land available for residential development by approximately 800 lots, which represents ~11 years of residential supply for the Sale area. The Development Plan Overlay – Schedule 9 will ensure the sustainable and orderly development of the area. The Wurruk Growth Area is also identified within the Gippsland Regional Growth Plan (2014).

**Clause 13 – Environmental Risks:** The Amendment proposes to update the extent of the Land Subject to Inundation Overlay and Floodway Overlay in response to advice from the West Gippsland Catchment Authority and up-to-date flood mapping data.

**Clause 15 – Built Environment and Heritage:** The Amendment will enable the creation of a new neighbourhood. The proposed DPO9 will ensure that all new development will appropriately respond to the topography and the direct amenity of existing low density residential housing. A small area of the subject site is noted as having potential sensitivity to Aboriginal Cultural Heritage. This will be investigated and recommendations will be addressed as part of the Development Plan process.

Kilmany Park Estate is a significant heritage place. The amendment proposes updates to the extent of the Heritage Overlay and the Heritage Citation.

**Clause 16- Housing:** Through its facilitation of a broad range of lot sizes, i.e. General Residential Zoned lots of between 600m<sup>2</sup> and 1,000m<sup>2</sup>, Low Density Residential Lots of between 2,000m<sup>2</sup> and 5,000m<sup>2</sup>, in a gently undulating setting, the proposed amendment and subsequent development will create a broad diversity of housing and lifestyle opportunities that will bring diversification across the market.

**Clause 19- Infrastructure:** The proposed Schedule 9 to the Development Plan Overlay requires the provision of all essential services and infrastructure including community facilities, pedestrian path, cycling links and roads.



### **How does the Amendment support or implement the Local Planning Policy Framework, and specifically the Municipal Strategic Statement?**

The amendment supports and implements the Local Planning Policy Framework and Municipal Strategic Statement in a number of different ways.

Clause 21.04- Settlement: The proposed amendment will accommodate growth within a growth area which will support and reinforce the regional role of Sale. The requirements for the Development Plan will ensure appropriate urban design to achieve a connected neighbourhood.

Clause 21.05 – Sale Wurruk and Longford Strategic Framework: The township role of Wurruk is: 'Wurruk will provide diversity and choice in urban and rural living housing, opportunities for the establishment of new industry and an improved range of local services and facilities. It will act as a secondary settlement and activity node to complement Sale.'

The Clause identifies the subject land as a residential growth area. The proposed rezoning will enable the area to develop as envisioned in this Clause.

Clause 21.14- Environmental Risks: Flood prone land within the proposed amendment will either remain in the Low Density Residential Zone or be rezoned to the Rural Activity Zone. Restricting development in flood prone areas will protect the community from potential floods.

Clause 21.16- Built Environment and Heritage: The proposed schedule 9 to the Development Plan Overlay ensures that the native scattered trees will be incorporated in the final subdivision design. The requirements for the centrally located community area and pedestrian and cycling network will encourage social interaction and physical activity for the future residents of this neighbourhood and existing residents in the already surrounding established areas.

Clause 21.17- Economic Development: Kilmany Park Estate plays a significant role in the history of Sale and its immediate surroundings and is therefore deemed attractive to tourists in its existing use as bed and breakfast and conference centre. The Amendment facilitates further development of the Kilmany Park Estate as a point of interest for tourists by proposing to rezone the subject land to Rural Activity Zone.

Clause 21.18- Transport: The proposed Schedule 9 to the Development Plan Overlay promotes walking and cycling as a form of transport by requiring a connected and integrated movement network.

### **Does the Amendment make proper use of the Victoria Planning Provisions?**

The amendment uses the most appropriate Victorian Planning Provision tools to achieve the strategic objectives of the Wellington Planning Scheme.

This proposed amendment seeks to utilise existing zones and apply them to appropriate areas within the Wurruk growth area. Overlays applied to specific areas which require specific development control.

### **How does the Amendment address the views of any relevant agency?**

The preliminary views of VicRoads, the West Gippsland Catchment Management Authority and Gippsland Water have already been sought.

The West Gippsland Catchment Management Authority has provided the most up to date flood mapping. The Land Subject to Inundation Overlay and Flood Overlay are proposed to be updated in accordance with the updated data as part of this amendment.

Advice from VicRoads and Gippsland Water will be addressed as part of the Development Plan process.

Further views of the relevant agencies will be sought during the public exhibition process.

### **Does the Amendment address relevant requirements of the Transport Integration Act 2010?**

The Amendment is not likely to have a significant impact on the transport system, as recognised in Section 3 of the *Transport Integration Act 2010*. The statements of policy principles under Section 22 of the *Transport Integration Act 2010* are not relevant to the current proposal.

### **Resource and administrative costs**

- **What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

The proposal will, in the long term, be followed by an application for approval of a Development Plan under the provisions of the proposed Development Plan Overlay and applications for planning permits for subdivision and development on all rezoned parcels of land. However, the development is not likely to result in significant impacts on Council's resource and administrative costs.

### **Where you may inspect this Amendment**

The Amendment is available for public inspection, free of charge, during office hours at the following places:

Wellington Shire Council  
Sale Service Centre  
18 Desailly Street  
Sale VIC 3850

Wellington Shire Council  
Yarram Service Centre  
156 Grant Street  
Yarram VIC 3971

The Amendment can also be inspected free of charge at the Department of Environment, Land, Water and Planning website at [www.delwp.vic.gov.au/public-inspection](http://www.delwp.vic.gov.au/public-inspection).

### **Submissions**

Any person who may be affected by the Amendment [and/or planning permit] may make a submission to the planning authority. Submissions about the Amendment [and/or planning permit] must be received by [insert submissions due date -to be included after Authorisation is received].

A submission must be sent to Strategic Planning, Wellington Shire Council, PO Box 506, Sale, VIC, 3850.

### **Panel hearing dates**

In accordance with clause 4(2) of Ministerial Direction No.15 the following panel hearing dates have been set for this amendment:

- directions hearing: [to be included after Authorisation is received]
- panel hearing: [to be included after Authorisation is received]

*Planning and Environment Act 1987*

**WELLINGTON PLANNING SCHEME**

**AMENDMENT C84**

**INSTRUCTION SHEET**

The planning authority for this amendment is the Wellington Shire Council.

The Wellington Planning Scheme is amended as follows:

**Planning Scheme Maps**

The Planning Scheme Maps are amended by a total of 7 attached maps sheets.

**Zoning Maps**

1. Amend Planning Scheme Map Nos. 92, 93, 125 and 126 in the manner shown on the attached map marked "Wellington Planning Scheme, Amendment C84".

**Overlay Maps**

2. Amend Planning Scheme Map Nos. 92DPO, 92LSIO-FO, 93DPO, 125HO, 126LSIO-FO, 126DPO, 126HO and 126LSIO-FO in the manner shown on the 6 attached maps marked "Wellington Planning Scheme, Amendment C84".

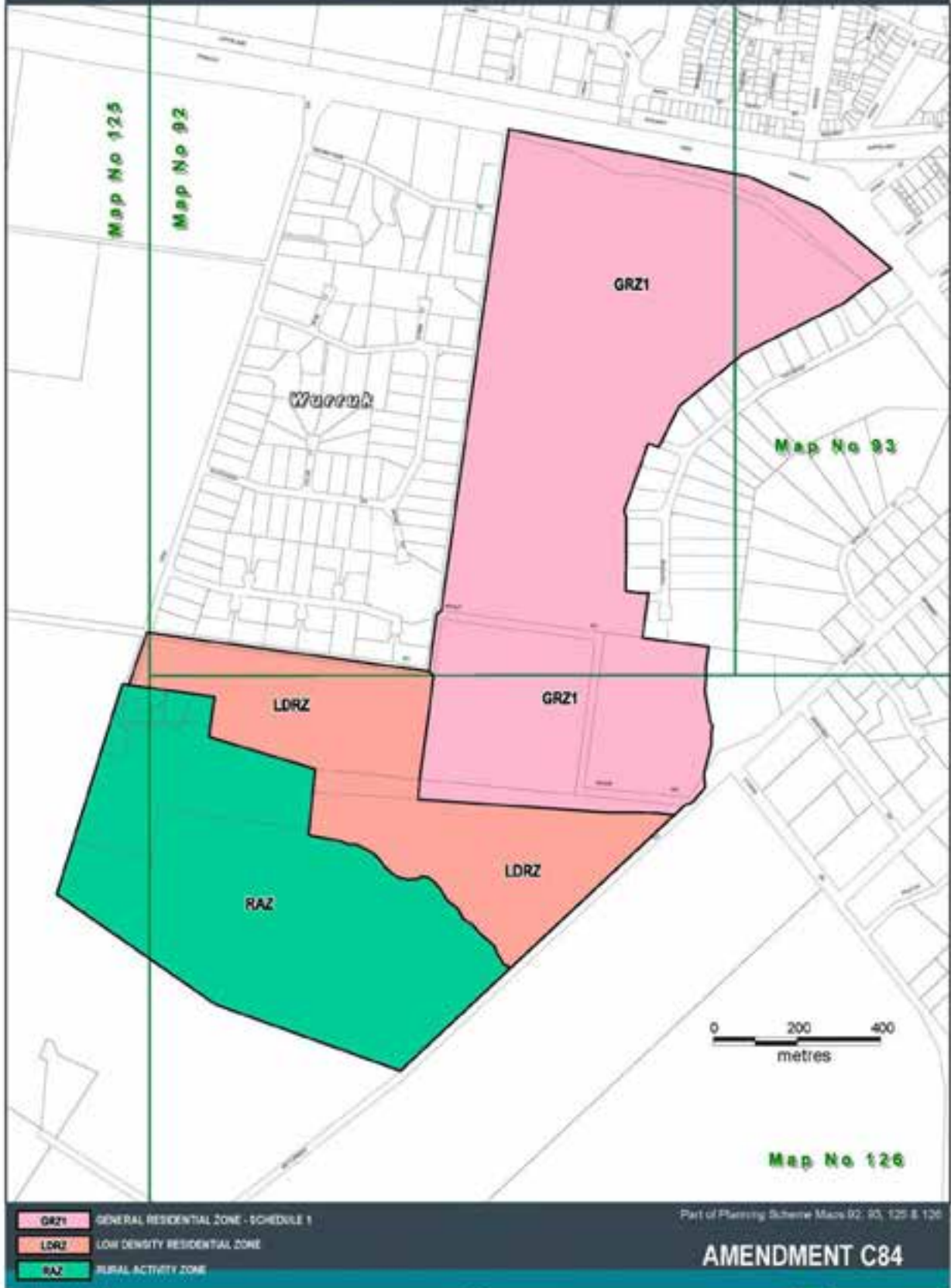
**Planning Scheme Ordinance**

The Planning Scheme Ordinance is amended as follows:

3. In Overlays – Clause 43.01, replace the Schedule with a new Schedule in the form of the attached document.
4. In Overlays – Clause 43.04, insert a new Schedule 9 in the form of the attached document.
5. In Incorporated Documents – Clause 81.01, replace the Schedule with a new Schedule in the form of the attached document.

End of document

WELLINGTON PLANNING SCHEME



- GRZ1 GENERAL RESIDENTIAL ZONE - SCHEDULE 1
- LDRZ LOW DENSITY RESIDENTIAL ZONE
- RAZ RURAL ACTIVITY ZONE

Part of Planning Scheme Maps 92, 93, 125 & 126

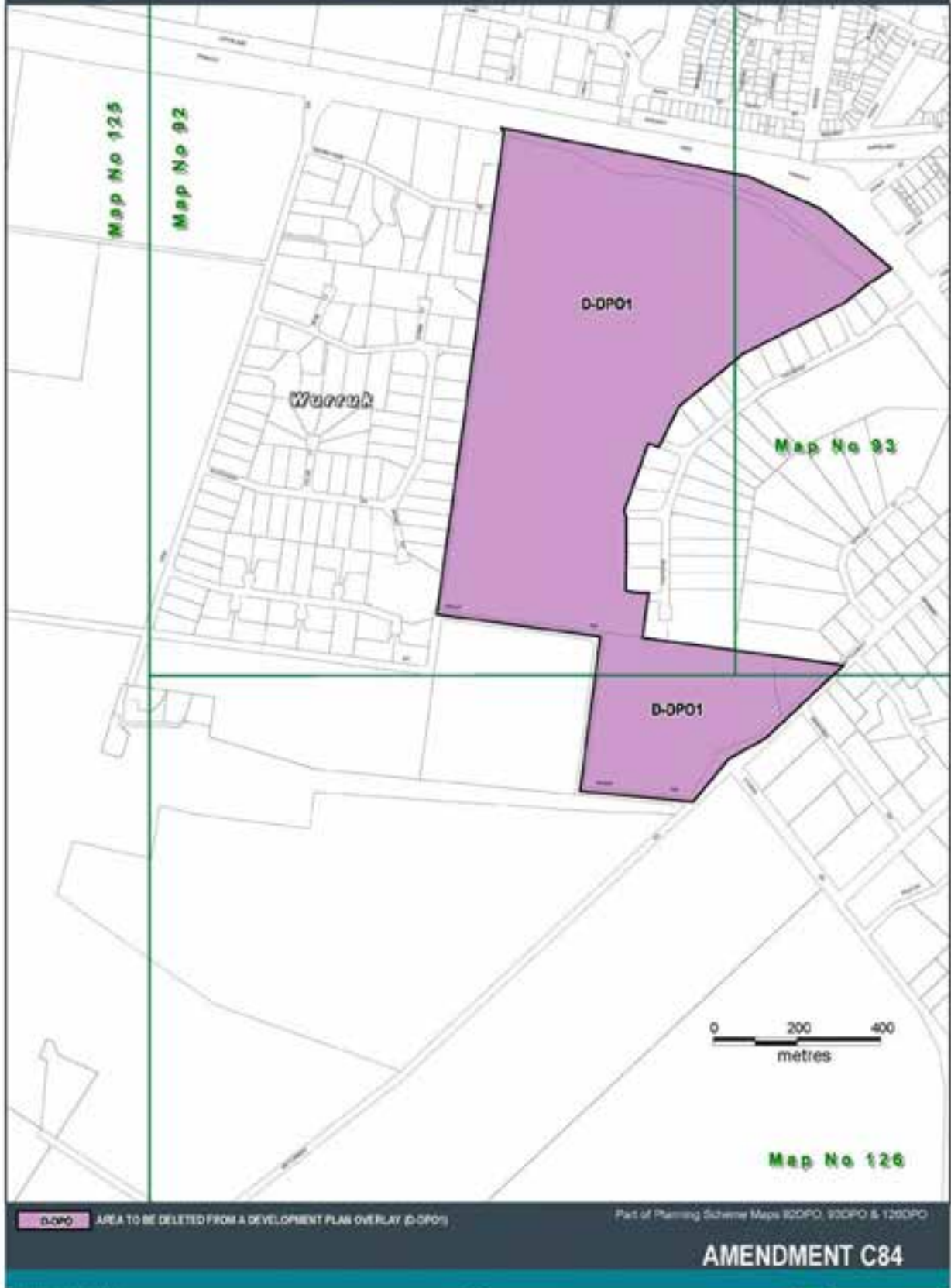
AMENDMENT C84

Planning Mapping Services  
Planning Information Services  
Planning





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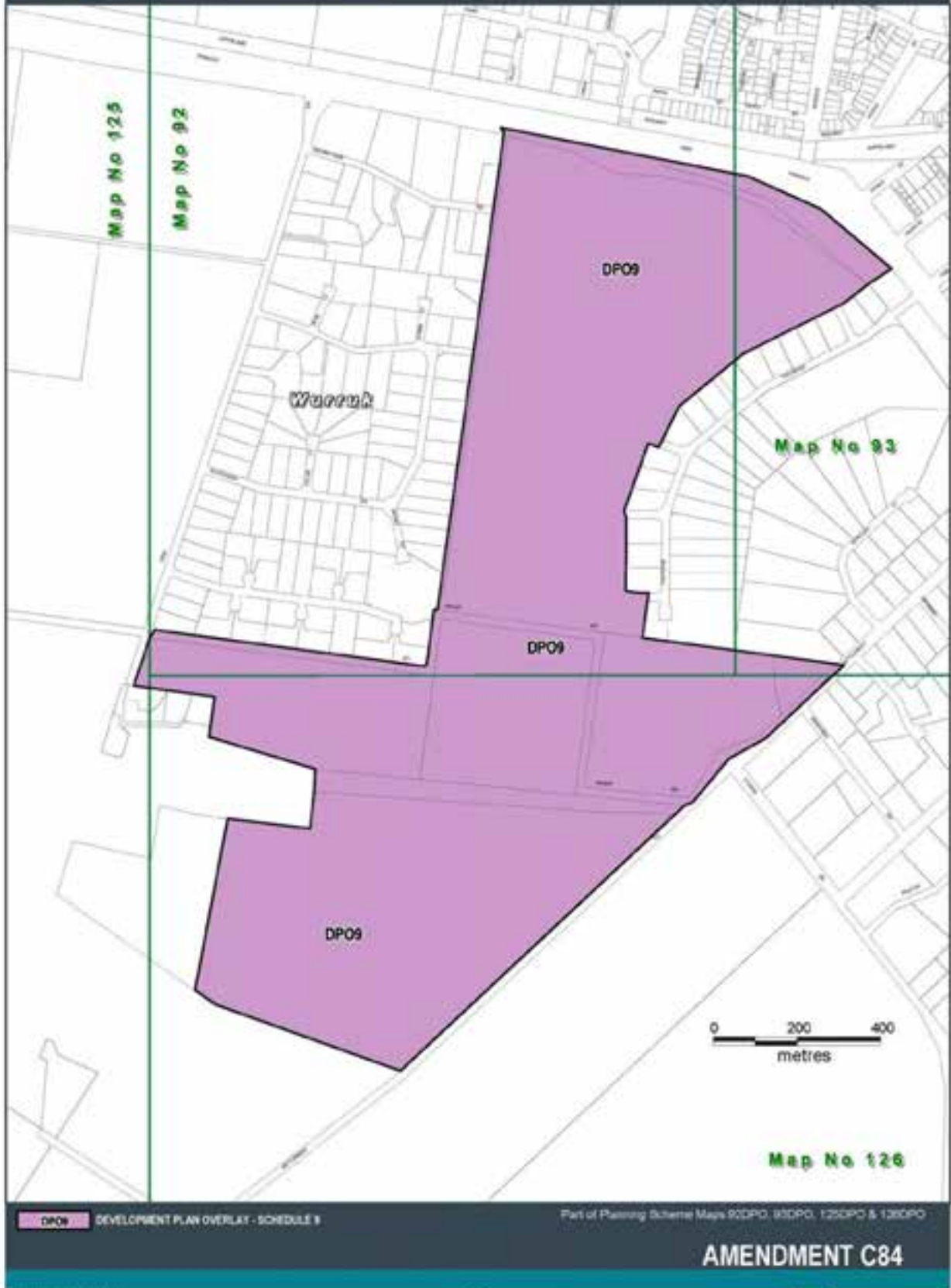


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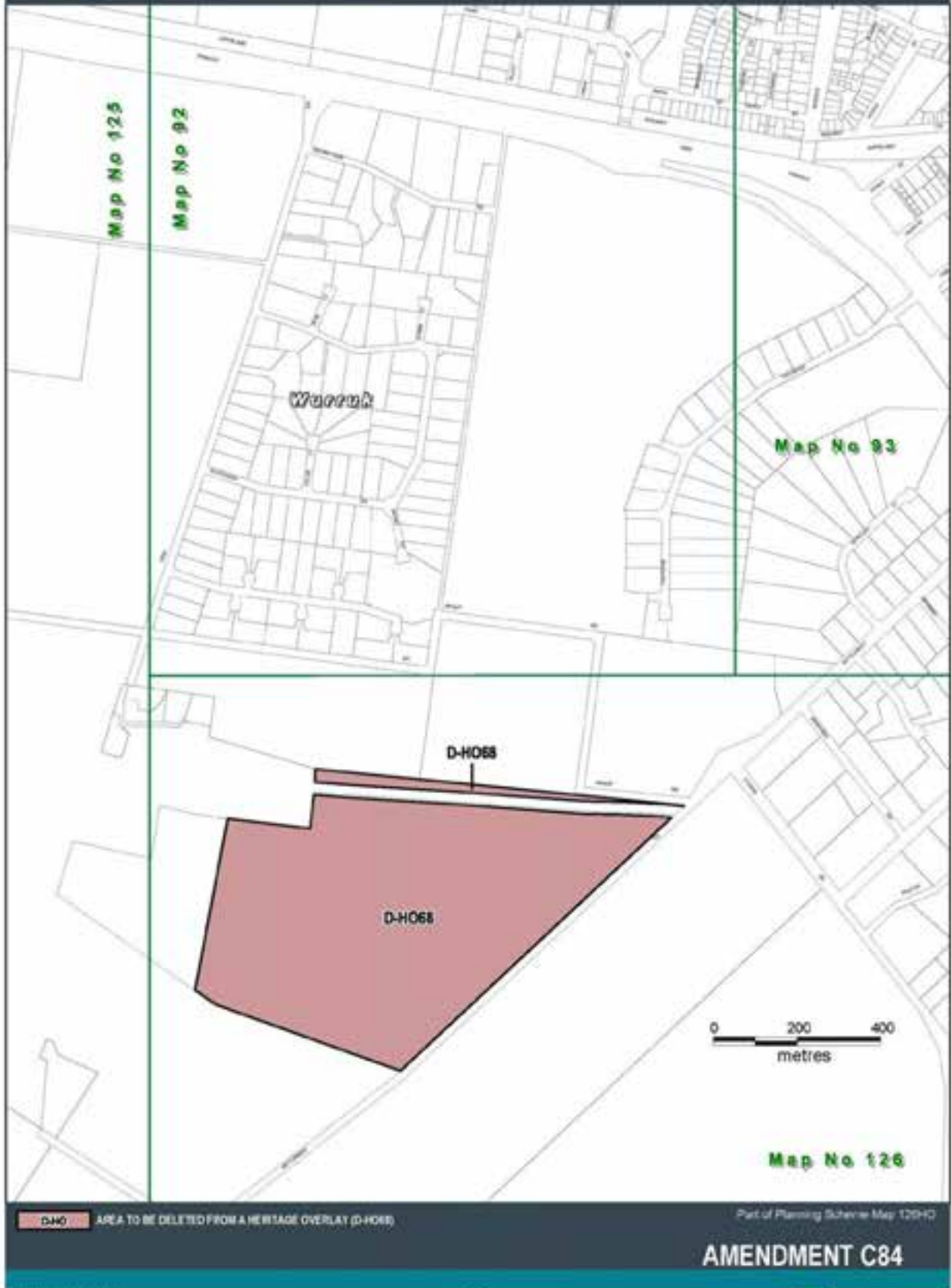
WELLINGTON PLANNING SCHEME



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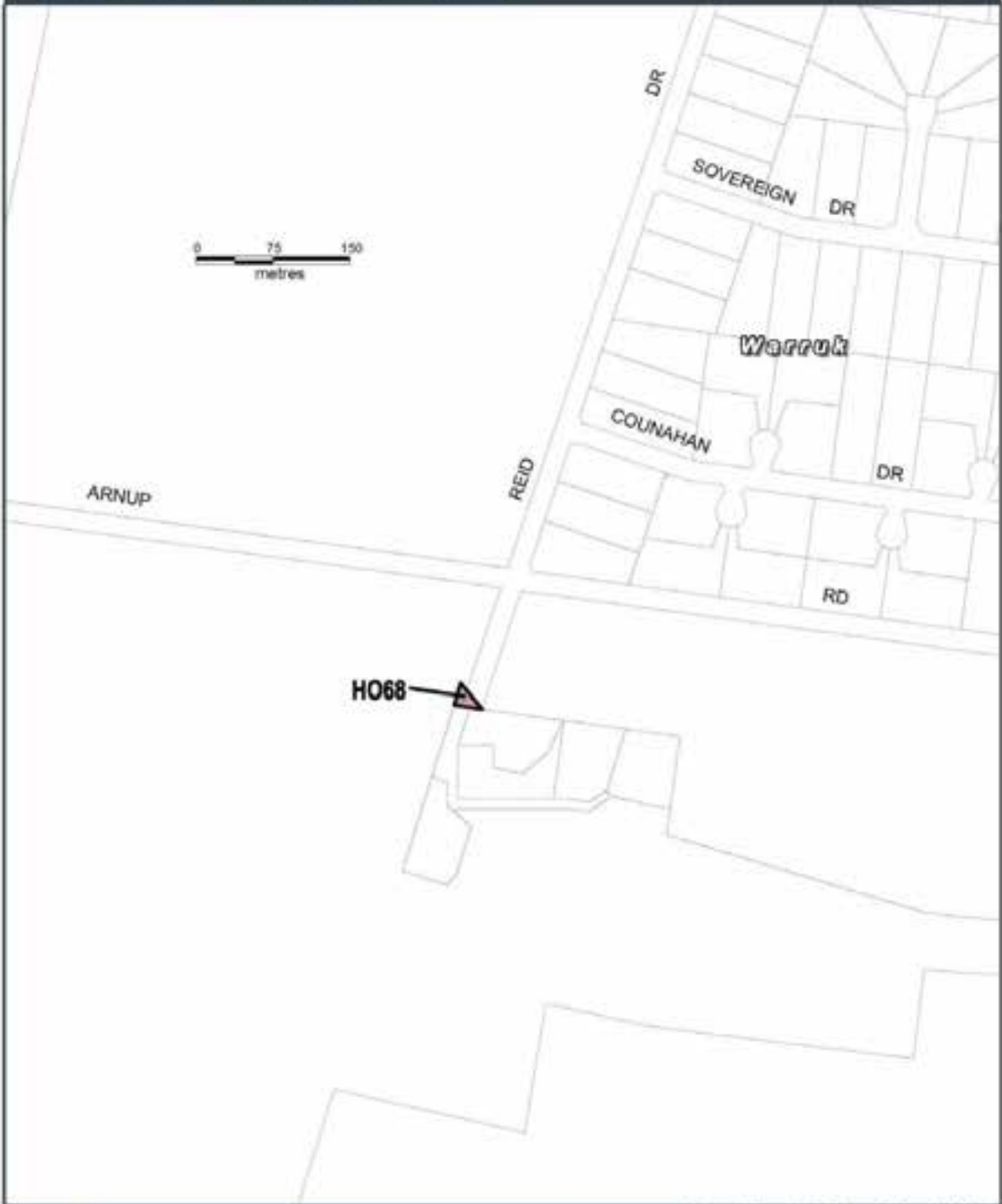
WELLINGTON PLANNING SCHEME



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# WELLINGTON PLANNING SCHEME



## LEGEND

**HO68** HERITAGE OVERLAY (HO68)

Part of Planning Scheme Map 125HO

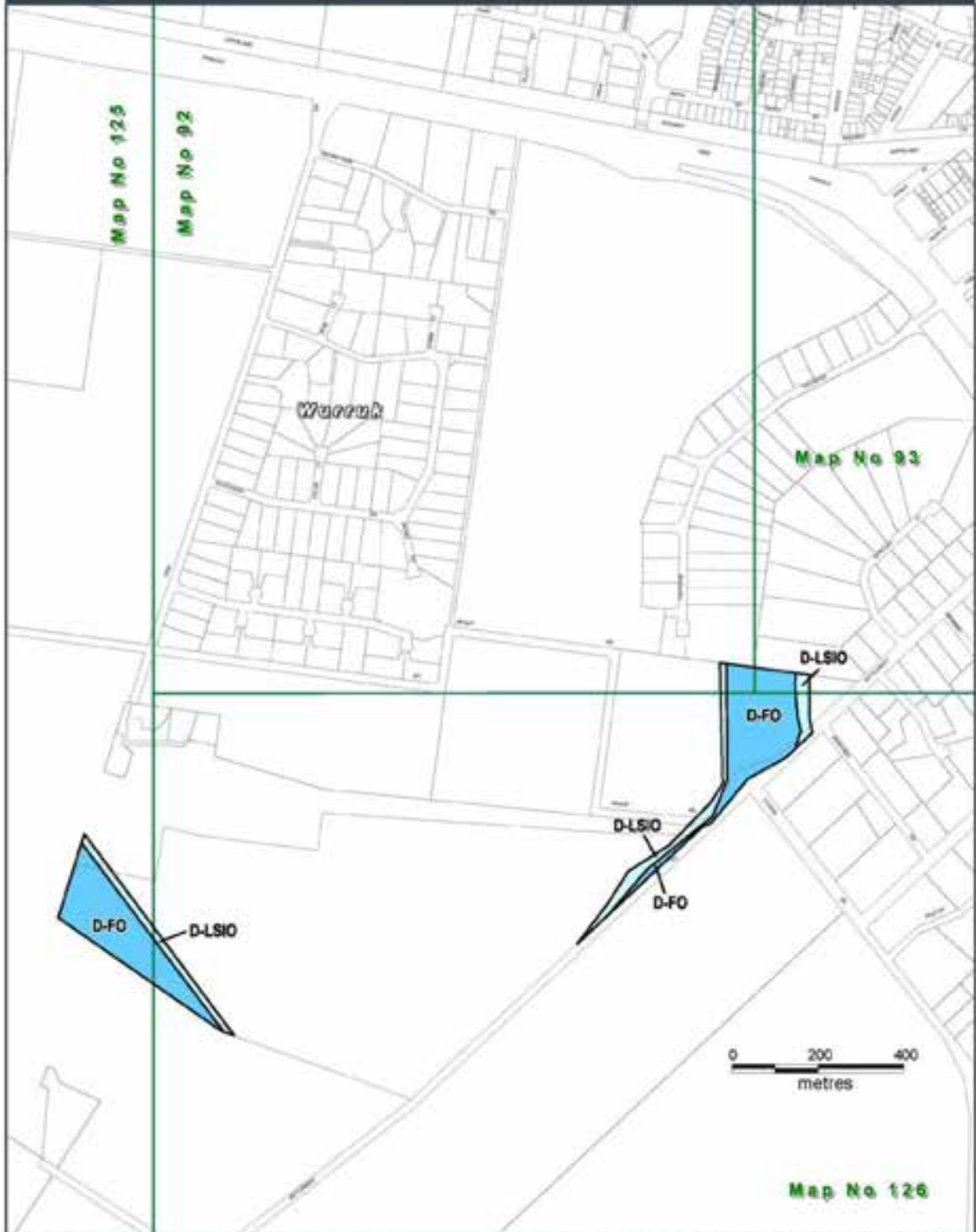
## AMENDMENT C84

[ Planning Mapping Services ]  
[ Planning Information Services ]  
[ Planning ]



Environment,  
Land, Water  
and Planning  
84

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Part of Planning Scheme Map 92LSIO-FO, 93LSIO-FO, 125LSIO-FO & 126LSIO-FO

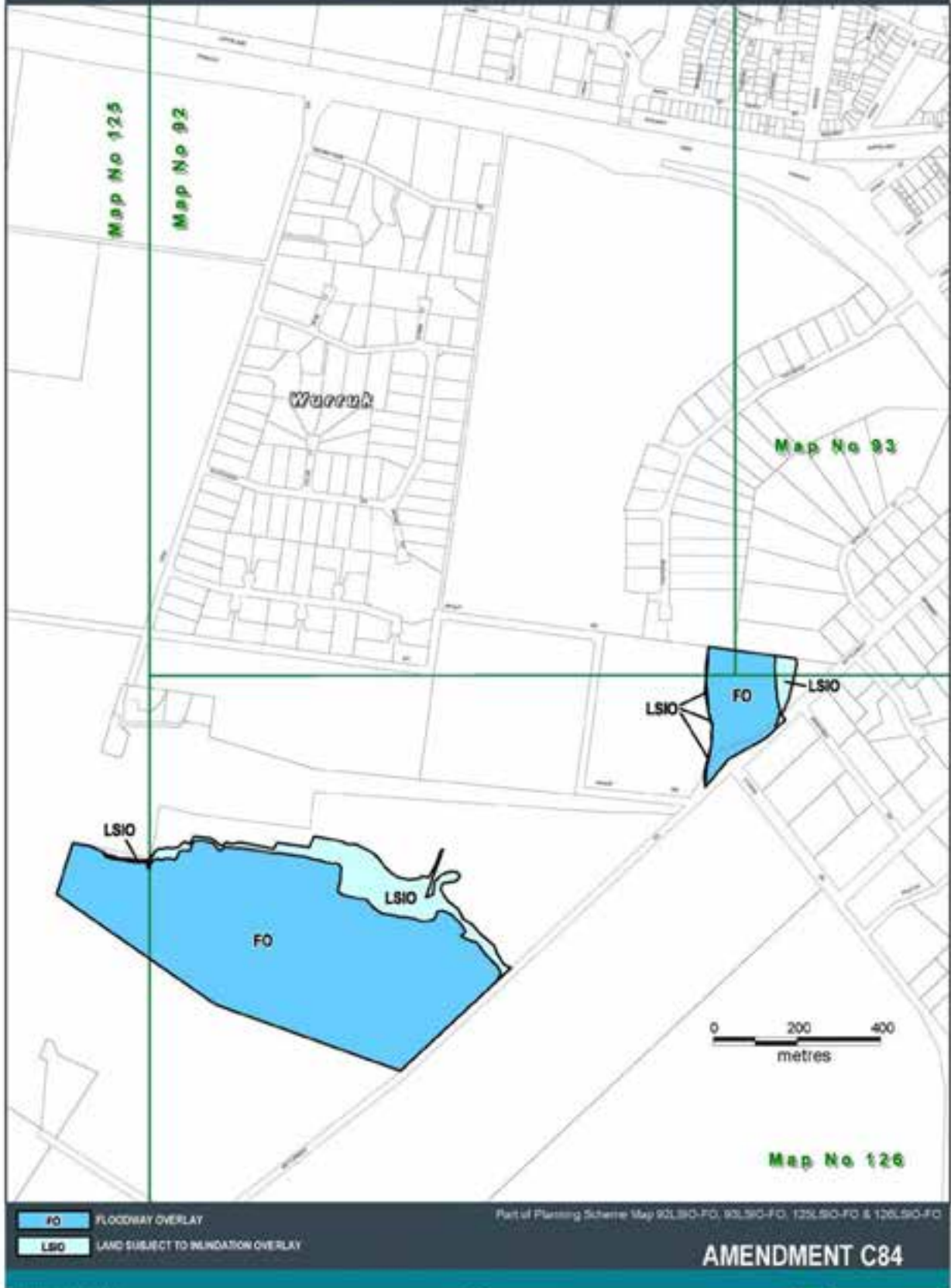
**AMENDMENT C84**

(Planning Mapping Services)  
(Planning Information Services)  
(Planning)





WELLINGTON PLANNING SCHEME



**FO** FLOODWAY OVERLAY  
**LSIO** LAND SUBJECT TO INUNDATION OVERLAY

Part of Planning Scheme Map 90LSIO-FO, 93LSIO-FO, 125LSIO-FO & 126LSIO-FO

**AMENDMENT C84**

(Planning Mapping Services)  
(Planning Information Services)  
(Planning)





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Proposed CMA

## SCHEDULE 9 TO THE DEVELOPMENT PLAN OVERLAY

Shown on the planning scheme map as **DPO9**

### SALE WESTERN GROWTH AREA – WURRUK

DRAFT

#### 1.0 Requirement before a permit is granted

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Proposed CMA

A permit may be granted to construct or carry out minor works to an existing building prior to the approval of a development plan if the responsible authority is satisfied that the granting of a permit does not prejudice the intended outcomes of the development plan.

A permit for subdivision must be considered against the staging plan identified in the approved development plan, the residential supply in the Sale area and a demonstrated demand for further development.

#### 2.0 Conditions and requirements for permits

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Proposed CMA

A permit application for subdivision must include:

- A subdivision plan showing building envelopes and lot frontages.
- A Stormwater Management Plan.

Any permit for subdivision and development must include conditions reflecting guidelines, requirements and conditions as stated in the approved development plan.

Any permit regarding land containing a native tree where retention is required or deemed achievable, must contain a condition giving effect to tree protection (including canopy and root system) during subdivision construction. The existing agreement under Section 173 of the *Planning and Environment Act 1987* for specific trees within the development plan area will lapse once the tree protection strategy is fully implemented.

Any permit regarding land where at least 25 per cent of the perennial understorey is made up of native grasses must contain a condition requiring an approved Offset Management Strategy prior to Statement of Compliance.

Any permit regarding land where onsite waste water management systems are used must show the building and effluent disposal envelopes on the subdivision plan. The minimum lot size for sites with onsite waste water management systems is 4000 square metres.

Any permit regarding land containing a designated waterway must contain a condition requiring a Water Management Plan.

Any permit regarding land containing or abutting a place of cultural heritage significance (including Kilmory Park) must contain a condition which gives effect to any recommendations for the protection, enhancement and interpretation of the place as referred to in the approved development plan.

Any permit for subdivision must include an agreement under Section 173 of the *Planning and Environment Act 1987* between the landowners and the responsible authority to acknowledge the arrangements (e.g. payments or works-in-lieu) of infrastructure contributions identified in the development plan. If such an agreement already exists providing for the required infrastructure contributions, the landowner(s) are not required to enter into a new agreement. The agreement will lapse once all specified requirements of the agreement have been satisfied.

#### 3.0 Requirements for development plan

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Proposed CMA

There must be a single development plan for the whole development plan area to which this schedule applies.

The development plan must be generally in accordance with the concept plan shown in Figure 1 below and address the following design principles:

- A distinctive neighbourhood with a strong sense of place through:

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- Utilising the natural topography of the area to create rural views and vistas from key public areas and roads to its surroundings.
- Enhancing and protecting heritage features such as Kilmany Park estate, significant Aboriginal sites and other objects of cultural or historical significance.
- Retaining significant indigenous vegetation, particularly native scattered trees.
- A connected and integrated movement network by providing:
  - A permeable, sealed and safe road network based on a practical road hierarchy, directly connected with abutting residential areas. Cul-de-sacs are discouraged.
  - Continuous and direct routes for pedestrians and cyclists between proposed and established residential areas and the neighbourhood activity centre, public open space, Warruk Primary School, Sale CBD, public transport and other key public areas.
- A centrally located and accessible community area for use of the whole Warruk community, which contains:
  - A district open space not less than five hectares with at least a regional playground, junior football ground, change rooms, shelter with barbeque and public toilets.
  - A neighbourhood activity centre with total building footprint of not less than 1,500 square metres for commercial and community uses such as child care centre, convenience store and take-away.
  - Opportunities to facilitate formal and informal community gathering and social interaction.
- An attractive and safe neighbourhood through:
  - Distinctive neighbourhood entrances from the Princes Highway and Settlement Road.
  - A prominent highway frontage that provides an attractive entrance into Sale.
  - Appropriate interfaces with Kilmany Park, existing low density residential areas and the neighbourhood activity centre.
  - Lots fronting to major roads, shared paths, waterways, flood plains, public open space and reserves.
  - Natural surveillance to create a sense of safety and security.

The development plan must be accompanied by and incorporate recommendations of the following specialist reports, and others as requested by the responsible authority:

- A Traffic Impact Assessment Report, Traffic Management Plan and Road Safety Audit which also determines impacts on surrounding areas.
- A Native Vegetation Assessment including a Biodiversity Assessment Report.
- A Cultural Heritage Management Plan.

The specialist reports must address the design principles and concept plan included in this schedule and any relevant background studies previously undertaken.

The development plan must incorporate the road reserve west of Lot 6 PS702630.

The development plan must be informed and accompanied by a detailed design response based on an analysis of the natural, cultural and strategic context of the site and reflecting the recommendations of all specialist reports.

The development plan must contain:

- A description of the proposed neighbourhood vision and character enhancing the existing heritage, cultural and natural features.
- A site responsive and functional lay-out pattern including the identification of:
  - The subdivision lay-out providing a variety of lot sizes and densities.
  - The location of all public open space and land to be used for drainage or conservation purposes.
  - The road network, integrated with surrounding residential areas including movement network for pedestrians and cyclists.
  - View corridors and heritage features.

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- A landscape strategy with a consistent theme based on the proposed vision and character for the whole development including guidelines to support water sensitive urban design, details of street furniture, entrance statements from the Princes Highway and Settlement Road, and the native vegetation to be retained in public open space.
- A draft concept plan for the neighbourhood activity centre and district open space, including location of a sports oval, play space, general footprint of building(s), vehicle access points, location of parking, areas for delivery and waste disposal, integration with the pedestrian and bicycle path network, access to public transport and interfaces with abutting development.
- Urban design guidelines for the whole development providing for high quality built form, heritage recognition, active frontages, sense of place and security, and all ability access.
- Urban design guidelines and concept plans for interfaces with the Princes Highway, established residential areas, Kilmory Park Estate, Settlement Road and the flood plain at the southern boundary.
- Interim and ultimate design solutions, particularly for infrastructure within and outside the development plan area including connections to key public areas.
- An overall Servicing Plan showing water, sewerage, drainage, stormwater, electricity and telecommunications.
- A Staging Plan and Land Budget, including lot yield targets per stage.
- A Developer Contributions Plan addressing anticipated timing and details of all required infrastructure associated with the development, including interim and ultimate infrastructure requirements.



























In assessing the development plan or an amendment to the development plan, the responsible authority must be satisfied that it:

- Achieves the design principles specified in this Clause.
- Is consistent with the Sale, Warruk and Longford Structure Plan (2010), the South Warruk Stormwater Plan 2016, Scattered Tree Assessment, June 2014, Land Capability Assessment March 2016 and subsequent specialist reports.
- Provides all essential services; community facilities; pedestrian and cycling links; and roads.
- Is prepared to the satisfaction of the responsible and external authorities including CFA, VicRoads, West Gippsland Catchment Management Authority, Gippsland Water, Aboriginal Affairs Victoria, Department of Environment Land Water and Planning and relevant service authorities.
- Is developed with the appropriate level of community participation as determined by the responsible authority.
- Implements development requirements as set out in the Infrastructure Design Manual (IDM) and other requirements as determined by relevant authorities.
- Supports design and development principles as set out in
  - Supportive Environments for Physical Activity (SEPA) principles of healthy urban design- refer to Healthy by Design guidelines,
  - Water Sensitive Urban Design (WSUD), including recycling infrastructure and use of treated water,
  - Crime Prevention Through Environmental Design (CPTED)
- Is in accordance with any relevant agreement prepared under Section 173 of the *Planning and Environment Act 1987*.



Figure 1: Concept plan



- |   |  |   |  |
|---|--|---|--|
|  | Existing road network  |  | Designated waterway and floodprone land                                      |
|  | Indicative road network  |  | Proposed retardation basins as identified in South Wairarapa Stormwater Plan |
|  | Existing shared path   |  | Alternative location retardation basin                                       |
|  | Indicative shared path connection  |  | Existing drainage reserve  |
|  | Indicative walking and cycling link  |  | Search area for Open Space and Neighbourhood Activity Centre                 |
|  | Long term shared path connection   |  | Proposed conservation reserve  |
|  | Entrance Statement   |  | Native trees as identified in Scattered Tree Assessment                      |
|  | Higher density around amenity area - indicatively, lots not less than 300 m <sup>2</sup> |  | Interface with established residential areas                                 |
|  | Medium density - indicatively, lots averaging 800 m <sup>2</sup>                         |  | Interface with Leslie Drive  |
|  | Lower density - indicatively, lots no greater than 1,000 m <sup>2</sup>                  |  | Interface with waterway or flood prone area                                  |
|  | LDRZ area - indicatively, lots no less than 2000 m <sup>2</sup>                          |  | Interface with Settlement Road   |
|  | LDRZ area - indicatively, lots no less than 4000 m <sup>2</sup>                          |  | Interface with Kilmory Park Estate   |
|  | Kilmory Park Estate  |  | Interface with Princes Highway   |

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1162/2014  
[Amendment C84](#)

**SCHEDULE TO THE HERITAGE OVERLAY**

The requirements of this overlay apply to both the heritage place and its associated land.

*Please note: for readability purposes only the relevant page of this schedule where the change is proposed is shown. There are no changes proposed to other parts of this schedule as part of Amendment C84*

PS Map Ref	Heritage Place	External Paint Controls Apply?	Internal Alteration Controls Apply?	Tree Controls Apply?	Outbuildings or fences which are not exempt under Clause 43.01-3	Included on the Victorian Heritage Register under the Heritage Act 1995?	Prohibited uses may be permitted?	Name of incorporated Plan under Clause 43.01-2	Aboriginal heritage place?
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**SALEWURRUK**

HO149	Wurruk Primary School No. 2518 15-19 Fisk Street, Wurruk	No	No	No	No	No	No	-	No
HO150	Tom's Cottage 10-12 Otway Street, Wurruk	No	No	No	No	No	No	Individual Heritage Places (township areas) Permit Exemptions	No
HO148	House 2 (Part CA 3) Riverview Road (Princes Highway), Wurruk	No	No	No	No	No	No	Individual Heritage Places (rural areas) Permit Exemptions	No
HO68	Kilmarny Park <a href="#">1613 Settlement Road, 145A, 145B, 145C, 145D, 145E and 145F-4 Reid Drive, Wurruk.</a>	Yes	<a href="#">Yes/No</a>	Yes	<a href="#">Yes/No</a>	No	No	Individual Heritage Places (rural areas) Permit Exemptions	No
HO151	Oak Tree Settlement Road & Reid Drive, Wurruk	No	No	Yes	No	No	No	Individual Heritage Places (rural areas) Permit Exemptions	No



## SCHEDULE TO CLAUSE 81.01

Name of document	Introduced by:
Alberton Cemetery Heritage Permit Exemptions	C26(Part 1)
Australian Standard AS2021-2015, Acoustics – Aircraft Noise Intrusion – Building Siting and Construction, Standards Australia Limited, 2015	VC107
Basslink – Land Use and Development Controls, 2002	C15
Hollands Landing Estate Restructure Plan Sheet 1 of 2 and Sheet 2 of 2, 15 June 2000	NPS1
Individual Heritage Places (Rural areas) Permit Exemptions, <a href="#">amended August 2016</a>	<a href="#">C81(C26(Part 1))</a>
Individual Heritage Places (Township areas) Permit Exemptions	C26(Part 1)
"Ninety Mile Beach Development and Subdivision Controls Golden Beach to Glomar Beach, Incorporated Document, March 2012" comprising: <ul style="list-style-type: none"> <li>• Stage R7, DRG No 3421019-00-001</li> <li>• Stage R8, DRG No 3421019-00-002</li> <li>• Stage R9, DRG No 3421019-00-003</li> <li>• Stage R10, DRG No 3421019-00-004</li> <li>• Stage R11, DRG No 3421019-00-005</li> <li>• Stage R12, DRG No 3421019-00-006</li> <li>• Stage R13, DRG No 3421019-00-007</li> <li>• Stage R14, DRG No 3421019-00-008</li> <li>• Stage R15, DRG No 3421019-00-009</li> <li>• Stage R16, DRG No 3421019-00-010A</li> <li>• Stage R17, DRG No 3421019-00-011</li> <li>• Stage R18, DRG No 3421019-00-012</li> <li>• Stage R19, DRG No 3421019-00-013A</li> <li>• Stage R20, DRG No 3421019-00-014A</li> <li>• Stage R21, DRG No 3421019-00-015A</li> <li>• Stage R22, DRG No 3421019-00-016</li> <li>• Index Sheet, DRG No 3421019-00-017</li> </ul>	C71
Ninety Mile Beach Restructure Plan Stage R1, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R2, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R3, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R4, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R5, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R6, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R23, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R24, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R25 & R26, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R27 & R28, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R29, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R30, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R31, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R32, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R33, 15 June 2000	NPS1

WELLINGTON PLANNING SCHEME

Name of document	Introduced by:
Ninety Mile Beach Restructure Plan Stage R34, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R35 & R36, 15 June 2000	NPS1
Ninety Mile Beach Restructure Plan Stage R37 Sheet 1 of 2 and Sheet 2 of 2, 15 June 2000	NPS1
Port Albert Heritage Precinct Permit Exemptions	C26(Part 1)
Princes Highway Duplication, Traralgon to Kilmany, Incorporated Document, November 2012	C76
Sale & District Agricultural Society Showgrounds Heritage Permit Exemptions	C26(Part 2)
Sale Golf Club Re Development Concept Masterplan March 2006	C69
Sale Golf Club Re-Development Landscape Strategy Plan June 2006	C69
Sale Residential Heritage Precincts Permit Exemptions (amended September 2015)	C93
Sale Rural Heritage Precinct Permit Exemptions	C26(Part 1)
Sale Town Centre Heritage Precinct Permit Exemptions	C26(Part 1)
Wellington Shire Heritage Place Citations 2007	C26(Part 1)

<b>Locality:</b>	<b>Wurruk</b>
<b>Place address:</b>	<b>1613 Settlement Road, 148A, 148B, 148C, 148D, 148E and 148F Reid Drive Wurruk</b>
<b>Citation date</b>	2016
<b>Place type and construction date:</b>	1 Meat House exterior and interior (c 1847-70), 2 Mens Quarters (c1860/alterations c1880-81), 3 Underground Water Tanks (c1870-81) 3, 4 Stables (1880-81), 5 English Oak and copper Dedication Tablet (1901), ( <i>Quercus robur</i> ) HO151, 6 Gardens and trees and elliptical unscaled carriage drive c1870-1906, 7 Driveway (Later known as Leslie Drive) (1903) and English Oak trees at Settlement Road entry and at the mansion end., 8 Mansion house exterior and interior (1905-06) , 9 McClelland Memorial Gate Pillars and plaque at Reid Dr entry (1924), 10 Kilmany Park School No. 4240. (1927), 11 Kilmany Park School Sloyd Room (1949), 12 Recreation building Ainslie Bequest 1962 and plaque,
<b>Recommended heritage protection:</b>	Local government level Local Planning Scheme: Yes Vic Heritage Register: Yes (part) Heritage Inventory (Archaeological): No Source: The Leader, 7 <sup>th</sup> July 1906, p.33.
<b>Place name:</b>	<b>Kilmany Park Mansion and Kilmany Park Farm Home for Boys Complex</b>
<b>Architectural Style:</b>	Victorian Georgian ( Mens Quarters, Stables, Meat House); Federation Classical with Art Nouveau interior elements plaster decoration, timber screens, lead light windows, (Mansion house 1905-6); Interwar Moderne ( School and Sloyd Room); Post War Functionalist (c1962) Recreation building;
<b>Designer / Architect:</b>	J H W Pettit architect and surveyor. (Brick house 1870-71- now very modified); (1880-81 stables and alterations to Mens Quarters); Harry B Gibbs and Finlay (1905-06 mansion house); Percy Everett ( 1949 Sloyd Room), Keith Reid (1962 Recreation room).
<b>Builder</b>	William Allen (1880-81 Stables);



Fig 1 Mansion and elliptical driveway.



Fig 2 Interior showing the Art Nouveau timber screen.



Fig 3. Looking from the upstairs balcony towards the driveway.

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### Draft Statement of Significance for HO68 'Kilmany Park' with a reduced polygon and amended Statutory Recommendations.

This statement of significance is based on the history and description (only) in Trethowan, Architecture Interiors Heritage (2016). The assessment of significance is the opinion of the author, Lorraine Huddle. The Criteria, A, B, C, D, E, F, G, H is the Heritage Council Criteria for assessing cultural heritage significance (HERCON). Level of Significance, Local, State, National, is in accordance with the level of Government legislation.

#### What is significant?

"Kilmany Park Mansion, and the Kilmany Park Farm Home for Boys Complex" at 1613 Settlement Road, Wurruk, is significant. The complex consists of the following significant elements from the two main historical development phases of the place: The estate of the Pearson family, 1841- c1923, and the Kilmany Park Farm Home for Boys (1923- c1977). (See aerial view in Fig D1)

- The Mansion house and interior, as built in 1905-6 and designed by Melbourne architects Harry B Gibbs and Finlay and the following outbuildings and trees associated with the Pearson family.
  - 1 Meat House exterior and interior (c 1847-70),
  - 2 Mens Quarters (c1860/alterations c1880-81);
  - 3 Three Underground Water Tanks (c1870-81)
  - 4 Racing Stables (1880-81) designed by local architect J H W Pettit.
  - 5 English Oak (1901) and copper plaque, (*Quercus robur*) HO15L,
  - 6 Gardens and trees c1870+ as specified by John Hawker, and including elliptical unsealed carriage drive in front of the house,
  - 7 Driveway from Settlement Road (1903) (later known as Leslie Drive) and English Oak trees at Settlement Road entry and mansion end.
  - 8 Mansion house exterior and interior (1905-06),
- Kilmany Park Farm Home for Boys (1923- c1977): including structures by PWD architect Percy Everett c1949, and structures attributed to architect Keith Reid 1962.
  - 9 McClelland Memorial Gate Pillars and plaque at Reid Drive (1924),
  - 10 Kilmany Park School No. 4240 (1927),
  - 11 Kilmany Park School No. 4240 Sloyd Room (1949), PWD architect Percy Everett.
  - 12 Recreation building Ainslie Bequest 1962, attributed to architect Keith Reid and 1962 brass dedication plaque.

The original form, materials and detailing of each building or element listed, are significant as originally constructed.

Later outbuildings, and alterations and additions to the buildings or elements are not significant, including a series of caretakers' and labourers' houses associated with the operation of 'Kilmany Park' as the boys' home and as a dairy farm, by the Uniting Church of Australia, and the fence at the Settlement Road entry to the driveway are not significant. The 1960s oval and indigenous plantings along the 1903 driveway are not significant. The realigned shape of the 1903 driveway, which goes around the 1960s oval is not significant.

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**How is it significant?**

The significant elements from the "Kilmany Park Mansion Complex" estate of the Pearson family, (1841- c1923) and the significant elements from the period of the Kilmany Park Farm Home for Boys (1923- c1977) are **locally significant** for their historical, social, aesthetic and scientific values to the Shire of Wellington.

"Kilmany Park Mansion Complex" estate of the Pearson family, (1841- c1923) are potentially significant to the State of Victoria for their social, historical and aesthetic values.

**Why is it significant?**

Kilmany Park complex is **historically and socially significant at a Local level**. The homestead and its setting, including gardens, grounds, 1903 formal private driveway with paired mature English oak trees at each end, (from Settlement Road) and surrounding landscape, are significant for the associations with the social status of the Pearson family, as formidable members of the Victorian horse racing industry, generous public benefactors within the Gippsland region and a political dynasty seen through successive generations serving as state parliamentarians, resulted in 'Kilmany Park' serving as a social centre for both the Sale district and the upper echelons of Victorian state society during the Victorian and Edwardian periods, including royalty, state governors, Melbourne gentry and notable residents of the Sale district. (Criterion A)

Following the significant reduction of the estate, due to compulsory acquisition by the Closer Settlement Board from the early 1910s, and the eventual disposal of the homestead and its remnant land by the Pearson family in the 1920s, its acquisition as a Presbyterian Church boys' home in 1923 (the Kilmany Park Farm Home for Boys) saw the construction of multiple buildings directly related with the operation of the home and the education, social welfare and training of the boys who lived there, including: a school (c.1927), a Sloyd room, designed by renowned Public Works Department Percy Everett (c.1949); and a recreation centre (1962), presumably designed by notable Post-war era architect Keith Reid. These buildings are important for their social and architectural significance; socially for the operations of the boys' home and architecturally for being good examples of their typologies in addition to their provenance as works of architects Percy Everett and, presumably, Keith Reid. Many of these developments were the result of generous benefactors, most from Sale, who took an active interest in the ensuring the success of the boys home, and included the recognition of their donations and work, in the form of the McClelland Memorial Gate Pillars and plaque at Reid Drive (1924), and the Recreation building and dedication plaque, Ainslie Bequest 1962. (Criterion A, G & H)

Kilmany Park complex is **historically significant at a local level** for its association with one of Victoria's notable domestic architects, J H W Pettit, who designed most of the Kilmany Park buildings constructed in the 19<sup>th</sup> century, and worked as an architect in Sale between 1854 and 1896, predominantly designing ecclesiastical and civic buildings. (Criterion H) and for associations with prominent local builder William Allen who was responsible for a number of significant buildings in the Shire, and for its association with Melbourne's pre-eminent commercial and domestic architects, Harry B. Gibbs and Finlay Architects, who designed the 1905-6 Mansion, and a Sloyd room, designed by renowned Public Works Department Percy Everett (c.1949); and a recreation centre (1962), presumably designed by notable Post-war era architect Keith Reid. (Criterion H)

Kilmany Park complex is **aesthetically significant at a local level** as a complex that has a *two storey mansion on a particularly grand scale, built in 1905-6 with the wide arched loggia at ground level and superimposed upper arcade with segmental arches and heavy central pediment. It is notable as one of*

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*the last of the conservative Classical mansions erected in Victoria. It is also notable for the interior design especially the variety of its art nouveau lead light windows and plaster decoration, the art nouveau timber screen in the drawing room, the imposing stair lobby and the great balcony,*

Kilmany Park complex is **aesthetically and scientifically significant at a local level** for the fine tree specimens including a Bunya Bunya Pine, Hoop Pine, Lilly Pilly, Flame Tree, Hazelnut, Blue Atlas Cedar, Himalayan Cedar, Monterey Cypress, Bhutan Cypress, English oak, Sugar Gum, Japanese Spindle-wood, Loquat, Liquidambar, Norfolk Island Hibiscus, Pear, Chinese Hawthorn, Tortured Willow, Weeping Elm and Purple Elm. Most notable of the trees is a large English Oak to the west of the homestead. This 1901 English Oak (1901) and copper plaque, (*Quercus robur*) HO151 is **historically, socially, aesthetically and scientifically significant** as an outstanding specimen in Victoria. *This English Oak (Quercus robur) at Kilmany Park planted by King George V when visiting the property as the Duke of York and Cornwall on 15 May 1901 is of historical and scientific (horticultural) significance to Wellington Shire. Historically, it is significant for its associations with King George V and a reminder of his visit to Sale at the time of Federation. It demonstrates the importance of Sale as city and Kilmany Park. Scientifically, it is of horticultural significance as a fine mature specimen of this species.* (Criteria A, B, E, F & G)

The oval, and indigenous trees planted along the driveway, a series of caretakers' and labourers' houses associated with the operation of 'Kilmany Park' as the boys' home and as a dairy farm, by the Uniting Church of Australia (following the closure of the boys' home and its transfer from the Presbyterian to Uniting Churches in c.1977) are not significant.

## Statutory Recommendations

This place is recommended for inclusion in the Schedule to the Heritage Overlay of the Wellington Shire Planning Scheme to the extent of the title boundary as shown on the map.

<b>External Paint Controls</b>	Yes.
<b>Internal Alteration Controls</b>	Yes; Mansion and Meat house only.
<b>Tree Controls</b>	Yes, oaks at front gate, mature exotic trees.
<b>Outbuildings or fences which are not exempt under Clause 43.01-3</b>	Yes, Meat house, 3 underground water tanks, Men's quarters, stables, school, Sloyd Room, Recreation centre, McClelland Memorial Gate posts and plaque,
<b>Prohibited Uses May Be Permitted</b>	-
<b>Incorporated Plan</b>	Individual Heritage Places (rural areas) Permit Exemptions
<b>Aboriginal Heritage Place</b>	Not assessed.

### Map of recommended boundary for Heritage Overlay



Fig 4. Map showing the blue shaded polygon which includes the full length of 1903 driveway to Settlement Road, and important view lines in red arrows to the school buildings and to the Mems Quarters and the rural views to the south. The red shaded polygon is a view line from Settlement Road to the mansion.



## History

### Locality history

The Locality History is from *Heritage Assessment 'Kilmany Park' 1613 Settlement Road, Wurruk Trethowan 2016*.

From the early 1840s, the Gippsland region of Victoria was initially settled by 'squatters'<sup>17</sup> who took up licenses on vast runs of Crown land. The majority of these early settlers were Scottish emigrants.<sup>18</sup> This followed earlier exploration into Gippsland, from New South Wales, by Scottish explorer Angus McMillan from December 1839.<sup>19</sup>

The inaccessibility of Gippsland from Melbourne during this early period was well noted, the Crown Lands Commissioner for Gippsland, Charles Tyers, abandoning his attempt at a 'practical overland route', in September 1843, instead opting to sail for Port Albert in January 1844.<sup>20</sup> Prior to this, the majority of attempts at an overland route into the central plains of North Gippsland had been made from the New South Wales borders, via the mountain trail of Angus McMillan through alpine Gippsland.<sup>21</sup> Those settlers opting for the alpine route shepherded livestock (both sheep and cattle) on a journey that, in the case of the early 'overlander' William Odell Raymond in June 1842, took four months.<sup>22</sup>

Other Scottish squatters that opted for the overland route included William Pearson who, at the age of 23, started for Gippsland in June 1841. Travelling overland toward the Murray River (to the future site of Albury), Pearson followed the Mitta-Mitta River toward Mt Gibbo from where he travelled overland, via Omeo, into Gippsland where he took up a 'run'<sup>23</sup> on the central plains, in what would become the Sale district, in September 1841.<sup>24</sup> He named his run 'Kilmany Park'.

### Place history

This place history is from *Heritage Assessment 'Kilmany Park' 1613 Settlement Road, Wurruk Trethowan 2016*.

The 'Kilmany Park' estate at Wurruk, near Sale, was established in 1841 by squatter William Pearson. Systematically developed over time by both Pearson and his son, also William Pearson, the estate eventually covered an area of approximately 30,000 acres.

Securing freehold on the homestead block led to the development of more permanent structures after 1847, including the first 'Kilmany Park' house: a gable roofed weatherboard bungalow of sorts, with five sets of French doors opening onto a recessed verandah beneath a continuous roofline. In c.1870-71, this house was superseded as the principal residence on the estate with Pearson commissioning a new house, to a design by Norwich-born, Sale-based architect and surveyor John Henry Wroth (J.H.W.) Pettit. Despite being superseded, the original house was retained as an annexe to the new residence with an internal connection between the two, via a small hipped-roof weatherboard link.

In 1880-81, Pearson commissioned improvements to the Kilmany Park stables including the construction of a purpose built racing stable, again engaging Sale-based architect John Henry Wroth Pettit. Constructed by Rosedale builder William Allen, the stable consisted of 10 loose boxes and 5 stalls. At its height the stables were considered 'the best outside Melbourne', consisted of the central stable buildings and three training tracks, two of which were specifically

designed for jumpers (steeple-chase) incorporating 'stout post and rail and log and stone fences' for training the horses; the whole overseen by a staff of 24.

By the beginning of the 20<sup>th</sup> century, at the centre of the estate, a homestead had been developed, which reflected the fortunes of both the estate and the Pearson family in its extent, facilities and architectural pretension. Incorporating buildings designed by one of regional Victoria's notable domestic architects, J.H.W. Pettit, and Melbourne's pre-eminent commercial and domestic architects, Harry B. Gibbs and Finlay Architects, the homestead consisted of: a significant mansion house, formal gardens, various domestic outbuildings, a purpose-built racing horse stable and various estate buildings, including men's quarters. The social status of the Pearson family, as formidable members of the Victorian horse racing industry, generous public benefactors within the Gippsland region and a political dynasty seen through successive generations serving as state parliamentarians, resulted in 'Kilmany Park' serving as a social centre for both the Sale district and the upper echelons of Victorian state society during the Victorian and Edwardian periods, including royalty, state governors, Melbourne gentry and notable residents of the Sale district.

At the beginning of the new century, the estate covered nearly 30,000 acres. Following the significant reduction of the estate, due to compulsory acquisition by the Closer Settlement Board from the early 1910s, and the eventual disposal of the homestead and its remnant land by the Pearson family in the 1920s to the Closer Settlement Board, its acquisition as a Presbyterian Church boys' home in 1923 (the Kilmany Park Farm Home for Boys) saw the construction of multiple buildings directly related with the operation of the home and the education, social welfare and training of the boys who lived there, including: a school house (c.1927), a Sloyd room, designed by renowned Public Works Department Percy Everett (c.1949); and a recreation centre (1962), presumably designed by notable Post-war era architect Keith Reid.

Opening in 1924 as the 'Kilmany Park Farm Home for Boys', the Home was designed as a place 'to transplant city boys who were at social risk, to the wholesome atmosphere of a Gippsland farming property'. The Home's farm, the 'McClelland Memorial Farm' was gifted to the institution in the memory of Thomas Hugh McClelland (1907-1924) by his parents Thomas and Elizabeth McClelland; a plaque at the rear entrance to the homestead indicating the donation a Mr. and Mrs. T. McClelland were members, respectively, of the Committee and Melbourne Ladies' Auxiliary of the Home at this time. Overseen by a complicated management structure in both Melbourne and Sale, the management structure included: a Patron, Chairman, Hon. Secretary and Treasurer, Committee, Sale Advisory Committee, Melbourne Ladies' Auxiliary and a Sale Ladies' Auxiliary. The first superintendent of the Home was Mr. H. Clyne.

With constant pressure placed on the local school at Wurruk, to which the boys would travel for their schooling, the Victorian Education Department opened a school in 1927, the Kilmany Park School No. 4240, at the rear entrance to the homestead; the school consisting of two buildings, a school house and a Sloyd (woodwork) room. By 1944, average attendance at the school had increased to 40 boys and 3 girls.

In February 1944, significant grassfires in the East Kilmany – Rosedale area caused widespread damage, devastating the rural communities and causing significant livestock and infrastructure losses. 'Kilmany Park' was not spared with significant damage caused to the Home and school. At the school, outhouses and the Sloyd room, with all its equipment, were destroyed with the school house escaping relatively unscathed, albeit for requiring repainting externally as a result of the fire. In comparison, the Home and its centre at the Pearson family's former homestead, which had been largely retained intact by the Presbyterian Church, saw significant damage. The architect-designed racing stables of William Pearson were largely left in ruins, albeit for the flanking wings either side of the central yard, 1,200 bales of meadow contained within the building fueling the fire. The old woolshed of 'Kilmany Park', evident on 1923 maps of the

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property was also destroyed during the fires, the building 'filled with hay'. A series of timber outbuildings, dating from the Pearson era, which did survive the fires were subsequently demolished prior to 1949.

Following the fire, improvements to the school were slow. While replacement of the Sloyd room was considered urgent in 1944, a design for a replacement Sloyd room was not prepared by the Chief Architect of the Public Works Department, Percy Everett, until June 1949. Reconstruction of the room was undertaken by Reconstruction Trainees at the Sale Technical College, however by April 1949 the building had been left unfinished following the closure of the vocational training centre at the College. The subsequent result was a building that did not adhere with the final design prepared by the Public Works Department. The Sloyd room was eventually completed by February 1955. By mid-1956, the Kilmany Park School, albeit maintained by the Department of Education, had closed.

During the 1960s, and despite the closure of the Kilmany Park School and the disbursement of its fixtures to the Sale High School, the continued investment in the Home's infrastructure continued. Under Superintendent Eric Frith's tenure during this period, significant attention was paid to the Home's grounds. These works included the realignment of the main drive way, constructed by the Pearson's, to accommodate a large oval on the east front of the house; the driveway skirting along its south-east edge. In addition to these works, an avenue of native trees was planted along the length of the drive, the avenue named Leslie Drive in honour of the philanthropic Leslie family of Sale, the family having served the Home for three generations. The Home farm continued to operate with the institution providing a focus toward 'formal farm training'. Construction was undertaken of several houses on the fringe of the homestead complex for various managers at the Home, including the 'William's House' in the mid-1960s, a red-brick house on the north-east edge of the homestead complex and the 'Spencer House' in the mid-1960s, an orange brick house (near the former Kilmany Park School) for share farmers on the property.

In 1962, further construction works came in the form of a significant bequest to the Home, the R.M. Ainslie Bequest, which enabled the construction of a brick Recreation Centre for the boys at the rear of the mansion. Somewhat reflecting the architectural language of the nearby Pearson-era racing stables, the Centre was, presumably, designed by Melbourne architect Keith Reid, the architect having undertaken previous alterations to the mansion's kitchen, in 1948, as a result of a bequest to the Home by Miss Janet Stewart; the kitchen works were undertaken by Sale builder Mr W. Stephenson. Undertaking another project for the Presbyterian Church in the Sale area at this time (St Columba's Presbyterian Church, Sale; 1958), the architect had also undertaken multiple ecclesiastical projects, mostly for the Presbyterian Church, since 1931. The Centre was opened by Councillor John Leslie J.P., Mayor of Sale, on 25 August 1962; a brass dedication plaque at the south entrance to the Centre denotes this contribution. Further investment was undertaken in the construction of a 'Manager's House' in the mid-1970s, a cream brick house in the gardens of the homestead.

Despite the value of the Home as a valued alternative to many metropolitan-based institutions during the mid-1960s, by the mid-1970s the Kilmany Park Farm Home for Boys was seen as an outdated care model. In 1977, changes within the Church management hierarchy hastened decisions with regard to the Home, the responsibility of boys' homes and community organisations within Victoria having been transferred from the Presbyterian Church of Victoria to the Uniting Church in Australia (Synod of Victoria and Tasmania).

The Kilmany Park Farm Home for Boys closed in 1978.

*Anne Napier notes in 2005 additional historic evidence regarding the school and the gardens.*

*"The school had an excellent Junior Young Farmer's Club which won many State prizes for cattle judging. The school gardens won the ANA prize for the most improved garden in 1929. The children showed particular skill in sloyd during the school. History. During the 1940s the boys made toys for children in other orphanages. The boys earned money fashioning garden tools making up to £90 per year. Of the boys at this school one became a bank manager in England (who has a standing invitation to any boy interested in banking for free passage to England and his support when he arrives) and Head of a Victorian country High School. Herbert Williams won a Sun Farmer trip to England in 1937" "Vision and Realisation Volume 3 – A Centenary of History of State Education in Victoria" (1973) by the Education Department, quoted in Napier 2005.*

The garden surrounding the homestead is also of interest. It was inspected by John Hawker (horticulturalist with Heritage Victoria) in 1997 and it contains many fine specimens including a Bunya Bunya Pine, Hoop Pine, Lilly Pilly, Flame Tree, Hazelnut, Blue Atlas Cedar, Himalayan Cedar, Monterey Cypress, Bhutan Cypress, English Oak, Sugar Gum, Japanese Spindle-wood, Loquat, Liquidambar, Norfolk Island Hibiscus, Pear, Chinese Hawthorn, Tortured Willow, Weeping Elm and Purple Elm. Most notable of the trees is a large English Oak to the west of the homestead planted by King George V when visiting the property as the Duke of York on 15<sup>th</sup> May 1901.

Following the Uniting Church's decision to close the Home, the property was maintained as a dairy, the land being let to various tenant farmers during this period until the mid-1990s.

In 1995, 'Kilmarny Park' was placed on sale by the Uniting Church and purchased by surgeon Mr. Daryl Page on December 18<sup>th</sup> 1995.

#### **John Henry Wroth Pettit. Architect and Surveyor.**

John Henry W. Pettit was a prominent architect based in Sale during the late nineteenth century (*Gippsland Times*, 23 April 1870:2). Pettit arrived in Gippsland in 1854, after a stay in the goldfields and in Melbourne and Dandenong. Moving to Sale, he worked as an architect and surveyor, appointed as the superintendent of works for government roads and bridges (AAL record no. 3683; Kerr 1992:622). One of Pettit's earliest commissions was the Carpenter Gothic Christ Church at Tarraville (1856), designed with surveyor George Hastings.

He designed a small number of houses and hotels in the 1880s and 90s in Sale (AAL) and planned the design of the Sale cemetery. He was also involved with the Swing Bridge at Longford (AAL record no. 42575). Pettit is known to have designed (sometimes in collaboration with other local architects) the former Borough of Sale Municipal Offices at Sale (1863-6) in the Classical style, St Mary's Catholic Church in Maffra (1870), St Brigid's Catholic Church in Cowwarr (1870), the Catholics Bishop's Residence and Presbytery in Sale (1879) and the civic complex at Stratford comprising the court house, council chambers and post office (1884-5). Pettit died in Sale in 1896 (AAL record no. 3685).

### Gibbs & Finlay, architects Mansion house

Harry Browse Gibbs (d. 1918) was a Melbourne architect who designed buildings in both the greater Melbourne area and regional Victoria from the late nineteenth century. (RVIA 1918:44). Some key examples of Gibbs' designs include the Bairnsdale Club Hotel (1879), Bairnsdale Mechanics' Institute (1888) and the Former Bairnsdale Hospital (1885) (HV). In greater Melbourne he designed the George Hotel on Fitzroy St, St Kilda (1885-6) (HV).

Gibbs partnered with Alexander Kennedy Finlay (d. 1922) to form Gibbs & Finlay from c1900 (RVIA 1922:155; AAI). Their work included houses, warehouses and factories as well as varying types such as shops, hotels, theatres, and hospitals (AAI). Around 1905, they designed several branches for the National Bank in the Classical style (Trethowan 1976). In Wellington Shire, the practice is known to have designed Bishopscourt at 4 Cranswick Crescent, Sale, (1901) which was the residence for the Bishop of Sale, and the former Shire Offices on Carsick Street, Rosedale (1913).

Following the deaths of Gibbs and Finlay, the practice name was retained and the firm became Gibbs, Finlay & Morsby (RVIA 1929: xlv) in the 1920s (AAI).

### William Allen, Rosedale Builder

William Allen (1829-1923) came to Rosedale in 1858 and worked as a builder in the area until his death at the age of 94. He is known to have sometimes worked alongside bricklayer Charles Chown. One of his first projects in the town was the first stage of the Rosedale Hotel (1858) which was Rosedale's first brick building. He also constructed St Marks Church of England (1866), the Exchange Hotel, Henry Luke's Store, the Rosedale Tannery, St Andrew's Uniting (formerly Presbyterian) Church (1869) with Chown and Wynd, the Primary School (1871), St Rose of Lima Church (1874-5), and the impressive Nambrok homestead (probably c1877). He was in his eighties when he constructed the 1913 Shire Hall in Rosedale. (HV; RDHS website).



Figure H1. Aerial view c1947 after the 1944 fires, showing the walls of the stables with the roof missing off the rear section of the stables, but the front sections intact. Source.

<http://www.clan.org.au/perch/resources/kilmanypage-27.5-w640.jpg>

[www.heritageintelligence.com.au](http://www.heritageintelligence.com.au)





Figure H2. The exterior of the mansion and elliptical carriage drive 1906. Note the concrete edging of the elliptical garden bed, and the established tree on the right. Source: *The Leader*, 7<sup>th</sup> July 1906, p.33.



Figure H3. C1947 photo showing the rear elevations of the mansion, (overpainted) including the significant number decorated chimneys, the conical roof over the underground tank, the Meat House to the right. Source: <http://www.clan.org.au/homes/vic?s=kilmany-park-house-presbyterian-home-for-boys>.

[www.heritageplaces.com.au](http://www.heritageplaces.com.au)

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## Description

This section describes the place after 2005. Refer to the Place History for additional important details describing historical changes in the physical fabric.

The complex is located at 1613 Settlement Road, 148A, 148B, 148C, 148D, 148E and 148F Reid Drive Wurrak, which is about 5kms south west of Sale.



Figure D1 Aerial showing the approximate location of the 12 significant places (red numbers), the outline of the Heritage Overlay boundary (black lines) and the area of the Heritage Overlay (blue polygon).

Source of aerial. Wellington Shire

- 1 Meat House and interior (c 1847-70),
- 2 Mens Quarters (c1860/alterations c1880-81);
- 3 Underground Water Tanks (c1870-81) 3,
- 4 Stables (1880-81),
- 5 English Oak (1901) and copper plaque, (*Quercus robur*) HO151,
- 6 Gardens and trees and elliptical carriage drive c1870-1906
- 7 Driveway (1903) (later known as Leslie Drive) and English Oak trees at Settlement Road entry and mansion end.
- 8 Mansion house and interior (1905-06),
- 9 McClelland Memorial Gate Pillars and plaque at Reid Drive entry (1924),
- 10 Kilmany Park School No. 4240. (1927),
- 11 Kilmany Park School Skoyd Room (1949),
- 12 Recreation building Ainslie Bequest 1962 and dedication plaque,

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### 1 Meat House and interior (c 1847-70),

A timber framed rectangular building with a hipped roof clad in short sheet galvanised corrugated iron and a painted brick chimney. The Meat house is described by David Helms (2009) "It has small covered windows, and chicken wire under the eaves providing further ventilation. Internally, the walls and ceiling are lined with narrow tongue and groove pine boards, and the original frame and hooks for hanging animal carcasses is still intact. "



Figure D2. View of the 1901 English oak tree, HO151, on the left, the Meat House in the centre with the ladder on the roof, and the school house and Sloyd room beyond the Meat House between the ladder and the chimney, taken from the west side of the first floor balcony. (2011).

### 2 Mens Quarters (c1860/alterations c1880-81)

The Mens' Quarters is described by David Helms (2009) "constructed of brick with three stretcher courses alternating with one soldier course. The cottage comprises one long traverse gable oriented east-west, with three subsidiary gables extending at right angles to the north. There are skillion verandahs to both the north and south elevations verandah structures, which appear to be early, if not original, are supported by chamfered timber posts and have brick floors. There are external chimneys in either end wall. The front door and hallway is placed off-centre. Windows are six-pane double hung sash. The three gable ends have ocular vents." Napier and Trethowan both note that the design of the wall vents is the same as those on the stables, indicating that they were probably built at the same time or at least designed by the same architect J H W Pettit.



Figures D3&4 Source: Mens Quarters Trethowan, 2016. p38

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### 3 Underground Water Tanks - three (c1870-81).

The underground water tanks are round, and most likely built in brick, which was typical at that time. The only one to have retained the original conical shaped iron roofed cover is next to the stables, whilst the water tank near the rear of the mansion and the one near the Mens Quarters now have a flat concrete cover. The interiors have not been inspected (see Fig D5 below).

### 4 Stables (1880-81),

The stables, were severely damaged in the 1944 grassfires and were never fully restored but the remaining 1880s sections (mostly the front gabled buildings) have a high degree of integrity. Helms describes the former stables in 2005, "which appear to originally have been symmetrical in layout with a large central barn flanked by two wings containing accommodation for the stable hands. The flanking wings have double hung sash windows with an occulus vent above. The area to the south of the barn and between the flanking wings has now been enclosed, and a large new steel framed roof built over the barn. Internally, the barn retains its original brick floor - the stable bays have been removed but evidence of the divisions still exists in the walls and floors. An unusual feature at one side is a concrete 'trough', which reputedly was used for the servicing of carriages or vehicles. "Trethowan explains that the concrete trough was more probably utilised as a horse bath given its depth, raised edges and the building's continued utilisation as a thoroughbred horse stable by William Pearson (Junior).



Figure D5. Source: (Detail from Trethowan, (2016:18); the Leader, 7<sup>th</sup> July 1906, p. 33.

### 5 English Oak (1901) and copper plaque, (*Quercus robur*) HO151

This 1901 English Oak (*Quercus robur*), is an outstanding mature specimen in Victoria. Post 2001, the measurements were; spread: 24.40m, girth: 2.72m, height: 11.75m. (National Trust Significant Tree Register).





**Figure D6.** View of the 1901 English oak tree, HO151, taken from the west side of the first floor balcony. (2011).

#### **6 Gardens and trees and elliptical unsealed carriage drive c1870-1906**

Trethowan (2016) notes: the current formal arrangement of the garden was established with the creation of the elliptical front lawn at the centre of the driveway. Surrounded by a roughcast render retaining wall, a small inset stair, framed with Arts and Crafts inspired cement spheres, align with the centre of the entrance front of the mansion. Cement curbing to the remainder of the garden paths replaced an earlier angled brick edging, apparent in c.1906.

Sloping away from the house, the gardens, on the south front of the house in particular, have been designed to frame and therefore incorporate views of the surrounding landscape. This has largely been achieved through the placement of the elliptical front lawn framed by symmetrical plantings of Cedars (a Blue Atlas and a Himalayan Cedar) which would have originally drawn the eye of the viewer to the wider landscape and the former land holdings of the Pearson family; it is noted that this view is now partially obscured by low-lying branches of these trees.

Elsewhere, the garden incorporates multiple plantings of exotic tree specimens, including: English Oak, Banyan Banyan Pine, Hoop Pine, Hazelnut, Monterey Cypress, Blutan Cypress, Japanese Spindle-wood and Norfolk Island Hibiscus amongst others.”



**Figure D7** Trethowan (2106:46) View of the entrance front of the mansion, looking west. Note the formal arrangement of the original gardens with relation to the elliptical drive and entrance front of the mansion.

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**7 Driveway (1903) (later known as Leslie Drive) and English Oak trees at Settlement Road entry and the two English Oak trees at the Mansion end of the driveway.**

The driveway extends from the entry gates at Settlement Road to the mansion house. There are two English Oak trees at the Settlement Road entry gate and two at the mansion end of the driveway. The 1903 driveway extends more or less in a straight line to the mansion house, (the 1960s diversion around the 1960s oval is not significant as it is not part of the 1903 William Pearson landscaping and mansion house development. The driveway is unsealed. Traditionally driveways from public roads to private mansion houses were lined with exotic trees. The two English Oaks at the entry and two at the mansion end, are likely to be remnants of an oak lined driveway.



**Figures D 8 & 9** Trethowan (2106:46) English oaks framing the Settlement Road entry (left) and English oaks framing the mansion end of the driveway.

**8 Mansion house and interior (1905-06)**

*Heritage Assessment 'Kilmarny Park' 1613 Settlement Road, Warrack Trethowan 2016.notes.*

"The mansion at 'Kilmarny Park' was commissioned by William Pearson (Junior) and constructed in c.1905-06 to a design by pre-eminent Melbourne architects Harry B. Gibbs & Finlay Architects. The mansion involved the remodelling and extension of an earlier house, commissioned by William Pearson (Senior) and constructed in c.1870-71 to a design by Sale architect J.H.W. Pettit. In 1948, during the mansion's tenure as the Kilmarny Park Farm Home for Boys, minor alterations were undertaken to the mansion's kitchen to a design by Melbourne architect Keith Reid.

Retaining sections of the earlier 1870-71 house on the property, constructed from overpainted tuck-pointed brick, the majority of the mansion consists of that built in c.1905-06. Constructed from rendered brickwork with applied cement decoration, the mansion is a significant two-storey building with decorative chimneys and a galvanised corrugated metal sheet clad roof. Executed in a conservative interpretation of Classical style architecture, the principal elevations of the mansion consist of the south (entrance front) and east (garden front) elevations. The west elevation consists of a secondary garden front whereas the rear elevation (north) addresses a rear yard framed on the opposite side by the stables. The south elevation is defined by a central bay that is adorned with a series of decorative cement pediments at ground and first floor levels, the ground floor pediment surmounting a four-bay arrangement of decorative stained and leadlight windows; the first- floor pediment topping what appears an arcaded balcony, the whole

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arrangement in-turn surmounted by a monumental stepped parapet. From this central bay, an arcaded loggia at ground floor level and an upper level arcade, with segmental arches supported on cast iron columns, extend along the extent of the south elevation, continuing along the east and west elevations. On the garden front, attention is drawn to a large stained and leadlight glass bay window that is centred on the elevation at ground floor level."

"Internally, the mansion presents as a unified interior containing multiple notable features, indicative of the Art Nouveau influence on its interior decoration. At ground floor level, the entrance vestibule opens into a double height stair hall, the two areas separated by decorative plasterwork columns with bas relief details to dado height. The columns support an entablature of equally detailed bas relief features, the decoration of which incorporates a cornice that extends the perimeter of both rooms. At the centre of the hall, an elaborate timber staircase with timber panelling extends through the middle of the house and is overlooked by a gallery at first floor level. At right, the stair hall opens into the drawing room through an elaborate door case and doors, the drawing room retaining significant features including a fretwork screen with decorative wrought iron lanterns that frame a leadlight bay window. At left of the stair hall, the current billiard room is entered through an equally elaborate door case and doors, the room containing early features including joinery and decorative ceilings. At the rear of the stair hall, a corridor provides access to the dining room and the remainder of rooms on the ground floor which retain significant features, including a fretwork screen and bay window with leadlight glass in the dining room; and joinery, marble and timber mantle pieces and decorative ceilings to the remainder of the rooms. At first floor level, the rooms incorporate bedrooms and retain early features including joinery, marble and timber mantle pieces, leadlight glass and decorative ceilings. There have been few significant alterations to the interior since its completion c.1906, however no original bathrooms, kitchens or service areas survive intact.



Figure D10. Looking east under the segmental arch, towards the front gates on Settlement Road, showing the unpainted 'ashlar' rendered walls, timber floor of the grand first floor balcony, balustrade and columns. (2011)

[www.heritagelibrary.com.au](http://www.heritagelibrary.com.au)



Figure D11. Looking south under the segmental arch, towards Settlement Road, showing the timber floor of the grand first floor balcony, unpainted rendered balustrade and Corinthian composite columns. (2011)



Figure D12. Example of Art Nouveau Lead lighting in a first floor bedroom. (2011)



Figure D13. First floor timber balustrade, columns and screen above the stair hall. (2011)



Figure D14. View of fine timber work of the stairs, walls, balustrade, and banister. (2011)

[www.heritageplaces.org.au](http://www.heritageplaces.org.au)



Figure D15. View of the timber staircase with newel post. (2011)



Figure D16. View of the Art Nouveau timber screen in the dining room. (2011)



Figure D17. Art Nouveau timber screen and joinery and plaster work, in the sitting room. (2011)



Figure D18. One example of many of the Art Nouveau lead light windows on the ground floor. (2011)

[www.heritagetrust.org.au](http://www.heritagetrust.org.au)

**9 McClelland Memorial Gate Pillars and plaque at Reid Dr entry (1924),**

Two brick piers finished in rough cast render with decorative concrete capping and a brass plaque.



Figures D19 & 20. Source: Trethowan, 2016. p47 Reid Entry Gates and plaque.

**10, 11 Kilmany Park School No. 4240. (1927) and Kilmany Park School Sloyd Room (1949),**

The timber buildings have gabled and hip roofs clad with sheet corrugated iron with exposed rafters on the eaves. The Sloyd Room has a ventilated roof. Windows are timber-framed with three four-pane sashes and horizontal glazing bars. The double doors are solid timber planked. The school has two red brick chimneys.

Helms (2006) also described the interior of the two school buildings. The adjacent Sloyd Room is a simple rectangular essentially symmetrical in plan with four tall windows in the south elevations and three windows and a door in place of the fourth in the north elevation. The building retains a number of features that demonstrate its original function including the large bench along the south wall, the built in cupboards (once used for storing tools) and what appear to be large shelving units along the east end wall. Otherwise the interior is typical of schools of this period with vertical lining boards to the lower part of the wall and plasterboard above. A blackboard is set into the west end wall. The ceiling has been replaced.



Figures D21 & 22 Source: Trethowan, 2016. p48 School and Sloyd Room.

[www.burkeghillcollgeport.com.au](http://www.burkeghillcollgeport.com.au)



### 12 Recreation building Ainslie Bequest 1962

Constructed of brick walls, with corrugated metal clad gable and skillion roofs, clerestory windows and high windows at ground floor level.

According to Trethewan (2106) "Attributed to architect Keith Reid, the design intent of the building, which includes blind walls with engaged pilasters, are reminiscent of the execution of the adjacent racing stables and an attempt to respond to the existing built context of the homestead complex; thereby suggesting the role of an architect. While attributed to Keith Reid, the building is not considered a work that is comparable with the successful designs achieved in many of his regional ecclesiastical buildings for the Presbyterian Church, predominantly churches, throughout Victoria."



Figure D23. The 1962 Recreation centre. Source: <http://www.clan.org.au/perch/resources/kilmanypage-27,5-w640.jpg>



## Comparative analysis

Four other significant pastoral homesteads in Wellington Shire include The Holey Plain homestead, Fulham Park homestead, Nambrok Homestead and Boisdale House.

Historically, all of these properties date back to the earliest pastoral settlement in the area, and they retain some building structures from the early period, as does Kilmarny Park. However, Fulham Park, which was built by 1856 in the mid Victorian era, is the earliest of these existing homesteads. Nambrok and Holey Plain homesteads date from the late Victorian era c 1880 and Boisdale House dates from 1892. Thus Kilmarny Park homestead built in 1906 is over 100 years old, but still it is the youngest of the five pastoral properties in Wellington Shire.

Architecturally, all five homesteads have their own distinctive design. Fulham Park, a two storey red brick homestead is in the Colonial Georgian style, which is rarely found in Victoria, Holey Plain homestead is also a two storey red brick homestead, but in the very popular Victorian Italianate style with a 4 storey tower, canted bay windows and cast iron decoration. Nambrok homestead is a single storey house in an eclectic derivation of the Dutch and North Italian Renaissance fused with the Lombardic Romanesque, with canted bay windows and strident polychromy, is the most eclectic, picturesque brick mansion in rural Victoria. The complex is adorned with skillfully designed details in a manner unparalleled in Victoria. Boisdale House is a single storey brick and timber residence with a steep broken pitch roof clad with Marseille tiles and capped with a monitor skylight. The V plan form and exterior form reflect American influences in the design. Kilmarny Park, a two storey rendered brick building, in a conservative classical style, which has a central bay with a series of decorative cement pediments at ground and first floor levels, the ground floor pediment surmounting a four-bay arrangement of decorative stained and leadlight windows; the first-floor pediment surmounting an arcaded balcony, and a monumental stepped parapet above. From this central bay, an arcaded loggia at ground floor level and an upper level arcade, with segmental arches supported on cast iron columns, extend along the extent of the south elevation, continuing along the east and west elevations. Comparatively, Fulham Park, Holey Plain, Nambrok and Kilmarny Park are distinctive and highly accomplished variations of Victorian era architectural style, whereas, Boisdale House has departed strongly from this and embraced the Federation era style including influences from contemporary American design.

### The Holey Plain homestead, Rosedale - Longford Road, Rosedale



Figure C1 – Holey Plain Homestead (Source: National Trust <http://vhf.heritagecouncil.vic.gov.au/places/69997>)

"The Holey Plain homestead, is significant as an unusually fine and large red brick house designed in the Victorian Italianate style, more typical of Victoria's Western District homesteads than the Gippsland region. The property has strong associations with the Crooke family who have lived there for more than one hundred and fifty years. Members of the family have been

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influential in State and Local politics. The property is a key site which demonstrates the process of early pastoral settlement of Gippsland along a set pattern, being specifically chosen by the Crooke family for its proximity to Port Albert after they had developed other pastoral runs inland around Ormeo." It was classified by the National Trust in 1959, updated 2007.

Source: National Trust <http://vhc.heritagecouncil.vic.gov.au/places/69997>

**Fulham Park, 413 Myrtlebank-Fulham Road Fulham.**



Figure C2 Fulham Park (Source: <http://vhc.heritagecouncil.vic.gov.au/places/S10Fig>)

What is significant?

The pastoral run Fulham on Thomson river west of Sale was first taken up in 1841 by Peter Inlay of Twofold Bay (Eden) NSW. In October 1853 retired sea captain John William Jones acquired the run and soon after, certainly before 1856, erected a Colonial Georgian style, two storey homestead of brick. On the basis of stylistic and detail similarities the design has been tentatively attributed to Melbourne architect John Gill.

The house is regularly fenestrated, with a single storey timber verandah and its single storey outbuildings form a sheltered courtyard with a beehive well. The verandah has been later adorned with network brackets of art nouveau origin. The homestead is sited on a rise above a bend in a creek and looks toward the Thompson River. Some elms and eucalypts are the only remnants of formal plantings on the slope down to the creek. In 1991 the ruined stables were rebuilt although the attached groom's quarters were demolished. The property has passed through many ownerships, none of them very long and was used by the Royal Australian Air Force during the Second World War. Fulham Park was purchased by Norman Gooch in 1944 and remained in the Gooch family ownership until 1998 when it was subdivided.

How is it significant?

Fulham Park Homestead is of architectural and historical significance to the State of Victoria.

Why is it significant?

Fulham Park Homestead is of architectural importance as an early example of the Colonial Georgian style, a form rarely found in Victoria. The quality of the design is enhanced with distinctive and restrained joinery, with the entrance doorway and fenestration of particular note. The architectural significance of the house would be further enhanced if the connection with important Victorian architect John Gill can be established.

Fulham Park Homestead is of historical significance as the residence of one of the oldest pastoral properties in eastern Victoria. The house is important as the earliest substantial homestead building in East Gippsland and for its relatively intactness."

Fulham Park is protected on the Victorian Heritage Register HO331.

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**Nambrok Homestead, 3045 Princes Highway, Nambrok.**

Figure C3 Nambrok Homestead (Source: <http://vhd.heritagecouncil.vic.gov.au/places/70014>)

"The florid polychromatic mansion is held to have been completed by 1877 (date remains unconfirmed) for pastoralist John King, the builder being William Allen of Rosedale. Planned by an unknown architect in an H formation, this single storey mansion house is an eclectic derivation of the Dutch and North Italian Renaissance fused with the Lombardic Romanesque. 'Nambrok' with prominent Dutch gables, squat central romanesque tower, segmental arched arcade, canted bay windows and strident polychromy, is the most eclectic, picturesque brick mansion in rural Victoria. The complex is adorned with skillfully designed details in a manner unparalleled in Victoria. John King, grandson of P G King, third Governor of New South Wales, was a pre-eminent district pastoralist and Gippsland pioneer. The interior is of equal note. 'Nambrok' is maintained in excellent condition and is intact. Classified: 25/06/1969 -updated 2006"

**Boisdale Homestead**

Figure C4 Boisdale Homestead (Source: <http://vhd.heritagecouncil.vic.gov.au/places/70002>)

"Boisdale Homestead was erected in 1892 for Askin Morrison Foster, son of pioneer pastoralist John Foster, who leased the run in 1841. R G W Purchas, a Melbourne architect, designed the present single storey brick and timber residence with a steep broken pitch roof clad with Marseille tiles and capped with a monitor skylight. The V plan form and exterior form reflect American influences in the design.

Boisdale Homestead is a distinctive East Gippsland residence and a notable work of R G W Purchas, an innovative architect working in the late 19th century. The style of Boisdale is clearly derived from contemporary American developments and contrasts with Purchas's revivalist work, of which his own house, Tay Creggan, in Hawthorn, is the most important.

Boisdale is an early settled pastoral run and the present residence is dramatically situated on a granite outcrop overlooking the Avon River. The interior is finely crafted. Boisdale homestead and outbuildings are maintained intact and in excellent condition. Classified; 08/06/1967, updated 2006. "

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## Management Guidelines

To facilitate the retention and enhancement of the cultural significance of the heritage place, its fabric and its setting, the following Management Guidelines are recommended. (Note that further information in relation to the management and redevelopment of this heritage place is available from the Shire's Heritage Advisor).

The Kilmany Park Estate refers to the whole area within the Heritage Overlay boundary shown in Figure M1 below. The Management Guidelines also refer to this area and they are divided into three sections:

**Section One:** The 1903 driveway (being the access road leading from Settlement Road to the gateway of the "Kilmany Park Mansion Complex".

**Section Two:** The setting of the Kilmany Park Mansion Complex (including view lines, interfaces and the further development of the Estate).

**Section Three:** The heritage buildings, structures and landscapes



Figure M1: Map showing the extent of the Heritage Overlay (black outline), view lines and part of the Concept Plan, which is included in Development Plan Overlay Schedule 9.



1. SECTION ONE - The 1903 driveway (being the access road leading from Settlement Road to the gateway of the "Kilmany Park Mansion Complex" and also serving the new neighbourhood).
  - 1.1. The long 'drive of anticipation' is an important part of the experience of arriving at a large country mansion. This was achieved by planting a long avenue of trees, which visually retained the grand entry. The redevelopment of the 1903 driveway to provide a new access road should seek to retain this experience and overall sense of arrival. This can be achieved by:
    - 1.1.1. Creating an avenue of trees placed as close to the road as possible in order for a canopy to form over it. The trees will form an avenue which extends from the existing two English Oaks at the Settlement Road to the new entry of the "Kilmany Park Mansion Complex". The preferred tree species should be related to the history of the Pearson era; potential species are listed on page 5 of this citation. Most appropriate species selection will be based on soil type, maintenance, heritage significance, potential size and canopy form.
    - 1.1.2. Accommodating a road reserve wide enough for large trees. The sealed part of the road should remain to an absolute minimum. The road must be constructed in accordance with the requirements of the Infrastructure Design Manual.
    - 1.1.3. Keeping the number of access streets off the driveway to a minimum so that the avenue is not interrupted by 'missing trees'. A maximum of two new access streets, as shown in Figure 4 would be preferred.
    - 1.1.4. Ensuring that all power and services are to be provided underground and located so that trees (roots and branches) will not be damaged during maintenance of the services.
  - 1.2. To retain the original rural feeling and setting of the Estate the access road should remain 'green' and 'rural' in its character. This can be achieved by the following.
    - 1.2.1. The road reserve should be a minimum of 30 metres in width, with a minimum amount of sealed surface. Apart from the access road itself, a shared path should be provided.
    - 1.2.2. Where achievable, roads, paths and crossovers (to houses) constructed need to resemble the appearance of an unsealed driveway with appropriate colours and texture use. Upstanding kerbs and channels should not be used.
    - 1.2.3. All drainage works should be designed to have a rural appearance which can be achieved with appropriate colour, profile, and texture.
    - 1.2.4. New development along the driveway should have an appropriate setback which retain the green character of the driveway.
    - 1.2.5. The use of fences on lot boundaries facing the driveway is strongly discouraged, vegetation is considered the most appropriate form of boundary treatment. If fences are used, they should either be of a post and wire or timber picket fencing and at least 50% transparency. A front fence should not exceed 1.2 metres.
  - 1.3. Entrance to the main driveway/ access road from Settlement Road.
    - 1.3.1. Retain an entry gateway at the Settlement Road access at the existing location including the two existing oak trees. A shared path can be constructed between the oak trees.
    - 1.3.2. Ensure the engineering design of the road intersection and its construction allows for the protection and safety of the existing trees.

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#### 1.4. Signs and other infrastructure

- 1.4.1. Ensure signs and services such as power poles, bus shelters, etc are located so that they do not impact on the important views.

## 2. SECTION TWO – The setting of the Kilmany Park Mansion Complex

- 2.1. Retain the important view lines to and from the Mansion House as shown by the red arrows and red polygons in Figure 4.
  - 2.1.1. Retain the following clear views within the heritage area:
    - 2.1.1.1. Clear views of each significant building to and from the Mansion House and from the internal roads by ensuring that any new buildings, fences and vegetation do not obscure those views.
    - 2.1.1.2. Clear views of the School Room to and from the Sloyd Room.
    - 2.1.1.3. Clear views of the front section and side elevations of each significant building from along adjacent private or public streets.
  - 2.1.2. Retain and protect the following views that go beyond the heritage area:
    - 2.1.2.1. A view corridor of the Mansion House from Settlement Road within the red polygon in Figure 4.
    - 2.1.2.2. Views from the Mansion House towards the south within the red polygon in Figure 4.
  - 2.1.3. Any application for proposed buildings or trees within these areas should be accompanied by accurate levels and drawings to demonstrate that it will not obscure the views to and from the Mansion House to Settlement Road and the other view lines specified in Figure 4.
- 2.2. Boundary treatment and entrance to the Kilmany Park Mansion Complex
  - 2.2.1. To reinforce and ensure that the Estate is recognised as a single entity, the treatment along the entire length of its boundary should take the following principles into account:
    - 2.2.1.1. Dense and tall evergreen trees with foliage to ground level (e.g. Monterey Pine trees) should be used to form a screen on the boundary with the new housing development or where privacy is required. A bare fence is strongly discouraged.
    - 2.2.1.2. Protect external views within the view corridor to Settlement Road (as noted on Figure 4) by introducing or remain an open boundary treatment which will not obscure or restrict the view.
  - 2.2.2. If new entry gates are constructed at the point of entry from the public access road/driveway to the Kilmany Park Mansion Complex its design should be in keeping with the 1906 design of the Mansion House with a discreet plaque stating their date of construction. Examples of appropriate fences can be found in figures D5 and D23.

#### 2.3. Future development within the Kilmany Park Mansion Complex

To ensure existing heritage buildings remain as the prominent buildings on the estate and further development does not erode the rural setting of the Kilmany Park Mansion Estate.

- 2.3.1. New buildings, works (including outbuildings such as sheds), structures or additions to existing buildings should not erode the rural setting or obstruct the view to heritage buildings or other view line. Heritage buildings should remain as the prominent buildings on the Estate.
- 2.3.2. Further subdivision is discouraged as it will further fragment the Kilmany Park Mansion Complex as a single entity and erode the rural setting.
- 2.3.3. The viability of the Mansion House to provide income for regular maintenance must not be compromised by future subdivision or development within the Heritage Overlay polygon.

#### 2.4. Fencing and boundary treatments within the Kilmany Park Mansion Complex

To ensure Kilmany Park Mansion Complex remains a recognisable, physically related group of heritage buildings, careful consideration should be given to fences or other boundary treatments between the existing lots within the heritage area.

- 2.4.1. Fences should be no higher than 1.2 metres, unless documentary evidence is provided to show an historically appropriate alternative.
- 2.4.2. Fences required for privacy should be timber paling fences no higher than 1.8 metres. The location of these fences should not obscure view lines.
- 2.4.3. Fence design should incorporate timber pickets or railings, (as shown in D5 and D23) for the Pearson era and timber railings and posts with cyclone wire infill for the Boys Home era (as shown in Figure H3).
- 2.4.4. The use of vegetation is considered an appropriate alternative form of boundary treatment as long as any view lines are not obscured.

#### 2.5. Paving within the Kilmany Park Mansion Complex

For Victorian, Federation and Interwar era historic buildings, appropriate paving could be pressed granitic sand or asphalt. If concrete is selected, a surface with sand coloured, size exposed aggregate would be required.

- 2.5.1. Ensure the asphalt or concrete does not adhere to the buildings. Insert 10mm x 10mm grey polyurethane seal over a zipped Ableflex joint filler between the structure and the concrete to ensure concrete does not adhere to it and to allow expansion and joint movement and prevent water from seeping below the building.

#### 2.6. Signs and other infrastructure

- 2.6.1. Ensure signs and services such as power poles, signs, etc are located so that they do not impact on important views.
- 2.6.2. Any new interpretation storyboards should be placed to the side of the buildings not directly in front of them.

### 3. SECTION THREE – The Heritage Buildings, structures and Landscapes

The guidelines below provide best-practice approaches when redeveloping, restoring and/or maintaining the heritage buildings. Specific guidelines for the Mansion House itself have

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not been prepared. Internal alteration controls apply to the Mansion House and Meat House, it is therefore strongly advised to submit a conservation management and maintenance plan as part of any planning permit application for external or internal works or maintenance.

### 3.1. Additions and changes to buildings, structures and landscape

Extensions that are sympathetic to the heritage values of the existing buildings are preferred e.g. new structures that are in the same view lines as the historic buildings and as seen from internal roads, and public vantage points should be parallel and perpendicular to the existing building, no higher than the existing building, of similar proportions, height, wall colours, steep gable or hip roofs, with rectangular timber framed windows with a vertical axis.

- 3.1.1. Where possible changes that are easily reversible should be considered e.g. the current needs might mean that a doorway in a brick wall is not used, or located where an extension is desired. Rather than bricking up the doorway, frame it up with timber and sheet it over with plaster, weatherboards, etc.
- 3.1.2. To avoid damage to the brick and rendered masonry walls, signs and fixtures should be attached in such a way that they do not damage the brickwork. Preferably fix them into the mortar rather than the bricks.
- 3.1.3. If an extension is to have a concrete slab floor, ensure it will not reduce the air flow under the historic buildings.
- 3.1.4. Avoid hard paths against the walls of solid masonry walls. Install them 500mm away from the walls and 250mm lower than the ground level inside the building. Fill the gap between the path and wall with very coarse gravel to allow moisture to evaporate from the base of the wall.

### 3.2. New garden beds

- 3.2.1. New garden beds should be a minimum of 500mm from the walls, preferably further, and the ground lowered so that the finished ground level of the garden bed is a minimum of 250mm lower than the ground level which is under the floor, inside the building. Slope the soil and garden bed away from the building, and fill the area between the garden bed and walls, with very coarse gravel up to the finished level of the garden bed. The coarse gravel will have air gaps between the stones which serves the function of allowing moisture at the base of the wall to evaporate and it visually alerts gardeners and maintenance staff that the graveled space has a purpose. The reason that garden beds are detrimental to the building, is by a combination of: watering around the base of the wall and the ground level naturally builds up. The ground level rises, due to mulching and leaf litter and root swelling, above a safe level such that it blocks sub floor ventilation, and the wall is difficult to visually monitor on a day to day basis, due to foliage in the way.

### 3.3. Accessibility

#### 3.3.1. Ramps; removable ramp construction

- 3.3.1.1. A metal framed ramp which allows air to flow under it, to ensure the subfloor vents of the building are not obstructing good airflow under the floor, which will allow the wall structure to evaporate moisture, reduce termite and rot attack to the subfloor structure and reduce



rising damp in brick/stone walls.

- 3.3.1.2. Ramps constructed from concrete next to brick walls may cause damp problems in the future and are therefore discouraged
  - 3.3.1.3. Ensure water drains away from the subfloor vents, and walls and any gap between the wall and the ramp remains clear of debris. Insert additional sub floor vents if the ramp has blocked any of them.
  - 3.3.1.4. The hand rails on the ramp should not be a feature which would detract from the architecture. Plain thin railings painted in the same colour as the walls to blend in, would be appropriate.
- 3.3.2. Metal banisters may be installed at steps. They are functional and minimalist and they have a minor visual impact on the architecture and are therefore a more suitable design for an accessible addition.

### 3.4. Reconstruction and Restoration

If an opportunity arises, consider restoring and reconstructing the following:

- 3.4.1. Roofing, spouting and down pipes appropriate to the original era of each building.
  - 3.4.1.1. Use galvanised corrugated iron roofing, spouting, down pipes and rain heads on all the historic buildings.
  - 3.4.1.2. Don't use Zincalume or Colorbond.
  - 3.4.1.3. Use Oggee profile spouting, and round diameter down pipes for Victorian and Federation era buildings.
- 3.4.2. Brick and Stone Walls
  - 3.4.2.1. Mortar: Match the lime mortar, do not use cement mortar. Traditional mortar mixes were commonly 1:3 (limesand) for Victorian and Federation era buildings.
- 3.4.3. Paint and Colours (also see Paint Colours and Paint Removal)
  - 3.4.3.1. It is recommended to paint the exterior of the timber buildings using original colours (paint scrapes may reveal the colours) to enhance the historic architecture and character.
  - 3.4.3.2. Paint removal: It is strongly recommended that the paint be removed chemically from any painted brick or rendered surfaces that were originally unpainted. Never sand, water or soda blast the building as this will permanently damage the bricks, mortar and render. Never seal the bricks or render as that will create perpetual damp problems. Removal of the paint will not only restore the elegance of the architecture, but it will remove the ongoing costs of repainting it every 10 or so years.
- 3.4.4. Remove any dark grey patches to the mortar joints - this is cement mortar which will damage the bricks, as noted above, and reduce the longevity of the walls. Repoint those joints with lime mortar. The mortar is not the problem it is the messenger, altering you to a damp problem (also see Water Damage and Damp).
- 3.4.5. Modern products: Modern products should not be used on the Victorian and Federation era stone or brick work as they will cause expensive damage. Use lime

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mortar to match existing.

3.4.6. Do not seal the brick or render with modern sealants or with paint. Solid masonry buildings must be able to evaporate water when water enters from leaking roofs, pipes, pooling of water, storms, etc. The biggest risk to solid masonry buildings is permanent damage by the use of cleaning materials, painting, and sealing agents and methods. None of the modern products that claim to 'breathe' do this adequately for historic solid masonry buildings.

3.4.7. Do not paint or coat with sealant, any unpainted brick or rendered surfaces.

### 3.5. Care and Maintenance

3.5.1. As a general approach, retaining and restoring the original heritage fabric is always a preferable heritage outcome to its replacement with new.

#### 3.5.2. Key References

3.5.2.1. Obtain a copy of "Salt Attack and Rising Damp" by David Young (2006), which is a free booklet available for download from Heritage Victoria website. It is in plain English, well-illustrated and has very important instructions and should be used by tradesmen, Council maintenance staff and designers. This is particularly relevant for Victorian and Federation era buildings.

#### 3.5.3. Roofing, spouting and down pipes

3.5.3.1. Corrugated iron roofing, spouting, down pipes and rain heads should all be galvanised. Whilst not essential, it is preferable to use short sheet corrugated iron and lap them, rather than long single sheets for Victorian and Federation era buildings.

3.5.3.2. Zincalume or Colorbond should not be used.

3.5.3.3. Ogce profile spouting and round diameter down pipes should be used for Victorian and Federation era buildings.

#### 3.5.4. Joinery

3.5.4.1. It is important to repair rather than replace where possible, as this retains the historic fabric. This may involve cutting out rotten timber and splicing in new timber, which is a better heritage outcome than complete replacement.

### 3.6. Water Damage and Damp

3.6.1. Signs of damp in the walls of solid masonry buildings include: lime mortar falling out of the joints, moss growing in the mortar, white (salt) powder or crystals on the brickwork, existing patches with grey cement mortar, or the timber floor falling. These causes of damp are, in most cases, due to simple drainage problems, lack of correct maintenance, inserting concrete next to the solid masonry walls, sealing the walls, sub floor ventilation blocked, or the ground level too high on the outside.

3.6.2. Always remove the source of the water damage first (see Care and Maintenance).

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- 3.6.3. Water falling, splashing or seeping from damaged spouting and down pipes cause severe and expensive damage to brick walls.
- 3.6.4. Repairing damage from damp may involve lowering the ground outside so that it is lower than the ground level inside under the floor, installation of agricultural drains, running the downpipes into drainage inspection pits instead of straight into the ground. The reason for the pits is that a blocked drain will not be noticed until so much water has seeped in and around the base of the building and damage commenced (which may take weeks or months to be visible), whereas, the pit will immediately fill with water and the problem can be fixed before the floor rots or the building smells musty.
- 3.6.5. Damp is exacerbated by watering plants near the walls. Garden beds and bushes should therefore be located at least half a metre away from walls.
- 3.6.6. Cracking: Water can seep into the structure through cracks (even hairline cracks in paint) and the source of the problem needs to be remedied before the crack is filled with matching mortar. In the case of paint on brick, stone or render, the paint should be chemically removed to allow the wall to breathe properly and prevent the retention of moisture.
- 3.6.7. Subfloor ventilation is critical. Sub floor vents should be checked for blockages and introduce additional ones if necessary. Ensure the exterior ground level is 250mm or more, lower than the ground level inside the building. Good subfloor ventilation works for free, and is therefore very cost effective. Do not rely on fans being inserted under the floor as these are difficult to monitor, they can breakdown as they get clogged with dust, etc., and there are ongoing costs for servicing and electricity.
- 3.6.8. Engineering: If a structural engineer is required, it is recommended that one experienced with historic buildings and the Burra Charter principle of doing 'as little as possible but as much as necessary', be engaged. Some of them are listed on Heritage Victoria's Directory of Consultants and Contractors.
- 3.6.9. Never use cement mortar on Victorian and Federation era buildings. always match the original lime mortar. Cement is stronger than the bricks and therefore the bricks will eventually crumble, leaving the cement mortar intact. Lime mortar lasts for hundreds of years. When it starts to powder, it is an indication of a damp problem - which should be fixed at the source and then repointed with lime mortar.
- 3.6.10. New damp proof course (DPC) should not be installed until the drainage has been fixed. Even an expensive DPC may not work unless the ground has been lowered appropriately.

### 3.7. Paint Colours and Paint Removal

- 3.7.1. A permit is required to paint a previously unpainted exterior or interior (when controls apply) and to change the existing colours.

- 3.7.2. Even if the existing colour scheme is not original or appropriate for that style of architecture, repainting using the existing colours is considered to be maintenance and no planning permit is required.
- 3.7.3. If a change of the existing colour scheme is proposed, a planning permit is required and it would be important to use colours that enhance the architectural style and age of the building.
- 3.7.4. Rather than repainting, it would be preferable if earlier paint was chemically removed from brick and rendered surfaces to reveal the original finish.
- 3.7.5. Chemical removal of paint will not damage the surface of the stone, bricks or render or even the delicate tuck pointing that is hidden under many painted surfaces. Removal of the paint will not only restore the elegance of the architecture, but it will remove the ongoing costs of repainting it every ten or so years.
- 3.7.6. Sand, soda or water blasting removes the skilled decorative works of craftsmen as well as the fired surface on bricks and the lime mortar from between the bricks. It is irreversible and reduces the life of the building due to the severe damp that the damage encourages. Bricks or render should never be sealed as that will create perpetual damp problems.

### 3.8. Services

- 3.8.1. New services and conduits, down pipes etc, should not be conspicuous and therefore located, whenever possible, at the rear of the building. When this is not practical, they should be painted the same colour as the building or fabric behind them, or enclosed behind a screen of the same colour as the building fabric that also provides adequate ventilation around the device. Therefore, if a conduit goes up a red brick wall, it should be painted red, likewise when it passes over a cream coloured detail, it should be painted cream.

### 3.9. Signage (including new signage and locations and scale of adjacent advertising signage)

- 3.9.1. All signage should be designed to fit within or around the significant architectural design features, not over them.

### **Resources**

Wellington Shire Heritage Advisor

Young, David (2008), "Salt Attack and Rising Damp, a guide to salt damp in historic and older buildings" Technical Guide, prepared for Heritage Victoria.

All photos taken in 2011 by Heritage Intelligence Pty Ltd unless otherwise noted.

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**ITEM C3.3****WELLINGTON REGIONAL TOURISM – MEMORANDUM OF UNDERSTANDING AND SERVICE AGREEMENT**

DIVISION: DEVELOPMENT  
 ACTION OFFICER: GENERAL MANAGER DEVELOPMENT  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓				✓	✓	✓		✓	

**OBJECTIVE**

To renew and revise Wellington Shire Council's (Council) Memorandum of Understanding and Service Agreement (MOU) with Wellington Regional Tourism (WRT) and, in doing so, support the implementation of a revised Tourism Brand.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION***That:*

- 1. Council renew Wellington Shire Council's Memorandum of Understanding and Service Agreement with Wellington Regional Tourism for period 1 October 2016 to 30 June 2019 as provided at Attachment 1.***
- 2. Council provide Wellington Regional Tourism with an annual contribution of \$90,000 plus CPI adjustments to implement the marketing programs outlined in Appendix 1 of Memorandum of Understanding and Service Agreement.***
- 3. Council endorse the implementation of a revised tourism brand that is strategically aligned to the "Inspired by Gippsland" brand and is generally in accordance with the presentation document provided at Attachment 2.***

**BACKGROUND**

Wellington Shire Council has an MOU agreement with WRT that has been in place since 2008. The MOU formalises the relationship between Council and WRT and was established to support tourism development, co-operative marketing, foster increased industry involvement and support strategic initiatives. Under the current agreement, Council provides WRT with financial support of \$40,000 per annum.

Given proposed changes to the location and operation of Visitor Information Services from January 2018 (currently managed under contract) together with the recent resignation of Council's Tourism Development Officer, it was considered appropriate that a review of the way in which Council supports the visitor economy be undertaken.

This review has been completed and, as outlined in the Council workshop held on 2 August 2016, it has identified a number of opportunities for improvement that once implemented will reduce duplication, whilst providing greater clarity regarding roles and responsibilities.

The outcome of the review recommends that Council take lead responsibility for:

- Visitor Information Centre services
- Tourism development and industry support
- Liaison with Business and Tourism Associations
- Tourism Infrastructure
- Events attraction and coordination.

Wellington Regional Tourism will take lead responsibility for:

- Tourism marketing
- Tourism branding.

The most significant change coming out of the review is that WRT take lead responsibility for tourism marketing, something that has been a shared responsibility in the past. Both Council and WRT agree that one organisation with a key focus on marketing will achieve better outcomes than having it spread across multiple agencies.

To facilitate these changes, it is recommended that Council enter into a new MOU and Service Agreement with WRT as provided at Attachment 1. Given the MOU requires WRT to manage the entire tourism marketing program on behalf of Wellington Shire, it is proposed to reallocate Council's marketing budget to WRT thereby increasing the annual financial contribution to \$90,000 per annum.

Whilst Council has been conducting the review of visitor economy support services, WRT has also been finalising its recommendations regarding a consumer brand for the region. That process has concluded, with WRT recommending the establishment of a strong relationship with Destination Gippsland's "Inspired by Gippsland" brand.

This recommendation was outlined at the Council workshops held on 15 March 2016 and 19 July 2016 where the rationales for the proposed changes were presented (refer Attachment 2).

Now that the visitor economy support services review, and consumer brand review are finalised, Council is in a position to enter into new agreements and endorse a revised tourism brand.

## **OPTIONS**

Council has the following options:

1. Renew Wellington Shire Council's Memorandum of Understanding and Service Agreement with Wellington Regional Tourism for the period 1 October 2016 to 30 June 2019 as provided at Attachment 1.  
  
Provide Wellington Regional Tourism with an annual contribution of \$90,000 plus CPI adjustments to implement the marketing programs outlined in Appendix 1 of Attachment 1.  
  
Endorse the implementation of a revised tourism brand that is strategically aligned to the "Inspired by Gippsland" brand and is generally in accordance with the presentation provided at Attachment 2"; or
2. Request further information before considering the regional tourism arrangements.

## PROPOSAL

That:

1. Council renew Wellington Shire Council's Memorandum of Understanding and Service Agreement with Wellington Regional Tourism for period 1 October 2016 to 30 June 2019 as provided at Attachment 1.
2. Council provide Wellington Regional Tourism with an annual contribution of \$90,000 plus CPI adjustments to implement the marketing programs outlined in Appendix 1 of Attachment 1.
3. Council endorse the implementation of a revised tourism brand that is strategically aligned to the "Inspired by Gippsland" brand and is generally in accordance with the presentation provided at Attachment 2.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## FINANCIAL IMPACT

The level of funding recommended in this report has been provided in Council's 2016/17 operating budget and in the longer term Strategic Resource Plan. The increased funding allocation to WRT has resulted from the reallocation of Council's marketing budget and long term operational efficiencies in the provision of visitor information services.

## COUNCIL PLAN IMPACT

The Council Plan 2013-17 theme *Economy* states the following strategic objective and related strategies:

### Strategic Objective

*"Supported business growth to align with the competitive strengths of the region"*

### Strategy 6.1

*"Support business growth to align with the competitive strengths of the region"*

### Strategy 6.2

*"Encourage infrastructure planning and delivery to support economic growth"*

### Strategy 6.3

*"Attract new investment, lifestyle growth and visitors by developing and supporting Wellington Shire's regional identity"*

## **RESOURCES AND STAFF IMPACT**

The ongoing management of the Memorandum of Understanding and Service Agreement will be undertaken by Council's Manager Economic Development. The primary responsibility for tourism marketing will now rest with WRT, thereby allowing Council to take on the direct delivery of Visitor Information Services from 1 January 2018 (rather than contract management).

## **CONSULTATION IMPACT**

In developing the Memorandum of Understanding and Service Agreement with WRT, and in particular the revised tourism brand, extensive consultation has been undertaken with Destination Gippsland.



## ATTACHMENT 1



This document outlines a co-operative marketing agreement between Wellington Shire Council and Wellington Regional Tourism Inc. The purpose of this agreement is to provide clear guidance of responsibilities and minimise duplication of effort.

### OVERVIEW & BASIS OF AGREEMENT

To formalise the agreed arrangements between Wellington Shire Council (WSC) and Wellington Regional Tourism Inc to support visitor marketing opportunities external to Wellington Shire, foster increased industry involvement in marketing campaigns and support strategic initiatives relating to tourism/visitor development projects conducted by Wellington Shire Council.

Wellington Regional Tourism Inc will be funded annually by the Wellington Shire Council to efficiently promote the tourism attributes, tourism operators, visitor attractions and tourism industry of the Wellington and Central Gippsland region to the external visitor market to attract new visitors and increase yield through encouraging increased length of stay.

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### BOARD STRUCTURE

The board will continue to renew themselves to ensure appropriate representation of Wellington with a range of board members from various geographical and visitor industries within the region.

Wellington Regional Tourism Inc are required to comply with Consumer Affairs Victoria model rules for an incorporated association.

### FUNDING

Annual funding for Wellington Regional Tourism Inc will be provided by Wellington Shire Council as part of its budget process. It is expected that other funding for the operations of Wellington Regional Tourism Inc should also be sourced from grants, other tourism/visitor and government agencies, the tourism industry and other appropriate sources. This will complement the MOU contribution provided by Wellington Shire Council and enable a comprehensive marketing program of activities to occur. MOU contribution will be provided quarterly in advance, upon receipt of a tax invoice.



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## MARKETING PLAN

Wellington Regional Tourism Inc will develop an Annual Marketing Plan in consultation with Wellington Shire Council. The Plan will specify the marketing activities of Wellington Regional Tourism Inc for the following financial year for implementation effective 1 July annually. The marketing plan will be submitted to council prior to 1 July annually

## WELLINGTON REGIONAL TOURISM INC RESPONSIBILITIES AND KPI'S

Wellington Regional Tourism Inc will undertake a range of activities associated with the external marketing of the region. These activities will form the basis of the annual review by Wellington Shire Council and are integral to the provision of ongoing funding. The annual responsibilities and KPI's are specified in Appendix 1 (attached).

Wellington Regional Tourism Inc will provide strategic advice to council on tourism related issues as required.

## GOVERNANCE

**Meetings:** Wellington Regional Tourism Inc will meet for a minimum 8 meetings per year, or as required during projects, to advance and develop marketing, promotion and attending external relevant trade shows.

**Documentation:** A copy of the Constitution and/or governance arrangements for Wellington Regional Tourism Inc meetings, membership and Board will be provided at the commencement of MOU or updated as applicable. Meeting minutes will be submitted to Wellington Shire Council within two weeks of each board, executive or committee meeting.

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**Wellington Shire Representation:** Wellington Shire Council will provide one Councillor to act as ex-officio members of Wellington Regional Tourism Inc Board to ensure appropriate recognition of the tourism interests of Wellington Shire. The Council will also be represented by the Visitor Economy and Events Coordinator in an ex-officio capacity.

**Conflict of Interest:** Wellington Regional Tourism Inc will disclose any Conflict of interest and will act with integrity at all times. All conflicts of interest must be recorded in the minutes of all meetings.

The board members, staff and contractors of Wellington Regional Tourism Inc will be required to give advice to council on behalf of the tourism industry they represent; private interests should not affect the way Wellington Regional Tourism Inc perform their duties or advice council.

The board members, staff and contractors of Wellington Regional Tourism Inc are required to comply with the State Government of Victoria, Conflicts of Interest; A guide for members of Council committees guide lines.



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## RESOURCE SHARING

Sharing of resources with neighbouring Regional Tourism Organisations, Wellington Shire Council, Destination Gippsland, VECCI, VTIC and local Business and Tourism Associations is encouraged and all steps should be taken to gain increased leverage from joint marketing and promotional activities. Sharing of resources may include marketing resources, imagery, videos etc.

Wellington Regional Tourism Inc will provide Wellington Shire Council's Visitor Economy and Events Coordinator with access to tourism website and social media accounts to gain access to statistics for Council reporting.

## REPRESENTATION ON DESTINATION GIPPSLAND BOARD

Wellington Regional Tourism Inc., subject to board ratification will support appropriate local nominations for the Board and advisory committees of Destination Gippsland to ensure representation of the tourism interests of Wellington Shire.

## EXPENDITURE GUIDELINES

The specific expenditure guidelines forming part of this agreement are outlined in appendix 2 attached.

## TERM OF AGREEMENT

The agreement will be for a three year period: 1 October 2016 – 30 June 2019

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## TERMINATION

This agreement may be terminated or suspended in writing, by the following circumstances:

- a) In the event that the organisation commits a material breach of the obligations and responsibilities outlined in this memorandum of understanding, provided that notice of breach has been given an opportunity to remedy provided and remedy has not been made by the organisation within 60 days of notice having been given.
- b) The organisation becomes insolvent or is subject to petition or resolution for winding up.
- c) Termination of this agreement can be made by mutual agreement of both parties, given in writing, with three months' notice. In the event of termination of the agreement, payment will be made on a pro-rata basis.

## LEVEL OF FINANCIAL SUPPORT

Wellington Shire Council will provide Wellington Regional Tourism Inc with an annual contribution of \$90,000 plus an adjustment for the Consumer Price Index (CPI) on an annual basis. This annual contribution will be paid quarterly in advance, subject to continued satisfactory completion of responsibilities and KPI's.



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These funds are to be used for the following purpose:

- An annual allocation of at least \$50,000 to support the direct cost associated with marketing activities. Wellington Regional Tourism Inc is required to match the marketing allocation dollar for dollar to produce a minimum of \$100,000 worth of external marketing value to promote Wellington. For the financial year 2016/17 the allocation will be a minimum of \$37,000 to support an overall marketing effort of \$74,000

The dollar for dollar funding can be:

- Cash contributions,
- In-kind marketing or promotional activities that occur outside Wellington Shire Grant funds

The dollar for dollar funding cannot be:

- Funding received to delivery events or the marketing activities that occur within Wellington Shire

For the contract period 1 October 2016 to 30 June 2017 the MOU payment will be reduced to reflect the 9 month contract period of the financial year. The total payment will be \$67,500.

## WELLINGTON SHIRE COUNCIL'S RESPONSIBILITIES

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In supporting the visitor economy, Wellington Shire will:

- Manage the Visitor Information Centres
- Membership of Destination Gippsland
- Produce local visitor brochures for the Visitor Information Centres in consultation with local Business and Tourism Associations.
- Management of events listings at VIC's and on the internet
- Consult with Wellington Regional Tourism Inc on Wellington visitor strategies.
- Consult and support local business and tourism association
- Develop visitor attractions
- Consult with state and regional bodies including other Gippsland Councils, Parks Victoria, Economic Development Victoria, Vic Roads, Gipps Ports and Regional Development Victoria.
- From January 2018, provide Wellington Regional Tourism Inc's Executive Officer with a shared desk at the Shire's Port of Sale Hub at Foster Street, Sale
- Provide Economic Development support to related businesses as required
- Run business development workshops
- Work with business and tourism associations as required on destination and attraction development
- Authorise any filming conducted within Wellington Shire. Filming requires council approval and a filming permit as per Victorian State Regulations



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**Signed for and on behalf of:**

Wellington Regional Tourism Inc: \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_

**Kellie Willis**

**Date**

**President**

Wellington Shire Council: \_\_\_\_\_ / \_\_\_\_ / \_\_\_\_

**John Websdale**

**Date**

**General Manager Development**

**APPENDIX 1**



## RESPONSIBILITIES and KPI's

### General Responsibilities

Wellington Regional Tourism Inc:

1. Will formally submit to Wellington Shire Council a copy of minutes, annual financial statements and President's report following its Annual General Meeting.
2. Will submit to Wellington Shire Council a copy of minutes within two weeks of each board, executive or committee meeting.
3. Is responsible for delivering marketing activities that promote the regional with the aim of increased regional visitation.
4. Will support beneficial strategic marketing initiatives (where WRT Board considers valuable) as delivered by Destination Gippsland Ltd. Wellington Regional Tourism Inc is responsible for payment of Destination Gippsland marketing activities including brochures.
5. Will consult with the Visitor Economy and Events Coordinator before purchasing any Destination Gippsland or other brochures to be stocked at Wellington Visitor Information Centres.
6. Will submit an annual budget and marketing plan to Wellington Shire Council prior to 1 July annually.
7. Implement agreed Annual Marketing Plan.

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### Specific Responsibilities

1. For 2016/17 introduce in consultation with Wellington Shire Council a tourism brand for joint use by Wellington Regional Tourism Inc and Wellington Shire Council for Wellington tourism/visitor initiatives, to be formally agreed by Wellington Shire Council and Wellington Regional Tourism Inc Board

The new brand will be utilised in numerous ways such as:

- Incorporate the new Wellington brand in marketing campaigns including Tourism Victoria, Destination Gippsland campaigns.
  - Incorporate the new Wellington Brand for marketing and promotional activities aimed at the consumer.
  - The Wellington Regional Tourism Inc logo and brand is to be used locally when it is industry relevant and not aimed at the external consumer.
2. On an annual basis, submit and present an end of financial year report to Wellington Shire Council covering the following points:



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- a) Budget including break down of associated costs, breakdown of MOU spend, itemised matched dollar for dollar funding
- a) Marketing plan
- b) Website and social media statistics – monthly comparisons over the previous 12 months
- c) Contribution to Destination Gippsland marketing activities
- d) Complete an analysis of Wellington Regional Tourism Inc marketing activities external to Destination Gippsland’s campaigns. Analysis will include general target markets, campaign reach, cost and return on investment for each marketing activity
- e) Industry database size – previous 12 monthly comparison
- f) Consumer database size – previous 12 monthly comparison
- g) Previous 5 years’ statistics on Travel to Wellington for the following categories; Domestic overnight travel, Domestic nights in Wellington, International visitors, International nights in Wellington and Domestic daytrips (based on data from Destination Gippsland)
- h) Other Wellington Regional Tourism Inc activities

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In addition the annual report, provide and present a midyear briefing of WRT’s activities at a Council workshop.

3. Work proactively with Latrobe City Council to produce the Central Gippsland Official Visitor Guide (OVG) under the guidelines of Visit Victoria. Wellington Regional Tourism Inc is responsible for; selling advertising space with the OVG for Wellington and all associated cost of producing the OVG print and digital versions. All commissions raised developing the OVG will remain the revenue of Wellington Regional Tourism Inc.
4. Work with Creative Gippsland and other arts and cultural organisation to support the promotion of Wellington’s arts, culture and heritage.
5. From 1 Jan 2018 Wellington Regional Tourism Inc will be responsible for annually selling industry brochure racking spots for Sale, Maffra and Yarram Visitor Information Centres. Wellington Regional Tourism Inc will keep 100% of the racking fee payments for Sale and Maffra. The Yarram racking fee is \$25 per business, all proceeds will be paid to Mirridong Services by Wellington Regional Tourism Inc annually.
6. Manage and maintain the tourism website, social media, consumer database and e-news for online marketing and promotion. (Provide the visitor information centres contact details on the contact us page of the tourism website for visitor enquiries).



*The Heart of Gippsland*

## APPENDIX 2

### GUIDELINES FOR EXPENDITURE OF WELLINGTON REGIONAL TOURISM INC FUNDS

1. Marketing expenditure is to be focused on the promotion of visitation to the Wellington Region from visitors external to Wellington Shire.
2. Activities and collateral which promote individual tourism businesses must involve an appropriate contribution from those businesses
3. Wellington Regional Tourism Inc will support the following tradeshows in 2017 to gain an understanding and knowledge of current consumer shows. Consideration be given to attend the events after 2017.
  - a. Financial support Gippsland Vehicle Collection to attend Motorclassica Melbourne. Wellington Regional Tourism Inc is responsible for paying all stand payments and event insurance. Gippsland Vehicle Collection is responsible for manning and organising the stand.
  - b. Support one trade show with Destination Gippsland in conjunction with other Gippsland Councils/tourism bodies.
  - c. Attend the National 4x4 Outdoor Show, Fishing and Boating Expo (Melbourne). Wellington Regional Tourism Inc is responsible for paying all stand payments, associated expenses and Wellington Regional Tourism Inc staff expenses. Mountain Top Experiences provided support to man the stand in conjunction with a Wellington Regional Tourism Inc staff member. Baw Baw, Latrobe and East Gippsland councils provide \$500+GST towards funding the stand to promote Gippsland's High County.
  - d. Victorian 4WD Show (Wandin). Mountain Top Experience is responsible for paying all stand payments and associated expenses. Wellington Regional Tourism Inc provides support of a staff member to help man the stand and associated Wellington Regional Tourism Inc staff member expenses.

8

End.



*The Heart of Gippsland*



**ITEM C3.4****WELLINGTON SHIRE STAGE 2 HERITAGE STUDY (2016) - IMPLEMENTATION**

DIVISION: DEVELOPMENT  
 ACTION OFFICER: MANAGER LAND USE PLANNING  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓	✓	✓		✓		✓		✓	

**OBJECTIVE**

To adopt the *Wellington Shire Stage 2 Heritage Study (2016) - Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016* prepared by Heritage Intelligence Pty Ltd.

To request the Minister for Planning to Authorise Council as the planning authority to prepare Amendment C92 to implement the recommendations of the *Wellington Shire Stage 2 Heritage Study (2016) Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016* prepared by Heritage Intelligence Pty Ltd into the Wellington Planning Scheme.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION*****That***

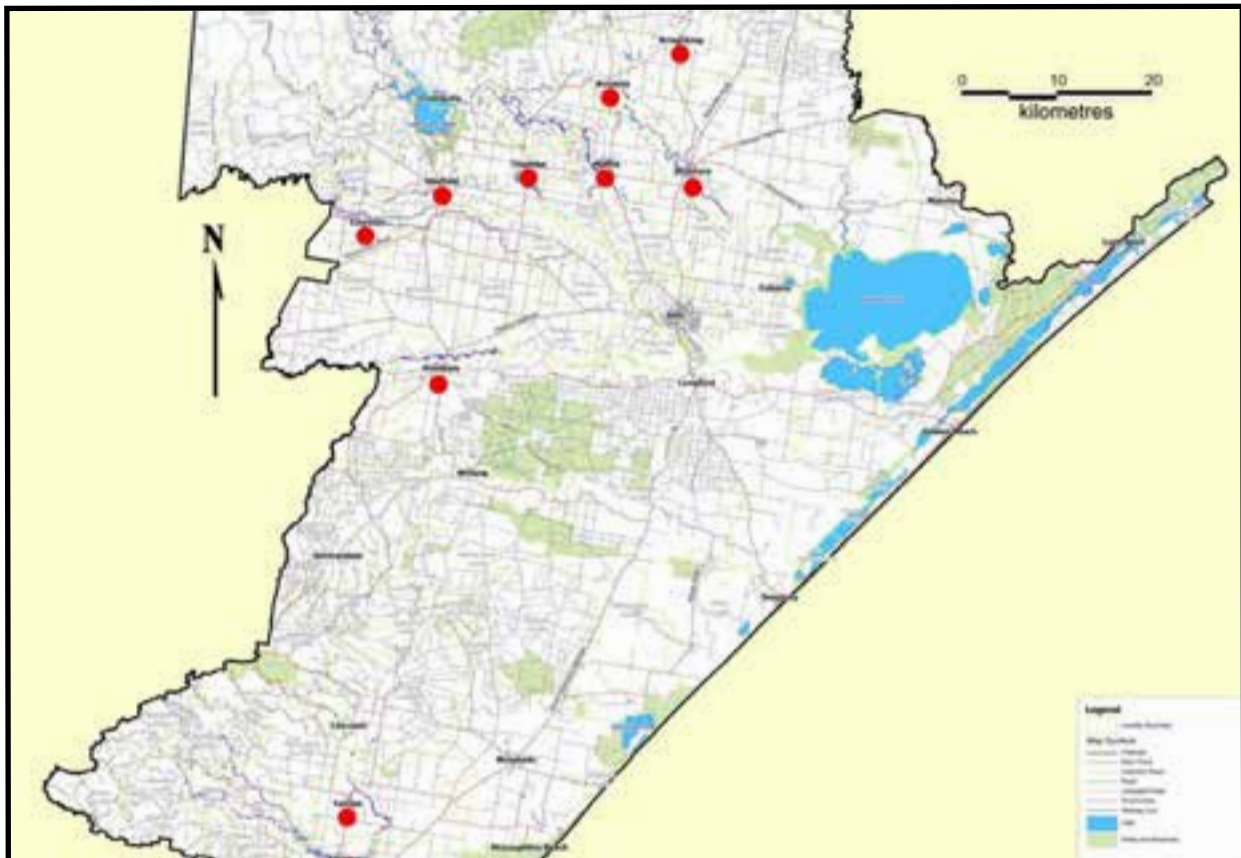
- 1. Council resolve to adopt the Wellington Shire Stage 2 Heritage Study (2016) - Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016 prepared by Heritage Intelligence Pty Ltd.***
- 2. Pursuant to Section 8A of the Planning and Environment Act 1987, Council resolve to request the Minister for Planning to Authorise Council as the planning authority to prepare Amendment C92 to implement the recommendations of the Wellington Shire Stage 2 Heritage Study (2016) - Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016 prepared by Heritage Intelligence Pty Ltd into the Wellington Planning Scheme by applying the Heritage Overlay to the 67 places illustrated in the individual citations contained in Volume 2 of the Study.***

**BACKGROUND**

At its meeting of 2 June 2015, Council resolved to support the allocation of \$50,000 for the targeted detailed assessment of a (limited) number of priority places of potential heritage significance as a key project for the 2015/16 Strategic Planning work program.

Consultants 'Heritage Intelligence' were appointed to undertake the 'Wellington Shire Heritage Study – Stage 2 Implementation', in October 2015. The Study included the detailed assessment of 72 individual places that are spread across 9 towns within the Shire, including: Cowwarr, Heyfield, Tinamba, Maffra, Boisdale, Briagolong, Stratford, Rosedale and Yarram.

The individual places were selected from a shortlist derived from the original 584 places identified as being of 'High priority' in Stage 1 of the Heritage Study in 2005.



The Heritage Study involved three key stages:

### **Stage 1: Consultation and Data Collection**

Stage 1 comprised the initial consultation with owners and historical societies, the field survey and photographs of all places from the public realm, historical research and the compilation of a brief Progress Report informing Council officers of the Stage 1 findings.

### **Stage 2: Detailed Assessment & Consultation**

During this stage, the consultant undertook the detailed assessment of places included within the Heritage Study. Following the detailed assessment, 67 draft citations and associated detailed management guidelines were prepared for those places which hadn't been significantly altered and retained sufficient original fabric to meet the threshold of local significance.

Whilst 72 places were originally intended to be documented, it is noted that several places were merged into a single citation and 3 others were not considered to meet the local significance threshold test (being the Briagolong Hotel, Heyfield Memorial Hall and Tinamba Hotel). Similarly, it was determined that the Moreton Bay Fig, Maffra would be better protected and managed under the provisions of an Environmental Significance Overlay.

Individual landowners were provided with copies of the draft documentation and invited to provide feedback and comments. Of the 22 written submissions received, 6 submitters formally 'objected' to the proposed heritage listing (citing issues such as private property rights, the restrictive nature of the controls, business function and impacts on land sale). A copy of the submissions received has previously been made available to Councillors electronically. A full summary of the submissions can be found in the attached Submission Summary and Response Table (**Attachment 1**).

Two (2) landowners provided strong verbal objections to the inclusion of their properties in the study and raised concerns about potential (financial) implications of having a Heritage Overlay applied to their properties. Notwithstanding this, no formal written objections were submitted to Council.

### **Stage 3: Final Report**

Stage 3 comprised the response and consideration of submissions from the key stakeholders and the subsequent finalisation of the individual place citations and Key Findings & Recommendations Report.

The final report prepared by Heritage Intelligence Pty Ltd comprises two (2) volumes:

- **Volume 1:** Key Findings and Recommendations, May 2016
- **Volume 2:** Individual citations, May 2016

The final report is available to view electronically in the Councillor directory folders at *S:\Councillor library\COUNCIL DAY2016\h - September\Week 1\Heritage Study Information* - and can be publicly inspected in print at the Sale Service Centre.

The final report provides the required justification to formally include the 67 places into the Wellington Planning Scheme under the provisions of the Heritage Overlay, which will afford them statutory protection. On this basis, it is proposed to formally commence the Planning Scheme Amendment process for (what will be referred to as) Amendment C92 in the event that the Heritage Study is adopted by Council.

### **OPTIONS**

Council has the following options:

1. Adopt the *Wellington Shire Stage 2 Heritage Study (2016) – Volumes 1 and 2* (in full) and request the Minister for Planning to Authorise Council as the planning authority to prepare Amendment C92 to formally implement the recommendations of the Heritage Study into the Wellington Planning Scheme; or
2. Adopt the *Wellington Shire Stage 2 Heritage Study (2016) – Volumes 1 and 2 (in part)* and request the Minister for Planning to Authorise Council as the planning authority to prepare Amendment C92 to formally implement the recommendations of the Heritage Study into the Wellington Planning Scheme; or
3. Seek further information for consideration at a future Council Meeting.

## **PROPOSAL**

That Council:

1. Resolve to adopt the Wellington Shire Stage 2 Heritage Study (2016) - Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016 prepared by Heritage Intelligence Pty Ltd
2. Pursuant to Section 8A of the *Planning and Environment Act 1987*, resolve to request the Minister for Planning to Authorise Council as the planning authority to prepare Amendment C92 to implement the recommendations of the Wellington Shire Stage 2 Heritage Study (2016) - Volume 1: Key Findings and Recommendations, May 2016 and Volume 2: Citations, May 2016 prepared by Heritage Intelligence Pty Ltd into the Wellington Planning Scheme by applying the Heritage Overlay to the 67 places illustrated in the individual citations contained in Volume 2 of the Study.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **FINANCIAL IMPACT**

The resources associated with this project and the proposed Amendment have been accounted for in the Council budget.

## **COMMUNICATION IMPACT**

Affected Landowners will be contacted by letter to inform them of the Council decision and via the public exhibition of Planning Scheme Amendment C92. The Council website will also be updated accordingly.

## **LEGISLATIVE IMPACT**

The study has been undertaken having regard to the *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (2013) and its Practice Notes, and the Victorian Planning Provision's Practice Note *Applying the Heritage Overlay* (2012).

The implementation of the study through a Planning Scheme Amendment will be undertaken in accordance with the requirements of the *Planning and Environment Act 1987* including public exhibition of Amendment C92 where affected parties will have the opportunity to lodge a submission and be heard by an Independent Planning Panel (if required).

Wellington Shire Council is committed to upholding the Human Rights principles as outlined in the *Charter of Human Rights and Responsibilities Act 2006 (Vic)* and referred to in Council's Human Rights Policy. The Human Rights Checklist has been completed and the study and the proposed amendment to the Wellington Planning Scheme is in accordance with Council's policy commitment to uphold human rights principles.



## **COUNCIL PLAN IMPACT**

The Council Plan 2013–2017 - Theme 5: Land Use Planning contains the following strategic objective and related strategy:

Strategic Objective

*“Appropriate and forward looking land use planning that incorporates sustainable growth and development.”*

Strategy 5.1

*“Ensure Land Use Policies and Plans utilise an integrated approach to guide appropriate land use and development.”*

The Heritage Study supports the above Council Plan strategic objective and strategy.

## **PLANNING POLICY IMPACT**

Clause 22.03 (Heritage Policy) of the Wellington Planning Scheme will be updated as part of the Planning Scheme Amendment process to include the *Wellington Shire Stage 2 Heritage Study (2016)* as a Policy reference.

## **COMMUNITY IMPACT**

The adoption of the study and the subsequent implementation of the findings into the Wellington Planning Scheme will have a generally positive community impact by providing for the conservation and enhancement of those places in Wellington Shire which are of, aesthetic, archaeological, architectural, cultural, scientific, or social significance, or otherwise of special cultural value. The Stage 2 Heritage Study has identified and documented places that reflect important aspects of the municipality’s history that are valued by local communities.

Those who have objected to being included in the Heritage Overlay have indicated concerns regarding additional planning controls being applied to their property.

The application of the Heritage Overlay is intended to ensure that development does not adversely affect the significance of recognised built, cultural and natural heritage places. The Heritage Overlay will not automatically prohibit landowners or occupiers of heritage places from undertaking a new use or additional development. Rather, it will trigger the need for a planning permit so that the relevant heritage matters can be considered as a part of the permit process.

## **CONSULTATION IMPACT**

Consultation involved approximately 71 individual landowners and 7 historical societies and was undertaken during two separate stages of the study:

- When the study commenced, consultation was undertaken with key stakeholders including landowners, historical societies, Heritage Victoria and Council officers for the purpose of obtaining historical information such as photos and other documentation.
- Following the preparation of the draft documentation, individual landowners were provided with copies and invited to provide feedback and comments.

A summary of the submissions can be found below:

- 22 submissions were received during the consultation period.

- 6 submitters formally 'objected' to the proposed heritage listing (citing issues such as private property rights, restrictive controls, business function and impacts on land sale).
- Two (2) landowners provided strong verbal objections to being included in the study and concerns about potential (financial) implications of having a Heritage Overlay applied to their properties, but have not submitted formal written objections.
- The remainder of submissions were either in support of the study or provided valuable information regarding the history of their properties and building features and elements, that was added to the draft documentation.

#### VicRoads Submission

- Consultation took place with VicRoads throughout the study in relation to the memorial sites at Maffra, Bushy Park, Rosedale and Yarram due to their location within road reserves. VicRoads raised concerns primarily relating to the extent of the proposed overlay curtilages. It was submitted that these were excessive and would have negative consequences for ongoing road maintenance or road safety works due to the need to obtain a permit when undertaking any works. VicRoads requested that either the overlay curtilage be reduced, or permit exemptions should be provided in relation to these four sites for:
  - maintenance works
  - surface resealing
  - pot hole repair and dig out
  - structural repairs to pavement
  - lighting installation.

Officers responded to VicRoads stating a permit would not be triggered for these types of works as the provisions of clause 62.02-1, 62.02-2 and 43.01 already provide sufficient exemptions to allow for ongoing maintenance and safety works without the need for a permit. In relation to the overlay curtilage, it was agreed that the extent could be reduced for the sites at Bushy Park and Yarram but needed to be retained as originally proposed at Maffra and Rosedale in order to properly protect the heritage assets and their settings.

The matters at hand (permit exemptions and overlay curtilage) were recently considered by the Panel for Moira C38 who concurred with a previous decision on the matter (Interim Panel Report - Buloke C14). The Panel for C14 stated that not only is it common practice for a roadway to be subject to heritage controls together with abutting lots, but also that the exemptions provided in Clauses 43.01, 62.02-1 and 62.02-2 'would allow most routine activities and works by VicRoads without the need to apply for a planning permit'. The Panel concluded by stating that:

*"The Panel sees no need to have the Heritage Overlay removed from the Road Zone 1 land on the basis that it would unreasonably restrict VicRoads' operations. It would only be major changes proposed to the main roads as they pass through the heritage precincts that would likely need permission. In the Panel's view this is reasonable. Major changes to the structure and treatment of the major roadways should be assessed amongst other matters in terms of their effects upon the heritage values of the townships."*

- In response to feedback, a number of the draft citations were revised to include additional information, make corrections or to respond directly to a request (such as removal or reduction of the proposed extent of the overlay curtilage).
- A full summary of the submissions can be found in the attached Submission Summary and Response Table (**Attachment 1**).

Implementing the findings of the Heritage Study through the Planning Scheme Amendment process will include a period of public exhibition, including further consultation with directly affected landowners and will also afford the wider community an opportunity to provide input. The process will also allow for any objections to the proposal to be considered by an independent Planning Panel, appointed by the Minister for Planning (if required).

## ATTACHMENT 1

# Submission Summary Table

## Heritage Study



During consultation, a feedback survey was provided to landowners in order to obtain key information sought by the consultants. The survey asked the following questions:

1. What is the name of the place you are providing feedback for?
2. What town is the place in?
3. Do you believe there are incorrect or missing historical facts in the draft Place History?
4. Would you like to correct any details in the Description? Are there any original elements or features that are not mentioned?
5. Do you have any feedback on the draft Management Guidelines?
6. Do you have any other comments?

Use of **Q3, Q4, Q5 & Q6** in the table below refers to the relevant questions from the surveys.

Where the numbers haven't been used, feedback is more general in nature and is not responding directly to a survey question.



## Submissions received from Authorities (1)

Sub No	Authority	Name of Place	Key Issues raised	Preliminary response
12.	VicRoads	# 13 - Angus McMillan Memorial # 30 - Maffra Soldiers Memorial # 40 - Lyons Street Beautification # 58 - Yarram Soldiers Memorial	<ul style="list-style-type: none"> <li>No objection to detail in citations</li> <li>Issues with proposed heritage overlay boundaries – appear excessive and not warranted to protect heritage items (Memorials at Maffra, Bushy Park, Rosedale, Yarram)</li> <li>Consequences for ongoing road maintenance works (permits required for activities within road reserve eg – maintenance, road safety, linemarking)</li> <li>Overlay should include heritage assets only and not be located on roads</li> <li>Bushy Park – concerns re maintenance of trees (Pencil pines located in road reserve) and responsibilities regarding public injuries. If trees included in overlay Council should be responsible for public liability and maintenance.</li> <li>See submission for VicRoads suggested overlays</li> <li>Guideline wording is prohibitive to VicRoads operations regarding general maintenance, road safety works and emergency works. Amend wording to ensure clearer description for its use.</li> <li>Guidelines should not interfere with redevelopment of site as long as public consultation is undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>Consultants to provide explanation of rationale behind overlay curtilage which officers will then provide to VicRoads</li> <li>Officers will clarify existing permit exemptions with VicRoads – Officers have requested from VicRoads information about what works they believe should be exempted from a permit requirement</li> <li>Following discussions with VicRoads, officers have agreed to include a short paragraph in the citations that better explains the purpose and intent of the Management Guidelines and clarifies how they should be used.</li> <li>Overlay curtilage reduced at Bushy Park and Yarram Memorial Sites. Retained as per original proposal for Maffra and Rosedale sites</li> <li>Current exemptions in scheme considered sufficient to allow for general maintenance and road safety works</li> </ul>

## Submissions received from Landowners (21)

Sub No	Citation#/Place	Key issues raised	Preliminary response
1	<p>Photo referencing</p> <p>Briagolong Hotel</p> <p>#13 &amp; #40 - McMillan memorials</p> <p>#1, 11, 24, 28, 47, 55 &amp; 59 - Anglican Churches</p> <p>#12 - Coffee Palace</p> <p>#7 - Briagolong ANZAC Park</p>	<ul style="list-style-type: none"> <li>Correct the captions for Maffra and Stratford photos as previously discussed</li> </ul> <p><b>Briagolong Hotel</b></p> <ul style="list-style-type: none"> <li>Why did Briagolong Hotel not reach threshold for local significance?</li> <li>Briagolong Hotel is the last timber hotel on the Central Gippsland Plains and one of only three left between Moe and NSW border. The other two are Dargo and Ensay. Newry, Swifts Creek, Buchan and Port Albert have all burnt down. Can't count Bellbird in far east Gippsland is a 1920s total rebuild</li> <li>Briagolong therefore needs protection</li> <li>Disagree about windows not being original on Briagolong Hotel, they look old</li> <li>If it is acceptable to include other places that have been modified (see submission), fail to see why one of the last timber hotels cannot be protected</li> <li>In regard to coffee palace and Briagolong Hotel - There is always only a small proportion of weatherboards with marks on them, they are not consistent across the whole batch of boards - see submission with attached dissertation on Briagolong Redgum weatherboards</li> </ul> <p><b>Anglican Churches</b></p> <ul style="list-style-type: none"> <li>Should use Anglican Church Histories in Clark, Albert E. 'The church of our fathers: being the history of the Church of England in Gippsland, 1847-1947' [Sale, Vic: Diocese of Gippsland], 1947. 294 pages.</li> <li>Contains a detailed history of the Anglican Church in early Gippsland, containing a history of each parish and of the formation of the Diocese.</li> </ul> <p><b>Briagolong Anzac Park -</b></p> <ul style="list-style-type: none"> <li>Preference for all capitals for ANZAC</li> <li>Correction of various details regarding O'Nial's</li> <li>Figure H1 - check street name</li> <li>P114 - memorial design is new and original design of W.O. (ret) Neville</li> </ul>	<ul style="list-style-type: none"> <li>Consultant responded - photo captions will be corrected</li> <li>Consultant responded - explained it did not meet threshold for local significance due to a number of significant alterations to the building - limited original fabric remains (partly completed citation also provided).</li> </ul> <ul style="list-style-type: none"> <li>Consultant responded - the reference has been used, but not for all the Anglican Churches.</li> </ul>

		<p>Gibbins OAM</p> <ul style="list-style-type: none"> <li>P116 – Junour Reds – please refer to as Junior Red Cross, photo belongs to Linda, date of 1965 is approximate</li> </ul>	
2	#67 - Federal Coffee Palace	<ul style="list-style-type: none"> <li>The building's appropriate use is more important than its aesthetic appearance</li> <li>Objects to any type of development controls</li> <li>Some recommendations impractical</li> </ul> <p><b>Q3</b></p> <ul style="list-style-type: none"> <li>Appears correct and comprehensive</li> </ul> <p><b>Q4</b></p> <ul style="list-style-type: none"> <li>No</li> </ul> <p><b>Q5</b></p> <ul style="list-style-type: none"> <li>Some guidelines, although ideal, are not possible or are impractical due to financial considerations</li> <li>Form follows function – aesthetic considerations should not give way to the functionality of the building</li> <li>Pool style fencing and stairs – unreasonable to remove for practical and safety reasons</li> <li>These are latter additions</li> <li>Fence provides a safety barrier to the access of the stairs, provides a measure of privacy and is a deterrent to trespass</li> <li>Similar function to a domestic fence</li> <li>Stairs provide access to residential area and provide fire escape route</li> <li>A wooden fence would look absurd – wrought iron fence would be more aesthetic – need to consider cost</li> <li>Suggestion to paint fence to disguise it – accepted</li> <li>Not economical to remove paint from building</li> <li>Old stables – repairs have commenced, shape will not be altered.</li> <li>Suggested use of galvanised iron – accepted</li> </ul> <p><b>Q6</b></p> <ul style="list-style-type: none"> <li>Objects to any restrictions imposed on the building except for those related to safety and permitted use</li> </ul>	<ul style="list-style-type: none"> <li>Officer email response provided - detailing the purpose of the Management Guidelines - explained they are not prescriptive and do not compel the landowner to undertake those works – intended for guidance on how to achieve good outcomes if/when works are undertaken.</li> </ul>
3	#21 - Police Station (former)	<p><b>Q3</b></p> <ul style="list-style-type: none"> <li>Infill of veranda added in the last few years by former owner</li> <li>Verandah floorings was treated pine decking which had been laid over rotten bearers on the ground – was not original</li> <li>Removed to gain access to the house to lift the house to its original height</li> <li>Intend to replace flooring with timber (as original)</li> <li>No new addition is being constructed - The extension was constructed</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> <li>Purpose of management guidelines clarified in report. Acknowledgement of</li> </ul>

		<p>between 1950 and 1974 and was in poor condition and was being re clad with sawn timber to match the body of the house.</p> <p><b>Q4</b></p> <ul style="list-style-type: none"> <li>• Figure D2 – Finial not original</li> <li>• Figure D3 – Window hoods – latter addition (last 20-25 years by Jack Schultz, former owner)</li> <li>• Figure D4 – Stable modified. Has caused deterioration to lower walls. Lock up does not remain on property</li> </ul> <p><b>Q5</b></p> <ul style="list-style-type: none"> <li>• More consultation with landowners needed</li> <li>• Find possible development restrictions an insult (as they bought house with the intention of restoring)</li> </ul>	<p>work being done by current landowners acknowledged.</p>
4	#14 - Christ Church	<p><b>Q4</b></p> <ul style="list-style-type: none"> <li>• Aller &amp; Baptismal front removed from church on the day it was deconsecrated</li> <li>• Both items bore same trefoil motif as pews, pulpit, book rest, bishops chair and bible stand which are still in church</li> <li>• Aller now resides at Toongabbie Anglican Church &amp; Font at Glengarry Church</li> <li>• Baptismal font originally from Church of England which preceded current church</li> <li>• Great grandfather, Theodore Gebhart, one of first Cowarr settlers. It was his relative who made all the matching furniture (Dorothy Andrews, Helen's Great Aunt) – tragedy it has been separated and should be returned and secured in Cowarr where it was constructed</li> </ul> <p><b>Q6</b></p> <ul style="list-style-type: none"> <li>• Not in a position to expend funds to restore either building</li> <li>• Spent life funds buying both buildings so community could appreciate local heritage - Assistance funds available?</li> </ul>	<ul style="list-style-type: none"> <li>• Noted.</li> <li>• Information re historical facts and building features will be considered and incorporated where appropriate</li> <li>• Funding not currently available</li> </ul>
5	#36 - Youngs Arcade	<p><b>Q3</b></p> <ul style="list-style-type: none"> <li>• Verandah was not removed, it was renovated</li> </ul>	<ul style="list-style-type: none"> <li>• Information re historical facts and</li> </ul>



		<ul style="list-style-type: none"> <li>• Windows on west façade changed with 1975 renovation</li> </ul> <p><b>Q5</b></p> <ul style="list-style-type: none"> <li>• 4.1 – Originally these were doors and a window – would need to change back to this, not just windows</li> <li>• 4.2 – Comment re timber frame – There is no timber frame? Are you suggesting that window frame painted red would stand out more than the current cream colour?</li> </ul>	<p>building features will be considered and incorporated where appropriate</p>
6	#54 - Stratford Post Office	<ul style="list-style-type: none"> <li>• Assumption in report that photos dating from 1901-2016 represent original Post office building and roofline designed by J.H.W Pettit</li> <li>• There is no photo of the original post office in report as per original plan and construction in 1885</li> <li>• Would be very difficult to return building to original state and still be able to function as a post office (based on original plans and subsequent alteration plans)</li> <li>• Example – Look at figure D2 (p. 928) and picture the roofline from that image on the post office in the figure above it (D1). That is what the original plans look like.</li> <li>• Council Chambers and post office were both set back from the front of the court house by 2 metres</li> <li>• Alteration plans (1887, 1900-01 J.B. Cohen, District Architect) confirm removal of and rebuilding of a new wall 2 metres forward to its present site in Tyers St side. This vastly altered the roofline of the post office viewed from Tyers and Hobson St.</li> <li>• Photographs in report do not accurately reflect original design of J.H.W. Pettit</li> <li>• Building has had numerous changes including plans of 1952</li> <li>• Changes have been made for operational purposes which are not evident when looking at the building</li> <li>• Used to have long verandah along Tyers street</li> <li>• Eventually, the walls were removed and verandah disappeared.</li> <li>• One window had the PO Boxes in it and the other window was a pay window as for many years the PO paid out pensions</li> <li>• A public phone used to be where the front door is now</li> <li>• Any recommendations or guidelines need to take into account the nature of the business and the need for flexibility at least while it is a function post office</li> </ul>	<ul style="list-style-type: none"> <li>• Information re historical facts and building features will be considered and incorporated where appropriate</li> <li>• Consultants have reviewed the plans and confirmed there were two early additions onto the 1885 post office: <ul style="list-style-type: none"> <li>• 1887 – verandah (and section removed for following)</li> <li>• C1900 – two gabled bays added</li> </ul> </li> </ul> <p>Owner not obliged to restore the building. Acknowledge function of building is an important consideration.</p>
7	#03 - Bakery	<p>Great to have this document</p> <p><b>Q5</b></p> <ul style="list-style-type: none"> <li>• Guidelines are good. Will help with damp issues in Bakery. Owner wants to preserve the building</li> <li>• North Side of boundary has no fence due to title change in '96. What would the recommendations be for this type of fencing?</li> </ul>	<ul style="list-style-type: none"> <li>• Information re historical facts and building features will be considered and incorporated where appropriate</li> <li>• Consultant contacted land owner regarding appropriate fencing</li> </ul>



8	#12 - Coffee Palace (former)	<p><b>Q4</b></p> <ul style="list-style-type: none"> <li>Small verandah on north side over existing outside door. Very ornate. Had to rectify as very rotten and already falling down. Very dangerous</li> </ul> <p><b>Q5</b></p> <ul style="list-style-type: none"> <li>Please keep owner informed of any changes to management guidelines before action to change any existing plans are made</li> </ul> <p><b>Q6</b></p> <ul style="list-style-type: none"> <li>If there is a need for further inspections, please contact owner before hand</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> <li>Landowners will be informed of Council meeting date where final docs will be considered</li> <li>Noted</li> </ul>
9	#44 - St Andrews Uniting Church	<ul style="list-style-type: none"> <li>Object strongly to inclusion of vacant block to the east of the church being included within Heritage Overlay</li> <li>The block is currently for sale</li> </ul>	<ul style="list-style-type: none"> <li>Noted. Inclusion of vacant block to be discussed with consultant</li> <li>Consultant has excluded the vacant lot to the east from the recommended boundary. It was to retain the views only between the two historically related buildings – the church and the manse. We've retained that this view line is significant in the SoS.</li> </ul>
10	#43 - Manse & Cork Oak	No comment	+ Noted
11	#09 - Annie Whitelaw Memorial Grave	No comment	+ Noted
13	#46 - Mechanics Institute and memorial	<p><b>Q4</b></p> <ul style="list-style-type: none"> <li>Not Memorial – It is Stratford Mechanics Hall and Free Library</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> </ul>
14	#1 - St Georges Anglican Church	<p><b>Q3</b></p> <ul style="list-style-type: none"> <li>P. 12 – Camellia tree was <u>NOT</u> planted in memory of Gladys Tatterson. The white cedar was "her" tree.</li> <li>A memorial tree was planted in front of the church in 1967 in memory of Mrs Ollie Clarkson (The silver Birch – replaced the original dead tree)</li> <li>The camellia tree was donated in the 1950s by a parishioner leaving the district. Her name is still being investigated.</li> </ul> <p><b>Q4</b></p> <ul style="list-style-type: none"> <li>Interior of church is fully lined with original Baltic Pine timber</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> </ul>
15	#42 - St Rose of Lima Church	<p><b>Q3</b></p>	

		<ul style="list-style-type: none"> <li>Information in citation is accurate</li> </ul>	<ul style="list-style-type: none"> <li>Noted</li> </ul>
16	#10 - Briagolong Uniting Church and Dutch Elm	<ul style="list-style-type: none"> <li>The Parish of Stratford Uniting Church have recently decided that this building will be closed as a required building. Intend to sell.</li> </ul>	<ul style="list-style-type: none"> <li>Noted</li> </ul>
17	#5 - Boisdate Public Hall and Memorials	<p><b>Q3</b></p> <ul style="list-style-type: none"> <li>Missing Registered on the National Estate Data Base – No. D18844</li> <li>Incorrect <u>Under Management Guidelines</u> 2. Alterations additions and new buildings "When viewed from Tyers Street" – Incorrect Should be "When viewed from Main Street"</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> </ul>
18	#51 – Bakery, Shop, Residence (former)	<p><b>Q6</b></p> <ul style="list-style-type: none"> <li>Nobody should ask owner to do anything different to their properties than the general populace in town</li> </ul>	<ul style="list-style-type: none"> <li>Noted</li> </ul>
19	#22 – Heyfield Uniting Church	<p><b>Q4</b></p> <ul style="list-style-type: none"> <li>1962 new flooring laid 6" higher than the previous floor</li> </ul> <p><b>Q6</b></p> <ul style="list-style-type: none"> <li>Request that whole block is not included in HO as may need to subdivide to meet cost of any requirements</li> </ul>	<ul style="list-style-type: none"> <li>Feedback noted</li> <li>Explained that overlay would not prevent subdivision and that the management guidelines are not a list of 'requirements' but that they are a guide should the landowner wish to undertake works.</li> </ul>
20	#40 – Lyons Street Beautification Trees and Memorial Reserve	No Objection to the Cenotaph being moved Preferred location 25metres south of current location	<ul style="list-style-type: none"> <li>Noted</li> </ul>
21	#40 - Lyons Street Beautification Trees and Memorial Reserve	No Objection to moving memorials to accommodate roadworks	<ul style="list-style-type: none"> <li>Noted</li> </ul>
22	#37 – St Andrews Uniting Church	<ul style="list-style-type: none"> <li>p. 629 Line 7 – ??Pearson St</li> <li>p. 629 Line 8 – Why is the brick fence significant? When the original was wooden and not H.W. &amp; F.B. Tompkins Design</li> <li>p. 629 Line 38 The 1922 Bell Tower (probably part of the original design but built later) In 1913 History there is no mention of that. Samuel Lees died in 1921 and left money to which Mrs Lees added the rest. When you look at the other 3 churches mention on p. 635 they were all standalone originally.</li> <li>P. 630 The fence? (Don't quite understand)</li> <li>P. 631 The hall has 7A on it</li> <li>P. 634 Vestry is where the organ is, not a vestry Paragraph 3a bout the hall - it was burnt in 1965 bushfires Paragraph about brick fence –built in at least 3 stages. Church gates, Hall gates 1965, Church Street even later</li> <li>p. 635 Line 2 – Thee?</li> <li>P. 638 – last line Vestry not vestry</li> <li>P. 640 Last line vestry is not the vestry</li> </ul>	<ul style="list-style-type: none"> <li>Information re historical facts and building features will be considered and incorporated where appropriate</li> </ul>

		<ul style="list-style-type: none"><li>• P. 641 2nd line (or removed) Last word 1965</li><li>• P. 645 Line 2 the sub floor vents are beneath the floor</li><li>• P. 646 – signage?</li></ul>	
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**ITEM C3.5****POTENTIAL IMPACT OF A NEW GREAT FOREST NATIONAL PARK**

DIVISION: DEVELOPMENT

ACTION OFFICER: MANAGER ECONOMIC DEVELOPMENT

DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓				✓		✓			

**OBJECTIVE**

To provide Council with details of the potential economic and social impact on Wellington Shire should the Great Forest National Park become a reality.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATIONS*****That***

- 1. Council note the report into the potential economic and social impact of the Great Forest National Park; and***
- 2. Council write to the Premier of Victoria seeking a guarantee that the economic viability of the timber industry will not be jeopardised as a result of the State Government's review into the Victorian timber industry.***

**BACKGROUND**

At the Ordinary Council meeting held on 7 June 2016, Council adopted the following:

***That Council:***

- 1. Request the CEO prepare a report on the social and economic impact on Wellington Shire should the Great Forest National Park become a reality;*
- 2. Request that the Gippsland Local Government Network (GLGN) make a submission to the Victorian Government and the Opposition to ensure that the protection of regional jobs are not threatened by any further expansion of National Parks;*
- 3. That the Mayor write to the relevant Victorian Ministers expressing disappointment that Local Government is not represented on the Taskforce looking at the Great Forest National Park, and that the Municipal Association of Victoria (MAV) and/or Timber Towns Victoria (TTV) be offered the opportunity to be part of this taskforce.*

Both Items 2 and 3 have been actioned and this Report responds to Item 1.

## **Central Highland Regional Forest Agreement (RFA) Area**

The discovery of colonies of the Leadbeater's Possum in the Central Highlands Forest has prompted a proposal to establish a new national park in Victoria. The proposed park, to be known as the Great Forest National Park (see attachment 1), will encompass much of the Central Highlands Regional Forest Agreement (RFA) area. Native hardwood timber from this RFA supplies many timber processors and users throughout Victoria.

VicForests commissioned Deloitte Access Economics to analyse the net economic benefits (both direct and indirect) of the native timber industry in Victoria. This focussed specifically on the Central Highlands Regional Forest, that is one of the key areas of VicForests' operations and the native timber harvesting industry in Victoria. The Deloitte Report 1, dated October 2015 (attachment 2), stated that the Central Highlands RFA Area consists of 623,000 hectares of public land. More than half of all public land is reserved or not available for timber harvesting, including 30% in National Parks, conservation and other reserves.

The Report states that VicForests currently has access to 303,000 hectares of forest, but only 125,000 hectares is actually suitable for harvesting. Over the last decade, an average of 1,580 hectares of forest per year has been harvested in that area which represents less than 0.3% of the total public land available in the Central Highlands RFA area. The Report then extrapolates this to highlight that the costs and benefits described in the Study are generated from just 1,580 hectares harvested annually and regenerated by VicForests in the Central Highland RFA Area.

### **Forest Industry Taskforce**

In November 2015, the State Government released the terms of reference (attachment 3) for the Forest Industry Taskforce intended to provide 'consensus' recommendations about the future of the timber industry. These issues include job protection, economic activity and protection of unique native flora, fauna and protected species, such as the Leadbeater's possum. The terms of reference were developed by key stakeholders across industry, union movement and forest conservation groups in order to reach a consensus on proposals to be put forward to government.

The Terms of Reference state that the Taskforce will deliver a set of agreed recommendations to Government by the end of June 2016, unless extension is formally and jointly agreed by Government and Taskforce members. Members of the Taskforce were bringing their organisations research and position statements for consideration in developing the Statement of Intent.

The Taskforce consists of a Planning Group, comprising representatives from:

- Construction Forestry Mining and Energy Union (CFMEU)
- Victorian Association of Forest Industries (VAFI)
- The Wilderness Society Victoria (TWS Victoria)

The Taskforce also has a Core Group, that comprises the Planning Group plus representatives of:

- Australian Conservation Foundation (ACF)
- Australian Sustainable Hardwoods (ASH)
- Australian Paper (AP)
- Harvest and Haulage contractors
- CFMEU
- MyEnvironment
- Victorian National Parks Association (VNPA)



The Taskforce website states that the Core Group met on 22 July 2016 to refine the agreed opportunities for change: the establishment of new parks and reserves, threatened species, wood supply security, industry investment and growth, carbon, jobs and regional employment, regulatory revision and reform, the future shape of the industry and the future shape of conservation and the parks system. It is understood that the Statement of Intent has recently been presented to the Premier by the Taskforce. After the Government has considered the Statement and agreement is reached, a series of recommendations will be prepared by the Taskforce. Advice is that this process will take several months to complete.

### **Potential Economic and Social Impacts - Australian Sustainable Hardwoods (ASH)**

REMPPLAN economic data (April 2016) states that Forestry and Logging, Sawmill Product Manufacturing and other Wood Product Manufacturing contribute \$98.971 million (2.1%) of total output for Wellington. This is without taking other services and industries into account, such as transport, that support these operations.

Wellington Shire's largest timber manufacturer, Australian Sustainable Hardwoods (ASH), is based in Heyfield, which is highly dependent on the timber industry.

After a period of uncertainty under the ownership of Gunns Timber Products, where the focus was on Gunns' Tasmanian operations, ASH acquired the mill in 2012 and immediately demonstrated significant commitment to acquisition of latest technologies and increased output in delivery of a higher grade and quality product from the available timber resource.

Following acquisition, job numbers increased to the 205 figure quoted in the Deloitte report, as a result of investment and expansion of their Horizontal Finger Joining Line and Laminating facility. Since that time, ASH continues to expand their operations and currently has 230 full-time employees and 31 part-time/casual employees. ASH is also the largest hardwood sawmiller and hardwood processor in Australia, and advice to Council is that ASH has an annual revenue of \$60M.

While the Deloitte Report provided detail on the economic impact on community at the Maffra Statistical Area (SA2) census level, data provided by ASH further breaks employees down by postcode. This data highlights 152 employees are from Heyfield and smaller neighbouring towns, with 58 from the larger towns of Sale, Maffra and Rosedale. A further 23 are located in the areas near Carrajung/Hazelwood where impacts of Latrobe Valley transition from traditional coal industries will also be felt.

The 2011 Census has 296 people registered as being on full-time employment in the Heyfield UCL. Based on the data provided by ASH, and an assumption of the split between full-time and part-time/casual employment, **up to** 44.6% of those on full-time employment in Heyfield UCL could be employed at ASH.

Council has also been advised by ASH that a number of local contractors in the electrical, engineering and transportation industries have a very high proportion of their business generated by ASH. Timber generated by ASH is also used by businesses in Melbourne, totalling over 7000 employees. Any impact to ASH will have a flow on effect to metropolitan businesses.

ASH source 90% of their hardwood timber from VicForests supply derived from Central Highlands RFA and 10% from Tambo with no commercial replacement available for this timber source. ASH operations also supply Australian Paper in Morwell with Mountain Ash chips, and while that represents only five percent of Australian Paper's fibre requirements, another 29 percent of that fibre is sourced direct from VicForests Central Highlands RFA. The Deloitte Report also highlights that the Maffra SA2 and Morwell SA2, representing communities impacted through ASH and Australian Paper, have the highest dependence on the native timber industry for employment in the Central Highlands RFA Area.

The ASH website ([www.vicash.com.au](http://www.vicash.com.au)) provides information that ASH are proudly third party certified for sustainable and responsible forest practices by the Internationally recognised Programme for the Endorsement of Forest Certification scheme (PEFC). The website states that the combined area of available forest for harvesting and replanting in Victoria equates to 6% of the forest area of 0.075 each year on a sustainably managed, 80 year rotation. The harvesting and replanting process is designed to mimic the natural growth pattern of Victorian ash forests and as such, all the forest values are respected and allowed for.

A copy of the Latrobe City Council Report (attachment 4) presented at their Ordinary Council meeting of 22 August 2016, highlights the potential risk of the proposed Park on Australian Paper and the loss of over 1000 jobs in the Latrobe City.

### **Other Flow On Impacts if Native Timber Harvesting Not Permitted in Central Highlands RFA Area**

Besides potential economic and social impacts already discussed, the Deloitte Report lists impacts and activities that would also flow on from a hypothetical scenario where timber resources located in the Central Highlands RFA Area were no longer vested to VicForests for harvesting. The Report lists the activities that would cease:

- Native timber harvesting
- Native forest management undertaken by VicForests
- Maintenance of access roads to a standard suitable for use by heavy vehicles
- Supply of machinery, personnel and skills for bushfire management
- Access to the knowledge base on the forests currently managed by VicForests, through VicForests staff and forest contractors working regularly in the area.

With limited substitutes available for native timber supplied from the Central Highlands RFA Area, substitutes would likely need to be imported from outside Victoria because:

- Native timber harvesting may not be practical to a meaningful extent in any other areas of Victoria.
- If native timber harvesting were permitted in other parts of Victoria, these areas would not contain the same eucalypt species (Mountain Ash in particular). These would be located too far from current mills to harvest and haul, and relocating mills would not be financially feasible.
- Plantation timber within Victoria is grown almost exclusively for its pulping properties and generally suitable for paper and low grade pallets, and therefore not a perfect substitute for native timber.

This report specifically addresses the first part of the Council motion of 7 June 2016 on the potential social and economic impact should the Great Forest National Park become a reality and ASH cannot source Mountain Ash from the Central Highlands RFA. With no commercial replacement available, there is a significant risk that the mill would close with the loss of over 230 full-time jobs in the region and a significant impact on other businesses, particularly in the Heyfield area.

In accordance with the second part of the motion, a request has been made to GLGN to make a submission to the Victorian Government and the Opposition to ensure that the protection of regional jobs are not threatened by any further expansion of National Parks.

In accordance with the third part of the motion, a letter was sent to the Minister for Energy, Environment and Climate Change on 4 July 2016 expressing Council's concerns to ensure that the protection of regional jobs are not threatened. The letter also strongly requested that MAV and/or Timber Towns Victoria be provided with an opportunity to be an active partner (attachment 5).

## **OPTIONS**

Council has the following options:

1. Note the report into the potential economic and social impact of the Great Forest National Park; write to the Premier of Victoria highlighting the importance of the timber industry to the social and economic fabric of Wellington Shire and request a guarantee that the economic viability of the timber industry will not be jeopardised as a result of the State Government's review of Victoria's timber industry; or
2. Note the report into the potential economic and social impact of the proposed Great Forest National Park and take no further action prior to the review of the recommendations of the Taskforce report; or
3. Request further information.

## **PROPOSAL**

That Council:

1. Note the report into the potential economic and social impact of the Great Forest National Park; and
2. Write to the Premier of Victoria highlighting the importance of the timber industry to the social and economic fabric of Wellington Shire and request a guarantee that the economic viability of the timber industry will not be jeopardised as a result of the State Government's review of Victoria's timber industry.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **FINANCIAL IMPACT**

Should the proposed Park be approved, there is a risk of potential closure of ASH as a result that ASH cannot source any other commercial alternative to the timber resource.

## **COUNCIL PLAN IMPACT**

The Council Plan 2013-17 Themes Leadership and Engagement; Natural Environment; and Economy state the following strategic objectives and related strategies:

### Strategic Objective

*"Our community is informed about Council business and is involved in Council decision making. Council advocates on behalf of the community."*

### Strategy 1.5

*"Advocate on the community's behalf to State and Federal agencies, the private sector and industry on a range of issues relevant to Wellington Shire Council."*

### Strategic Objective

*"A community focussed on sustainable living and the future protection of Wellington's Natural Environment."*

### Strategy

*"Support a coordinated and diverse approach to developing a sustainable environment through partnerships."*

### Strategic Objective

*"Supported business growth and employment, lifestyle opportunities and a vibrant tourism sector."*

### Strategy 6.1

*"Support business growth to align with the competitive strengths of the region."*





Deloitte Access Economics

# Economic assessment of the native timber industry in the Central Highlands RFA Area

## Report 1 – Economic and financial impact

VicForests

October 2015

**Deloitte.**

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## Economic assessment of the native timber industry in the Central Highlands RFA Area

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## Glossary

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ABARES	Australian Bureau of Agriculture and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
Central Highlands RFA Area	Comprises the SA2s within the Central Highlands RFA Area that contain Suitable Forest Area, a customer that is supplied by the Central Highlands RFA Area and is located within the Central Highlands RFA Area
CPI	Consumer price index
DAE	Deloitte Access Economics
DAE-RGEM	Deloitte Access Economics – Regional General Equilibrium Model
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
FTE	Full-time equivalent
GDP	Gross domestic product
ha	Hectares
Impacted Community	Comprises of the Central Highlands RFA Area and communities outside of the Central Highlands RFA Area where direct customers of VicForests' timber from the Central Highlands RFA Area are located
RFA	Regional Forest Agreement
SA2	Statistical Area Level 2
Suitable Forest Area	Subset of the Working Forest Area that is suitable for timber harvesting (for example, not on a slope, near a river, etc.)
Working Forest Area	Area vested to VicForests

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## Executive Summary

This Study shows that in 2013-14, as a result of the VicForests' operations and the native timber harvesting in that year in the Central Highlands RFA Area, \$357 million of Gross Regional Product (GRP) was added to the Victorian economy.

This \$357 million in GRP reflects, amongst other things, \$573 million in revenue earned by VicForests (\$76 million) and its direct customers (\$497 million) in the Impacted Community.

The activity resulted in the direct employment of 2,117 full time equivalent workers within the Impacted Community, including 281 full time equivalent workers directly employed by VicForests and its contractors.

### Background and Context

This study is a fact-based analysis of the net economic benefits (both direct and indirect) of the native timber industry in Victoria. It focuses specifically on the Central Highlands Regional Forest Agreement (RFA) Area, which is one of the key areas of VicForests' operations and the native timber harvesting industry in Victoria.

The Central Highlands RFA Area extends from the Hume Highway in the west, to the Goulburn River in the north, the Goulburn and Thomson Rivers in the east and the Princes Highway in the south and includes towns such as Alexandra, Marysville, Kinglake, Whittlesea, Healesville, Powelltown, Noojee and Yarra Glen.

The Central Highlands RFA Area consists of 623,000 hectares of public land<sup>1</sup>. More than half of all public land is reserved or not available for timber harvesting, including 30% in National Parks, conservation and other reserves.

VicForests currently has access to 303,000 hectares of forest, of which 125,000 hectares (or 20% of the area allocated to VicForests) is suitable for harvesting. Over the last decade, VicForests has harvested an average of 1,580 hectares of forest per year in the Central Highlands RFA Area. This is less than 0.3% of the total public land in the Central Highlands RFA Area.

Accordingly the costs and benefits described throughout the Study are generated annually from just 1,580 hectares harvested and regenerated by VicForests in the Central Highland RFA Area.

### Study Approach

The Study considered only the Central Highlands Regional Forest Agreement (RFA) Area community, and the broader community whose economy is reliant on timber from this region (the Impacted Community) (see Figure i).

<sup>1</sup> Source: VicForests Analysis of the DELWP-owned Corporate Geospatial Data, PLM25 and FMZ100 (Public Land Management 1:25,000 and Forest Management Zones 1:100,000 Last Updated: October 2014)

Deloitte Access Economics has used its Regional General Equilibrium Model (DAE-RGEM) to estimate the net regional economic impact of the native timber industry in the Central Highlands RFA Area relative to a counterfactual scenario where there is no industry. This model captures the direct impacts of VicForests' operations and its flow on implications for the rest of the economy as well as the fact that labour and capital resources the native timber operations would not be available for activity elsewhere in the economy.

#### Findings - Direct<sup>2</sup> impacts

In 2013-14, VicForests' activity in the Central Highlands RFA Area directly generated \$76 million in revenue to VicForests.

The direct revenue from VicForests' operations in the RFA Area is forecast to grow to \$148.9 million (in nominal terms) within 10 years, extrapolating on VicForests forecast volumes and prices.

The activity resulted in the direct employment of 2,117 full time equivalent workers, including 281 full time equivalent workers directly employed by VicForests and its contractors.

#### Findings - Total regional economic impacts

Deloitte Access Economics has modelled the broader impacts of the native timber industry on the Impacted Community and the rest of Victoria, relative to the counterfactual (the hypothetical world without the industry). Under the counterfactual the direct revenue of \$573 million earned by VicForests (\$76 million) and its direct customers (\$497 million) in the Impacted Community is lost, with the labour and capital resources being made available for other, less productive uses in the economy.

The results of the modelling show that relative to the counterfactual, in 2014, Victoria's Gross Regional Product (GRP) is estimated to be \$357 million higher and employment is 2,036 FTEs higher, relative to the counterfactual scenario (no native timber harvesting in the Central Highlands RFA Area).

Table 1: Total regional economic impacts (relative to the counterfactual in 2014)

	Impacted Community	Rest of Victoria (excl. Impacted Community) <sup>3</sup>	Whole of Victoria
Gross Regional Product (GRP)	\$327 million	\$30 million	\$357 million
Employment (FTE)	1,953 FTE	83 FTE	2,036 FTE
Wage rate	2.21%	0.03%	N/A

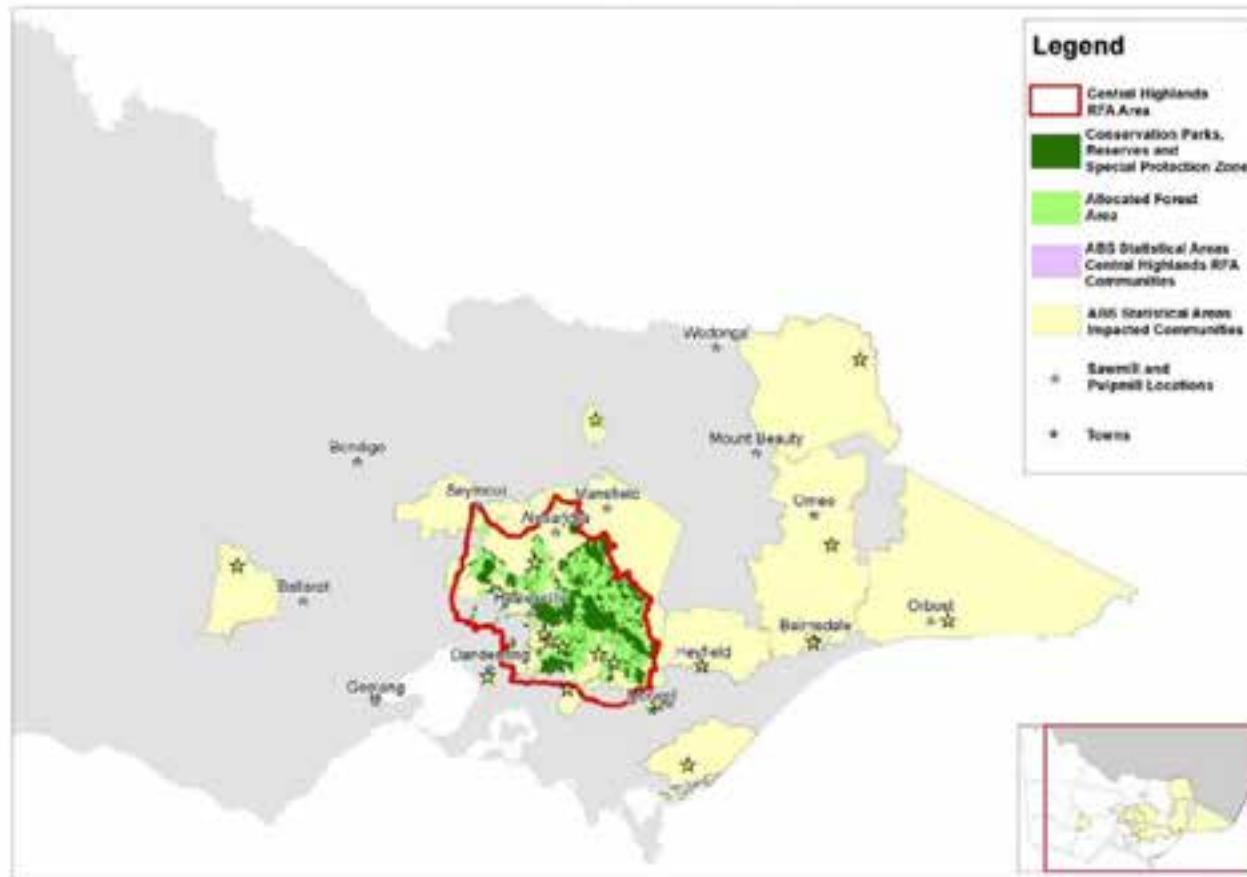
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<sup>2</sup> The term 'direct' in this report refers to the activities of VicForests, its contractors and customers. It excludes activities of businesses in manufacturing and downstream processing that may be linked to the native timber industry in the Central Highlands RFA Area.

<sup>3</sup> The impact associated with those whose employment is directly attributable to the native timber industry in the Central Highlands RFA Area but who are located in metropolitan Melbourne is included in the Impacted Community results.

Economic assessment of the native timber industry in the Central Highlands RFA Area

Figure i: Impacted Community



Source: VicForests

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# 1 Introduction

## 1.1 The native timber industry in Victoria

VicForests is a state-owned enterprise, established in 2003 under the *State Owned Enterprises Act 1992*. It is operated on a commercial basis to deliver economic returns to Victoria over the long term. VicForests is vested the timber resources of approximately 26% of Victoria's public native forest area (equivalent to 1.8 million hectares of State Forest), for the purposes of harvest, sale and regeneration. Access to timber resources is legislated through the Sustainable Forests (Timber) Act 2004 and the publication of an Allocation Order.

VicForests is required to comply with the Code of Practice for Timber Production 2014 to ensure that timber harvesting and associated activities are compatible with the conservation of a range of forest values. VicForests is also certified to the Australian Forestry Standard and is currently working toward Forest Stewardship Council certification. Both certification schemes provide assurances that forest management activities give consideration to environmental, social and economic criteria based on independently verified and globally recognised standards.

## 1.2 About this study

This study aims to provide a reference point for key stakeholders in the Victorian native timber industry more broadly, with analysis that can be used in the public domain to inform discussion about the current and future scope of the industry.

The Study is being completed in two parts. This first report focuses on the financial and broader economic impacts of VicForests' operations in the Central Highlands RFA Area. A second report, which will be released later in 2015, will consider environmental and social impacts – including effects on water yields, carbon and fire – of VicForests' operations.

The Central Highlands Regional Forest Agreement (RFA) Area is one of five key areas in which VicForests operates, and includes a diverse range of forest values, including water catchments, flora and fauna, tourism, recreation and other non-timber product industries. The Central Highlands RFA Area extends from the Hume Highway in the west to the Goulburn River in the north, the Thomson River in the east and the Princes Highway in the south, and for the purpose of quantifying economic impacts, has been approximated using ABS Statistical Area Level 2 (SA2) blocks, the smallest level at which economic data is readily available.

This holistic approach to evaluating the costs and benefits of the industry more directly communicates the key economic impacts of the industry in the Central Highlands RFA Area and broader community reliant on the Central Highlands RFA Area. It is hoped that the results of this analysis will create and inform engagement with the State Government, industry, academia and general public.



Deloitte Access Economics has primarily relied on the data and information provided by VicForests.

The remainder of this report is structured as follows:

- Chapter 2 presents an economic profile of the Central Highlands RFA Area, and the various public land tenures within the Central Highlands RFA Area, illustrating the land available for harvesting. It also defines the 'native timber industry' for the purposes of the study; the two study areas (the Central Highlands RFA Area Community and the Impacted Community), discusses the structure and nature of the Australian forest product industries, and outlines the likely scenario of the industry in the future, and timeframe for analysis.
- Chapter 3 describes the world without the native timber industry in the Central Highlands RFA Area, which is necessary to determine the impacts of the industry and is used in the DAE-RGEM modelling.
- Chapter 4 examines the economic benefits and costs of the native timber industry.
- Chapter 5 presents the results of the DAE-RGEM modelling, and illustrates the flow-on impacts of the native timber industry, in comparison to the counterfactual.



## 2 Background and Scope

This chapter outlines the broad economic profile and public land tenure of the Central Highlands RFA Area. It defines the native timber industry for the purposes of this study and the activities included in the definition. This provides the background and context to inform the description of the two study areas of interest – the Central Highlands RFA Area Community and the Impacted Community.

### 2.1 Economic profile of the Central Highlands RFA Area Community

The Central Highlands RFA Area Community<sup>4</sup> has a population of approximately 97,000, which is equivalent to 1.8% of the total Victorian population, and is characterised by a relatively low unemployment rate (6.1% for the December quarter 2014, compared to 6.6% for all of Victoria; Department of Employment, 2015), and a relatively high labour force participation rate (65.9% at the time of the 2011 Census, compared to 64.8% for all of Victoria). The key economic statistics of the Area are presented in Table 2.1.

Table 2.1: Key statistics for the Central Highlands RFA Area Community

Measure	Central Highlands RFA Area Community	All of Victoria
Population	97,411	5,354,039
Unemployment rate	6.1%	6.6%
Labour force participation rate	65.9%	64.8%
Employment (number of jobs in the region)	23,642	2,451,896
Tertiary qualification (% of workforce in the region)	35.2%	37.6%
<b>Major industry employment (% of all employment in the region)</b>		
Accommodation and food services	11.7%	6.1%
Education and training	11.6%	8.2%
Retail trade	10.5%	11.0%
Construction	9.9%	8.2%
Agriculture, forestry and fishing	9.9%	2.2%

Source: ABS Census 2011, Department of Employment 2015

There are a total of 23,642 jobs located within the Central Highlands RFA Area Community, including individuals that may live outside the Central Highlands RFA Area Community but work in it, but excluding individuals that live in the Central Highlands RFA Area Community

<sup>4</sup> The Central Highlands RFA Area Community is an approximation of the Central Highlands RFA Area, through the use of ABS Statistical Area Level 2s, the smallest area at which economic data is broadly available. The SA2s included are: Alexandra, Mansfield, Upper Yarra Valley, Yea, Mount Baw Baw Region, Kinglake, Wallan, Whittlesea, Healesville – Yarra Glen, Yarra Valley, Emerald – Cockatoo, Seymour Region. More detail about the study area is provided in Section 2.4.

but work outside of it. Of those employed in the region, 35.2% have a tertiary qualification, which is lower than Victoria as a whole (37.6%). This indicates that there is a relatively strong labour market in the region, but employment opportunities have relatively lower skill requirements.

The agriculture, forestry and fishing industry (9.9%) and the accommodation and food services (11.7%) industries comprise a larger proportion of the Central Highlands RFA Area economy, as measured by percentage of total employment, than Victoria overall (2.2% and 6.1% respectively), suggesting a high reliance on primary industries and tourism.

## 2.2 Public land tenure in the Central Highlands RFA Area

The Central Highlands RFA Area was selected as the focus of the study because it is one of five key areas in which VicForests operates, and includes a diverse range of forest values, including water catchments, flora and fauna, tourism, recreation and other non-timber product industries.

Within the Central Highlands RFA Area, there are a variety of different public land tenures, which are available for different uses. The Central Highlands RFA Area consists of approximately 623,000 hectares of Public Land and broadly composes the follow land management types (as described by the Department of Environment, Land, Water and Planning (DELWP)):

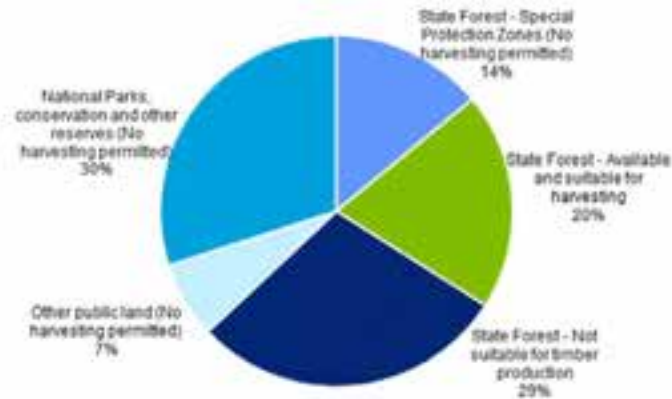
1. National Parks Act and Nature Conservation Reserves,
2. Other Parks and Conservation Reserves
3. State Forest, and
4. Other public land (including Commonwealth and Leasehold land)

Collectively, the forest reserve system within the Central Highlands RFA Area represents 44% of the Total Public Land, comprising 30% of National Parks and Conservation Reserves and 14% Special Protection Zones across State Forest areas.

The remainder of the area comprises of Other Public Land (7%) and State Forest that is considered suitable (about 125,000 hectares or 20% of the public land estate). Approximately 29% of the public land estate is unsuitable for timber production mainly due to further regulatory and operational constraints imposed by the Code of Practice for Timber Production (2014) or non-merchantability factors associated with the forest types.

Chart 2.1 shows the breakdown of the broad forest management categories within the Central Highlands RFA Area.

Chart 2.1: Public land tenure in the Central Highlands RFA Area



Source: VicForests Analysis of the DELWP-owned Corporate Geospatial Data, PLM25 and FMZ100 (Public Land Management 1:25,000 and Forest Management Zones 1:100,000 Last Updated: October 2014)

Over the last decade, VicForests has harvested and regenerated on average 1,580 hectares of forest per year in the Central Highlands RFA Area, which is less than 0.3% of the total public land in the area.

The current forest area available to VicForests, along with the proportion of that area suitable for harvesting and the average area harvested each year by VicForests are described in in Table 2.2.

### 2.3 Definition of the 'native timber industry' for this study

For the purposes of this study, the 'native timber industry' is defined by the activities that VicForests is authorised to undertake in accordance with its Order in Council 2003 and the primary processing activities undertaken by customers that are supplied native timber by VicForests directly, from the Central Highlands RFA Area.

The native timber industry activities considered are:

- Forest Management and Planning services, including timber resource estimation, regulatory compliance planning and monitoring, biodiversity planning and surveillance, forest research
- Timber Product Sales services, including sale of seed and commercial firewood
- Timber Product Harvesting services including timber harvest, stand tending and forest road construction
- Timber Product Haulage and Supply services, including road maintenance services and log storage

Economic assessment of the native timber industry in the Central Highlands RFA Area

- Timber Regeneration Activities, including Seed Collection, storage and supply services, Site preparation services, Site Establishment planting and sowing, pest, disease and weed prevention or management and Site Stocking Surveys and rehabilitation services
- Primary Processing of timber products; including milling of sawn timber, firewood production, wood chip and pulp production.

Secondary processors and other downstream activity are not included in the definition of the native timber industry for the purposes of this study.

**Table 2.2: Key measures of the Central Highlands RFA Area**

Measure (within the Central Highlands RFA Area)	Area (Hectares)	% of Public Land
Total Public Land including all reserves	623,000	100%
National Parks, Conservation Reserves and other State forest reserves (no timber harvesting permitted)	186,000	30%
State forest - Special Protection Zone (no timber harvesting permitted)	87,000	14%
Other Public Land	43,000	7%
Working Forest Area (area of State forest potentially available for timber harvesting – includes both suitable and unsuitable forest)	303,000	49%
Suitable Forest Area i.e. the subset of the Working forest area that is suitable for timber harvesting (for example, not on a slope, near a river, etc.)	125,000	20%
Total Harvested area (average, last 10 years)	1,580	0.3%

Source: VicForests Analysis of the DELWP-owned Corporate Geospatial Data, PLM25 and FMZ100 (Public Land Management 1:25,000 and Forest Management Zones 1:100,000 Last Updated: October 2014)



## 2.4 Study area

This study looks at two areas:

1. The Central Highlands RFA Area Community
2. The Impacted Community.

These areas are described in more detail below.

### 2.4.1 Central Highlands RFA Area Community

The Central Highlands RFA Area is one of five key areas in which VicForests operates, and includes a diverse range of forest values. The *Central Highlands Forest Management Plan* (1998) was developed for the Central Highlands RFA Area, to address conservation and resource use requirements. This includes the *Flora and Fauna Guarantee Act 1988*, the Government's commitments under the *National Forestry Policy Statement* (1992), sawlog and pulplog licence commitments at the time, and the sustainable yield requirements of the *Forests Act 1958*.

The Central Highlands RFA Area extends from the Hume Highway in the west to the Goulburn River in the north, the Thomson River in the east and the Princes Highway in the south, and is covered by 20-year Regional Forestry Agreements for the conservation and sustainable management of Australia's native forests. For the purpose of the economic impact assessment, the Central Highlands RFA Area has been approximated using ABS Statistical Area Level 2 (SA2) blocks, the smallest level at which economic data is readily available. This collection of SA2s is referred to as the 'Central Highlands RFA Area Community'.

There are 12 SA2s that will be included in the Central Highlands RFA Area Community, which were selected based on the following criteria:

- An SA2 that contains Suitable Forest Area within the Central Highlands RFA Area or
- An SA2 that contains a customer that is supplied by the Central Highlands RFA Area, and is located within the Central Highlands RFA Area
- An SA2 that is in the metropolitan Melbourne area is excluded, even if it has a customer located in it.

Hence, the SA2s in the Central Highlands RFA Area Community are:

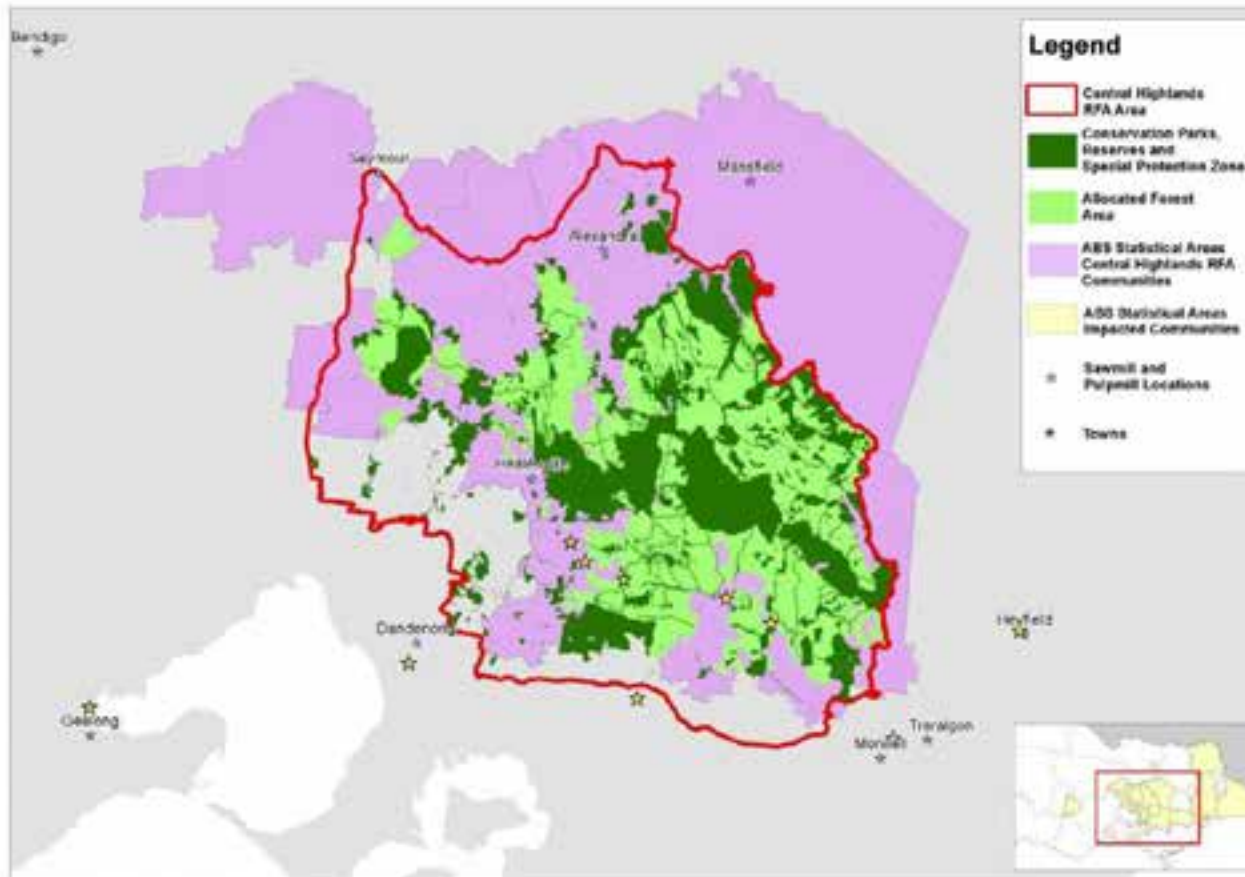
- Alexandra, Mansfield, Upper Yarra Valley, Yea, Mount Baw Baw Region, Kinglake, Wallan, Whittlesea, Healesville – Yarra Glen, Yarra Valley, Emerald – Cockatoo and Seymour Region.

There are some SA2s with boundaries that extend beyond the Central Highlands RFA Area. However, if they meet the above criteria, they are included in the Central Highlands RFA Area Community.



Economic contribution of the native timber industry in the Central Highlands RFA Area

Figure 2.1: Central Highlands RFA Area Community



Source: Vidforests

Deloitte Access Economics

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## 2.4.2 Impacted Community

The Impacted Community comprises of the Central Highlands RFA Area Community and communities outside of the Central Highlands RFA Area where direct customers of VicForests' timber from the Central Highlands RFA Area are located. The concept of the Impacted Community is used to ensure the study accurately captures the nature of the industry. The majority of VicForests' primary processing customers are located outside the Central Highlands RFA Area, in regional towns and other centres. Thus these communities are directly impacted by the activity of the native timber industry within the Central Highlands RFA Area.

The Impacted Community has also been approximated using SA2s. There are 22 SA2s that will be included in the Impacted Community, which were selected based on the following criteria:

- An SA2 that contains Suitable Forest Area within the Central Highlands RFA Area
- An SA2 that contains industry employment (whether that be a VicForests employee, contractor or customer employee), regardless of whether that employment is located within the Central Highlands RFA Area or not
- An SA2 that is in the metropolitan Melbourne area is excluded from the Impacted Community, even if a customer is located within it, but is included in the Rest of Victoria analysis in Chapter 5.

The SA2s in the Impacted Community are:

- Alexandra, Emerald – Cockatoo, Towong, Bairnsdale, Healesville - Yarra Glen, Upper Yarra Valley, Beaufort, Kinglake, Wallan, Benalla, Morwell, Whittlesea, Bruthen – Omeo, Mount Baw Baw Region, Yarra Valley, Creswick – Clunes, Orbost, Yea, Drouin, Seymour Region, Mansfield and Yarram.

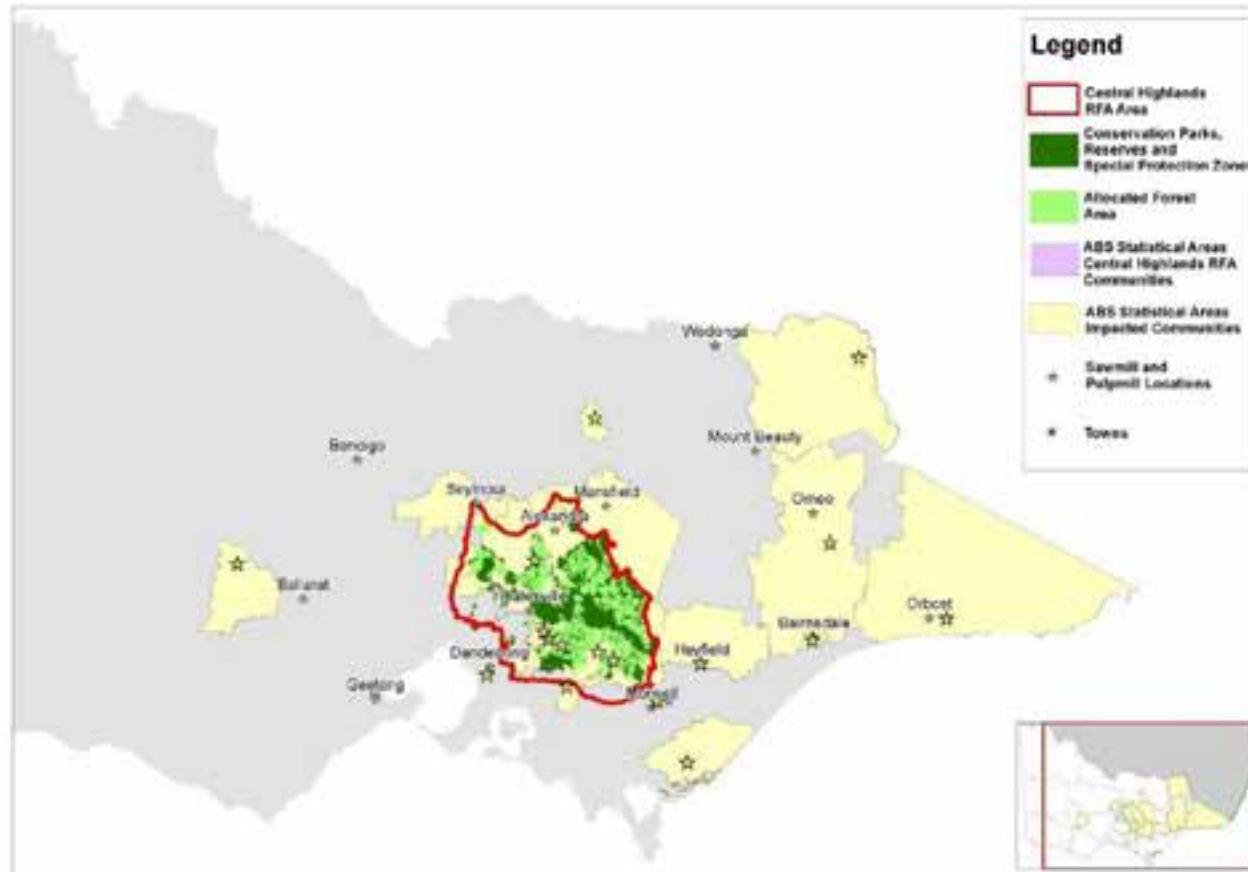
The analysis of the Impacted Community also includes the smaller levels of direct employment at specific employers (Australian Paper and Dormit) that are located outside of these SA2s. This is because these jobs will be directly impacted by the counterfactual scenario. However, the SA2s that these employees are located in are considered outside the Impacted Community for the purposes of this analysis, as the activity of the native timber industry is only a small fraction of overall economic activity in those areas.

A map of the impacted Community SA2s is presented in Figure 2.2, and includes the working and suitable forest areas, and the location of VicForests customers that are supplied from the Central Highlands RFA Area. The following details have been included:

- Boundary of the Central Highlands RFA Area, as defined by the RFA
- Central Highlands RFA Area working forest area, which is the area vested to VicForests
- Central Highlands RFA Area suitable forest area, which is the subset of the Working forest area that is suitable for timber harvesting (for example, not on a slope, near a river, etc.)
- Central Highlands RFA Area harvesting history, which illustrates the areas that have been harvested by VicForests over the last decade
- Location of customers supplied by the Central Highlands RFA Area
- Boundary of the impacted Community, as defined by the 22 SA2s.

Economic contribution of the native timber industry in the Central Highlands RFA Area

Figure 2.2: Impacted Community



Source: VicForests

Deloitte Access Economics

### 3 Counterfactual

The impacts attributable to the native timber industry in the Central Highlands RFA Area are the difference, or delta, between the world with native timber harvesting within the Central Highlands RFA Area and the world without native timber harvesting within the Central Highlands RFA Area. To distinguish between the two, the world without native timber harvesting is referred to as the *counterfactual*.

For the purposes of the total regional economic analysis and DAE-RGEM modelling (Chapter 5) the counterfactual in this study is defined as the removal of native timber harvesting as an allowable activity in state forests in the Central Highlands RFA Area. In this hypothetical scenario, the timber resources located on land currently classified as General Management Zones or Special Management Zones, would be no longer vested to VicForests for the purpose of timber harvesting. The forests are assumed to be managed as Crown Land (as State forests, or parks and conservation reserves).

Greater detail on the activities that would cease in the Central Highlands RFA Area is provided in Appendix C. In brief the activities that would cease are:

- Native timber harvesting
- Native forest management undertaken by VicForests
- Maintenance of access roads to a standard suitable for use by heavy vehicles
- Supply of machinery, personnel and skills for bushfire management
- Access to the knowledge base on the forests currently managed by VicForests, through VicForests staff and forest contractors working regularly in the Central Highlands RFA Area.

There are limited substitutes available for native timber supplied from the Central Highlands RFA Area. Substitutes would likely need to be imported from outside Victoria because:

- Native timber harvesting may not be practical to a meaningful extent in any other areas of Victoria
- If native timber harvesting were permitted in other parts of Victoria, these areas of Victoria would not contain the same eucalypt species (Mountain Ash in particular), would be located too far from the current mills to harvest and haul, and relocating mills would not be financially feasible
- Plantation timber within Victoria is grown almost exclusively for its pulping properties and generally suitable for paper and low grade pallets, and therefore not a perfect substitute for native timber.

Greater detail on substitutes for native timber is provided in Appendix C, with reference to Poyry (2011).



## 4 Direct impacts

This chapter describes the direct impacts of the native timber harvesting industry in the Central Highlands RFA Area Community and Impacted Community, in terms of the economic benefits and costs.

### 4.1 Economic benefits and costs

The economic benefits and costs of the native timber industry are described in this section, in terms of:

- VicForests' revenue and expenses in the Central Highlands RFA Area
- VicForests' employment in the Central Highlands RFA Area
- Direct native timber harvesting industry employment in the Central Highlands RFA Area and Impacted Communities.

These direct economic impacts are an input to the regional impact analysis and DAE-RGEM modelling, the results of which are described in Chapter 5.

#### 4.1.1 VicForests' revenue and expenses

In 2013-14, the Central Highlands RFA Area generated \$76 million in revenue, and expenses of \$69 million. The revenue from the Central Highlands RFA Area, using the national forest industry's average ratio of value add to production, is equivalent to \$26 million in value added, which represents the value of the goods and services produced by the industry (the output of an industry less its intermediate inputs).<sup>5</sup>

Table 4.1 presents key VicForests financial data disaggregated for the Central Highlands RFA Area. Revenue from the Central Highlands RFA Area (\$76 million) comprises 73% of VicForests' total revenue.<sup>6</sup> The average annual growth rate between 2008-09 and 2013-14 for the Central Highlands RFA Area is also presented, to illustrate trends over time.

Table 4.1: Financial data summary

Item	Central Highlands RFA Area (2013-14)	Central Highlands RFA Average annual growth rate (2008-09 to 2013-14)
Total sales of forest products	\$76,175,260	2.8%
Total expenses (including employee and contractor expenses)	\$68,875,934	1.9%

<sup>5</sup> This is calculated using the industry average value added in forest product industries (34%), based on the ABS Input-Output tables. These are described in further detail in Appendix A.

<sup>6</sup> Total VicForests revenue for 2013-14 financial year was \$104.3 million, as reported in the VicForests Annual Report 2014.

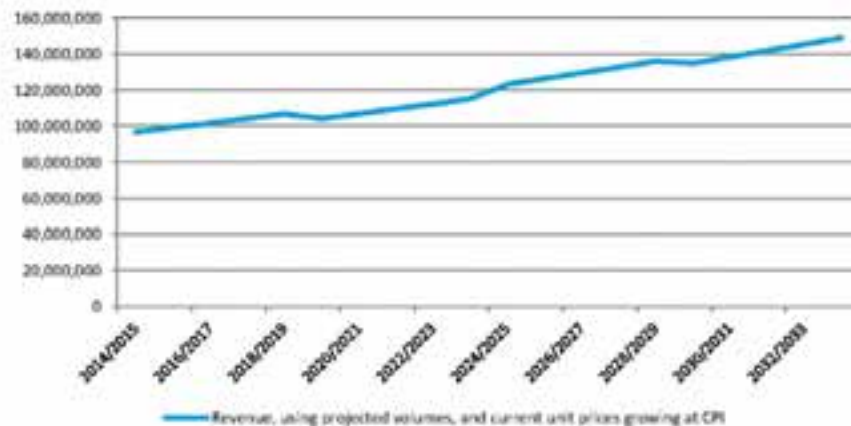
Item	Central Highlands RFA Area (2013-14)	Central Highlands RFA Average annual growth rate (2008-09 to 2013-14)
Fixed assets expenditure	\$273,530	-
Volume sold	823,203 m <sup>3</sup>	9.1%

Source: VicForests.

#### 4.1.1.2 VicForests' revenue projections

Future VicForests revenue was projected using the data provided by VicForests and the assumptions made about the likely future scenario of the industry (as described in Appendix B), and is presented in Chart 4.1.

Chart 4.1: Projected revenue (from projected volumes, nominal dollars)



Source: VicForests. Note: CPI is assumed to be 2.5% per annum. There is a large gap between the 2013-14 revenue and the 2014/15 revenue. This is because the 2013-14 revenue figure in the previous section relates to financial statements and actual revenues, whilst the 2014/15 projected revenue is based on budgeted volumes that may or may not be realised, dependent on whether customers are supplied all of their contracted volume.

The analysis estimates that in 2023-24, VicForests revenue from the Central Highlands RFA Area will be \$148.9 million in nominal terms, based on projected volumes.

This revenue projection is illustrative, and is based on projected volumes (as opposed to VicForests financial data). Thus, the starting points for the revenue projection and financial data do not perfectly align, due to differences in the year of analysis (2013-14 for the financial data, and 2014-15 for the projected volumes data), and timing differences in when sales occur, revenue is recognised and timber is harvested. However, these differences will not impact on the total regional economic impact analysis (Chapter 5), which relies on 2013-14 financial data as its starting point. In addition, the projected revenue presented here assumes that the mix of species (Ash and mixed species) and timber grades sold to customers will remain constant over time, and that prices grow at the rate of CPI.

#### 4.1.2 Employment

Native timber harvesting in the Central Highlands RFA Area supports employment both within and outside the Central Highlands RFA Area.

The total number of direct FTE jobs linked to the industry within the Central Highlands RFA Area Community and the Impacted Community including VicForests' staff, contractors and customers is 2,117 (Table 4.2).

Table 4.2: Total direct employment

	Employment (FTE)
Employment by SAZs within the Central Highlands RFA Area Community	405
Employment by SAZs within the Impacted Community, excluding the Central Highlands RFA Area Community	1,285
Other directly impacted employment located outside the Impacted Community	427
<b>Total Direct Employment</b>	<b>2,117</b>

Source: VicForests, DEDJTR

#### 4.1.3 VicForests' employment

Of the total VicForests employment, 33 FTE are based in the Central Highlands RFA Area<sup>7</sup>. In addition, 28.6 FTE are head office staff (defined as the executives, senior managers and support staff) have been allocated to the Central Highlands RFA Area on the basis of revenue (the proportion of all VicForests revenue that is Central Highlands RFA Area revenue), as reported in VicForests' 2014 Annual Report.

#### 4.1.4 Direct native timber harvesting industry employment

Beyond the employment that VicForests provides, there is employment by customers and contractors of VicForests. This employment may be located within Central Highlands RFA Area Community or the Impacted Community. The direct impact of employment in these groups and their effect on the community is considered in this section, and the flow-on impacts of direct native timber harvesting industry employment are explored in Chapter 5.

Employment by SAZs within the Central Highlands RFA Area Community (Table 4.3) and within the Impacted Community (Table 4.4) is presented below.

<sup>7</sup> In 2013-14, VicForests employed a total of 98.3 full-time equivalent workers.

Table 4.3: Employment by SA2s within the Central Highlands RFA Area Community

SA2	VicForests/ Contractor Employment (FTE)	Customer Employment (FTE)	Total (FTE)	% of all employment in SA2
Alexandra	80.8	-	80.8	3.3%
Mansfield (Vic.)	2.1	-	2.1	0.1%
Upper Yarra Valley	24.0	-	24.0	119.9% <sup>2</sup>
Yea	24.5	15.0	39.5	3.8%
Mount Baw Baw Region	100.1	53.0	153.1	10.4%
Kinglake	21.8	-	21.8	3.3%
Wallan	11.1	-	11.1	0.7%
Whittlesea	3.2	-	3.2	0.2%
Healesville – Yarra Glen	0.6	-	0.6	0.0%
Yarra Valley	12.7	56.0	68.7	2.3%
Emerald – Cockatoo	0.2	-	0.2	0.0%
Seymour Region <sup>3</sup>	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>281.0</b>	<b>124.0</b>	<b>405.0</b>	<b>1.9%</b>

Source: VicForests, DEDJTR, ABS Census 2011. Note: VicForests/Contractor Employment is based on the distribution of harvesting over the last 10 years, and attributing employment proportionately. Customer Employment is based on the SA2 the customer is located in, rather than harvesting history. No harvesting occurred in the Seymour Region SA2 in the last decade. Percentage of all employment calculated using ABS 2011 Census Place of work data.

The final column, percentage of all employment in the SA2 that is native timber industry employment (as defined in this study) provides an indication of the level of dependence a community (an SA2) has on the native timber industry.

Table 4.4: Direct employment located outside the Central Highlands RFA Area Community

SA2	Customer Employment (FTE)	% of all employment in SA2
Bairnsdale	13	0.2%
Beaufort <sup>10</sup>	N/A	N/A
Benalla	36	0.8%
Bruthen – Ormeo	18	1.2%

<sup>2</sup> This is greater than 100% because VicForests employment has been allocated to SA2s based on harvesting history, whilst total employment in a SA2 is based on ABS 2011 Census Place of work data, which shows only 20 people employed in the Upper Yarra Valley SA2.

<sup>3</sup> No harvesting occurred in the last decade in the Seymour Region SA2, however, it does contain suitable forest area, and hence is included in the Central Highlands RFA Area Community.

<sup>10</sup> There is one customer located in Beaufort SA2, however, no employment data for this customer was available.



Economic assessment of the native timber industry in the Central Highlands RFA Area

SA2	Customer Employment (FTE)	% of all employment in SA2
Drouin	9	0.3%
Maffra	205	6.0%
Morwell	895	10.2%
Orbost	81	3.6%
Towong	16	0.8%
Yarram	12	0.7%
<b>Sub-total</b>	<b>1,285</b>	<b>1.4%</b>
<b>Other directly impacted employment located outside the Impacted Community</b>		
Metropolitan Melbourne	427	Less than 0.1%
<b>Total</b>	<b>1,712</b>	<b>Less than 0.1%</b>

Source: VicForests, DEDJTR, ABS Census 2011.

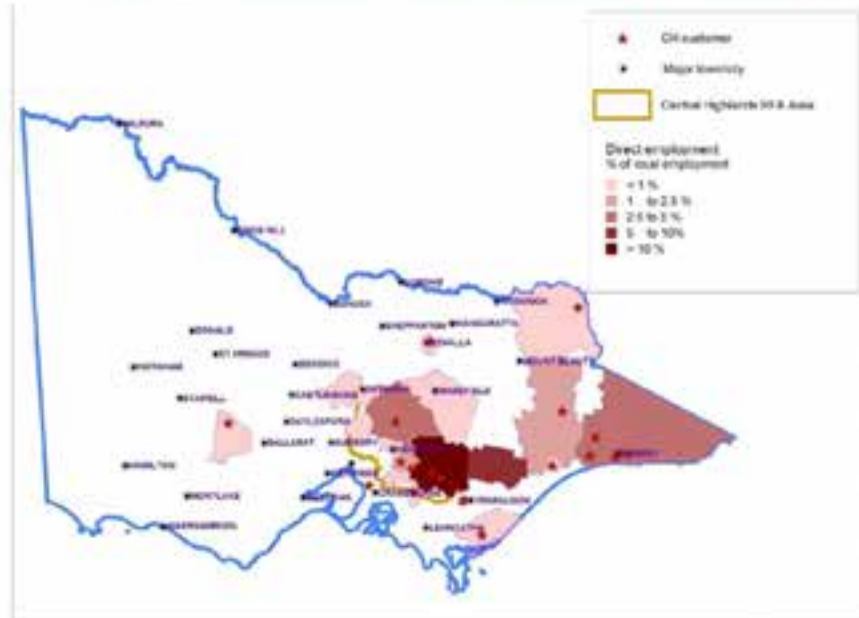
Notes:

1. Customer Employment is based on the SA2 the customer is located in, rather than harvesting history. Percentage of all employment calculated using ABS 2011 Census Place of work data.
2. 895 jobs at the Australian Paper site at Maryvale (Morwell SA2) have been included in the direct employment figures as Poyry (2011) concludes there is no commercially viable replacement for the fibre sourced directly from VicForests. Australian Paper also employs 355 people in metropolitan Melbourne.

Looking at the Impacted Community, Maffra SA2 and Morwell SA2 have the highest dependence on the native timber industry for employment, as measured by the percentage of all employment in the SA2 in the native timber industry. This is the result of two large customers, Australian Sustainable Hardwoods and Australian Paper, being located in these SA2s.

Figure 4.1 illustrates the percentage of SA2 employment that is part of the native timber industry in the Impacted Community, and thus the areas of Victoria that are most reliant on the industry for employment.

Figure 4.1: Reliance on the native timber industry for employment by SA2



Source: VicForests, DED/ITR (2014), Deloitte Access Economics calculations.

This section has shown the reliance of different parts of the Impacted Community on the native timber industry for employment. The level of reliance varies greatly across SA2s, and in part depends on the relative size of a SA2s economy. For instance, the Upper Yarra Valley SA2 has a very high reliance on the industry for employment, driven in part by the very small employment base in that SA2. On the other hand, the Yea SA2 has a similar number of FTEs in the native timber industry, but significantly less reliance on the native timber industry for employment.

## 4.2 Summary of direct benefits and costs

In summary, \$573 million in revenue was generated by VicForests and its contractors (\$76 million) and its direct customers (\$497 million) in the Impacted Community in 2013-14.

This activity resulted in the direct employment of 2,117 full time equivalent workers, including 281 full time equivalent workers directly employed by VicForests and its contractors.

## 5 Total regional economic impacts

This chapter presents the total regional economic impacts of the native timber industry on the Impacted Community over time, through the use of Computable General Equilibrium (CGE) modelling. CGE modelling allows the total regional economic impacts of the native timber industry to the Impacted Community and the rest of Victoria to be quantified.

For the purposes of this study, Deloitte Access Economics' Regional General Equilibrium model (known as DAE-RGEM) was customised to create the Impacted Community region, as described in Section 2.4.2, with each of the 22 SA2 areas as units in the model, in their full state, national and global context.

Technical detail on the DAE-RGEM can be found in Appendix E.

### 5.1 DAE-RGEM inputs

The direct economic impacts presented in Section 4.1, that is, the revenue, expenditure and employment of the native timber industry in the Central Highlands RFA Area and Impacted Community were used as inputs into the DAE-RGEM. The impact associated with those directly employed by the native timber industry in the Central Highlands RFA Area but located in metropolitan Melbourne are included in the Impacted Community results.

Using these inputs, the DAE-RGEM calculates changes in macroeconomic aggregates such as gross regional product (GRP), employment and wages.

The model captures the direct impacts of VicForests' operations and its flow on implications for the rest of the economy as well as the fact that labour and capital resources the native timber operations would not be available for activity elsewhere in the economy.

These macroeconomic outcomes for each scenario were compared to the counterfactual (as outlined in Chapter 3), with deviations from the base case described in the following sections.

### 5.2 Modelling results

#### 5.2.1 Gross Regional Product

In 2014, the Impacted Community's GRP is estimated to be \$327 million higher as a result of having a native timber industry in the Central Highlands RFA Area. The increase in GRP represents a 4.4% increase in the size of the economy in the Impacted Community relative to the counterfactual of not having a native timber industry.<sup>11</sup>

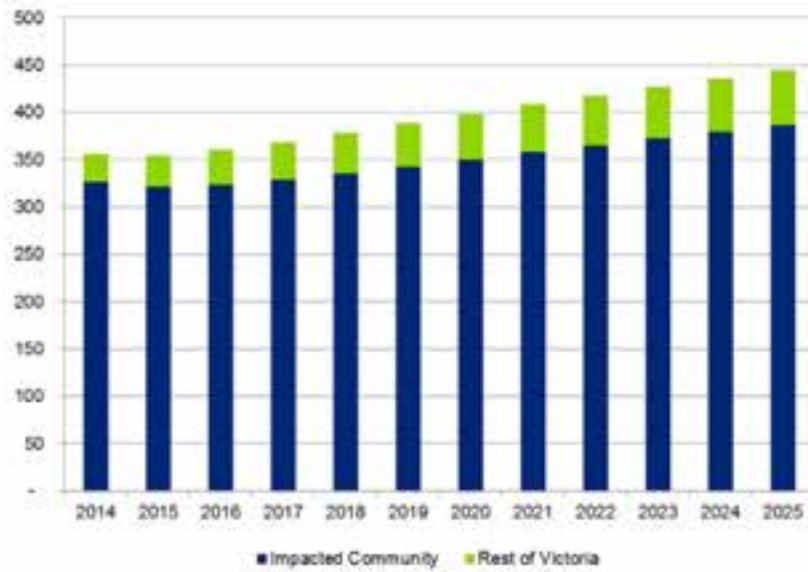
There is an additional impact on the rest of Victoria, in that the Victorian economy (excluding the Impacted Community) GRP is \$30 million higher as a result of having the

<sup>11</sup> In comparison, the Impacted Community's current GRP is approximately \$7.6 billion.

Economic assessment of the native timber industry in the Central Highlands RFA Area

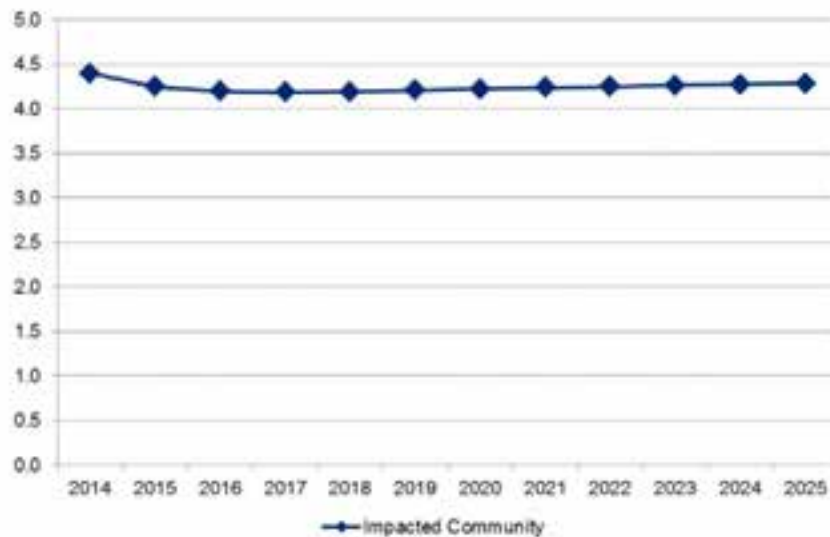
native timber industry in the Central Highlands RFA Area, i.e. the total impact of the native timber industry in the Central Highlands RFA Area on the Victorian economy is \$357 million in 2014.

Chart 5.1: GRP deviations (in \$2014-15) million



Source: Deloitte Access Economics

Chart 5.2: GRP (% increase relative to the counterfactual)



Deloitte Access Economics

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Source: Deloitte Access Economics

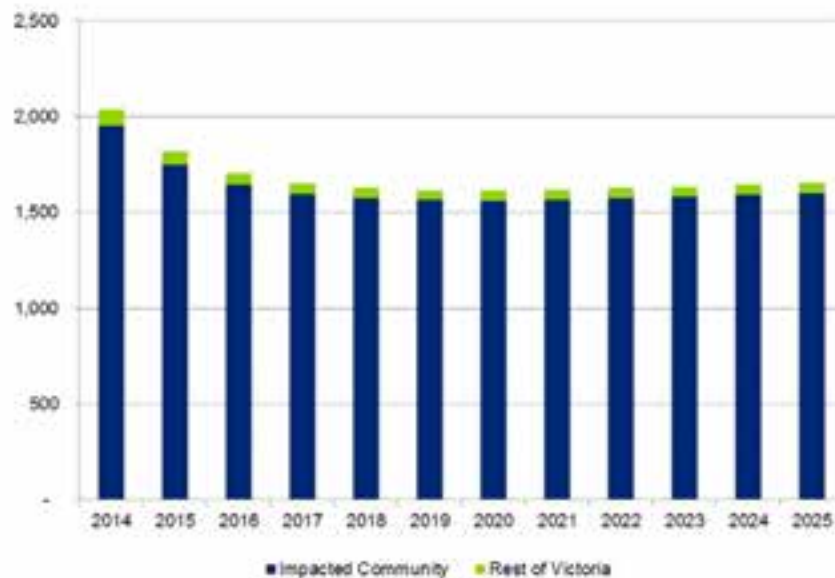
### 5.2.2 Employment and wages

The native timber industry is also estimated to have an impact on employment. In 2014, the Impacted Community is estimated to employ an additional 1,953 FTEs (full time equivalent) as a result of the presence of the native timber industry in the Central Highlands RFA Area. This represents 3.5% of regional employment, where there are 56,000 FTEs in total. It results in a further 83 FTEs in the rest of Victoria. Thus, a total of 2,036 FTEs are added to the Victorian economy. The impact of the industry on employment, relative to the counterfactual, decreases over time, because the economy as a whole adjusts. Workers who would initially be unemployed in the counterfactual will find other employment opportunities over time.

The Study has not considered employment in manufacturing and downstream processing which is linked to the native timber industry in the Central Highlands RFA Area. There is potential for this additional employment to be the focus of future studies.

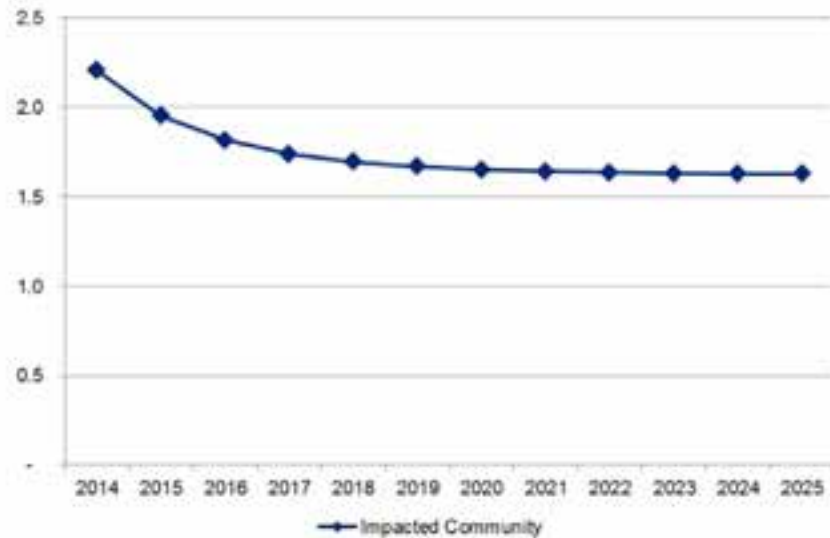
It is noted, that the presence of the industry also results in a higher wage level across the regional communities, with overall wages in the Impacted Community being 2.2% higher as a result of the native timber industry in the Central Highlands RFA Area.

Chart 5.3: Employment (FTE) deviations



Source: Deloitte Access Economics

Chart 5.4: Wage rate deviation (% increase relative to the counterfactual)



Source: Deloitte Access Economics

### 5.2.3 Comparison with direct impacts

Table 5.1 illustrates how the direct impacts compare to the DAE-RGEM results. A \$196 million value add shock to the native timber industry in the Impacted Community results in a whole of economy GRP impact of \$357 million across Victoria in 2014. This is equivalent to a multiplier of 1.82.

Table 5.1: DAE-RGEM inputs

	Revenue	Value add	Employment (FTE)
VicForests (including contractors)	\$76 million	\$26 million <sup>12</sup>	281
VicForests' customers	\$497 million <sup>13</sup>	\$170 million <sup>14</sup>	1,836
Total (direct impact)	\$573 million	\$196 million	2,117
<b>DAE-RGEM results (whole of economy)</b>	-	<b>\$357 million</b>	<b>2,036</b>

<sup>12</sup> Estimated using the ABS Input-Output tables, see Section 4.1.

<sup>13</sup> Estimated using the same output to FTE and value-add to FTE ratio as for VicForests. This is done as customers' revenue figures are commercially confidential. The ratio has been calculated using the industry average value added in forest product industries (34%), based on the ABS Input-Output tables. These are described in further detail in Appendix A.

<sup>14</sup> Ibid.

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## Appendix A: Forestry products industries

### Industry value added in forest product industries

To put this study on the native timber industry in the Central Highlands RFA Area into context, it is worth examining the size and structure of the national forestry sector.

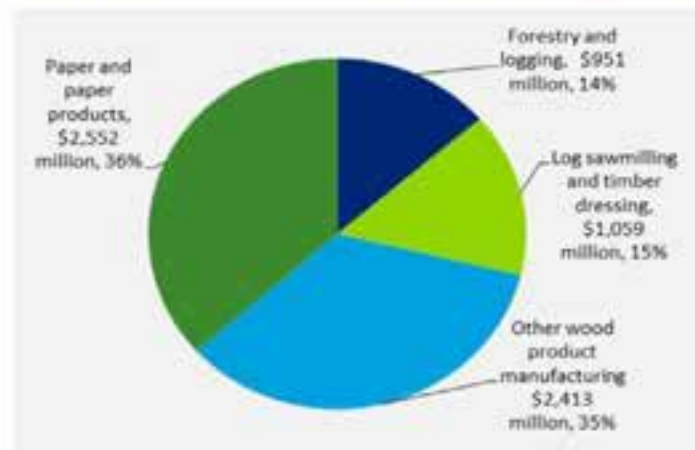
In 2012-13, Victoria accounted for 30% of Australia's forestry industry in terms of volume and 31% in terms of value, with a log production volume 6.9 million m<sup>3</sup> and a value of \$463 million.

The Australian native timber industry accounts for around 22% of Australia's forestry industry. In 2012-13, Victoria accounted for 35% of Australia's native timber industry in terms of volume and 32% in terms of value, with a log production volume of 1.3 million m<sup>3</sup> and a value of \$109 million.

According to ABARES (2014), forestry contributed 0.5% to Australia's GDP in 2012-13, with a total value of \$7.0 billion. Based on ABS (2013a) Input-Output tables 2009-10, value add is 34% of the industry's Australian production value.

Forestry and logging contributes \$1.0 billion (14%); log sawmilling and timber dressing \$1.1 billion (15%); other wood product manufacturing \$2.4 billion (35%); and paper and paper products \$2.6 billion (36%), to total forestry industry value add, as shown in Figure A.1.

Figure A.1: Contribution to the forestry industry value add (2012-13)



Source: ABARES (2014)



## Forestry supply chain

### Inputs into the industry

Forestry and logging sources most of its inputs (by value) from within the industry; forestry support services and fuel are other major inputs.

The main inputs into sawmill product manufacturing, wood product manufacturing and pulp, paper and paperboard manufacturing are forestry and logging and road transport, with sawmill product manufacturing also being a key input source for wood product and pulp, paper and paperboard manufacturing.

Table A.2: Inputs into the industry

Forestry and Logging	% of all inputs	Sawmill Product Manufacturing	% of all inputs	Other Wood Product Manufacturing	% of all inputs	Pulp, Paper and Paperboard Manufacturing	% of all inputs
Forestry and logging	57%	Forestry and logging	53%	Sawmill Product Manufacturing	15%	Sawmill Product Manufacturing	17%
Agriculture, Forestry and Fishing Support Services	10%	Road Transport	13%	Forestry and logging	8%	Road Transport	8%
Wholesale Trade	8%	Wholesale Trade	8%	Road Transport	3%	Forestry and logging	8%
Transport Support Services	7%	Transport Support Services	7%	Wholesale Trade	6%	Structural Metal Product Manufacturing	7%
Other Wood Product Manufacturing	7%	Other Wood Product Manufacturing	6%	Other Wood Product Manufacturing	6%	Wholesale Trade	7%
Construction, Repair and Maintenance	7%	Construction, Repair and Maintenance	6%	Structural Metal Product Manufacturing	5%	Transport Support Services and Storage	6%
Other Services	5%	Employment, Travel Agency and Other Administrative Services	5%	Professional, Scientific and Technical Services	5%	Non-Ferrous Metal Product Manufacturing	6%
Road Transport	4%	Professional, Scientific and Technical Services	4%	Transport Support Services and Storage	4%	Professional, Scientific and Technical Services	4%
Operatives and other Machinery and Equipment Manufacturing	3%	Construction Services	3%	Employment, Travel Agency and Other Administrative Services	4%	Electric, Electronic, and Other Equipment Manufacturing	3%
Other Paper and Paperboard Manufacturing	3%	Other Paper and Paperboard Manufacturing	3%	Other Paper Product Manufacturing	3%	Oil and Gas Extraction	3%
<b>Total Top 10</b>	<b>96%</b>	<b>Total Top 10</b>	<b>83%</b>	<b>Total Top 10</b>	<b>68%</b>	<b>Total Top 10</b>	<b>83%</b>

Source: ABS (2013a)

### Downstream Industries

The main user of forestry and logging is the industry itself; sawmill manufacturing and other wood product manufacturing are the other main downstream industries.

Sawmill product manufacturing and other wood product manufacturing sell the majority of their outputs to the construction industry; a smaller share goes to furniture manufacturing. Pulp, paper and paperboard manufacturing sells 80% of its outputs to the printing industry.

Economic assessment of the native timber industry in the Central Highlands RFA Area

Table A.3: Downstream industries

Forestry and Logging	% of all sales	Wood Product Manufacturing	% of all sales	Other Wood Product Manufacturing	% of all sales	Pulp, Paper and Paper Products Manufacturing	% of all sales
Forestry and Logging	50%	Construction Services	10%	Construction Services	5%	Printing	5%
Wood Product Manufacturing	20%	Residential Building Construction	10%	Residential Building Construction	25%	Paper, Stationery and Other Composites from Wood & Wood Products	5%
Other Wood Product Manufacturing	15%	Other Wood Product Manufacturing	15%	Non-ferrous Metal Construction	5%	Printing	5%
Pulp, Paper and Paper Products Manufacturing	5%	Furniture Manufacturing	15%	Heavy and Civil Engineering Construction	5%	Wine, Spirits and Tobacco	5%
Other Chemical Manufacturing	5%	Automotive Building Component	5%	Other Wood Product Manufacturing	5%	Food and Beverage Services	5%
Ships, Boats, Boat and other Crafts	5%	Wood Product Manufacturing	5%	Furniture Manufacturing	5%	Wholesale Trade	5%
Furniture Manufacturing	5%	Pulp, Paper and Paper Products Manufacturing	5%	Wholesale Trade	5%	Hotel, Accommodation and Technical Services	5%
Clothing, Computers and Hobby Preparation Manufacturing	5%	Heavy and Civil Engineering Construction	5%	Chemicals & Druggs	5%	Food and Drink Manufacturing	5%
Agriculture, Forestry and Fishing/Support Services	5%	Wholesale Trade	5%	Ships and Boat Manufacturing	5%	Food, Drink & Manufacturing	5%
Wholesale Trade Manufacturing	5%	Hotel Trade	5%	Textile & Apparel and Fashion Accessories Services	5%	Non-ferrous Metal Manufacturing	5%
<b>Total Top 10</b>	<b>80%</b>	<b>Top 10</b>	<b>80%</b>	<b>Top 10</b>	<b>80%</b>	<b>Top 10</b>	<b>80%</b>

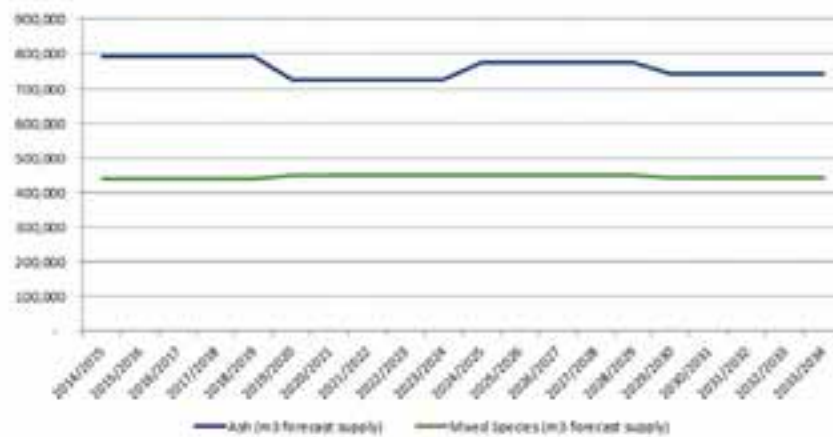
Source: ABS (2013a)

## Appendix B: Likely scenario of the industry in the future

The analysis in this study has focused primarily on the annual benefits and costs (both direct and indirect) of the native timber industry in the Central Highlands RFA Area. In order to gain a broad understanding of the likely future scenario of the industry, projections of supply volumes and unit prices have been made, based on VicForests data.

Chart B.1 illustrates the forecast supply volumes from the Central Highlands RFA Area. These forecasts are from VicForests' Block Volume Supply model, which show that volumes are expected to be relatively flat over the next 20 years.

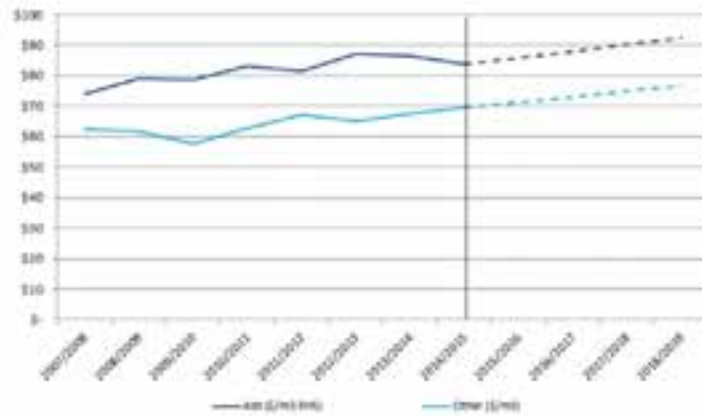
Chart B.1: Forecast supply volumes (m<sup>3</sup>)



Source: VicForests.

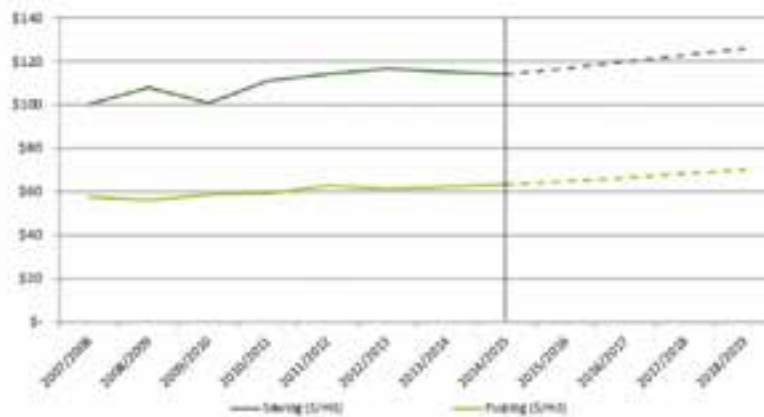
Projected unit prices by species and product type are illustrated in Chart B.2 and Chart B.3. The projections are based on historical unit prices (derived from VicForests historical sales revenue and harvesting and haulage costs), and assume that unit prices will grow by CPI (2.5%, in line with Victorian DTF 2014-15 State Budget CPI forecast for 2015-16 to 2017-18).

**Chart B.2: Price by species (historical and projected, nominal dollars)**



Source: VicForests, Historical average sale price per unit, excluding salvage. Future unit prices projected assuming growth in line with CPI.

**Chart B.3: Price by product type (historical and projected, nominal dollars)**



Source: VicForests, Historical average sale price per unit, excluding salvage. Future unit prices projected assuming growth in line with CPI.



## Appendix C: Counterfactual and Substitution

### Counterfactual

Under the counterfactual the following activities will cease in the Central Highlands RFA Area:

- Native timber harvesting
  - Substitutes for the native timber currently harvested are likely to be imported from outside Victoria (see the following section on Substitution for greater detail). In summary, this is because:
    - Native timber harvesting may not be practical to a meaningful extent in any other areas of Victoria
    - If native timber harvesting were permitted in other parts of Victoria, these areas would be located too far from mills to harvest and haul, and relocating mills would not be financially feasible
    - Plantation timber is only suitable for paper and low grade pallets, and therefore not a perfect substitute for native timber.
- Native forest management undertaken by VicForests
  - Timber resources would be transferred back from VicForests to DELWP (reversing the Allocation Order 2013 which transfers the timber resources from DELWP to VicForests).
- Maintenance of access roads to a standard suitable for use by heavy vehicles
  - Ownership and management of timber haulage roads would be transferred to DELWP. As a result, access roads may not close, but the standard to which they are being maintained would diminish, as there is no longer a requirement to maintain them for heavy vehicles.
- Supply of machinery, personnel and skills for bushfire management
  - Without the native timber industry, timber harvesting businesses may not maintain machinery capable of fighting fires.
- Access to the knowledge base on the forests currently managed by VicForests, through VicForests staff and forest contractors working regularly in the Central Highlands RFA Area

## Substitution (Poyry, 2011)

Poyry (2011) analysed the proposition of substituting logs from hardwood plantations established in Western Victoria for native forest hardwood logs used by existing forest industry processors, mostly based in Eastern Victoria. They noted the following challenges:

### Hardwood plantations for use as pulpwood

- Hardwood plantations were established to support the pulpwood markets in Asia-Pacific, mainly Japan, with their locations, species and management regimes optimised to suit that market. With declining volumes forecast for the mid-term, supply from that source is tight.
- It is technically feasible for processors (such as Australian Paper) to transition to pulpwood from Western Victoria - if it pays an export parity parity, or slightly higher price, for the pulpwood. However, there are significant economic and logistics impacts as well as supply risks. Furthermore, Australian Paper would have to compete directly with exports, for which significant investments have already been made.

### Hardwood plantations for use as sawlogs

- Plantation wood is not a direct substitute for native forest wood; and the difference between the two types of wood is significant. While it is possible to process plantation-grown eucalypts to sawn timber and veneer products, this is usually done in regions with higher plantation growth rates, lower labour costs and strong markets for the residue material from the sawmills. Even so, less than 1% of global eucalypt plantations is managed for high-value sawlogs.
- Australia has so far been unable to establish a sustainable industry based on plantation-grown eucalypts. This is partly due to high labour costs and partly because plantation-grown eucalypts have different properties to native forest timber (such as relatively smaller dimensions, higher inherent growth stress and shrinkage, lower density and lighter colour) resulting in lower productivity in the sawmill and lower-value products in the market.
- It is technically possible to convert pulpwood plantations to a sawlog regime when the plantations are less than three to four years old. However, the majority of pulpwood plantations in Western Victoria are too old to be converted into sawlog plantations. Furthermore, there is no established market for the sawlogs today, so convincing any existing pulpwood estates to convert to a sawlog regime would be difficult.
- The majority of hardwood plantations in Western Victoria are *Eucalyptus globulus*, which is an excellent pulpwood species but not a premium sawlog species. Better sawlog species, such as *Corymbia maculata* and *Eucalyptus cladocalyx*, would require longer rotations of at least 25-30 years. However, these species are not valued as pulpwood species, so residues from thinning and sawmilling operations would be of low value, impacting the economics of processing these species.

### Substitutes in the absence of native timber harvesting

- If native forest sawlogs are not available, it is likely that appearance grade timber would be replaced by imports, which are unlikely to have better environmental credentials than the Victorian product it would replace. For structural grades, product from pine plantations will supply the market.

## Appendix D: Forestry industry employment

### Estimates from various data sources

Different data sources have different in employment numbers for the Victorian forestry industry. This could be the result of differences in reporting, timing, and industry or geography definitions.

Table D.1 presents the estimates of forestry industry employment in Victoria, and they are broadly consistent. The analysis in this study has relied on the numbers provided by VicForests for the purposes of this study, supplemented by DEDJTR (2014) where additional data on VicForests customers was available.

Table D.1: Victorian forestry industry employment estimates

Data source	Employment	Region/Victoria	Note
VicForests	281	Central Highlands RFA Area	FTE, inside Central Highlands RFA, VicForests contractors and VicForests employees
DEDJTR	124	Central Highlands RFA Area	FTE, inside Central Highlands RFA, VicForests customer employees
	1,712	Impacted Community and other directly impacted employment outside the Impacted Community (excluding the Central Highlands RFA Area)	FTE, outside Central Highlands RFA, VicForests customer employees (including all Australian Paper employees) – includes list updated in 2015 of customers supplied from the Central Highlands RFA Area
Auditor General (VAGO, 2013)	519	Victoria total	Victoria total, directly employed by VicForests or harvest and haulage contractors between 2004 and 2013
Allen Consulting (2006)	1,200	Victoria total	Victoria total, estimated by 2020
Schirmer (2013)	2,855	Goulburn and Gippsland (larger than the Central Highlands RFA Area)	Goulburn and Gippsland areas (which cover an area larger than the Central Highlands RFA Area) in 2012
VAFI/VicForests Survey of Victorian Sawmills (2010)	3,000	Victoria total	Victoria total, directly employed by native timber industry

## Appendix E: DAE-RGEM

### Overview

The Deloitte Access Economics – Regional General Equilibrium Model (DAE-RGEM) is a large scale, dynamic, multi-region, multi-commodity computable general equilibrium model of the world economy. The model allows policy analysis in a single, robust, integrated economic framework. This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports and employment are also produced.

The model is based upon a set of key underlying relationships between the various components of the model, each which represent a different group of agents in the economy. These relationships are solved simultaneously, and so there is no logical start or end point for describing how the model actually works.

Figure E.1 shows the key components of the model for an individual region. The components include a representative household, producers, investors and international (or linkages with the other regions in the model, including other Australian States and foreign regions). Below is a description of each component of the model and key linkages between components. Some additional, somewhat technical, detail is also provided.

Figure E.1: Key components of DAE-RGEM



DAE-RGEM is based on a substantial body of accepted microeconomic theory. Key assumptions underpinning the model are:



- The model contains a 'regional consumer' that receives all income from factor payments (labour, capital, land and natural resources), taxes and net foreign income from borrowing (lending).
- Income is allocated across household consumption, government consumption and savings so as to maximise a Cobb-Douglas (C-D) utility function.
- Household consumption for composite goods is determined by minimising expenditure via a CDE (Constant Differences of Elasticities) expenditure function. For most regions, households can source consumption goods only from domestic and imported sources. In the Australian regions, households can also source goods from interstate. In all cases, the choice of commodities by source is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption for composite goods, and goods from different sources (domestic, imported and interstate), is determined by maximising utility via a C-D utility function.
- All savings generated in each region are used to purchase bonds whose price movements reflect movements in the price of creating capital.
- Producers supply goods by combining aggregate intermediate inputs and primary factors in fixed proportions (the Leontief assumption). Composite intermediate inputs are also combined in fixed proportions, whereas individual primary factors are combined using a CES production function.
- Producers are cost minimisers, and in doing so, choose between domestic, imported and interstate intermediate inputs via a CRESH production function.
  - The model contains a more detailed treatment of the electricity sector that is based on the 'technology bundle' approach for general equilibrium modelling developed by ABARE (1996).<sup>15</sup>
- The supply of labour is positively influenced by movements in the real wage rate governed by an elasticity of supply.
- Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. A global investor ranks countries as investment destinations based on two factors: global investment and rates of return in a given region compared with global rates of return. Once the aggregate investment has been determined for Australia, aggregate investment in each Australian sub-region is determined by an Australian investor based on: Australian investment and rates of return in a given sub-region compared with the national rate of return.
- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.
- Prices are determined via market-clearing conditions that require sectoral output (supply) to equal the amount sold (demand) to final users (households and government), intermediate users (firms and investors), foreigners (international exports), and other Australian regions (interstate exports).

<sup>15</sup> Australian Bureau of Agricultural and Resource Economics (ABARE), 1996, MEGABARE: Interim Documentation, Canberra.



- For internationally-traded goods (imports and exports), the Armington assumption is applied whereby the same goods produced in different countries are treated as imperfect substitutes. But, in relative terms, imported goods from different regions are treated as closer substitutes than domestically-produced goods and imported composites. Goods traded interstate within the Australian regions are assumed to be closer substitutes again.
- The model accounts for greenhouse gas emissions from fossil fuel combustion. Taxes can be applied to emissions, which are converted to good-specific sales taxes that impact on demand. Emission quotas can be set by region and these can be traded, at a value equal to the carbon tax avoided, where a region's emissions fall below or exceed their quota.

### The representative household

Each region in the model has a so-called *representative household* that receives and spends all income. The *representative household* allocates income across three different *expenditure areas*: private household consumption; government consumption; and savings.

Going clockwise around Figure E.1, the representative household interacts with producers in two ways. First, in allocating expenditure across household and government consumption, this sustains demand for production. Second, the representative household owns and receives all income from factor payments (labour, capital, land and natural resources) as well as net taxes. Factors of production are used by producers as *inputs into production* along with intermediate inputs. The level of production, as well as supply of factors, determines the amount of income generated in each region.

The *representative household's* relationship with investors is through the supply of investable funds – savings. The relationship between the *representative household* and the international sector is twofold. First, importers compete with domestic producers in consumption markets. Second, other regions in the model can lend (borrow) money from each other.

#### *Some detail*

- The representative household allocates income across three different expenditure areas – private household consumption; government consumption; and savings – to maximise a Cobb-Douglas utility function.
- Private household consumption on composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. Private household consumption on composite goods from different sources is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption on composite goods, and composite goods from different sources, is determined by maximising a Cobb-Douglas utility function.
- All savings generated in each region is used to purchase bonds whose price movements reflect movements in the price of generating capital.

## Producers

Apart from selling goods and services to households and government, producers sell products to each other (intermediate usage) and to investors. Intermediate usage is where one producer supplies inputs to another's production. For example, coal producers supply inputs to the electricity sector.

Capital is an input into production. Investors react to the conditions facing producers in a region to determine the amount of investment. Generally, increases in production are accompanied by increased investment. In addition, the production of machinery, construction of buildings and the like that forms the basis of a region's capital stock, is undertaken by producers. In other words, investment demand adds to household and government expenditure from the representative household, to determine the demand for goods and services in a region.

Producers interact with international markets in two main ways. First, they compete with producers in overseas regions for export markets, as well as in their own region. Second, they use inputs from overseas in their production.

### *Some detail*

- Sectoral output equals the amount demanded by consumers (households and government) and intermediate users (firms and investors) as well as exports.
- Intermediate inputs are assumed to be combined in fixed proportions at the composite level. As mentioned above, the exception to this is the electricity sector that is able to substitute different technologies (brown coal, black coal, oil, gas, hydropower and other renewables) using the 'technology bundle' approach developed by ABARE (1996).
- To minimise costs, producers substitute between domestic and imported intermediate inputs is governed by the Armington assumption as well as between primary factors of production (through a CES aggregator). Substitution between skilled and unskilled labour is also allowed (again via a CES function).
- The supply of labour is positively influenced by movements in the wage rate governed by an elasticity of supply is (assumed to be 0.2). This implies that changes influencing the demand for labour, positively or negatively, will impact both the level of employment and the wage rate. This is a typical labour market specification for a dynamic model such as DAE-RGEM. There are other labour market 'settings' that can be used. First, the labour market could take on long-run characteristics with aggregate employment being fixed and any changes to labour demand changes being absorbed through movements in the wage rate. Second, the labour market could take on short-run characteristics with fixed wages and flexible employment levels.

## Investors

Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. The global investor ranks countries as investment destination based on two factors: current economic growth and rates of return in a given region compared with global rates of return.

*Some detail*

- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.

**International**

Each of the components outlined above operate, simultaneously, in each region of the model. That is, for any simulation the model forecasts changes to trade and investment flows within, and between, regions subject to optimising behaviour by producers, consumers and investors. Of course, this implies some global conditions must be met such as global exports and global imports are the same and that global debt repayments equal global debt receipts each year.

## Limitation of our work

### General use restriction

This report is prepared solely for the use of VicForests. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of assessing the economic sustainability of the native timber industry in the Central Highlands RFA Area of Victoria. You should not refer to or use our name or the advice for any other purpose.

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## ATTACHMENT 3

### Terms of Reference

#### Purpose

The Victorian Government is supporting an Industry Taskforce (Appendix 1), to provide a forum and process for dialogue and leadership amongst the major stakeholders in the forest, fibre and wood products industry, unions and forest conservation groups.

The purpose of the Industry Taskforce is for the major stakeholders to reach common ground on a durable, long-term set of recommendations and proposals to government, about future issues facing the industry, job protection, economic activity, protection of our unique native flora and fauna and threatened species, such as the Leadbeater's possum.

The outcomes will be reached by consensus, and involve robust dialogue and considered negotiation. The process will rely on expert evidence, analysis and facilitation, and the engagement of relevant other affected groups and interests, and the broader Victorian community.

The Industry Taskforce will aim for recommendations that will enable us to successfully create and sustain jobs and industry growth in a changing economic environment, to conserve high value ecological assets, to protect key species such as the Leadbeater's possum and to implement a durable plan for the good stewardship of Victoria's forests that can be embraced by the Victorian community.

#### Outcome

The Taskforce will provide to the Victorian Government, recommendations about how best to ensure that Victoria conserves high value ecological assets, maintains healthy forests and builds and maintains a vibrant world-leading forest, fibre and wood products industry, based on:

- secure fibre and wood supplies including from native forests and existing and new plantations,
- jobs maintenance and growth,
- protection of unique native flora and fauna and threatened species, specifically including the Leadbeater's possum,
- new conservation reserves and national parks, and
- forest management which maintains forest health and supports the full range of economic, social and environmental values and benefits at state, regional and local levels.

The Industry Taskforce will seek to jointly achieve broad community and cross-parliamentary support to adopt and implement the agreed outcomes.

In recognition of Traditional Owners, strategies and actions should, with the support of government, support the determination, recognition, consideration and acknowledgement of Traditional Owner rights, interests and aspirations in relation to public forest areas and related industries.

#### Scope and Guiding Considerations

The focus will be on future use and management of Regional Forest Agreement (RFA) state forests east of the Hume Highway and will be informed by consideration of:

- whole of community benefits including the full range of economic, social and environmental values
- existing plantations and development of new private and/or public plantations
- wood resource on private property
- state-wide supply chain
- industry economics and the competitive environment it operates in
- conservation values in RFA areas, and in existing and new national parks, and other reserves
- landscape-wide biodiversity, and
- fire and climate change impacts.

Some primary questions for consideration will be

1. What would the scope and scale of any new national parks and reserves in eastern Victoria be?
2. What would be required to ensure the viability of threatened species and forest health across the broader forest ecosystem?
3. Where would any fibre and wood come from to provide a secure, sustainable resource for industry and enable opportunities for future industry growth?
4. Where would any jobs maintenance and growth be?
5. What other economic, forest use and recreational activities, if any, ought to be taken into account in future state forest use and management decisions?
6. How would any public forest areas outside of the protected area estate be robustly managed in the future?
7. What funding, management and review mechanisms, if any, would be required for the care and management of any new protected areas?
8. What role could any new plantations provide in future wood supply for industry, and how could government(s) facilitate this?
9. How would any outcomes relating to all of the above be delivered in a robust manner and for long-term durability?

### Structure and Process

Stakeholders have diverse perspectives and interests. Reaching common ground amongst a multi-stakeholder group around issues of high complexity is challenging: there is no precedent solution to draw from, addressing the problems piece by piece is not enough to deliver long-term solutions. In recognising that one stakeholder or organisation alone cannot solve the challenges, stakeholders are committed to work together, and have co-designed the process to enable this.

The structure will be based around:

1. The Planning Group to provide consistent leadership and to facilitate regular reporting to government via the Premier's office, and to work with the chair to drive the process.
2. The Core Group of negotiators, representing key stakeholder sectors and with a responsibility to engage and involve others.
3. A series of Working Groups to undertake more detailed consideration and report back to the Core Group. The Working Groups will, as required, comprise relevant expertise, including scientists and other experts.
4. An independent chair whose role includes overseeing a fair and robust process and, together with the Planning Group, being the interface with government and the Victorian public.

5. Independent Facilitator/s to assist working through contentious discussion around problems and differences.
6. A secretariat to support administrative tasks, communication, policy development and access to information and expertise.

This structure is indicated in Appendix 2; Appendix 3 shows the range of constituents and affected groups.

The process will be three broad phases:

Phase One: Scoping

1. Develop a shared information and understanding of the challenges and concerns.

Phase Two: Deliberating

2. Co-develop a range of options and possible solutions.

Phase Three: Deciding

3. Make decisions and reach a set of agreed and durable solutions and recommendations.

The Taskforce will make agreements by consensus, which means decision-making will be inclusive, participatory and collaborative, and a process through which stakeholders seek and reach consent, as described in Appendix 4.

The Core Group of stakeholders recognises that a durable outcome will only emerge from a process that recognises the complexity of the situation and builds a broad-based community consensus. That is why the Core Group is willing to participate directly and in good faith, with the support of the government.

#### **Membership**

The Planning Group comprises Jane Calvert (CFMEU - Construction Forestry Mining and Energy), Tim Johnston (VAFI - Victorian Association of Forest Industries), Amelia Young (TWS Victoria - The Wilderness Society Victoria).

The Core Group comprises the Planning group plus Vince Hurley (ASH - Australian Sustainable Hardwoods), Julian Mathers (AP - Australian Paper), John McConachy (harvest and haulage contractors), Alex Millar (CFMEU - Construction Forestry Mining and Energy), Sarah Rees (MyEnvironment), Matt Ruchel (VNPA - Victorian National Parks Association), and Jess Abrahams (ACF - Australian Conservation Foundation).

#### **Timeframe**

The Taskforce will deliver a set of agreed recommendations to Government by the end of June 2016, unless extension is formally and jointly agreed by Government and Taskforce members.

#### **Communication**

The Taskforce, including the Chair, will:

- make use of a variety of means of communications, including a website
- jointly make all statements and media comment about the work of the Taskforce
- prepare communication and engagement plans, with assistance from the secretariat.

## Resources

The Taskforce seeks ongoing financial support from Government for the chair, facilitators and for the Planning and Core Groups to undertake engagement and communication activity as well as for expert advice, science and data.

Key data to inform this task may include but might not be limited to:

- current and future projected resource requirements of the Victorian forest, fibre and wood products industry
- volumes, condition, cost and utility of available and projected resources and services, and the capacity of forests to continue to provide these
- current and projected employment
- ecological values and ecosystem services
- protected area and off-reserve management requirements.

## Appendices

### Appendix 1

Policy context: "Labor strongly supports a consensus approach in the establishment of any new national parks. We will facilitate and support the establishment of an Industry Taskforce to provide leadership to reach common ground on the future issues facing the industry, job protection, economic activity, protection of our unique native flora and fauna and threatened species, such as the Leadbeater's possum. The taskforce will have members from the forestry and forest products industry, unions, environmental groups and scientists, threatened species experts, land owners, timber communities and other relevant stakeholders. A Labor Government will consider any reasonable recommendations and proposals reached by consensus of the major stakeholders through the Industry Task Force, but will not impose solutions."

<http://www.danielandrews.com.au/wp-content/uploads/2014/11/Our-Environment-Our-Future.pdf>

### Appendix 2

Structure Diagram - attached.

### Appendix 3

Engagement Diagram - attached.

### Appendix 4

Consensus Decision-Making - attached.



**ORDINARY COUNCIL MEETING AGENDA  
22 AUGUST 2016 (CM488)**

**14.2 GREAT FOREST NATIONAL PARK**

**General Manager**

**City Development**

**For Decision**

**PURPOSE**

This report provides Council with details of the potential economic impact of the proposed Great Forest National Park (the proposed park) and an update on the progress of the Ministerial Taskforce.

**EXECUTIVE SUMMARY**

A proposal has been developed to establish a new national park in Victoria. The impetus for the proposed park has been the discovery of colonies of the Leadbeater's Possum in the Central Highlands Forest.

The proposed park, to be known as the Great Forest National Park will encompass much of the Central Highlands Regional Forest Area (RFA). Native Hardwood Timber from this RFA supplies many timber processors and users throughout Victoria.

Latrobe City's largest private sector employer, Australian Paper, sources wood fibre from the Central Highlands RFA. The company advises that if the proposed park proceeds Australian Paper will lose access to 34 percent of its wood fibre supply. The company has further advised that currently there are no alternative commercially available sources of supply.

Deloitte Access Economics advise that 895 jobs in Morwell (i.e. Australian Paper) are impacted by timber derived from the Central Highlands RFA. Australian Paper have advised that the company contributes \$750 million in Gross Regional Product to the local economy and has a direct and indirect impact on more than 6,000 jobs, most of which are in regional Victoria.

In 2015, the Victorian State Government established an industry taskforce to examine the potential for the new park. The Terms of Reference require that the Taskforce will deliver a set of agreed recommendations to the Government by the end of June 2016.

Advice has been received that a Statement of Intent has recently been presented to the Premier. When the Statement is accepted by the State Government, a series of recommendations will be drafted. This process will take several months.



## ORDINARY COUNCIL MEETING AGENDA 22 AUGUST 2016 (CM488)

### RECOMMENDATION

#### That Council:

1. Notes the potential economic impact of the proposed Great Forest National Park on Latrobe City and its industry participants
2. Seeks clarification on the Statement of Intent and recommendations developed by the industry taskforce
3. Issues a media release regarding the importance of industry being able to maintain access to timber from the Central Highlands Forest Management Area.

### DECLARATION OF INTEREST

No officer declared a conflict of interest under the *Local Government Act 1989* in the preparation of this report.

### STRATEGIC FRAMEWORK

This report is consistent with Latrobe 2026: The Community Vision for Latrobe Valley and the Latrobe City Council Plan 2013-2017.

#### Latrobe 2026: The Community Vision for Latrobe Valley

##### *Strategic Objectives:*

- *Actively pursue long term economic prosperity for Latrobe City, one of Victoria's four major regional cities.*
- *Actively pursue further diversification of business and industry in the municipality.*
- *Actively pursue and support long term job security and the creation of new employment opportunities in Latrobe City.*

#### Latrobe City Council Plan 2013 - 2017

##### Theme and Objectives

##### *Theme 1: Job creation and economic sustainability*

*Strategic Direction – Work in partnership with business, industry and government to create new jobs and investment in Latrobe City.*

### BACKGROUND

At the Ordinary Council Meeting on the 23 May 2016, Council adopted the following:

#### *That Council:*

1. *Requests that the Chief Executive Officer prepares a report on the Assessment of the economic and social impacts of the proposed Great Forest national Park to the Latrobe City municipality;*

**ORDINARY COUNCIL MEETING AGENDA  
22 AUGUST 2016 (CM488)**

2. *Requests that the Mayor writes to the Premier and the minister for Energy, Environment and Climate Change and to express our disappointment that there is no local government voice on the Taskforce looking at the great Forest National Park. That the Mayor request that either MAV or Timber Towns Victoria are given a position on this Taskforce.*

In accordance with the second part of the motion, a letter was sent to the Premier and the Minister for Energy, Environment and Climate Change on 5 July 2016 expressing Council's concern that there was no Local Government representation on the Taskforce. The letters also detailed Council's concern about the potential impact on the local economy. (See attachment one)

The proposed park area will stretch from Kinglake to Mt Baw Baw and north-east up to Eildon. The proposal will add 355,000 hectares of protected forests to the existing 170,000 hectares of parks and protected areas in the Central Highlands of Victoria. The proposed park will encompass significant areas of the Central Highlands RFA.

**KEY POINTS/ISSUES**

A collective of environmental groups have proposed the establishment of a new national park, to be known as the Great Forest National Park (attachment two). The impetus for the proposal was the discovery of colonies of Leadbeater's Possums in the Central Highlands Forests.

In 2015, the Federal Government upgraded the status of the Leadbeater's possum from "endangered" to "critically endangered" - the last step before extinction in the wild.

The State Government established an industry taskforce in May 2015 to examine the potential for the new park and 'to come to a "consensus" that would meet conservation needs, as well as protect jobs and the forest industry.' The Terms of Reference for the Taskforce state:

*The process will be three broad phases:*

*Phase One: Scoping*

1. *Develop a shared information and understanding of the challenges and concerns.*

*Phase Two: Deliberating*

2. *Co-develop a range of options and possible solutions.*

*Phase Three: Deciding*

3. *Make decisions and reach a set of agreed and durable solutions and recommendations.*

The Terms of Reference state that the Taskforce will deliver a set of agreed recommendations to Government by the end of June 2016, unless extension is formally and jointly agreed by Government and Taskforce members. Members of the Taskforce are bringing their organisations research and position statements for consideration in developing the Statement of Intent.

**ORDINARY COUNCIL MEETING AGENDA  
22 AUGUST 2016 (CM488)**

The appointed membership of the industry taskforce comprises two groups:

- The Planning Group comprises Jane Calvert (CFMEU - Construction Forestry Mining and Energy), Tim Johnston (VAFI - Victorian Association of Forest Industries), Amelia Young (TWS Victoria - The Wilderness Society Victoria);
- The Core Group comprises the Planning group plus Vince Hurley (ASH - Australian Sustainable Hardwoods), Peter Williams and Julian Mathers (AP - Australian Paper), John McConachy (harvest and haulage contractors), Alex Millar (CFMEU - Construction Forestry Mining and Energy), Sarah Rees (My Environment), Matt Ruchel (VNPA - Victorian National Parks Association), and Jess Abrahams (ACF - Australian Conservation Foundation).

Advice has been received that the Statement of Intent has recently been presented to the Premier by the Taskforce. After the Government has considered the Statement and agreement is reached, a series of recommendations will be prepared by the Taskforce. It has been advised that this process will take several months to complete.

**Economic Impact**

The following economic impact information has been derived from a number of internal sources, i.e. no external consultancy was required to collate this information. However, to determine the social impact of the proposed park a separate study would be required.

The proposed park will impact on the native hardwood supply available in the Central Highlands RFA. The current proposal has no impact on plantation hardwood and softwood so there will be no direct impact on HVP or Carter Holt Harvey at this time.

A recent study conducted by Deloitte Access Economics found that as a result of the VicForests' operations and the native timber harvesting in 2013-14, the Central Highlands RFA Area, \$357 million of Gross Regional Product (GRP) was added to the Victorian economy.

This \$357 million in GRP reflects, amongst other things, \$573 million in revenue earned by VicForests (\$76 million) and its direct customers (\$497 million) in the 'Impacted Communities' - Morwell is listed as an impacted community because of the native hardwood timber fibre provided to Australian Paper.

The Central Highlands RFA operations resulted in the direct employment of 2,117 full time equivalent workers. Beyond the employment that VicForests provides (281 FTE), there is employment by customers and contractors of VicForests.

Deloitte Access Economics estimate that 895 FTE in Morwell are impacted by timber supplied from the Central Highlands RFA. Almost all of these jobs would be at Australian Paper. This figure does not include indirect employment, such as haulage contractors.



**ORDINARY COUNCIL MEETING AGENDA  
22 AUGUST 2016 (CM488)**

(It is interesting to note that Deloitte Access Economics estimate that 205 FTE are impacted in the Maffra region – these jobs are attributed to Australian Sustainable Hardwoods. The report notes that Morwell and Maffra are the two areas most impacted by the native hardwood supply from the Central Highlands RFA.)

Australian Paper advises that the business currently source 29 percent of its fibre directly from Vic Forests and a further five percent of Mountain Ash chips is sourced from Australian Sustainable Hardwoods. If the proposed park proceeds, Australian paper estimates that it will lose access to 34 percent of its fibre requirements. They further advised that there is currently no commercially viable replacement for this wood.

Australian Paper has previously advised Council that its operations generate in excess of \$750 million of GRP for the economy annually. The flow-on impact of employment is approximately 6,000 FTE across Australia, most of which is in regional Victoria.

The worst case scenario from the proposed park is that Australian Paper cannot source the required volumes of hardwood fibre from alternative sources, therefore impacting on the viability of its operation.

**RISK IMPLICATIONS**

Risk has been considered as part of this report and it is considered to be consistent with the Risk Management framework.

Should the proposed Park proceed, there is a significant risk that Australian Paper could not source enough wood to service its operations, resulting in closure and the loss of over 1000 jobs in the Latrobe City.

**FINANCIAL AND RESOURCES IMPLICATIONS**

The potential closure of Australian Paper as a result of the approval of the proposed park would result in the loss of over 1000 direct jobs within the municipality.

Should the proposed Park be approved, there is a risk that Council rate revenue derived from Australian Paper would reduce. This could have flow on effects to businesses serving Australian Paper.

**INTERNAL/EXTERNAL CONSULTATION**

Officers have been in contact with members of the Taskforce, Industry and Advocacy associations in relation to this issue. Council is also represented on Timber Towns Victoria and the National Timber Councils Taskforce, both of which have represented the interests of Council on this issue.

**OPTIONS**

Council has the following options:

1. Note the report into the potential economic impact of the proposed Park and take no further action prior to the Taskforce report. This would allow Council the opportunity to understand what is proposed prior to continuing advocacy activities;

**ORDINARY COUNCIL MEETING AGENDA  
22 AUGUST 2016 (CM488)**

2. Note the report into the potential economic impact of the proposed Park and continue advocating the importance of industry being able to maintain access to timber from the Central Highlands Forest Management Area. This would assure that Council continues to represent the interest of the local timber and paper industries; or
3. Take no further action at this time.

**CONCLUSION**

The establishment of the Great Forest National Park would have a major impact on Latrobe City's largest business, Australian Paper, in that it would lose access to 34 percent of the wood fibre it needs to produce its products. Australian Paper advises that there are currently no alternative commercially available sources of wood fibre. As a result, the proposed park provides a serious threat to the company.

The company currently contributes \$750 million to the local economy GRP per annum and employs approximately 1,000 people directly and contributes to indirect employment and other businesses (e.g. HVP) with employment estimated to be 6,000 FTE.

Council needs to advocate strongly to the State Government that the establishment of the Great Forest National Park will have a significant impact on the Latrobe region and beyond.

When the recommendations from the Taskforce are published a further report will be prepared for Council's consideration and guidance.

**SUPPORTING DOCUMENTS**

- Deloitte Access Economics; Economic Assessment of the Native Timber Industry in the Central Highlands RFA Area Report 1: Economic and Financial Impact
- Great Forest National Park Terms of Reference

**Attachments**

1. Letter to Premier and Minister: Proposed Great Forest National Park
2. Great Forest National Park - proposed area



## ATTACHMENT 5



WELLINGTON  
SHIRE COUNCIL  
*The Heart of Gippsland*

4 July 2016

The Hon Liliana D'Ambrosio MP  
Minister for Energy, Environment and Climate Change  
Level 36, 121 Exhibition Street  
MELBOURNE VIC 3000

Dear Minister

### TIMBER INDUSTRY TASK FORCE AND GREAT FOREST NATIONAL PARK

Given the integral role the timber industry plays in the social and economic fabric of Wellington Shire, Council is extremely concerned about the proposed creation of the Great Forest National Park. As a result, at the Wellington Shire Council meeting held on 7 June 2016, the following motion was supported:

*That Council:*

1. *Request the CEO to prepare a report on the social and economic impact on Wellington Shire should the Great Forest National Park become a reality;*
2. *Request that the Gippsland Local Government Network (GLGN) make a submission to the Victorian Government and the Opposition to ensure that the protection of regional jobs are not threatened by any further expansion of National Parks;*
3. *That the Mayor write to the relevant Victorian Ministers expressing disappointment that Local Government is not represented on the Taskforce looking at the Great Forest National Park, and that the Municipal Association of Victoria (MAV) and / or Timber Towns Victoria (TTV) be offered the opportunity to be part of this taskforce.*

In relation to items one and two, Wellington Shire Council is currently working with the Gippsland Local Government Network to prepare the required reports.

In relation to item three, Wellington Shire Council understands that the Timber Industry Task Force's Terms of Reference requires the Taskforce to make final recommendations by 30 June 2016. However, should the Victorian Government agree to extend the workings of the Taskforce, Wellington Shire Council strongly requests that the Municipal Association of Victoria and/or Timber Towns Victoria be provided with the opportunity to be an active partner.

If you should have any queries on this matter, please contact General Manager of Development, John Websdale on 5142 3047 or [john.websdale@wellington.vic.gov.au](mailto:john.websdale@wellington.vic.gov.au).

Yours sincerely

CR DARREN McCUBBIN  
Mayor

Our ref: DM:IC

Sale Service Centre  
18 Desally Street (PO Box 505), Sale Victoria 3850  
Telephone 1300 366 244

Yarram Service Centre  
156 Grant Street, Yarram Victoria 3971  
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*The Heart of Gippsland*



## **C4 - REPORT**

# **GENERAL MANAGER BUILT AND NATURAL ENVIRONMENT**

**ITEM C4.1****PLACE NAMES COMMITTEE - MINUTES**

DIVISION: BUILT &amp; NATURAL ENVIRONMENT

ACTION OFFICER: MANAGER ASSETS &amp; PROJECTS

DATE: 6 SEPTEMBER 2016

IMPACTS								
Financial	Legislative	Council Policy	Planning Policy	Resources & Staff	Community	Environmental	Consultation	Risk Management
	✓				✓			

**OBJECTIVE**

The purpose of this report is for Council to receive the minutes from the Place Names Committee meeting held on 2 August 2016 and to consider the recommendations from that meeting.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY**

## RECOMMENDATION

***That:***

- 1. Council receive and note the minutes of the Place Names Committee meeting held on 2 August 2016;***
- 2. Arising from the Place Names Committee meeting of 2 August 2016, Council adopt the following recommendation;***

***That:***

- a) A letter be sent to all property owners abutting Tip Road that no further action will be taken regarding this matter until an alternate road name is nominated that has been agreed to by all abutting property owners that is acceptable to the Office of Geographic Names; and***
  - b) A letter be sent to all affected property owners that the unnamed road off the Bengworden Road be named Akoonah Lane and that if no negative response is received within 30 days then apply to the Registrar of Geographic Names to formalise the name; and***
  - c) The request to name the unnamed private road off the Seaspray Road, Wattlebird Close be approved and to apply to the Registrar of Geographic Names to formalise the name; and***
  - d) Following confirmation with the Maffra and District Historical Society that the intersection of Tinamba-Newry Road and Tinamba-Glenmaggie Road is known locally as GREENVALE CORNER that this name be registered with the Registrar of Geographic Names; and***
  - e) Following a request to name the York Street entrance to the IGA carpark in Sale that:***
    - (i) A response be sent to thanking people for their submissions; and***
    - (ii) The entrance to the carpark be named Sillett Lane; and***
    - (iii) That the name Grubb be added to the Council Approved Road Names Register for use in the Sale area.***
- 3. The information contained in the attached document and designated under Section 77 Clause (2)(c) of the Local Government Act 1989 as confidential by the General Manager Built and Natural Environment on 06 September 2016 because it relates to the following grounds under Section 89(2) of the Local Government Act 1989: h) any other matter which the Council or special committee considers would prejudice the Council or any person; be designated confidential information under Section 77 Clause (2)(b) of the Local Government Act 1989.***

## BACKGROUND

The Place Names Committee is an advisory committee that meets quarterly to make recommendations to Council on geographical place name issues.

## OPTIONS

Council have the following options available:

- To receive the minutes of the Place Names Committee; or
- Seek further information and consider at a future meeting.

## PROPOSAL

1. That Council receive and note the minutes of the Place Names Committee meeting held on 2 August 2016.
2. Arising from the Place Names Committee meeting held on 2 August 2016, Council adopt the following recommendation:

That:

- a) A letter be sent to all property owners abutting Tip Road that no further action will be taken regarding this matter until an alternate road name is nominated that has been agreed to by all abutting property owners that is acceptable to the Office of Geographic Names; and
- b) A letter be sent to all affected property owners that the unnamed road off the Bengworden Road be named Akoonah Lane and that if no negative response is received within 30 days then apply to the Registrar of Geographic Names to formalise the name; and
- c) The request to name the unnamed private road off the Seaspray Road, Wattlebird Close be approved and to apply to the Registrar of Geographic Names to formalise the name; and
- d) Following confirmation with the Maffra and District Historical Society that the intersection of Tinamba-Newry Road and Tinamba-Glenmaggie Road is known locally as GREENVALE CORNER that this name be registered with the Registrar of Geographic Names; and
- e) Following a request to name the York Street entrance to the IGA carpark in Sale that:
  - (i) A response be sent to thanking people for their submissions; and
  - (ii) The entrance to the carpark be named Sillett Lane; and
  - (iii) That the name Grubb be added to the Council Approved Road Names Register for use in the Sale area.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## LEGISLATIVE IMPACT

The *Local Government Act 1989* provides Council the power to approve, assign or change the name of a road. Council in exercising this power must act in accordance with the guidelines provided for under the *Geographical Place Names Act 1998*.

## COMMUNITY IMPACT

The process for the naming or changing of a road name will be followed by contacting the Office of Geographic Names where emergency services are notified and relevant databases are updated. There will be some minor inconvenience to those residents who reside on the affected roads while those businesses who operate from the carpark entrance will have a more meaningful address.



**ITEM C4.2****2016-012 KILMANY LANDFILL WORKS TENDER AWARD**

DIVISION: BUILT &amp; NATURAL ENVIRONMENT

ACTION OFFICER: MANAGER ASSETS &amp; PROJECTS

DATE: 6 SEPTEMBER 2016

IMPACTS								
Financial	Legislative	Council Policy	Planning Policy	Resources & Staff	Community	Environmental	Consultation	Risk Management
✓	✓	✓		✓	✓	✓	✓	✓

**OBJECTIVE**

Council to consider entering into a contract for the construction of the Kilmany Landfill works.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION***That:*

- 1. Council adopts the recommendations contained in the attached confidential Tender Evaluation Report for contract 2016 - 012 Kilmany Landfill Works; and**
- 2. That the information contained in the attached document and designated under Section 77 Clause (2)(c) of the Local Government Act 1989 as confidential by the Chief Executive Officer on 16 August 2016 because it relates to the following grounds under Section 89(2) of the Local Government Act 1989: d) contractual matters;**  
**be designated confidential information under Section 77 Clause (2)(b) of the Local Government Act 1989.**

**BACKGROUND**

Under the EPA licence conditions Wellington Shire Council is required to progressively rehabilitate old landfill areas as new landfill cells are constructed. This project is for the construction of Landfill Cell 2 to be constructed and Stage 1 of the final capping to the original landfill area. Based on current waste volumes Landfill Cell 2 will provide approximately 4 years of landfill capacity.

Works under this contract are expected to be completed in May 2017.

**OPTIONS**

Council have the following options available:

- To enter into a contract for the Kilmany Landfill construction works as described; or
- To not enter into a contract for the Kilmany Landfill construction works as described.

## **PROPOSAL**

That Council adopts the recommendations contained in the attached confidential Tender Evaluation Report for contract 2016 012 Kilmany Landfill Works.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **FINANCIAL IMPACT**

This project is within budget and is funded from the Waste Infrastructure Reserve and is included in the 2016/17 Capital Works Program as adopted by Council.

## **LEGISLATIVE IMPACT**

Wellington Shire Council is committed to ensuring the Contract tendering process complies with the *Victorian Local Government Act 1989* and the Victorian Local Government Code of Tendering.

## **RESOURCES AND STAFF IMPACT**

The Assets & Projects Unit will provide the staff and resources to manage this contract.

## **COMMUNITY IMPACT**

Works will be conducted to the East of the Kilmany Transfer Station with no interruption to the daily running of the facility, thus there is no direct community impact during construction of the cell. Construction of the cell will result in a modern and compliant landfill.

## **ENVIRONMENTAL IMPACT**

The proposed works will have minimal environmental impact, with the contractors complying with Council's Guidelines on Environmental Management for Roadwork Projects.

## **CONSULTATION IMPACT**

The works are located in a non-public accessible area of the Kilmany Landfill and licence conditions are actively managed by the Environmental Protection Authority.

## **RISK MANAGEMENT IMPACT**

It is considered that the proposed contract works will not expose Wellington Shire Council to any significant risks. All OH&S risks will be discussed with the contractor and allocated to the party in the best position to manage each risk.

The rehabilitation of the current landfill and construction of the new cell will ensure Wellington Shire Council remains compliant with EPA licensing requirements.



**GENERAL MANAGER  
COMMUNITY AND  
CULTURE**

**ITEM C5.1****MUNICIPAL ASSOCIATION OF VICTORIA AGE FRIENDLY VICTORIA DECLARATION**

DIVISION: COMMUNITY AND CULTURE  
 ACTION OFFICER: ACTING MANAGER COMMUNITY WELLBEING  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
			✓	✓	✓				

**OBJECTIVE**

The purpose of this report is for Council to formally demonstrate support for ‘age-friendly communities’ by signing the Victorian Government and Municipal Association of Victoria’s Age Friendly Victoria Declaration.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council formally demonstrate support for ‘age-friendly communities’ by signing the Victorian Government and Municipal Association of Victoria’s Age Friendly Victoria Declaration.***

**BACKGROUND**

Age-friendly communities encourage active ageing and optimise opportunities for good health, social and economic participation and personal security for older citizens.

Wellington Shire Council, in aspiring to improve the age-friendliness of our community, acknowledges the great diversity of our older population, promotes inclusion of older people and respects their decisions and lifestyle choices.

Local government plays a key role in planning and establishing age-friendly communities and has been assisted in this by the Victorian Government in collaboration with the Municipal Association of Victoria, via the establishment of the Age-Friendly Communities Grant Program.

Wellington Shire Council was successful in their funding application to the Age-Friendly Communities’ Grants program for the amount of \$100,000. The grant program will assist Council to develop and deliver on a collaborative plan with measurable outcomes to improve this municipality as an Age Friendly Community. The planning process will include service providers, businesses, community leaders and older people in planning to meet Wellington Shire’s ageing-related needs.

A briefing was presented to Council on 5 July 2016.

As part of the Age-Friendly Communities Grant Program, we are seeking Council to formally support the Age-Friendly Victoria Declaration. This declaration highlights a commitment to “promote the inclusion of older people in our thinking and practices to enhance the quality of life for people as they age”.



## OPTIONS

Council has the following options:

1. Formally acknowledge at a Council Meeting their support for the Age-Friendly Victoria Declaration; or
2. Decline to formally acknowledge their support for the Age-Friendly Victoria Declaration, and requests further information from officers.

## PROPOSAL

That Council formally demonstrate support for 'age-friendly communities' by signing the Victorian Government and Municipal Association of Victoria's Age Friendly Victoria Declaration.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## COUNCIL POLICY IMPACT

Wellington Shire Council, as part of the Age-Friendly Communities Grant Program, will develop an Age Friendly Strategy. Planning for this strategy has commenced, and will be brought to Council for adoption.

## COUNCIL PLAN IMPACT

The Council Plan 2013–17 Theme 1 - Leadership and Engagement states the following strategic objective and related strategies:

Strategic Objective: Our community is informed about Council business and is involved in Council decision making. Council advocates on behalf of the community.

Strategy 1.1: Ensure sound processes are in place to facilitate input into Council deliberations and decision making.

Strategy 1.2: Maintain sound processes to inform the community about Council business.

This report supports the above Council Plan strategic objective and strategies.

## RESOURCES AND STAFF IMPACT

As part of the Age-Friendly Communities Grant Program, external funding will be used to recruit a Project Officer to assist in developing the strategy. Funds have also been allocated to finance small projects associated with Council's Age Friendly Strategy.

# AGE-FRIENDLY VICTORIA

## DECLARATION

### Vision

The vision of the Victorian Government and the Municipal Association of Victoria in signing this Declaration is for better state and local planning for the creation of age-friendly communities. This is the focus of our shared activities on common goals and directions.

Population ageing is a world-wide phenomenon as a consequence of increasing life expectancy. In Victoria, people are living longer and many of today's young Victorians will live beyond 90, even 100, years. We need to create communities that respond to this significant social change and better support people as they age.

It is vital that governments focus on the opportunities as well as the challenges of an ageing population. While older people contribute significantly to our communities, there is more to be done to support and develop the roles and contributions of older people. Ageing populations require actions that promote quality of life and wellbeing, value the contributions that older people make to their communities, remove barriers to participation, and enable people to 'age in place' and maintain local connections and community belonging.

Age-friendly communities encourage active ageing and optimise opportunities for good health, social and economic participation and personal security. They recognise the great diversity of our older population, promote inclusion of older people and respect their decisions and lifestyle choices. They involve service providers, businesses, community leaders and older people in planning to meet ageing-related needs. They enhance quality of life for people as they age, and benefit the whole community.

Local government plays a key role in planning and establishing age-friendly communities and has been assisted in this by the Victorian Government in collaboration with the Municipal Association of Victoria. The Victorian approach is informed by the World Health Organization's *Age-friendly Cities* framework, and the experience of councils' use of World Health Organization's information and tools.

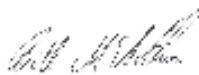
Experience shows that the best way to strengthen the age-friendly capacity of local communities is through partnerships between seniors, governments, communities, businesses, services and support agencies. In partnership with the Municipal Association of Victoria, the Victorian Government has been supporting local government since 2006 with initiatives aimed at improving their capacity to plan for and support seniors, and to create communities that better accommodate their ageing populations.

This partnership approach has raised the awareness of ageing across both levels of government, improved knowledge and understanding of international age-friendly cities and communities, and created local age-friendly initiatives. This Declaration builds on these strengths and furthers the partnership between state and local government to continue to support and assist Victorian councils to create age-friendly communities.



Martin Foley MP  
Minister for Housing, Disability and Ageing

Date: 14 April 2016



Cr Bill McArthur  
President, Municipal Association of Victoria

### Commitment

The Victorian Government and the Municipal Association of Victoria will build the age-friendly capacity of local communities by:

1. promoting an age-friendly Victoria through the role and achievements of local government in creating age-friendly communities and providing leadership to encourage local councils and stakeholders to develop the principles of the age-friendly cities and community directions
2. supporting state and local planning processes to create age-friendly communities and using the knowledge, information and tools available through the World Health Organization's Global Network of Age-friendly Cities
3. providing local councils with leading advice, expertise, access to networks, policy information and other support to encourage local age-friendly initiatives
4. empowering seniors' involvement in local age-friendly initiatives by assisting councils to develop active engagement structures and models of localised seniors community input
5. encouraging seniors to get involved in areas they see as important such as local community transport, volunteering, community participation, diversity of housing options, seniors safety, technology access and lifelong learning
6. addressing the built environment, transport, housing, social participation, respect and social inclusion, civic participation and employment, communication, and community support and health services for age-friendly communities as listed in the 2008 World Health Organization's *Age-friendly Cities: A Guide*
7. valuing stakeholder engagement and working together to promote and strengthen partnerships with peak bodies, community organisations, businesses, retailers and council-run facilities.



### Statement of Support and Partner Endorsement

#### Vision

The vision of the Victorian Government and the Municipal Association of Victoria in signing this Declaration is for better state and local planning for the creation of age-friendly communities. This is the focus of our shared activities on common goals and directions.

#### Commitment

The Victorian Government and the Municipal Association of Victoria will build the age-friendly capacity of local communities by:

1. promoting an age-friendly Victoria through the role and achievements of local government in creating age-friendly communities and providing leadership to encourage local councils and stakeholders to develop the principles of the age-friendly cities and community directions
2. supporting state and local planning processes to create age-friendly communities and using the knowledge, information and tools available through the World Health Organization's Global Network of Age-friendly Cities
3. providing local councils with leading advice, expertise, access to networks, policy information and other support to encourage local age-friendly initiatives
4. empowering seniors' involvement in local age-friendly initiatives by assisting councils to develop active engagement structures and models of localised seniors community input
5. encouraging seniors to get involved in areas they see as important such as local community transport, volunteering, community participation, diversity of housing options, seniors safety, technology access and lifelong learning
6. addressing the built environment, transport, housing, social participation, respect and social inclusion, civic participation and employment, communication, and community support and health services for age-friendly communities as listed in the 2008 World Health Organization's *Age-friendly Cities: A Guide*
7. valuing stakeholder engagement and working together to promote and strengthen partnerships with peak bodies, community organisations, businesses, retailers and council-run facilities.

The undersigned organisation:

- fully endorses and supports the vision of the Age-Friendly Victoria Declaration for better state and local government planning
- recognises the integral role of older people in achieving an age-friendly Victoria and commits to the ongoing involvement of older people
- endorses the importance of partnerships between government, the community and the business sectors in working together
- agrees to work in partnership with the Victorian Government and/or the Municipal Association of Victoria to achieve an age-friendly Victoria.

Signature

.....

Name

.....

Position

.....

Organisation

.....

Date

.....

**ITEM C5.2****BRIAGOLONG RECREATION RESERVE COMMITTEE OF MANAGEMENT MINUTES**

DIVISION: COMMUNITY AND CULTURE  
 ACTION OFFICER: MANAGER HEALTHY LIFESTYLES  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
		✓	✓	✓				✓	

**OBJECTIVE**

For Council to receive the minutes from the Briagolong Recreation Reserve Committee of Management's Ordinary Meeting held on 8 August 2016.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council receive the minutes from the Briagolong Recreation Reserve Committee of Management's Ordinary Meeting held on 8 August 2016.***

**BACKGROUND**

The Briagolong Recreation Reserve Committee of Management is a Special Committee of Council under Section 86 of the *Local Government Act 1989* and operates within the provisions of a Council approved Instrument of Delegation.

The objectives of the Special Committee are:

- To manage, operate and maintain the Briagolong Recreation Reserve for the community in an efficient, effective and practical manner.
- To undertake activities designed to protect, promote, utilise and develop the Briagolong Recreation Reserve for the use and enjoyment of the local community.

As provided under the Committee's Instrument of Delegation the minutes of all meetings are to be presented to Council and highlight the day to day activities being undertaken by the Committee.

**OPTIONS**

Council has the following options:

1. Receive the minutes from the Briagolong Recreation Reserve Committee of Management's Ordinary Meetings held on 8 August 2016; or
2. Seek further information to be considered at a future Council Meeting.

## **PROPOSAL**

That Council receive the minutes from the Briagolong Recreation Reserve Committee of Management's Ordinary Meetings held on 8 August 2016.

## **CONFLICT OF INTEREST**

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## **LEGISLATIVE IMPACT**

This report is in accordance with Section 91(4) of the *Local Government Act 1989*.

## **COUNCIL POLICY IMPACT**

This report is in accordance with Council Policy 5.3.2 which establishes a framework for the guidance of Council in relation to the roles and responsibilities of Committees.

## **COUNCIL PLAN IMPACT**

The Council Plan 2013-17 Theme 4 Infrastructure states the following strategic objective and related strategy:

Strategic Objectives

*Asset and infrastructure that meet current and future community needs.*

Strategy 4.2

*Ensure assets are managed, maintained and renewed to meet service needs.*

## **CONSULTATION IMPACT**

Meetings held by the Briagolong Recreation Reserve Committee of Management are open to the public.



**BRIAGOLONG RECREATION RESERVE**  
**Special Committee of Council**

**MINUTES**

**MEETING DATE: 8<sup>th</sup> AUGUST 2016**

**MEETING TIME: 7.30 PM**

**MEETING VENUE: BRIAGOLONG RECREATION RESERVE**

**1. Present/apologies**

<b>Name</b>	<b>Title</b>	<b>Representing</b>	<b>Present/Apolo gy</b>
Peter Cleary	Councillor	Wellington Shire Council	Apology
Jenny Elliot	President	Briagolong & District Pony Club	Present
Kylie Wright	Secretary	Briagolong & District Pony Club	Present
Vanessa Randle	Treasurer	Briagolong Tennis Club	Present
Mick Pleydell		Briagolong Tennis Club	Present
Sean Padman		Briagolong Cricket Club	Present
Denis Murphy		Briagolong Cricket Club	Present
Stephen Noble		Community	Apology
Darren Randle		Community	Present
Josh Harry		Community	Apology
Jess Fry		Briagolong Junior Football	Present
Sharn Anlezark		Briagolong Junior Football	Present

**Quorum achieved: YES**

**2. Declaration of conflicts of interest: NIL**

**3. Confirmation of minutes of previous meeting:**

**Moved:** Jenny

**Seconded:** Vanessa

**4. Business arising from previous meeting:**

- Previous June 2016 minutes re - written were accepted. Moved by Jenny, Seconded by Vanessa.
- Facility Fault report maintenance list has mostly been attended to, many thanks to those present at working bee. Few items left will be completed during Cricket Clubs working bee on the 27<sup>th</sup> August 2016, Sean will let Steve know what these items are as he has offered to complete them.

**5. Correspondence in:**

- Email received by Kylie from Briony Padman re: Denis Murphy is new cricket representative for Briagolong Recreation Reserve Committee. Denis has completed paperwork, awaiting shire approval.
- Treasurers report July 2016 received by Kylie via email from Vanessa.

- Emails from and to Marcus Stone by Kylie in regards to draftsperson being contacted re: new facility.
- Letter received from Tracey Binger re: campsite debris (including glass) and grass damage at southern end of tennis courts. Discussion with members present re: possible signage; decision if it continues signage may be necessary, otherwise hopefully a 1 off.

## **6. Correspondence out -**

- As above

## **7. Reports –**

### **7.1 Presidents report –**

- NIL

### **7.2 Treasurers report -**

- Treasurers report for July 2016 tabled by Vanessa, accepted by all present.
- Statement of receipts and expenses for year ending 30<sup>th</sup> June 2016 presented by Vanessa.
- Draft budget presented by Vanessa for 2016/2017, accepted by all present.
- Vanessa informed all books are currently with accountant for end of year balancing.

### **7.3 User group reports –**

#### **Cricket club –**

- Denis Murphy is new member for Briagolong Recreation Reserve committee – Welcome.
- Sean reported club is having pitch work completed mid September.
- 2 English players will be residing in Briagolong for the upcoming season.
- Working bee planned for 27<sup>th</sup> August, everyone welcome to attend and pitch in.

#### **Football club –**

- Round Robin held 7<sup>th</sup> August – HUGE success, many compliments for a smoothly run day – Well done Briagolong Football Club!!!!!!
- Final date for finals if they are held at Briagolong is Sunday 28<sup>th</sup> August.

#### **Pony Club –**

- Rally this coming weekend.
- Gymkhana date planned clashes with other competitions so has been postponed for now.
- Stratford pony club member Darcy Wade who attended Ireland representing Australia in Equestrian Triathlon recently came 4<sup>th</sup> in the world, team came 5<sup>th</sup> Congratulations to all.

#### **Community –**

- CRG have not met since last meeting.
- Discussion regarding market weekends a possibility for Rec Reserve to run.

#### **Tennis Club –**

- Training to commence soon.
- AGM held recently, Tracey: President, Megan: Secretary, Gerard: Treasurer.
- Junior tennis starts in early October.

#### **Shire –**

- NIL representation present.

## **8. Volunteers: NIL this month**

### **9. OHS/Risk/Facility Fault report:**

- Disability access concerns still being raised by community members.
- Female change rooms – supporting women to participate in sport is of utmost importance, Briagolong Recreation Reserve has no facilities for female players or umpires to change in.
- Facility Faults Report attended to during working bee, some items left will be attended to during Cricket club working bee on 27<sup>th</sup> August.

### **10. New Rules of the Committee:**

- All members to read.

### **General Business –**

- Thankyou to Llewyn, Darren and Jake for all the lawn mowing prior to Round Robin, recreation grounds look great.
- Jenny supplied new wall calendar, all clubs to enter their own events please, located on wall upon entry to kitchen.
- Mick moved to open an account for recreation reserve fund, Seconded by Kylie, agreed by all present.
- Vanessa will send invoices to clubs for fundraising amounts of \$5,000 required for new facility, payable by end of June 2017.
- Sealer for roller door very expensive – Sean will look into alternatives.
- Mick can supply a quote for range hood in kitchen.
- Top dressing of top oval prior to Cricket season discussed. Only trouble areas identified during meeting to be worked on. Darren suggested a \$2,000 quote limit, Seconded by Kylie, agreed by all present.
- Darren will organise a dry chemical fire extinguisher for kitchen and attend to mounting all fire extinguishers with John – Briagolong Fire Brigade.
- Mardi Gras entrant discussed. Committee agreed not to pursue this fundraiser this year. Bi-monthly events to be worked upon for fundraising by Committee as a whole.

Mtg closed: 9.30 pm

**8. Next meeting:** 8<sup>th</sup> August 2016 @ 7.30pm

## Treasurers Report for meeting held August 8 2016

### Reconciled Statement for July 31 2016

Cash at Bank as at 30/06/2016 13,709.42

#### Income:

##### July

Bank Interest	0.39	
Briag Tennis Club - Rent	750	
WSC - GST return	123.77	
		<u>874.16</u>

#### Payments:

##### July

Sale & district garage doors	825	
Town and Country Locksmiths - main door lock repair	149.6	
		<u>974.60</u>

Reconciled Bank Balance to date 13,608.98

#### unpresented chq's & deposits

CFA - Extinguisher inspection	60.5	
		<u>60.50</u>

closing balance of accounts to date 13,669.48

#### Cheques to be authorised

V Randle - Kitchen floor sealer	220.25	
---------------------------------	--------	--

	<u>220.25</u>	
Balance Remaining to date...	<u>13,889.73</u>	

#### incoming correspondence:

outgoing correspondence:

Invoice to WSC - \$1,386.00 (Facilities maintenance funds)



**ITEM C5.3****ESSO BHP BILLITON WELLINGTON ENTERTAINMENT CENTRE  
ADVISORY GROUP MINUTES**

DIVISION: COMMUNITY & CULTURE  
 ACTION OFFICER: ACTING MANAGER ARTS AND CULTURE  
 DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
			✓	✓		✓		✓	

**OBJECTIVE**

To receive the minutes from the Esso BHP Billiton Wellington Entertainment Centre Advisory Group meeting held on 9 June 2016.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council receive the minutes of the Esso BHP Billiton Wellington Entertainment Centre Advisory Group meeting held on 9 June 2016.***

**BACKGROUND**

The Esso BHP Billiton Wellington Entertainment Centre Advisory Group is a Committee of Council that meets on a quarterly basis. The membership of the Esso BHP Billiton Wellington Entertainment Centre Advisory Group includes one Councillor representative, seven community members, and the Entertainment Centre Manager (ex-officio).

As provided under the Committee's Instrument of Delegation approved on 18 February 2014, the objectives and Terms of Reference of the Committee are to provide advice to the Wellington Shire Council representing equally and fairly the views, requirements and aspirations of the Centre in relation to:

- Advise Council on policies for the management and promotion of the performing arts in the Wellington Shire, in particular in relation to the Centre but also on other matters as designated by the Council.
- Develop and encourage community participation in, and utilisation of, the Centre and to assist with promoting the Centre's events and facilities to patrons and hirers.
- Advise the Entertainment Centre Manager of the Centre regarding the engagement of performances and events within the Centre's product mix.
- Liaise with the Council's art gallery and promote cooperation between the Centre and other cultural services of Council.
- Utilise networks to obtain support for the Centre, both financial and non-financial, and to assist with philanthropic support of those activities.

It is to be noted that these minutes have yet to be formally ratified by a future Advisory Group meeting and are provided for the information of Council.

## OPTIONS

Council has the following options:

1. Receive the minutes from the Esso BHP Billiton Wellington Entertainment Centre Advisory Group meeting held on 9 June 2016; or
2. Request additional information and receive the minutes from the Esso BHP Billiton Wellington Entertainment Centre Advisory Group meeting held on 9 June 2016 at a future Council meeting.

## PROPOSAL

To receive the minutes from the Esso BHP Billiton Wellington Entertainment Centre Advisory Group meeting held on 9 June 2016.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## COUNCIL POLICY IMPACT

This report is in accordance with Council Policy 5.3.2 which establishes a framework for the guidance of Council in relation to the roles and responsibilities of Committees.

## COUNCIL PLAN IMPACT

The Council Plan 2013-17 Theme 4 Infrastructure states the following strategic objective and related strategy:

Strategic Objectives

*"Asset and infrastructure that meet current and future community needs."*

Strategy 4.3

*"Manage Council community facilities planning to ensure that outputs are based on identified community needs."*

This report supports the above Council Plan strategic objective and strategy.



# Advisory Group

**Minutes**  
**Wednesday June 9th 2016 – 6:00 PM**  
**Equus Cafe**  
**Entertainment Centre**

Item	
<b>Open meeting</b>	6:00pm
<b>Present:</b>	Stephen Dwyer, Don Carmichael, Jo Clancy, Cr. Scott Rossetti, Deirdre Relph.
<b>In Attendance:</b>	Sharon Houlihan, Andrew Thomson, Stephen Dempsey, Brendan Peters, Sharon Macgowan.
<b>1. Apologies</b>	Cr. Carolyn Crossley,
<b>2. Conflict of Interest</b>	
<b>3. Approval of Previous Minutes</b>	Motion to accept minutes of previous meeting as true and correct. <i>Moved: Jo Clancy    Seconded: Don Carmichael</i>
<b>4. Business Arising</b>	There was no business arising from the previous minutes.
<b>5. General Business</b>	<p><b>1. Port of Sale Update</b></p> <p>Sharon Houlihan reported that the tender process had begun. A 'latest' concept of the landscape design was presented to the meeting. There is a preference for the outdoor cultural precinct design to create linkages between the numerous spaces.</p> <p>The extension of the café decking will not go ahead to the extent it was originally proposed.</p> <p>The Advisory Group reiterated that the intent for the deck was not to extend the café space, but to create a large open space on Foster Street that would draw visitors to stop and then expose the view and access to the Port.</p> <p>The garden bed and fencing between the Entertainment Centre and Desailly St will be replaced by terraces and seating areas.</p> <p>The Advisory Group again strongly voiced that any changes at Foster Street and the Entertainment Centre should be focused on access to the port, not the restaurant.</p> <p>There was discussion about the need to lift tree canopies to open the view to the port and access requirements for the EBBWEC loading dock.</p> <p><b>Action: Sharon H</b> to pass Advisory Group comments onto design team.  <b>Brendan</b> and <b>Sharon H</b> to meet re loading dock access.</p>

## 2. Golden Moments

Andrew advised that the "Golden Moments" series presented by Gippsland Regional Arts Sale will evolve next year to become the "Silver Sunday Matinee Series". With dwindling numbers for the mid-week morning shows G.R.A.S. has been finding funding the program very difficult. EBBWEC will commit to the new format as a cost neutral exercise to help support G.R.A.S. and their program.

## 3. Naming Rights

With the naming rights agreement with Exxon Mobil due to expire in under 18 months, the Advisory Group agreed that work on a new name and subsequent branding short start as soon as possible. After various suggestions were put forward the group recommended that "The Wedge" would be the most appropriate new name for the centre.

**MOTION:** That "The Wedge" be proposed as the preferred new name for the Ezzo BHP Billiton Wellington Entertainment Centre.

**Moved:** *Deirdre Relph*

**Seconded:** *Don Carmichael*

## 4. Centre master plan

Discussion took place in regards to the new Gallery / Library building's main entrance being at and focusing on the Port while EBBWEC's main entrance will remain on the highway. The advisory group consider it was an appropriate time to visit the future plans for EBBWEC and how the centre will fit into the new cultural hub.

**MOTION:** The Entertainment Centre Manager begin a process to develop a masterplan for the EBBWEC.

**Moved:** *Deirdre Relph*

**Seconded:** *Don Carmichael*

## 5. Air Conditioning

Deirdre reported that the temperature in the theatre and been very cold for the last few shows. Brendan informed the meeting that the A/C had suffered numerous breakdowns over the last month and believed the problem had been solved for the time being.

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<b>Meeting Closed</b>	<b>7.05 PM</b>
<b>Next meeting</b>	<b>Wednesday August 17th 2016 at 6.00pm</b>

Please call 5143 3200 or email [andrew.thomson@wellington.vic.gov.au](mailto:andrew.thomson@wellington.vic.gov.au) to RSVP.

**ITEM C5.4****COMMUNITY ENGAGEMENT STRATEGY 2016-2020**

DIVISION: COMMUNITY AND CULTURE

ACTION OFFICER: ACTING MANAGER COMMUNITY WELLBEING

DATE: 6 SEPTEMBER 2016

IMPACTS									
Financial	Communication	Legislative	Council Policy	Council Plan	Resources & Staff	Community	Environmental	Consultation	Risk Management
			✓	✓	✓	✓			

**OBJECTIVE**

To seek Council adoption of the Community Engagement Strategy 2016-2020.

**PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY****RECOMMENDATION**

***That Council adopt the Community Engagement Strategy 2016-2020 as attached.***

**BACKGROUND**

In 2011 Council's first community engagement strategy was developed by the Media and Public Relations Unit and involved extensive public consultation.

The Community Engagement Strategy 2011-2015 included a detailed action plan. The majority of this action plan was completed with an allocated resource provided to deliver the listed activity.

The current draft Community Engagement Strategy 2016-2020, reflects the intent of the 2011 Strategy and uses plain English to make it easy to understand.

The Community Engagement Strategy was released for public comment through an online survey on 21 June 2016 for a period of five weeks. Two hundred responses were received, all of which supported the intent and content of the 2016-2020 Strategy.

Some concerns were expressed whether the Strategy would be implemented by staff. To address those concerns, an Action Plan will be written to drive implementation of the strategy and allow evaluation and clear reporting of its progress.

The Community Engagement Strategy was presented to a Council Workshop on Tuesday 16 August 2016, with no changes requested.

Community engagement is the responsibility of all Council Business Units. The Community Wellbeing Unit will facilitate building the capacity of staff to engage with their community through the process documented in the strategy. However, managers and leaders will be responsible to ensure consistency in the community engagement process across the organisation.



## OPTIONS

Council have the following options:

1. Adopt the Community Engagement Strategy 2016-2020; or
2. Decline to adopt the Community Engagement Strategy 2016-2020 at this meeting and request further information from officers.

## PROPOSAL

That Council adopt the Community Engagement Strategy 2016-2020 as attached.

## CONFLICT OF INTEREST

No staff and/or contractors involved in the compilation of this report have declared a Conflict of Interest.

## COUNCIL POLICY IMPACT

An Action Plan will be developed to drive implementation of the strategy and allow evaluation and clear reporting of its progress.

## COUNCIL PLAN IMPACT

The Council Plan 2013–17 Theme 1 - Leadership and Engagement and Theme 2 – Organisational states the following strategic objective and related strategies:

Strategic Objective: Our community is informed about Council business and is involved in Council decision making. Council advocates on behalf of the community.

Strategy 1.1: Ensure sound processes are in place to facilitate input into Council deliberations and decision making.

Strategy 1.2: Maintain sound processes to inform the community about Council business.

Strategy 1.3: Council Strategies and Plans reflect the aspirations of our diverse communities.

Strategy 1.4: Relationships with key stakeholders are fostered.

Strategy 1.5: Advocate on the community behalf to State and Federal agencies, the private sector and industry on a range of issues relevant to Wellington Shire Council.

Strategic Objective: An organisation that is responsive, flexible, honest, accountable and consistent.

Strategy 2.3: Ensure sound governance processes that result in responsive, ethical, transparent and accountable decision making.

This report supports the above Council Plan strategic objectives and strategies. It is a key document which has impact on the success of all areas of Council business.

## RESOURCES AND STAFF IMPACT

It is the role of the Community Engagement Officer to work with community and Council officers to increase capacity for effective community engagement in all business areas.

A Community Engagement Focus Group will be facilitated by the Community Engagement Officer from 36 public nominations received from the online survey.

An internal Community Engagement Working Group meets periodically to approve the Action Plan and monitor/evaluate progress.

## ATTACHMENT A



*Tell me, I forget.  
Show me, I remember.  
Involve me, I understand.*  
- Chinese proverb

Wellington Shire Council is committed to genuine and effective community engagement in council planning and decision making. Good engagement allows the Council and those with whom it engages to understand wider perspectives and aspirations of communities and to look at alternative solutions. Community Engagement processes also provide the basis for productive relationships, improved dialogue and deliberation, and ultimately, better democracy.

This Community Engagement Strategy applies to Council Officers and those working within Wellington Shire Council who need to consider community engagement.

Alongside this strategy sits a set of tools to assist Council staff in planning, preparing, implementing and reporting on community engagement processes.

Wellington Shire is home to over 40,000 people who live across more than 30 communities that range in size from a handful of people to 14,000 in the major centre of Sale. The needs of all of these people and communities differ.

In 2010, over 1800 Wellington Shire residents and ratepayers provided input into the development of Council's first Community Engagement Strategy 2011-2015. Appendix A - Community Consultation Findings Report contains additional detail on the extensive consultation process undertaken. It was the most comprehensive consultation that Council has carried out and, in reviewing the Strategy for 2015 – 2018, it was recognised that two of the key learnings were still particularly relevant and in need of further work by Council:

1. Closing the feedback loop in community engagement processes, and
2. The development of consistent community engagement practices across the organisation.

DRAFT Community Engagement Strategy 2016- 20 V11

## What is community engagement?

The International Association for Public Participation (IAP2), the recognised international leader in community engagement, provides the following definition: **Community engagement is 'any process that involves the public in problem solving or decision making and uses public input to make decisions'.**

Depending on the situation engagement can be formal or informal, direct or indirect, within the community or within the organisation.

IAP2 has developed *core values* for community engagement, which Council has adopted and are committed to using in the development and implementation of community engagement processes.

### Community engagement does:

1. Assume that the public have a right to be involved in decisions about actions that could affect their lives.
2. Include the promise that the public's contribution will influence the decision.
3. Promote sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.
4. Seek out and facilitate the involvement of those potentially affected by or interested in a decision.
5. Seek input from participants in designing how they participate.
6. Provide participants with the information that they need to participate in a meaningful way.
7. Communicate to participants how their input will affect the decision.

DRAFT Community Engagement Strategy 2016- 20 V11

## Community engagement does not:

1. Take away decision making powers from councillors or the organisation. It adds value to the process by increasing the understanding of the issues.
2. Involve gaining community input where a decision has already been made or where the community cannot effectively influence a final decision.
3. Engage on matters that are outside the scope of influence of the community. Constraints, limitations and non negotiables will be made clear from the start.
4. Involve a process that expects participants to agree. Instead, it is an open process that creates opportunities to explore and discuss options, alternatives, needs and requirements, problem solve and reach consensus.
5. Apply a rigid model or approach to every project. Community engagement must be flexible, open and responsive, and should be tailored to each project.

## Why is Community Engagement important for Council?

It is now widely recognised that community engagement is an effective way of doing business, leading to better outcomes for the organisation and community.

As our primary approach in working externally and internally, Council:

- Enables our community to work together and respond on issues that matter to them.
- Provides opportunity to build stronger relationships between Council and the community it serves.
- Builds on the communities understanding of council's role and responsibilities as well as our financial and legislative requirements.
- Improves outcomes through the early identification of issues.
- Improves the quality of service delivery and policy development, to ensure they reflect the needs, interest and values of community.

DRAFT Community Engagement Strategy 2016- 20 V11



## The objectives of the Community Engagement Strategy

The objectives of the Community Engagement Strategy are to:

- Ensure all staff have an understanding and is aware of the commitment by Council to involve the public in the decision making process about issues that affect them.
- Ensure all Wellington Shire Council staff operate under the same code of conduct and set of guiding principles thereby bringing consistency and understanding to any community engagement process.
- Embed a consistent approach to community engagement across the organisation by providing guides, tools and training to all staff.

## Who do we engage with?

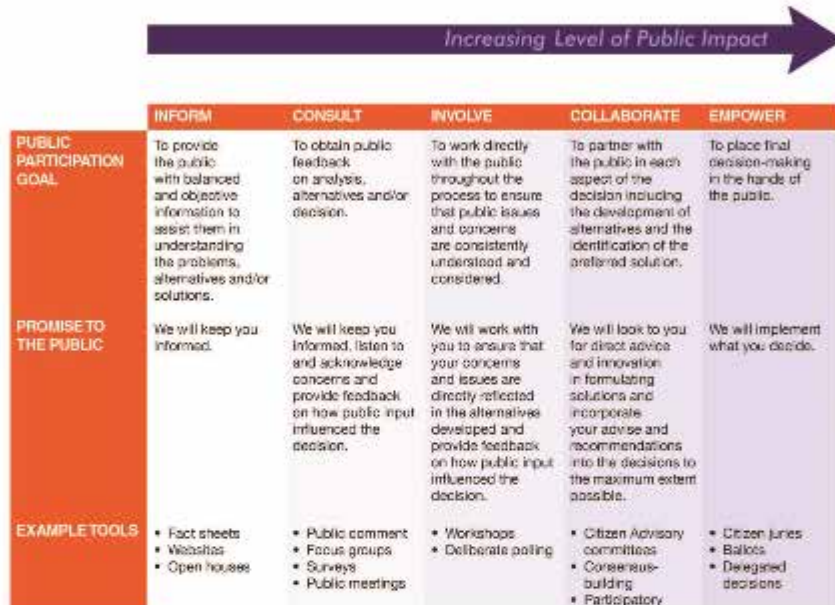
To ensure that all voices are heard on a given topic, it is important that Council is mindful of the varying communities of interest that may be impacted by a decision.

The table below identifies the different subgroups Council engages with:

<p><b>Community Stakeholders</b></p> <p>Those identified as being directly affected by the decision or those with an interest in a plan, project or decision made by Council.</p>	<p><b>Community Groups and Organisations</b></p> <p>Those that provide a local service, work directly with community groups and organisations representing the views of their sector including sporting groups, special interest groups, place based interest groups and Community Planning Groups.</p>	
<p><b>Council Staff</b></p> <p>Anyone who is involved in community engagement activities including Councillors, council management and officers, contractors and consultants associated with Council.</p>	<p><b>Government and Non Government Agencies</b></p> <p>Including health, education, aged care, family services, emergency services, various government departments, youth, disability services, child support services and Aboriginal services.</p>	<p><b>Funding Partners</b></p> <p>Organisations that provide sponsorship or funding to support the delivery of programs, services, capital projects and other initiatives.</p>
<p><b>Community</b></p> <p>The people who live within the shire including individuals that work, visit and invest in the municipality. The general public includes residents, ratepayers, land owners, service users, workplace communities, ethnic and religious communities, Aboriginal communities, age based groups, people with a disability and those who have an interest in Wellington Shire Council.</p>		<p><b>Industry and Business Stakeholders</b></p> <p>Those that are in a business or are involved in an industry which is directly affected or have an interest in Council decisions, projects and plans.</p>

The IAP2 Public Participation Spectrum developed by the International Association for Public Participation gives an indication of the methods and circumstances by which an engagement process with the community will be undertaken.

iap2 public participation spectrum  
developed by the international association for public participation



<b>Role of the Community</b>	Listen	Contribute	Participate	Partner	Decide
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Decision making in local government is the responsibility of elected Councillors. Councillors by the very nature of the Local Government Act 1989 are ultimately responsible for the decisions of Council and to that end are unable to assign full decision making responsibilities to non-elected individuals. Wellington Shire Council believes that our community is able to experience the ultimate level of 'empower' ( or empowerment) possible in this context, when it elects Council every four years.

Council engagement will therefore be focussed in four out of the five IAP2 engagement levels – inform, consult, involve and collaborate. In all engagement processes Council will be clear in naming the level of engagement that will be used.

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## Levels of engagement examples

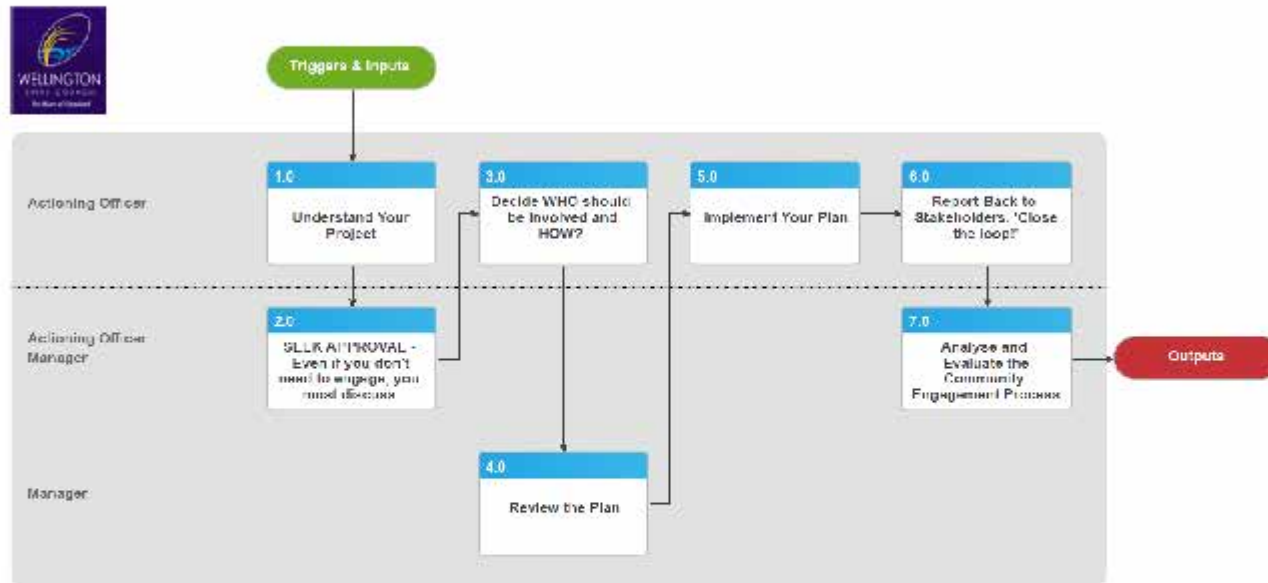
Different issues and situations will call for different engagement methods.

The table below shows examples of the different Levels of Engagement (and associated engagement tools) in past Council projects.

Level of Engagement	Wellington Shire Council Project Examples	Examples of Tools and Techniques
Inform	<ul style="list-style-type: none"> <li>Thomson River Caravan Park</li> <li>Ninety Mile Beach Plan</li> <li>Emergency Events</li> <li>Annual Fire Prevention Inspections</li> <li>Hard waste collection schedule</li> </ul>	<ul style="list-style-type: none"> <li>Wellington Matters</li> <li>Wellington News</li> <li>Council's social media channels; Facebook and YouTube</li> <li>Letters and email</li> <li>Media and community newsletter releases, articles and interviews</li> <li>Council website</li> <li>Public meetings</li> </ul>
Consult	<ul style="list-style-type: none"> <li>Council budget</li> <li>King George V Jubilee Avenue restoration</li> <li>Community Engagement Strategy development</li> <li>Boisdale Sewerage Scheme</li> <li>Open Space Plan</li> </ul>	<ul style="list-style-type: none"> <li>Survey</li> <li>Social media questions</li> <li>Seek public submissions and information</li> <li>Focus groups</li> <li>Have your say online forum</li> <li>Shopping centre displays</li> </ul>
Involve	<ul style="list-style-type: none"> <li>Yarram Hub development</li> <li>Cultural Hub development</li> <li>Agricultural Position Paper</li> <li>Australia Day Awards</li> <li>Port Albert Lifestyle Lots Review</li> </ul>	<ul style="list-style-type: none"> <li>Project steering group</li> <li>One on one information and discussion sessions</li> <li>Round Table discussions</li> <li>Neighbourhood meetings</li> </ul>
Collaborate	<ul style="list-style-type: none"> <li>Briagolong Town Tree Plan</li> <li>Sale Livestock Exchange refurbishment</li> <li>Recreation Reserve Masterplans</li> <li>Community Plans</li> <li>Town entry sign statements</li> <li>Healthy Wellington</li> </ul>	<ul style="list-style-type: none"> <li>Public meetings</li> <li>Project steering groups</li> <li>Working groups/special interest/user groups such as Community Planning Groups</li> </ul>
Empower	<ul style="list-style-type: none"> <li>Council Elections</li> </ul>	<ul style="list-style-type: none"> <li>Democratic Vote</li> </ul>

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### Wellington Shire Council Community Engagement Process



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## **Keeping community engagement at the front of Council activity**

A toolkit and a four year action plan will support the delivery of genuine and effective community engagement across council. The Community Engagement Steering Group, made up of representatives from a range of council business units, community groups and individual community members will meet on a quarterly basis to monitor progress within the action plan and add to the toolkit.

Essential to the successful implementation of the strategy will be the training and development of Council staff in the processes of community involvement.

## **Used in the development of this strategy we recognise the work of:**

- Launceston City Council
- Engaging Canberrans: A guide to community engagement
- Warringah Council Community Engagement Strategy 2011

DRAFT Community Engagement Strategy 2016- 20 V11





**D. URGENT BUSINESS**



**E. FURTHER GALLERY AND CHAT ROOM COMMENTS**



**F. CONFIDENTIAL ATTACHMENT/S**

**F. CONFIDENTIAL ATTACHMENT/S**

**ITEM F1.1 DRAFT CONTRACT OF EMPLOYMENT - CHIEF EXECUTIVE OFFICER  
(REFER TO ITEM C2.3)**

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**ORDINARY COUNCIL MEETING  
6 SEPTEMBER 2016**

On this 29 day of August 2016, in accordance with Section 77 Clause (2)(c) of the *Local Government Act 1989*; I, Arthur Skipitaris declare that the information contained in the attached document **ITEM F1.1 DRAFT CONTRACT OF EMPLOYMENT – CHIEF EXECUTIVE OFFICER** is confidential because it relates to the following grounds under Section 89(2) of the *Local Government Act 1989*:

**d) contractual matters**



.....  
**Arthur Skipitaris General Manager Corporate Services**



**ORDINARY COUNCIL MEETING  
6 SEPTEMBER 2016**

On this 9 day of August 2016, in accordance with Section 77 Clause (2)(c) of the *Local Government Act 1989*; I, Chris Hastie declare that the information contained in the attached document **ITEM F1.2 PLACE NAMES COMMITTEE REPORT** is confidential because it relates to the following grounds under Section 89(2) of the *Local Government Act 1989*:

- h) any other matter which the Council or special committee considers would prejudice the Council or any person;**



.....  
**Chris Hastie General Manager Built and Natural Environment**

**ITEM F1.3 2016-012 KILMANY LANDFILL WORKS TENDER AWARD (REFER TO ITEM C4.2)**

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**ORDINARY COUNCIL MEETING  
6 SEPTEMBER 2016**

On this 26 day of August 2016, in accordance with Section 77 Clause (2)(c) of the *Local Government Act 1989*; I, Chris Hastie declare that the information contained in the attached document **ITEM F1.3 2016-012 KILMANY LANDFILL WORKS TENDER AWARD** is confidential because it relates to the following grounds under Section 89(2) of the *Local Government Act 1989*:

d) *contractual matters*



.....  
**Chris Hastie General Manager Built and Natural Environment**





**G. IN CLOSED SESSION**

**G. IN CLOSED SESSION**

**COUNCILLOR**

*That the meeting be closed to the public pursuant to Section 89(2) of the Local Government Act 1989 to consider:*

- a) personnel matters*
- b) the personal hardship of any resident or ratepayer*
- c) industrial matters*
- d) contractual matters*
- e) proposed developments*
- f) legal advice*
- g) matters affecting the security of Council property*
- h) any other matter which the Council or special committee considers would prejudice the Council or any person*

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**IN CLOSED SESSION**

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**COUNCILLOR**

**That:**

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**That:**

*That Council move into open session and ratify the decision made in closed session.*