WELLINGTON
SHIRE COUNCIL
The Heart of Gippsland

Council Meeting Agenda

Meeting to be held at

Port of Sale Business Centre

Foster Street, Sale

Tuesday 5 December 2017, commencing at 3pm

or join Wellington on the Web:
www.wellington.vic.gov.au

ORDINARY MEETING OF COUNCIL – 5 DECEMBER 2017

AGENDA & TABLE OF CONTENTS

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:	5 DECEMBER 2017

OBJECTIVE

To adopt the minutes of the Ordinary Council Meeting of 21 November 2017.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That Council adopt the minutes and resolutions of the Ordinary Council Meeting of 21 November 2017.

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: 5 DECEMBER 2017

ITEM	FROM MEETING	COMMENTS	ACTION BY
NIL			

A - PROCEDURAL

A9 INVITED ADDRESSES, PRESENTATIONS OR ACKNOWLEDGEMENTS

ITEM A9(1) **ANNUAL REPORT OF AUDIT & RISK COMMITTEE CHAIRPERSON**

DIVISION: CORPORATE SERVICES

ACTION OFFICER: GENERAL MANAGER CORPORATE SERVICES

DATE: 5 DECEMBER 2017

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

OBJECTIVE

For Council to receive a verbal presentation of the Annual Chairperson's Report by Peter Craighead, Chairperson of the Audit & Risk Committee.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That Council receive a verbal presentation of the Annual Chairperson's Report by Peter Craighead, Chairperson of the Audit & Risk Committee.

BACKGROUND

Under the Audit & Risk Committee Charter, the Committee shall report annually to the Council summarising the activities of the Committee during the previous financial year. This is traditionally done as a written report to the Committee at the August meeting, the minutes of which are then presented to Council.

At the Audit & Risk Committee meeting on 15 September 2017 it was agreed that the Chairperson would attend the next available Council meeting and present his report verbally. A copy of the report provided to the Audit & Risk Committee is attached.

OPTIONS

Council has the following options:

1. Receive a verbal presentation of the Annual Chairperson's Report by Peter Craighead, Chairperson of the Audit & Risk Committee; or
2. Not receive a verbal presentation of the Annual Chairperson's Report by Peter Craighead, Chairperson of the Audit & Risk Committee.

PROPOSAL

That Council receive a verbal presentation of the Annual Chairperson's Report by Peter Craighead, Chairperson of the Audit & Risk Committee.

CONFLICT OF INTEREST

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

AUDIT & RISK COMMITTEE CHAIRMAN'S REPORT
For the period ended 30 June 2017

In accordance with the Charter of the Audit & Risk Committee the following report is presented on the activities of the Committee for the period ended 30 June 2017.

The composition of the Committee over the financial year ended 30 June 2017 was as follows:

Peter Craighead
Alan Hall (resigned as independent member from 5/11/16)
Joel Churchill
Chris Badger (appointed 7/12/16)
Councillor Peter Cleary (term expired 22/10/16)
Councillor John Duncan (term expired 22/10/16)
Councillor Alan Hall (term commenced 6/12/16)
Councillor Garry Stephens (term commenced 6/12/16)

The Audit & Risk Committee met four times during the period and the meetings covered a wide scope of audit and risk issues, including the following:-

- Draft Financial and Performance Statements 2015/16
- Council Representation Letter
- Management Letter – Interim Financial Audit 2015-16
- Closing Report 2015-16 and Final Management Letter 2015-16
- Internal Audit Reports –
  - ~ Business Continuity Planning and Disaster Recovery Review
  - ~ Reputation Management
  - ~ Follow-up of Agreed Actions from Prior Year Internal Audit Reports
  - ~ Occupational Health and Safety
- Status of Audit Recommendations – standard item
- Related Party Transactions
- Audit Strategy Year ending 30 June 2017
- Council Quarterly Performance Report
- Draft Annual Report 2015/16
- Chairman's Report for period ending 30 June 2016
- Audit Committee Membership
- Strategic Internal Audit Plan 2016/17
- Review of Risk Strategy
- Evaluation of Audit & Risk Committee Performance
- Financial Report
- Fraud Report
- Draft Budget 2017/18
- 2017-21 Draft Council Plan
- Remuneration of Audit & Risk Committee Independent Members
- Review of Audit & Risk Committee Charter and Change of Committee Name
- Auditor-General's Reports –
  - ~ Local Government Service Delivery: Recreational Facilities
  - ~ Audit Committee Governance
  - ~ Financial Systems Controls Report: 2015-16
  - ~ Local Government: 2015-16 Audit Snapshot
- Investment, Risk Management and Procurement Policies
- Pending Accounting Standards and Changes to Accounting Policies
- Register of Commissioned Reports – standard item
- Sale Livestock Exchange – standard item

- Road Management Act Processes – Annual Update
- Current Key Risk Matters – standard item
- Ombudsman's Report: Misuse of Council Resources
- Excessive Staff Leave – standard item
- Risk Report – standard item

Audit & Risk Committee members were also invited to attend the Budget Review Workshop with Council on 21 March 2017.

The Audit & Risk Committee plays an important role in providing oversight and advice to Council on many high risk operational functions and issues.

As Audit & Risk Committee Chairman I would like to express my appreciation to the Audit & Risk Committee members for their diligence and professionalism in attending to the broad range of issues dealt with throughout the year.

PETER CRAIGHEAD
Chairperson

A - PROCEDURAL

A10 QUESTIONS ON NOTICE

B –REPORT

DELEGATES

DELEGATE REPORT B1 **GIPPSLAND CLIMATE CHANGE NETWORK ANNUAL REPORT 2016-17**

OFFICER: COUNCILLOR DARREN McCUBBIN

DATE: 5 DECEMBER 2017

RECOMMENDATION

That the delegates report be noted.

2016-2017
ANNUAL REPORT

Gippsland Climate Change Network

CONTENTS

OUR MISSION

To provide Gippslanders, at an individual and organisational level, with information, consultation and facilitation to enable action on climate change, whilst also providing a voice for Gippsland on climate change matters.

OUR VISION

That Gippsland, as a region, is able to mitigate the effects of climate change where possible and is empowered to adapt to the effects of climate change where necessary.

OUR HISTORY

Formed in 2007 the Gippsland Climate Change Network Inc. (GCCN) has delivered a range of local projects and provided support for climate change modification. GCCN provides feedback for many local council policies and projects and has worked with support from the Gippsland Waste and Resource Recovery Group.

A key deliverable was the Gippsland Low Carbon Growth Plan 2012 developed by Climate Works in 2011.This plan identified a range of potential emission reduction options across the Gippsland region some of which are still being implemented today.

SECTION 1: GIPPSLAND CLIMATE CHANGE NETWORK - AN OVERVIEW

ABOUT US

Key Objectives

The agenda of the GCCN is summed up in three words; Informing, Connecting, Acting.

Within these themes the GCCN will focus on the following objectives.

Informing

- Accelerate awareness of the cause and impact of rising atmospheric temperatures
- Provide objective and independent advice on regional GHG issues to all levels of government
- Report against regional progress towards mitigation and adaptation projects

Connecting

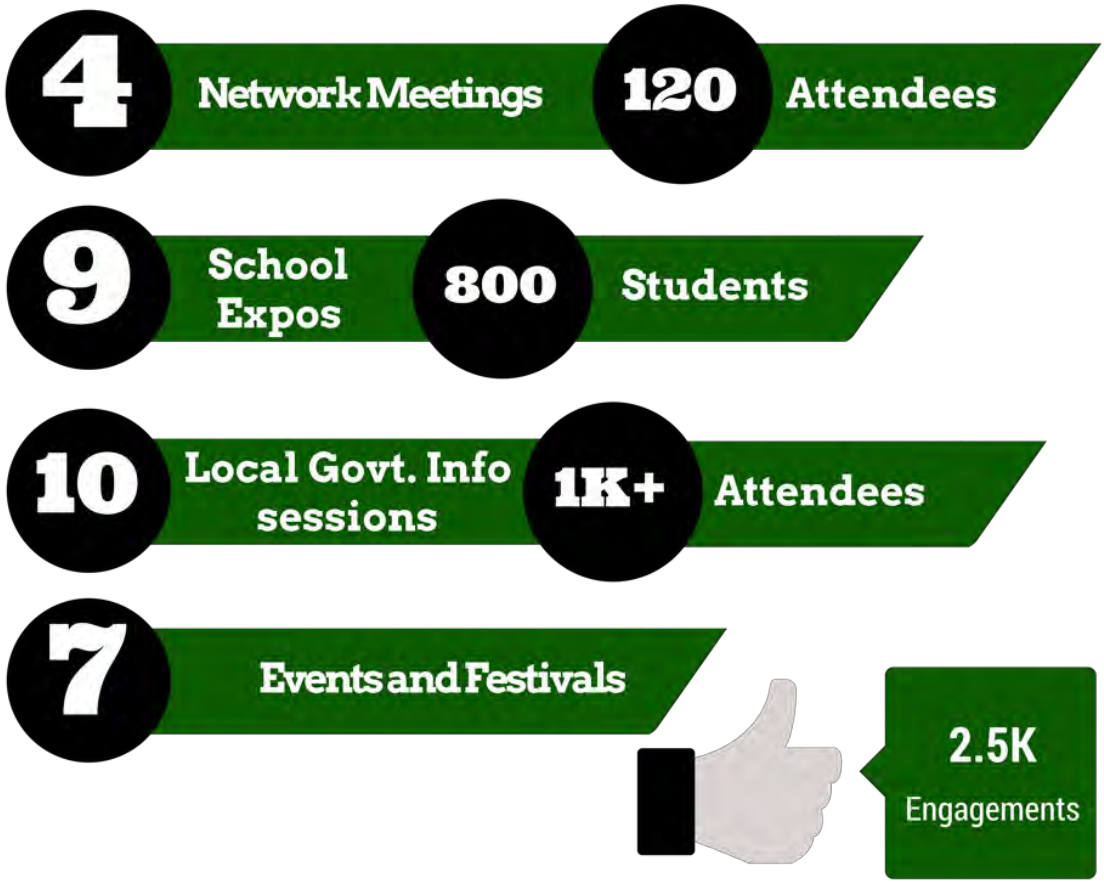
- Facilitate the development of mitigation and GHG targets
- Facilitate collaboration between organisations and individuals in the adaption to climate change
- Provide key links between citizens organisations and local government in implementing mitigation
- Embed the connection between climate research science and regional planning

Acting

- Urge action by regional government, community and industry to reduce emissions
- Commission external advice and assistance to deliver projects and programs in adaptation and mitigation action in Gippsland
- Develop recommendations and regional climate research priorities and facilitate the development of research projects and implement findings

Supported Projects

- Worked with local councils to deliver LED street lighting projects thereby reducing GHGs and creating substantial savings in electricity
- Developed the Sustainability Gippsland website with South Gippsland Shire
- Instrumental to allow regional councils to apply to the Melbourne Sustainability fund for the development of Environmental Upgrade Agreements
- Supported the Resource Smart School Program
- Delivered the leadership program for Sustainability in Gippsland in 2014/15
- Delivered the Gippsland waste streams and biomass feasibility study with researcher Mark Glover 2016/17
- Supported workshops and tour of Gippsland by Community Energy activist Soren Hermansen from Denmark
- Developing the Community Power Hub projects in conjunction with Sustainability Victoria in Wellington, Latrobe and Baw Baw council areas
- Tendered for the 1000 Homes project with the Latrobe Valley Authority
- "Virtual CC Centre" project design for DELWP funding – current
- Upgrades to GCCN website
- Provided many experts to the network meetings



OUR PEOPLE

Patron

Keith Hamilton Former Member for Morwell MLA

Board members/Trustees

Name	Position	Dates acted
Darren McCubbin	Chair	2014 to 2017
Neil Rankine	V Chair	2013 to 2017
Ian Southall	EO and Member	2014 to 2017
Chris Barfoot	Project Officer and Member	2016 to 2017
Andrea Klindworth	Member	2015 to 2017
Bernard Rowley	Member	2009 to 2017
Scott Feraro	Member	2009 to 2017
Liz Clay	Member	2010 to 2017
Ashley Hall	Member	2013 to 2017
Tony Wolfe	Member	2014 to 2017
Rod Horton	Member	2015 to 2017
Lorraine Bull	Member	2016 to 2017
John Lawrence	Contractor /Advisor	2016 to 2017

PARTICIPATING ORGANISATIONS

- **Local Government**
  - Bass Coast Shire Council
  - Baw Baw Shire Council
  - East Gippsland Shire Council
  - South Gippsland Shire Council
  - Wellington Shire Council
  - Latrobe City Council

- **State Government**
  - Dept of Education and Early Childhood Development
  - Dept of Environment, Land, Water and Planning (DELWP)
  - Environmental Protection Authority (EPA)
  - Sustainability Victoria (SV)
  - Regional Development Victoria
  - Regional Development Australia
  - Parks Victoria
  - East Gippsland Catchment Management Authority
  - West Gippsland Catchment Management Authority
  - East Gippsland Water
  - Gippsland Water
  - Southern Rural Water

- **Community Groups**
  - Baw Baw Sustainability Network
  - Latrobe Valley Sustainability Group
  - ComMet (South Gippsland Bass Coast Sustainability)
  - East Gippsland Sustainability Networks
  - Wellington Renewable Energy Network (WREN)
  - C4CE
  - Voices of the Valley
  - Gippsland Integrated Natural Resource Forum
  - Gippsland Regional Waste Management Group
  - Greening Australia (Victoria)
  - Berry Street
  - Agribusiness Gippsland Incorporated
  - Energy Innovation Cooperative
  - Heyfield Community Resource Centre
  - Anglicare Gippsland
  - Mirboo North Community Energy Hub

- **Corporate**
  - Bank Australia
  - Bendigo Bank
  - Vic Super
  - Australian Paper
  - Aus Net Services

- Gippsland Solar
- AGL
- Energy Australia
- C4G
- Earth worker Co/op Ltd

- **Unions**
  - Australian Manufacturers Workers Union
  - Construction, Forestry, Mining & Energy Union
  - Gippsland Trades and Labour Council

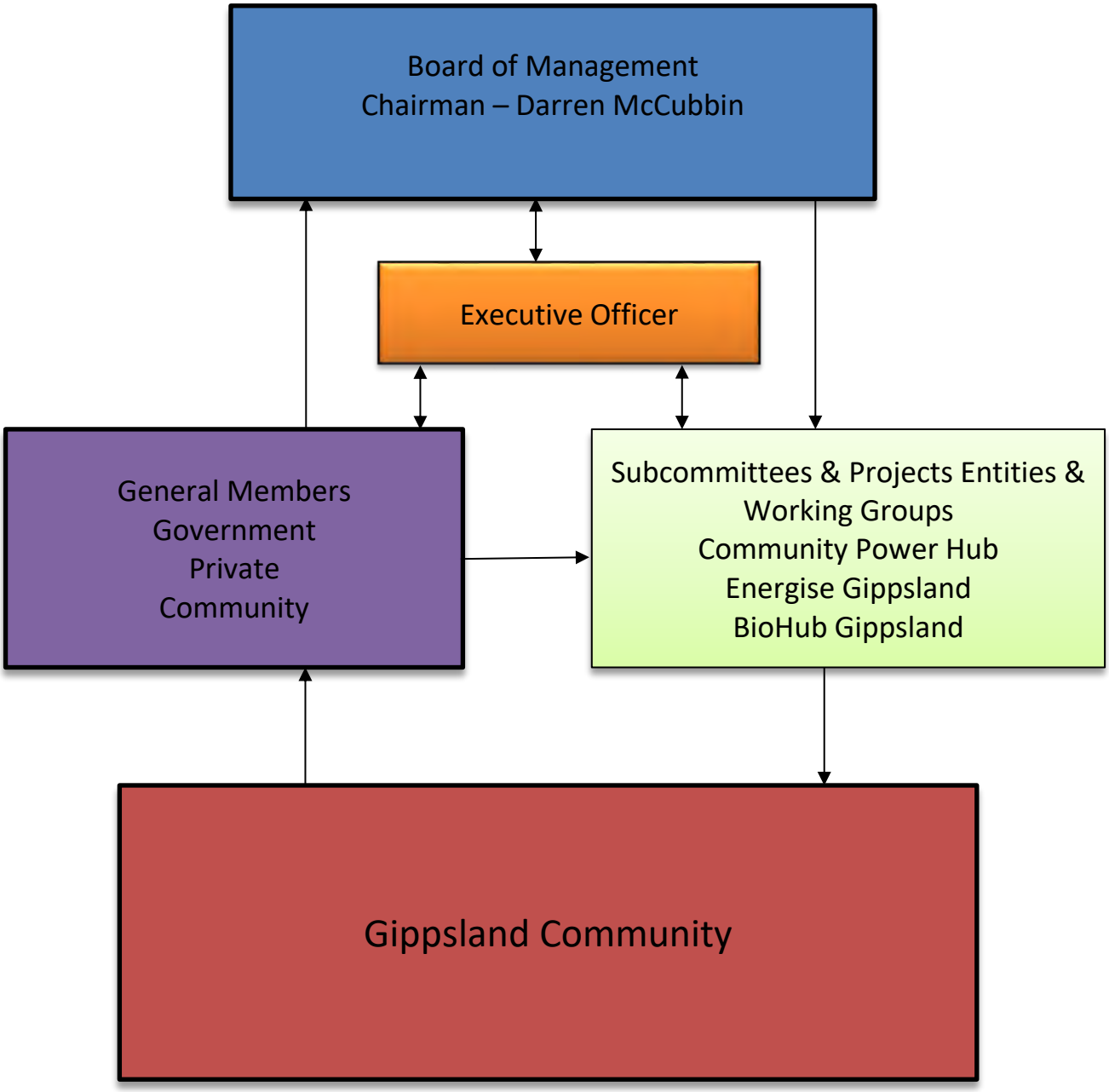
- **Education Providers**
  - Federation Training
  - Federation University
  - Melbourne University
  - GEST
  - Community College Gippsland
  - U3A
  - RCE
  - Powerworks
  - LLENS in Gippsland
  - Private Providers

- **Others**
  - Energy Efficient Strategies
  - AG Vet Energy
  - GHD consultants

Figure 1: At the Australian Youth Climate Coalition (AYCC) Switched on Schools Summit. Photo Credit: RCE Gippsland

SECTION 2: GOVERNANCE

STRUCTURE & MANAGEMENT



CHAIRPERSON'S REPORT

2017 was a defining year for the Gippsland Climate Change Network. It begun with a Gippsland tour by international Climate expert Soren Hermansen as part of the Community Energy Congress in Melbourne. His talk and workshops were well attended and introduced us to many new community volunteers.

Four network meetings and a variety of battery storage workshops around Gippsland developed a local appetite for the Community Power Hub Pilot Program which we were awarded later in the year. This exciting State Government initiative will develop local expertise in renewable energy and at least one landmark project. We have an excellent CPH Program Officer appointed in Chris Barfoot and will shortly have a Roundtable Advisory Group to guide the program over the next two years.

GCCN also completed an extensive study on a Gippsland Biohub Project exploring the opportunity to advance the Gippsland region's potential in the emerging Bio Economy using consultant Mark Glover and a team of local stakeholders led by board member Andrea Klindworth. We are currently working on the next steps in commercialising the results of the study. We have also sponsored a successful Sustainability Education Day in Warragul and several demonstrations and events around Gippsland.

As part of our mandate for connecting local community groups we have been part of many roundtables, consultations, funding sessions and discussions including joining with the broader Greenhouse Alliances. I would like to especially thank the opportunity to work closely with the Baw Baw Sustainability Network, the Latrobe Valley Sustainability Group, Voices of the Valley and the new Wellington Renewable Energy Group as well as the dedicated Sustainability officers at all our local Governments. I think our greatest value is the ability to assist with bringing together the very best innovators of Gippsland working together for a common goal. We are stronger together.

The Board has worked hard over the past twelve months developing many exciting funding opportunities including a difficult bid for the 1000 Homes retrofit. We have also done an extensive review of our operations and embarked on a wide-reaching strategy plan that will create a roadmap for our future. We realise we must become more professional, communicate better and improve our responsiveness to our stakeholders. I would like to thank the Board and our Executive Officer, Ian Southall for their fantastic work through the year.

I would especially like to thank Luke Wilkinson, Greg Hunt and the staff at Sustainability Victoria with Ashley Hall at DELWP for their kind advice and support through 2017. And finally thank you to the many community volunteers who devote countless hours so that we can create a better more sustainable planet. Thank you for supporting us.

Darren McCubbin,

Chair
Gippsland Climate Change Network

EXECUTIVE & PROJECT OFFICER'S REPORT

Overview of Activities

Since taking on the role of Executive Officer for the gccn in October 2016 I have embarked on a progressive program of climate related mitigation and adaptation activities for the GCCN, from the development of the Community Energy sector in Gippsland with well attended sessions for stakeholders and communities, including Soren Hermansen's visit to Gippsland, to working more closely with Local Government Sustainability Officers and the Greenhouse Alliance Network. We have also had several funding opportunities with DELWP and the Latrobe Valley Authority, plus a number of Transition projects and sessions. I would like to thank Ashley Hall and the team at DELWP their guidance and support.

We have embarked on Community Energy projects under the banner of Latrobe Valley Community Power Hubs (CPH LV) for SV with Wellington, Latrobe and Baw Baw Shire Councils. I am working with South Gippsland Shire Council and ComMet, East Gippsland Shire Council in climate change activities, and working with DELWP on solar for community buildings and Local Government. I have attended many conferences and meetings in Melbourne for the Alliances and Sustainability Victoria on behalf of the Gippsland Climate Change Network.

Administration

Administration work has included minutes and reports for the board, organising strategic planning for GCCN, assisting the Chair in the organisation of board meetings papers. Other work has included completing the 1000 Home submission, developing the CPH LV and undertaking community engagement. While the office support from DELWP is valued some future planning is needed to ensure that the GCCN has a dedicated space for its operations into the future as more projects and programs come online.

Network Meetings

The GCCN conducted four network meetings during the year, including a tour of the Bio Gas system at the sewerage works in Bairnsdale for the East Gippsland Shire Council and East Gippsland Water, it was very well attended. We hosted Soren Hermansen from Denmark, Peter Maruff from Ausnet Services. Earlier this year over 120 people attended a forum to hear about a transitioning from coal based energy to renewables from Justin Maxson and Lisa Abbott from Kentucky USA. Australian Environmental Grantmakers Network (AEGN) also presented on environmental grant opportunities in Australia.

Database

I am currently working with Web Threads to create a user-friendly stakeholder database to enhance our online communication capacity.

Website and Social Media

I have been working with Web Threads to develop and deliver a new, upgraded GCCN website at http://gccn.net.au/.

The development of the CPHLV website will be a joint effort from Bendigo, Ballarat and Latrobe Regions. We are working on simplified social media platform alongside Sustainability Gippsland and considering the appointment of a social media person for CPHLV in future.

GCCN will be looking to use social media and other internet based communications to maintain a visible presence online.

Thank You

To the executive and board for their support and due diligence for the Gippsland Climate Change Network in all the projects we have undertaken.

Ian Southall,

Executive & Project Officer
Gippsland Climate Change Network

Figure 2: Renewable Energy Trailer at the Mirboo North Community Energy Hub Expo. Photo Credit: Ian Southall

SECTION 3: OUR FINANCES

TREASURER'S REPORT

The previous year was about consolidating our financial position, improving our accounting systems and maintaining our operations within a limited income stream.

The Board moved from a full time Executive Officer to a casual position with consultants being employed for particular projects.

It is very important for the ongoing viability of the Network that funding be found for the core operations and we have been working on a value proposition for local Government as well as investigating opportunities for State Government funding through the Greenhouse Alliances.

The Board has also been investigating a method of capitalising on renewable energy investment through a not for profit company.

The new Board will need to focus on finding a source of reliable future funding

Treasurer
Gippsland Climate Change Network

AUDITOR'S REPORT 2016

JIM JOHNSON & ASSOCIATES PTY LTD

ABN 44 071 949 034

CERTIFIED PRACTISING ACCOUNTANTS

48 Albert Street
Warragul
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PO Box 1354
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TO THE COMMITTEE MEMBERS OF THE GIPPSLAND CLIMATE CHANGE NETWORK INC

Scope

We have audited the Financial Statements, consisting of income and expenditure statements and associated schedules of the GIPPSLAND CLIMATE CHANGE NETWORK INC for the year ended 30th June 2016 as set out in the attached pages of the Financial Report.

The members of the Association are responsible for the preparation and presentation of the financial statements and the information contained therein. We have conducted an independent audit of the financial statements in order to express an opinion on them to the members.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the accounts are free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, these financial statements are presented fairly in accordance with Australian Accounting Standards and other professional reporting requirements, so as to present a view of the entity which is consistent with our understanding of its financial position and the results of its operation.

The audit opinion expressed in this report has been formed on this basis.

Auditor's responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We have conducted our audit in accordance with Australian auditing standards. Those standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance that the financial report is free from material mis-statement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material mis-statement of the financial report that presents fairly in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the members as well as evaluating the overall presentation of the financial report.

AUDITOR'S REPORT 2017

JIM JOHNSON & ASSOCIATES PTY LTD

ABN 44 071 949 034

CERTIFIED PRACTISING ACCOUNTANTS

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Jim Johnson FCPA **John Mecklenburgh** BCom (Acc) CPA

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence

In conducting our audit, we have complied with the independence requirements of the Australian professional accounting bodies.

Opinion

In our opinion, the financial report of GIPPSLAND CLIMATE CHANGE NETWORK INC gives a true and fair view of the GIPPSLAND CLIMATE CHANGE NETWORK INC financial position as at 30th June 2017, and of its financial performance and its cash flows for the year then ended on that date and complies with Australian accounting standards to the extent described in the financial reports.

Basis of accounting and restriction on distribution

Without modifying our opinion, we draw attention to the financial report, which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the members financial reporting responsibilities under the constitution and the *Associations Incorporation Reform Act 2012*. As a result, the financial report may not be suitable for another purpose.

JIM JOHNSON & ASSOCIATES PTY LTD
Certified Practising Accountants

JIM JOHNSON FCPA 8/11/17

Figure 4: Phillip Island feeling the effects of climate change 2016. Photo Credit: Neil Rankine

Figure 3: RCE Sustainable Schools Expo Warragul 2017.

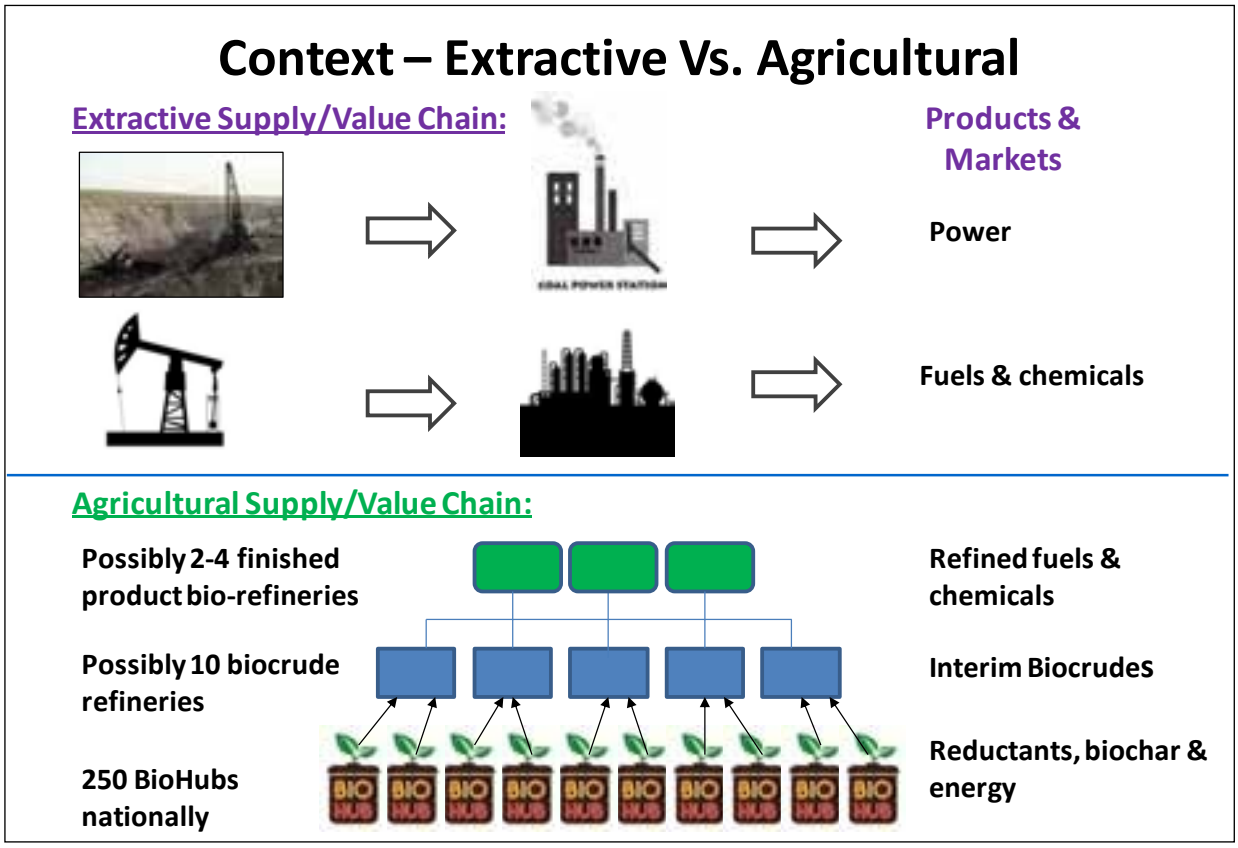
SECTION 4: PROJECT REPORTS

BIOHUB REPORT

During 2017 financial year, the GCCN successfully completed the Gippsland Biohubs Scoping Study. The study was made possible with funding from the state government through the New Energy Jobs Fund. GCCN contracted Eco Waste consultant Mark Glover to undertake the work. The study identified potential to add value to agricultural waste. Mark consulted widely with stakeholders to determine the quantity and quality of agricultural and urban bio waste streams in Gippsland. He then matched bio waste streams to higher value end uses, conversion technologies and potential end markets. A preliminary financial assessment identified a promising project for future development.

A BioHub project is proposed for the Macalister Irrigation District. The project would convert dairy waste into power and fertilizer. The report provides important information to support investment in renewable energy and fuel projects that contribute to lower carbon emissions. It expands upon previous information for Gippsland provided in the report Fuelled for Growth: Investing in Victoria's biofuels and bioenergy industries (State Government Victoria).

The GCCN acknowledges the following organisations for their wisdom and support given as members of the Project Reference Group: Powerhouse, Gippsland Waste and Resource Recovery Group, Gippsland Water, Federation University and Australian Paper.



COMMUNITY POWER HUB REPORT

The Victorian Government has made a commitment to support community energy projects as part of their plan to accelerate Victoria's renewable energy capacity.

Community Energy (CE) refers to projects where a community initiates, develops, operates and benefits from a renewable energy resource or energy efficiency initiative. Community groups are formed geographically or based on a common interest.

Gippsland Climate Change Network (GCCN) was appointed as the host organisation of the Community Power Hub Latrobe Valley, and will work with Sustainability Victoria (SV) to establish and progress the Power Hub to facilitate locally based community owned renewable energy projects encompassing the Latrobe, Wellington and Baw Baw Shires. This program is to be run via a not for profit company limited by guarantee called "Energise Gippsland". The program has been funded by the Victorian Government through Sustainability Gippsland for two years.

CPH Latrobe Valley works within a collaborative governance arrangement that enables the interests of stakeholders to be represented in pursuit of a common purpose which is:

"To support and progress community energy that is strongly governed, financially viable, and socially and environmentally sustainable."

The Project Control Group will be comprised of representatives from GCCN and will oversee the program for Gippsland Climate Change Network reporting back to the GCCN board and ensuring that the funding is applied appropriately.

Collaborative Approach

A collaborative governance model enables our constituent members to diversify the knowledge base, spread the workload, widen the communication network and involve motivated people in advancing community energy, whilst continuing to represent organisational and individual interests. We have chosen the term 'roundtable' as it represents a forum, where individuals and representatives participate equally in the discussion. This approach model's social inclusion and will lead to opportunities for people to build and share capacities in the areas of renewable energy and social enterprise.

Governance

Membership of CPH Latrobe Valley is drawn from the communities in the Wellington, Latrobe City and Baw Baw Shires through an initial open expression of interest (EOI) process and nominations from core groups. Subsequent EOIs are invited from representative groups and from the broader community as positions are vacated, new working groups are established, or gaps in skills or knowledge are identified.

Nominations are accepted or declined by consensus of the Roundtable, based on the need to fill positions and relevant skills and experience considered to be of benefit to CPH LV's and GCCNs purpose. Those nominated should demonstrate relevant skills or expertise and the ability to work under the collaborative governance model. All efforts shall be made to achieve a geographical spread across the LV region.

CPH LV Member Benefits

- To gain knowledge and capacity in community energy and collaboration;
- To join with a growing and coordinated voice to better advocate for the needs of the sector and have greater influence on development of community energy across the region;
- To participate in the decision-making process; and
- To utilise the CPH Latrobe Valley's branding.

CPH LV Member Agreements

- Act in the best interests of CPH LV, and the community energy sector more generally;
- Actively contribute to the work of CPH LV
- Explain and promote community energy with their own members, constituents, and through their networks
- Collaborate with CPH LV members when mutually beneficial;
- Gain knowledge and capacity in community energy and collaboration
- Join with a growing and coordinated voice to better advocate for the needs of the sector and have greater influence on the development of community energy across Gippsland
- Participate in the decision-making process
- Utilise the CPH LV branding
- Operate with integrity, boldness, creativity, passion and energy

- Celebrate achievements; and
- Enjoy friendships made along the way

CPH Latrobe Valley is principally concerned with empowering and enabling community organisations and businesses to lead their own approach to community energy. CPH Latrobe Valley will provide advice, recommendations and referrals that are well researched thus providing the best chance for community energy options to become a reality.

Delegation of Authority

The CPH Latrobe Valley Roundtable Advisory Group operates by broad consensus (80%). Simple decisions are made at the Roundtable. Decisions that require input from a constituent organisation, working group or community partner will be deferred. If a representative or alternate is not present at a meeting and the agenda with its associated documents has been circulated more than three days prior to the meeting, then decisions can be made so long as 80% of the total membership agrees (not 80% of those attending).

The Project Control Group can refer decisions back to the Roundtable Advisory Group if they do not apply to the common purpose of the CPH Latrobe Valley or do not align with the funding requirements as specified in the contract with Sustainability Victoria.

Decisions may be communicated by all, unless otherwise specified in minutes. However, media releases and people speaking for the CPH Latrobe Valley to the community can only be determined by the Project Control Group.

Information may come to the Roundtable from working groups, constituent organisations, CPH LV members and external experts. Working groups are a primary means for undertaking research and filling information gaps and are to provide an unbiased summary of findings and a rationale for options to the Roundtable. It is essential that working groups frame their activities as investigative and refrain from entering into negotiations or raising community expectations before options have been assessed by the Roundtable and the Project Control Group.

Changes to the Governance Arrangements

It is expected that community energy will evolve over the coming months and years, as will CPH Latrobe Valley. This Governance Arrangement will be reviewed and updated as required with a requirement to do a complete review with stakeholders at the end of the funding period in 2019.

Project Progress

The project contract, governance documents, preliminary project logic documents and development of a project ranking system based on both the Ballarat CPH and Frontier Impact models have all been approved. Community engagement has commenced with meetings at Churchill and Warragul. CPH Representatives will also be attending Baw Baw Sustainability Festival on November 18, 2017.

POTENTIAL FUNDING AND GRANTS

The committee is working with Local Government to identify projects suitable for the DELWP Climate Change Innovation grants and exploring GCCN Community Energy opportunities with SV. There's also an opportunity to follow up with the Australian Environmental Grantmakers Network (AEGN) and the philanthropic sector for potential funding support.

Funding for the 1000 Homes retrofit program is yet to be announced. The stakeholder working group is formed and ready to move forward but it is a complex application. Foundation for Rural & Regional Renewal (FRRR) have Climate Resilience grants available. We are currently in discussion with VicSuper and Bank Australia about corporate support for Community power hubs identified that they require detailed proposals which will need to be developed alongside the Strategic Plan.

STRATEGIC PLAN FOR GCCN

John Lawrence is currently developing a Strategic Plan for the GCCN, building on the work done with the value proposition and past strategic work, with Chris Barfoot. A basis for the Strategic Plan and value proposition already exists with the Power Hub Program application.

GREENHOUSE ALLIANCES REPORT

Executive Officer Ian Southall has attended all the Alliances meetings and provided reports to the board. The GCCN needs to continue to develop and enhance its strategic direction with local government, gather support from the Alliance and develop a close association with SECCCA. I have worked in consultation with Ash Hall and the team from DELWP on future Climate Change adaptation and mitigation opportunities. Ian has attend a number of funding and network meetings in Traralgon and Churchill with DELWP.

REGIONAL CENTRE OF EXPERTISE IN EDUCATION FOR SUSTAINABLE DEVELOPMENT GIPPSLAND

This year the RCE held its third Gippsland Sustainable Schools Expo at the St Pauls campus in Warragul exploring the theme of sustainable food into the future.

Over 250 students attended from approximately 13 schools across Gippsland, including students coming from as far as Bairnsdale.

The expo was packed with 14 individual workshop stations that had students learning about a wide range of topics including bees, composting, dairy cows, seedling planting, renewable energy, indigenous foods, water in the landscape and the potential future of foods including eating insects.

In addition to the great student turn out the expo was also attended by local celebrities including Tammy Logan from Gippsland Unwrapped (https://gippslandunwrapped.com/) and Steve and Sallie from Gippsland Jersey (https://www.gippslandjersey.com.au/). This created some media around the event including a feature on the local news station.

The event was a great way to get young people learning, sharing knowledge and thinking about building a sustainable food future.

Figure 5: At the Gippsland Sustainable Schools Expo in Warragul. Photo Credit: Ashley Hall

The board would like to continue to support school based initiatives and events mostly through its sub group, Regional Centre of Expertise in Education for Sustainability Development (RCE).

COMMUNITY EDUCATION PROGRAMS

Ian has attended several school science days at Nambrok, Seaspray and Maffra with the Renewable Energy Trailer which promotes the GCCN name and programs such as CPHLV. The Kurnai College sustainable day is still to come November 17. The RCE has run 3 sustainable schools' expos, with the 2017 edition being held in Warragul. The GCCN will also feature at Baw Baw Sustainability Festival for CPH LV on November 18.

GCCN has held several events for local government and provided experts in battery storage technology and community energy. The Latrobe City battery info night was attended by over 300 people and the equivalent session in Sale was attended by over 200 people.

CONTACT US

71 Hotham Street, Traralgon, VIC 3844
Phone: (03) 5172 2111
Fax: (03) 5172 2100
http://gccn.net.au/

…….

CR DARREN McCUBBIN

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: 5 DECEMBER 2017

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 for the period 14 November 2017 to 28 November 2017.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That Council note and receive the attached Assembly of Councillor records for the period 14 November 2017 to 28 November 2017.

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 for the period 14 November 2017 to 28 November 2017.

Assembly of Councillors summary of reports received for the period 14 November 2017 to 28 November 2017.		
Date	**Matters considered**	**Councillors and officers in attendance**
14 November 2017	Place Names Committee agenda items	Councillor McCubbin, Councillor Maher, Councillor Rossetti Dean Morahan, Manager Assets & Projects Sandra Rech, Coordinator Asset Management James Blythe, GIS Officer
5 December 2017	IT / Diary Meeting	Councillor Crossley, Councillor Hall, Councillor Maher, Councillor Stephens. Councillor Bye, Councillor Rossetti, Councillor Hole, Councillor Ripper David Morcom, Chief Executive Officer Leah Schuback, Executive Assistant
5 December 2017	C99 Amendment Flood Overlay West Sale and Wurruk Industrial Land Supply Strategy "Draft" PFAS Update – Department of Defence Australia Day Awards Appointment to Committees & Delegates Development Division Update	Councillor Bye, Councillor Crossley, Councillor Hall, Councillor Hole, Councillor Maher, Councillor Ripper, Councillor Rossetti, Councillor Stephens David Morcom, Chief Executive Officer Arthur Skipitaris, General Manager Corporate Services Chris Hastie, General Manager Built and Natural Environment Glenys Butler, General Manager Community & Culture John Websdale, General Manager Development Joshua Clydesdale, Manager Land Use Planning (Item 1,2 & 6) Barry Hearsey, Coordinator Strategic Planning (Item 1 & 2) Sabine Provily, Strategic Planner (Item 1) Ben Proctor, Strategic Planner (Item 1) Wendy Reeves, Coordinator Media and Public Relations (Item 4) Trish Dean, Governance Officer (Item 5) John Traa, Coordinator Statutory Planning (Item 6) Paul Johnson, Manager Business Development (Item 6)

OPTIONS

Council has the following options:

1. Note and receive the attached assembly of Councillors records; or
2. Not receive the attached assembly of Councillors records.

PROPOSAL

That Council note and receive the attached assembly of Councillors records received during the period 14 November 2017 to 28 November 2017.

CONFLICT OF INTEREST

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

LEGISLATIVE IMPACT

The reporting of written records of assemblies of Councillors to the Council in the prescribed format complies with Section 80A of the *Local Government Act 1989.*

COUNCIL PLAN IMPACT

The Council Plan 2017-21 Theme 6 Organisational states the following strategic objective and related strategy:

> Strategic Objective 6.3
> *"Maintain a well governed, transparent, high performing, ethical and accountable organisation."*
>
> Strategy 6.3.3
> *"Ensure sound governance processes that result in responsive, ethical, transparent and accountable decision making."*

This report supports the above Council Plan strategic objective and strategy.

ASSEMBLY OF COUNCILLORS FOR PLACE NAMES COMMITTEE

1. DATE OF MEETING:

14 November 2017

2. ATTENDEES

Councillors:

Name	In attendance (tick)	
	Yes	**No**
Cr McCubbin	✓	
Cr Maher	✓	
Cr Rossetti	✓	

Officers In Attendance:

Name	In attendance (tick)	
	Yes	**No**
Dean Morahan	✓	
Sandra Rech	✓	
James Blythe	✓	
Leah Hepworth		✓

3. Matters/Items considered at the meeting (list):

1. Confirmation of Minutes
2. Current Issues
3. General Business

4. Conflict of Interest disclosures made by Councillors:

Councillor Rossetti – Item 3.4

ASSEMBLY OF COUNCILLORS

1. **DATE OF MEETING:** 21 November 2017

2. **ATTENDEES:**

Councillors:

Name	In attendance (tick)		Name	In attendance (tick)	
	Yes	**No**		**Yes**	**No**
Cr Crossley	✓		Cr McCubbin		✓
Cr Hall	✓		Cr Bye	✓	
Cr Maher	✓		Cr Rossetti	✓	
Cr Stephens	✓		Cr Hole	✓	
Cr Ripper	✓				

Officers In Attendance:

Name	In attendance (tick)		Name	In attendance (tick)	
	Yes	**No**		**Yes**	**No**
D Morcom, CEO	✓		G Butler, GMC&C		✓
C Hastie, GMB&NE		✓	J Websdale, GMD		✓
A Skipitaris, GMCS		✓			

Others in attendance: (list names and item in attendance for)

Name	Item No.
Leah Schuback	**1**

3. **Matters/Items considered at the meeting (list):**

    1. IT/Diary Meeting - Councillors

4. **Conflict of Interest disclosures made by Councillors:**
Nil

ASSEMBLY OF COUNCILLORS

1. **DATE OF MEETING:** 21 November 2017

2. **ATTENDEES**

Councillors:

Name	In attendance (tick)		Name	In attendance (tick)	
	Yes	No		Yes	No
Cr Bye	✓		Cr Maher	✓	
Cr Crossley	✓		Cr Ripper	✓	
Cr Hall	✓		Cr Rossetti	✓	
Cr Hole	✓		Cr Stephens	✓	
Cr McCubbin		✓			

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

Others in attendance: (list names and item in attendance for)	Item No.
Joshua Clydesdale, Barry Hearsey, Sabine Provily, Ben Proctor, Adam Dunn *(West Gippsland Catchment Management Authority)*	1
Joshua Clydesdale, Barry Hearsey	2
James McLachlan *(Department of Defence)*	3
Wendy Reeves	4
Trish Dean	5
Joshua Clydesdale, John Traa, Barry Nicholl, Paul Johnson	6

3. **Matters/Items considered at the meeting (list):**
   1. C99 Flood Overlay
   2. West Sale & Wurruk Industrial Land Supply Strategy “Draft”
   3. PFAS Update – Department of Defence
   4. Australia Day Awards
   5. Appointment to Committees & Delegates
   6. Development Division Update

4. **Conflict of Interest disclosures made by Councillors:**
   Nil

ITEM C2.2 APPOINTMENT OF COUNCILLORS TO COMMITTEES AND AS DELEGATES

DIVISION: CORPORATE SERVICES

ACTION OFFICER: GENERAL MANAGER CORPORATE SERVICES

DATE: 5 DECEMBER 2017

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

OBJECTIVE

To appoint Councillors to the following Committees:

- Advisory
- Special
- Other Organisations

in accordance with the updated register as attached.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That Councillors be appointed to Council Committees in accordance with the updated register as attached.

BACKGROUND

Council operates a range of Committees, which require a Councillor nominee. Each year Council reviews the appointments to these Committees as well as the nominations of Councillors as delegates to other bodies.

Attached is a current register of all Committees requiring a Councillor nominee as well as other bodies for which Council has nominated a delegate to represent Council.

OPTIONS

Council has the following options:

1. To appoint Councillors to Council Committees in accordance with the updated register as attached; or
2. To appoint Councillors to Council Committees with amendments to the updated register as attached.

PROPOSAL

It is proposed that Councillors be appointed to Council Committees in accordance with the updated register as attached.

CONFLICT OF INTEREST

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

LEGISLATIVE IMPACT

In accordance with powers under the *Local Government Act 1989* (the Act) Council may establish advisory Committees as well as special Committees in accordance with section 86 of the Act.

The process being undertaken is in accordance with the requirements of this legislation.

COUNCIL PLAN IMPACT

The Council Plan 2017-21 Theme 6 Organisational states the following strategic objective and related strategy:

> Strategic Objective 6.3
> *"Maintain a well governed, transparent, high performing, ethical and accountable organisation."*
>
> Strategy 6.3.3
> *"Ensure sound governance processes that result in responsive, ethical, transparent and accountable decision making."*

This report supports the above Council Plan strategic objective and strategy.

COUNCIL ADVISORY COMMITTEES, SPECIAL COMMITTEES & COMMITTEES OF OTHER ORGANISATIONS (DELEGATES)

TABLE OF CONTENTS

SECTION: **PAGE NO**

SECTION 1: COUNCIL MEETINGS

Purpose:
Primary decision making forum of the Council at which general business of the Council may be transacted (Ordinary meetings). In the event of a requirement for a Special Meeting, only the business specified in the notice calling the meeting may be transacted.

Members:
Mayor and all Councillors

Schedule:
Ordinary Meetings: As per Council approved Council Meeting schedule
Special Meetings: As required

SECTION 2: COUNCIL ADVISORY COMMITTEES

COUNCIL ADVISORY COMMITTEES/MEETINGS ***Council has established Advisory Committees to assist Council and the community in a number of areas. Advisory Committees consist of community members, Council officers and Councillors. They provide advice on a range of issues including: projects, planning, policy, resource planning, disability and community access, community amenity and many other strategic community issues.*** ***These Committees have no other authority or purpose other than to give information or advice to Council to assist it in its ultimate decision- making role. The Mayor may attend any meeting.***			
NAME	DESIGNATED REPORTING OFFICER	SCHEDULE	CONVENOR or DELEGATES & **ADMIN RESOURCES**
Audit & Risk Committee *Purpose: Advise Council in its discharge of its responsibilities for financial reporting, risk management, maintaining a reliable system of internal controls and fostering the organisation's ethical development.* ****Remuneration applies to independent members (non-Council)***	General Manager Corporate Services	Meets at least quarterly with extra meetings scheduled if needed	**Councillor Stephens** **Councillor Hall** **Councillor Bye** (alternate) Chief Executive Officer, General Manager Corporate Services Peter Craighead (Independent chair), Chris Badger (Independent), Joel Churchill (Independent),
CEO Performance Review Committee *Purpose: To oversee the review of the CEO's performance as per the terms and conditions of the contract of employment.*	General Manager Corporate Services	As required	**Councillor Hole (Remuneration Chair)** **Mayor – Councillor Crossley** **Councillor McCubbin** **Councillor Rossetti** (shared)
Gippsland Art Gallery Advisory Group *Purpose: To advise the Council on the operation, policy development and future planning of Gippsland Art Gallery.*	Manager Arts & Culture	1st Monday Feb, April, Jun, Aug, Oct & Dec at 6pm	**Councillor Rossetti** Art Gallery Director
Gippsland Regional Sports Complex User Group Committee 1. *Purpose: To provide advice, information and feedback in relation to operational, maintenance and use of Gippsland Regional Sports Complex* 2. *To share information with other users of the Gippsland Regional Sports Complex.*	GRSC Operational Leader	July, Oct, Jan and April at 6pm	**Councillor Bye** **One (1) Representative of the Sale Amateur Basketball Association** **One (1) Representative of the Sale Netball Association** **One (1) Representative of the Maffra Hockey Club** **One (1) Representative of the Sale Hockey Club** **One (1) Representative of the Wellington Hockey Club**
Place Names Committee *Purpose: Make recommendations to Council on naming issues.*	Manager Assets and Projects	3rd Tuesday every 3 months	**Councillor Rossetti** **Councillor McCubbin** **Councillor Maher**

SECTION 2: COUNCIL ADVISORY COMMITTEES

Remuneration Committee *Purpose* *1. To monitor and review Councillor expenses* *2. To review and recommend Councillor allowances.* *3. To review and monitor the salary, performance and performance plan (including performance criteria) for the Chief Executive Officer.* *4. To monitor Enterprise Bargaining Agreements.* *5. To consult on Human Resources and Remuneration Policy.* *6. Any other related matters that may arise.*	General Manager Corporate Services	Quarterly or more frequently if required	**Councillor Hole (Remuneration Chair)** **Councillor Hall** **Councillor Stephens** Chief Executive Officer General Manager Corporate Services Manager People and Excellence
Stephenson Park Advisory Committee *Purpose: To provide advice in relation to Master Planning for Stephenson Park recreation facilities.*	Manager Natural Environment & Parks	Quarterly - 3nd Wednesday 7.30pm Feb, May, Aug, Nov	**Councillor Bye**
Strategic Land Use Planning Projects Review Group *Purpose: To provide local Councillor input into and review the range of current strategic planning projects***.**	Manager Land Use Planning	Bi-monthly	**Councillor Maher (Chair)** **Councillor McCubbin** **Councillor Bye** General Manager Development, Manager Land Use Planning, Coordinator Strategic Planning, Strategic Planners, General Manager Built and Natural Environment, Manager Assets and Projects, Coordinator Infrastructure Development.
The Wedge Performing Arts Centre Advisory Group *Purpose: To advise the Council on the operation, policy development and future planning of Esso BHP Billiton Wellington Entertainment Centre.*	Manager Arts & Culture	Quarterly, usually 3rd Wednesday 6pm Feb, May, Aug & Nov	**Councillor Bye** Entertainment Centre Manager
Wellington Access & Inclusion Advisory Group *Purpose: To assist Council in monitoring the implementation of the Access Policy and Action Plan adopted in April 2003.*	Rural Access Project Coordinator	Monthly, 3rd Wednesday – ½ day	**Councillor Ripper**

SECTION 3: COMMITTEES OF OTHER ORGANISATIONS (DELEGATES)

COMMITTEES OF OTHER ORGANISATIONS (DELEGATES) ***Councillors are often requested or required to represent Council via participation on Committees formed by other organisations.***		
NAME	SCHEDULE	CONVENOR or DELEGATES & **ADMIN RESOURCES**
Australian Coastal Councils Association *Purpose: To bring together the coastal shires experiencing the sea-change phenomenon.* *Facilitated by: Alan Stokes – Executive Officer SCTF*	Twice yearly (ALGA and Forum)	**Councillor McCubbin** **Councillor Maher / Hall** (shared) General Manager Development
Coastal Agencies Liaison Group *Purpose: To discuss coastal issues* *Facilitated by: Department of Sustainability & Environment*	2 monthly (Feb, April, June etc.) Location: Yarram	**Councillor Maher**
Gippsland Climate Change Network Incorporated *Purpose: To provide Gippsland, at an individual and organisational level; information, consultation and facilitation to enable action on climate change, whilst also providing a voice for Gippsland on climate change issues.*	10am - 1pm, 1st Monday of each month unless otherwise noted	**Councillor McCubbin**
Gippsland Local Government Network (GLGN) *Purpose: Regional co-operation and lobbying by Gippsland Councils.* *Facilitated by: SOCOM (Secretariat)*	Bi-monthly 2nd Friday	**Mayor Councillor Crossley** Chief Executive Officer
Gippsland Local Government Waste Forum *Purpose: Works in tandem with GWRRG*	Bi-monthly	**Councillor Maher**
Municipal Association of Victoria (MAV) *Purpose: Peak body representing Victorian Councils. Councillors also representing at the Australian Local Government Association (ALGA).*	Monthly meetings and as required	**Councillor Hole**
National Timber Council Association Inc *Purpose: To pursue a variety of issues relevant to local governments that have forest industries/timber issues with the Federal Government.*	Twice yearly at the ALGA Conference and Annual Meeting in November	**Councillor Hole**
South East Australian Transport Strategy (SEATS) *Purpose: Integrated transport strategy for South East Australia. Includes representatives of municipalities and other organisations from Dandenong to Wollongong. Facilitated by: SEATS*	Quarterly, 2nd Thursday &Friday (Feb, May, Aug, Nov) Meeting venue rotates b/t Vic, ACT & NSW	**General Manager Built & Natural Environment** Councillor(s) as required

SECTION 3: COMMITTEES OF OTHER ORGANISATIONS (DELEGATES)

Timber Towns Victoria *Purpose: To pursue a variety of issues relevant to local governments which have forest industries in Victoria and keep abreast of the issues and trends in forestry development that may have an impact upon rural communities.*	2nd Friday each month (Executive) 2nd Friday bi-monthly (Ordinary Members)	**Councillor Hole**
Wellington Regional Tourism (WRT) *Purpose: To promote Wellington Gippsland tourism.*	Monthly	**Councillor Hall** **Councillor Maher** (shared) Visits, Economy & Events Coordinator

OTHER GROUPS, TASKFORCES, PROJECT CONTROL GROUPS (PCG'S) & STATUTORY COMMITTEES *These Groups, Taskforces, PCG's and Statutory Committees are subject to formal Council approval processes*		
NAME	SCHEDULE (Include Sunset Dates)	CONVENOR or DELEGATES & **ADMIN RESOURCES**
Healthy Wellington Action Group Purpose: Partnership Group that oversees the development, implementation and evaluation of Healthy Wellington (Municipal Public Health and Wellbeing Plan).	Quarterly	**Councillor Stephens** **Councillor Ripper** (shared)
Wellington Shire Council Emergency Management Planning Committee (Council committee appointed in accordance with the *Emergency Management Act 1986 section 21*) *Purpose: The Committee will prepare a draft municipal emergency management plan for consideration by the Wellington Shire Council. Once prepared the plan must be maintained by the Council.* *The Committee will also maintain liaison, co-ordinate emergency working and operational arrangements, conduct exercises and other emergency management activities such that emergencies may be prevented and when they do occur are managed appropriately.*	Quarterly Mar, Jun, Sep, Dec.	**Councillor Bye** **Councillor Ripper** (shared) Municipal Emergency Resource Officer Municipal Recovery Manager Municipal Fire Prevention Officer Coordinator Municipal Emergency Municipal Emergency Manager (General Manager Community & Culture)

SPECIAL COMMITTEES ***Under Section 86 of the Local Government Act 1989, in addition to any Advisory Committees that the Council may establish, the Council may establish one or more special committees made up of any combination of Councillors; Council staff and other people.*** ***The Council may by Instrument of Delegation, delegate its functions, duties or powers to a special committee, though this is subject to certain restrictions. The Mayor may attend any meeting.***			
NAME	DESIGNATED REPORTING OFFICER	SCHEDULE	CONVENOR or DELEGATES & **ADMIN RESOURCES**
Briagolong Quarry Reserve Committee *Purpose: To protect, promote and develop the Briagolong Quarry Reserve.*	Coordinator Community Committees	Quarterly – 1st Tues – Mar, Jun, Sep, Dec	**Councillor Ripper**
Briagolong Recreation Reserve Committee *Purpose: To protect, promote and develop the Briagolong Recreation Reserve.*	Coordinator Community Committees	3rd Monday monthly at 7.30pm Briagolong Recreation Reserve	**Councillor Ripper**
Cameron Sporting Complex Committee *Purpose: To protect, promote and develop the Cameron Sporting Complex, Maffra*	Coordinator Community Committees	3rd Thursday of each month Cameron Sporting Complex 8pm	**Councillor Hole**
Gordon Street Reserve Committee *Purpose: To protect, promote and develop the Gordon Street Reserve.*	Coordinator Community Committees	Gippsland Historical Auto Club-Heyfield 2nd Thursday of every 2nd month Feb, Apr, Jun, Aug, Oct	**Councillor Hole**
Maffra Recreation Reserve Committee *Purpose: To protect, promote and develop the Maffra Recreation Reserve.*	Coordinator Community Committees	1st Monday – each month Maffra Recreation Reserve Meeting Room	**Councillor Ripper**
Newry Recreation Reserve Committee *Purpose: To protect, promote and develop the Newry Recreation Reserve.*	Coordinator Community Committees	3rd Monday Feb, May, Aug & Nov	**Councillor Hole**

SPECIAL COMMITTEES ***Under Section 86 of the Local Government Act 1989, in addition to any Advisory Committees that the Council may establish, the Council may establish one or more special committees made up of any combination of Councillors; Council staff and other people.*** ***The Council may by Instrument of Delegation, delegate its functions, duties or powers to a special committee, though this is subject to certain restrictions. The Mayor may attend any meeting.***			
NAME	DESIGNATED REPORTING OFFICER	SCHEDULE	CONVENOR or DELEGATES & **ADMIN RESOURCES**
Sale Performance Space Fundraising Committee 2.1 To maintain a public fund into which the public may contribute towards the construction, maintenance, upgrade and expansion of Wellington Shire Council owned cultural spaces, facilities and equipment. 2.2 To maintain a public fund into which the public may contribute towards cultural activities, programs and events conducted by Wellington Shire Council through Wellington Shire Council owned cultural spaces and facilities. To coordinate fundraising activities on behalf of Wellington Shire Council owned cultural spaces and facilities. To obtain all necessary permits and approvals required for eligible fundraising activities. To retain the registration of the Sale Performance Space Donations Fund on the Register of Cultural Organisations for the purposes of the Income Tax Assessment Act 1997 (Commonwealth), ensuring that those cultural activities and projects accepted meet the definition of the "organisation's principal purpose" in the Register of Cultural Organisations Guide.	Manager Arts & Culture	As required – at least once annually	**Councillor McCubbin.** Manager Corporate Finance Manager Arts & Culture Entertainment Centre Manager

ITEM C2.3 INSTRUMENT OF DELEGATION TO THE CHIEF EXECUTIVE OFFICER

DIRECTORATE: GOVERNANCE

ACTION OFFICER: GENERAL MANAGER CORPORATE SERVICES

DATE: 5 DECEMBER 2017

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

OBJECTIVE

For Council to approve the Instrument of Delegation to the Chief Executive Officer, as attached.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That:

1. ***Council approve the Instrument of Delegation to the Chief Executive Officer, as attached; and***
2. ***All previous instruments of delegation to the Chief Executive Officer are revoked; and***
3. ***The Chief Executive Officer be authorised to affix Council's Common Seal to the attached instrument of delegation from Wellington Shire Council to the Chief Executive Officer pursuant to the Wellington Shire Council Processes of Municipal Government (Meeting and Common Seal) Local Law Part 8; and.***
4. ***The instrument comes into force immediately the common seal of Council is affixed to the instrument; and***
5. ***The duties and functions set out in the instrument must be performed, and the powers set out in the instruments must be executed, in accordance with any guidelines or policies of Council that it may from time to time adopt.***

BACKGROUND

Section 98(6) of the *Local Government Act 1989* states that a Council must review all delegations including the Instrument of Delegation to the Chief Executive Officer approximately within 12 months following a general election. It is noted that the Instrument of delegation to the Chief Executive Officer includes a power of delegation to members of Council staff.

Council also has the following Instruments of delegation, which are approved by Council resolution or by the Chief Executive Officer:

- *Instrument of Delegation to Members of Council Staff*, which was approved by Council resolution at the Ordinary meeting on 15 August 2017.
- *Instrument of Sub Delegation by the Chief Executive Officer to Staff*, which was approved by the Chief Executive Officer on 28 August 2017.

OPTIONS

Council has the following options:

1. To approve the Instrument of Delegation to the Chief Executive Officer, as attached; or
2. Seek further information and consider at a future meeting of Council.

PROPOSAL

That Council approve the attached Instrument of Delegation to the Chief Executive Officer.

CONFLICT OF INTEREST

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

LEGISLATIVE IMPACT

Council's Instrument of Delegation to the Chief Executive Officer has been reviewed in accordance with the requirement under Section 98 of the *Local Government Act 1989*.

COUNCIL PLAN IMPACT

The Council Plan 2017-21 Theme 6 Organisational states the following strategic objective and related strategy:

> Strategic Objective 6.3
> *"Maintain in a well governed transparent, high performing, ethical and accountable organisation."*
>
> Strategy 6.3.3
> *"Ensure sound governance processes that result in responsive, ethical, transparent and accountable decision making."*

This report supports the above Council Plan strategic objective and strategy.

Wellington Shire Council

Instrument of Delegation

to

The Chief Executive Officer

Instrument of Delegation

In exercise of the power conferred by section 98(1) of the *Local Government Act* 1989 (**the Act**) and all other powers enabling it, the Wellington Shire Council (**Council**) delegates to the member of Council staff holding, acting in or performing the position of Chief Executive Officer, the powers, duties and functions set out in the Schedule to this Instrument of Delegation,

AND declares that

this Instrument of Delegation is authorised by a Resolution of Council passed on 5 December 2017, the delegation:

1.1 comes into force immediately the common seal of Council is affixed to this Instrument of Delegation;

1.2 is subject to any conditions and limitations set out in the Schedule;

1.3 must be exercised in accordance with any guidelines or policies which Council from time to time adopts; and

1.4 remains in force until Council resolves to vary or revoke it.

2. The member of Council staff occupying the position or title of or acting in the position of Chief Executive Officer may delegate to a member of Council staff any of the powers (other than the power of delegation conferred by section 98(3) of the Act or any other powers not capable of sub-delegation) which this Instrument of Delegation delegates to him or her.

The Common Seal of WELLINGTON)
SHIRE COUNCIL was hereunto affixed)
this day of 2017)
in accordance with Local Law No. 1)
in the presence of:)

……
Chief Executive Officer

SCHEDULE

The power to

1. determine any issue;

2. take any action; or

3. do any act or thing

arising out of or connected with any duty imposed, or function or power conferred on Council by or under any Act.

Conditions and Limitations

The delegate must not determine the issue, take the action or do the act or thing

4. if the issue, action, act or thing is an issue, action, act or thing which involves

    4.1 awarding a contract exceeding the value of $400,000; except for Insurance Contract Renewals which may be awarded on an annual basis to any amount;

    4.2 making a local law under Part 5 of the Act;

    4.3 approval of the Council Plan under s.125 of the Act;

    4.4 adoption of the Strategic Resource Plan under s.126 of the Act;

    4.5 preparation or adoption of the Budget or a Revised Budget under Part 6 of the Act;

    4.6 adoption of the Auditor's report, Annual Financial Statements, Standard Statements and Performance Statement under Part 6 of the Act;

    4.7 noting Declarations of Impartiality by Valuers pursuant to section 13DH(2) of the Valuation of Land Act 1960;

    4.8 determining pursuant to s.37 of the Act that an extraordinary vacancy on Council not be filled;

    4.9 exempting a member of a special committee who is not a Councillor from submitting a return under s.81 of the Act;

    4.10 appointment of councillor or community delegates or representatives to external organisations; or

    4.11 the return of the general valuation and any supplementary valuations;

5. if the issue, action, act or thing is an issue, action or thing which Council has previously designated as an issue, action, act or thing which must be the subject of a Resolution of Council;

6. if the determining of the issue, taking of the action or doing of the act or thing would or would be likely to involve a decision which is inconsistent with a

   6.1 policy; or

   6.2 strategy

   adopted by Council; or

7. if the determining of the issue, the taking of the action or the doing of the act or thing cannot be the subject of a lawful delegation, whether on account of section 98(1)(a)-(f) (inclusive) of the Act or otherwise; or

8. the determining of the issue, the taking of the action or the doing of the act or thing is already the subject of an exclusive delegation to another member of Council staff.

C3 - REPORT

GENERAL MANAGER DEVELOPMENT

ITEM C3.1 **WEST SALE AND WURRUK INDUSTRIAL LAND SUPPLY - DRAFT STRATEGY**

DIVISION: DEVELOPMENT

ACTION OFFICER: MANAGER LAND USE PLANNING

DATE: 5 DECEMBER 2017

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

OBJECTIVE

To seek endorsement of the *'West Sale and Wurruk Industrial Land Supply - Draft Strategy',* (the Draft Strategy) and to proceed to a period of public exhibition.

PUBLIC QUESTIONS AND COMMENTS FROM THE GALLERY

RECOMMENDATION

That Council endorse the 'West Sale and Wurruk Industrial Land Supply – Draft Strategy' (refer to Attachment 1) and proceed to a period of public exhibition.

BACKGROUND

The purpose of the Draft Strategy is to provide robust land use planning rationale to justify, rezone and facilitate the industrial development of an appropriate area of land in the short-medium term, within West Sale and Wurruk in accordance with the recommendations of the adopted *'Sale, Wurruk and Longford Structure Plan (2010)'*.

The three sites (or 'Candidate Areas' - refer to **Figure 1**) nominated within the Structure Plan for potential future industrial growth are located:

1. to the west of the existing industrial zoned land in Wurruk;
2. to the north of the Princes Highway and to the east of the West Sale Aerodrome, and
3. to the south of the Princes Highway and east of the Fulham Correctional Centre.

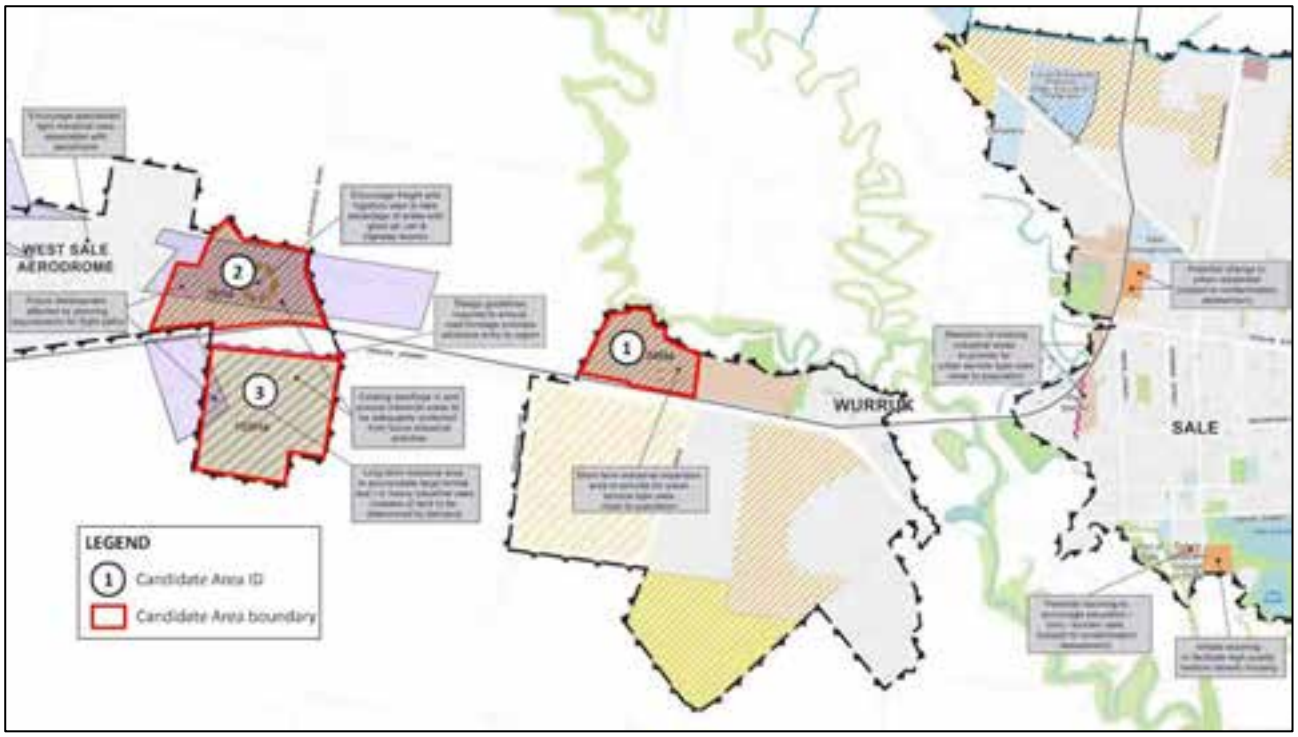


Figure 1: Structure Plan Extract

The key objectives of the Draft Strategy are to:

1. establish and assess the existing available industrial land supply and future industrial land requirements in the short-medium term;
2. provide the strategic justification/rationale to assess and/or rezone land within the three Candidate Areas to an appropriate industrial zone based on identified land supply requirements;
3. provide for a supply of lot sizes that can accommodate a variety of different industrial uses;
4. develop design appropriate guidelines to manage the visual, physical and environmental impacts of future development on the locality; and
5. identify the key infrastructure requirements (including associated financial costs) that are necessary to 'unlock' the potential for the development of the identified additional land in the short-medium term that will assist in delivering the land to the market. Current known infrastructure challenges include, but are not be limited to: drainage; traffic and access to major highway routes.

Based on the findings of an initial *'Analysis, Issues and Options Report (October 2017)',* Urban Enterprise planning consultants have now, on behalf of Council, prepared the Draft Strategy (refer to **Attachment 1**).

The Draft Strategy promotes Candidate Area 1 (West Wurruk) and Candidate Area 2 (adjacent to the West Sale Airport) as the least constrained and therefore more preferred sites for potential future industrial use.

It is now proposed that the recommendations of the Draft Strategy be exhibited for public comment and any submissions received be considered by Council prior to its formal adoption, which is anticipated to be in early 2018.

OPTIONS

1. That Council endorse the *'West Sale and Wurruk Industrial Land Supply – Draft Strategy'* and proceed to a period of public exhibition.

2. That Council not endorse the *'West Sale and Wurruk Industrial Land Supply – Draft Strategy'* and seek further information for consideration at a future meeting.

PROPOSAL

That Council endorse the *'West Sale and Wurruk Industrial Land Supply – Draft Strategy'* (refer to **Attachment 1**) and proceed to a period of public exhibition.

CONFLICT OF INTEREST

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

FINANCIAL IMPACT

The financial resources associated with this project have been accounted for in the Council budget for the 2017/2018 financial year.

Additional funding amounting to $50,000 has also been provided by both the Gippsland Regional Office of the Department of Environment, Land, Water and Planning and the Victorian Planning Authority.

COMMUNICATION IMPACT

Should Council progress the Draft Strategy to public exhibition, a number of methods will be used to broadly communicate the document. These will include:

- Up to date Council webpage.
- Media release.
- Direct notification to potentially affected members of the community (including landowners within and adjoining the Candidate Areas).
- Direct notification to statutory agencies/authorities.

LEGISLATIVE IMPACT

The Draft Strategy, has been prepared having regard to the *Planning and Environment Act 1987*; the provisions of the Wellington Planning Scheme - including the relevant state and local planning policy; and the '*Sale, Wurruk and Longford Structure Plan'*.

COUNCIL PLAN IMPACT

The Council Plan 2017–21 contains the following strategic objectives and related strategies:

Strategic Objective 2.3
'Wellington Shire is well planned, considering long term growth and sustainability.'

Strategy 2.3.1
'Continue to provide strategic planning to encourage long term growth and sustainability in Wellington Shire.'

Strategic Objective 5.2
'Use a targeted approach to attract new business and investment to Wellington Shire, to support population growth.'

Strategy 5.2.2
'Ensure the availability of residential, commercial and industrial land supply.'

The '*West Sale and Wurruk Industrial Land Supply – Draft Strategy'*, supports the above Council Plan strategic objectives and strategies.

PLANNING POLICY IMPACT

The Draft Strategy, has been prepared having regard to the '*Sale, Wurruk and Longford Structure Plan'* and the relevant provisions of the Local Planning Policy Framework (Clause 21.05-10) of the Wellington Planning Scheme.

ENVIRONMENTAL IMPACT

Biodiversity:

A Desktop Biodiversity Assessment of each Candidate Area has been undertaken by Ecology and Heritage Partners. The Assessment is included in the Appendices Report (refer to **Attachment 2**).

The key findings of the Report are summarised as follows:

- Current (2005) modelled mapping indicated that there is 35.35 hectares of native vegetation remaining within the three candidate areas. However, current aerial imagery shows little evidence of native canopy cover in Candidate Areas 2 and 3, while some remnant vegetation remains within Candidate Area 1;
- There is a small amount of wetland present in all three sites, with a total area of 2.23 hectares;
- Research and analysis identified endangered vegetation within Candidate Area 1 (6ha), Candidate Area 2 (14ha) and Candidate Area 3 (15ha);
- It is possible that two listed ecological communities occur in the study area: Gippsland River Red Gum Grassy Woodland and associated native grassland, and Seasonal Herbaceous Wetlands;
- Native vegetation and biodiversity values are most likely to be present in Candidate Area 1 adjacent to the Thomson River;
- Opportunities for development are likely to have a lower impact on biodiversity values in other areas of Candidate Area 1 away from the river as well as within Candidate Areas 2 and 3;
- Native vegetation with the highest risk is located at the western end of Candidate Area 2;
- Development may trigger an Environmental Effects Statement referral – a site assessment would be required to investigate this.

Cultural Heritage:

A Cultural Heritage Letter of Advice relating to all three Candidate Areas has been prepared as part of the preparation of the Draft Strategy. The key findings of the Advice are as follows:

- A search of the Victorian Aboriginal Heritage Register identified a total of four registered Aboriginal Places (and their associated components). These sites consist of a total of three site types comprising: a low-density artefact distribution, stone artefact scatters and an earth feature.
- The proposed use for these Candidate Areas (i.e. industrial subdivision and development) is considered a 'high impact activity'. Therefore, an Aboriginal Cultural Heritage Management Plan will be mandatory for Candidate Areas 1 and 3. An Aboriginal Cultural Heritage Management Plan is not required for Candidate Area 2; however, it is recommended that a voluntary plan is undertaken.

As a matter of course, all cultural heritage issues will be required to be resolved prior to any development occurring.

CONSULTATION IMPACT

To date, the following (community) consultation processes have taken place:

1 August 2017	**Business Information Exchange Session Stakeholder Information Session -** attended by members of the business community.
August & November 2017	**Newsletters (x2) -** distributed to all business owners and landowners within the Candidate Areas.

As a component of the background research stage of the project all landowners within the Candidate Areas were approached by representatives from Urban Enterprise planning consultants for one-on-one discussions about the project.

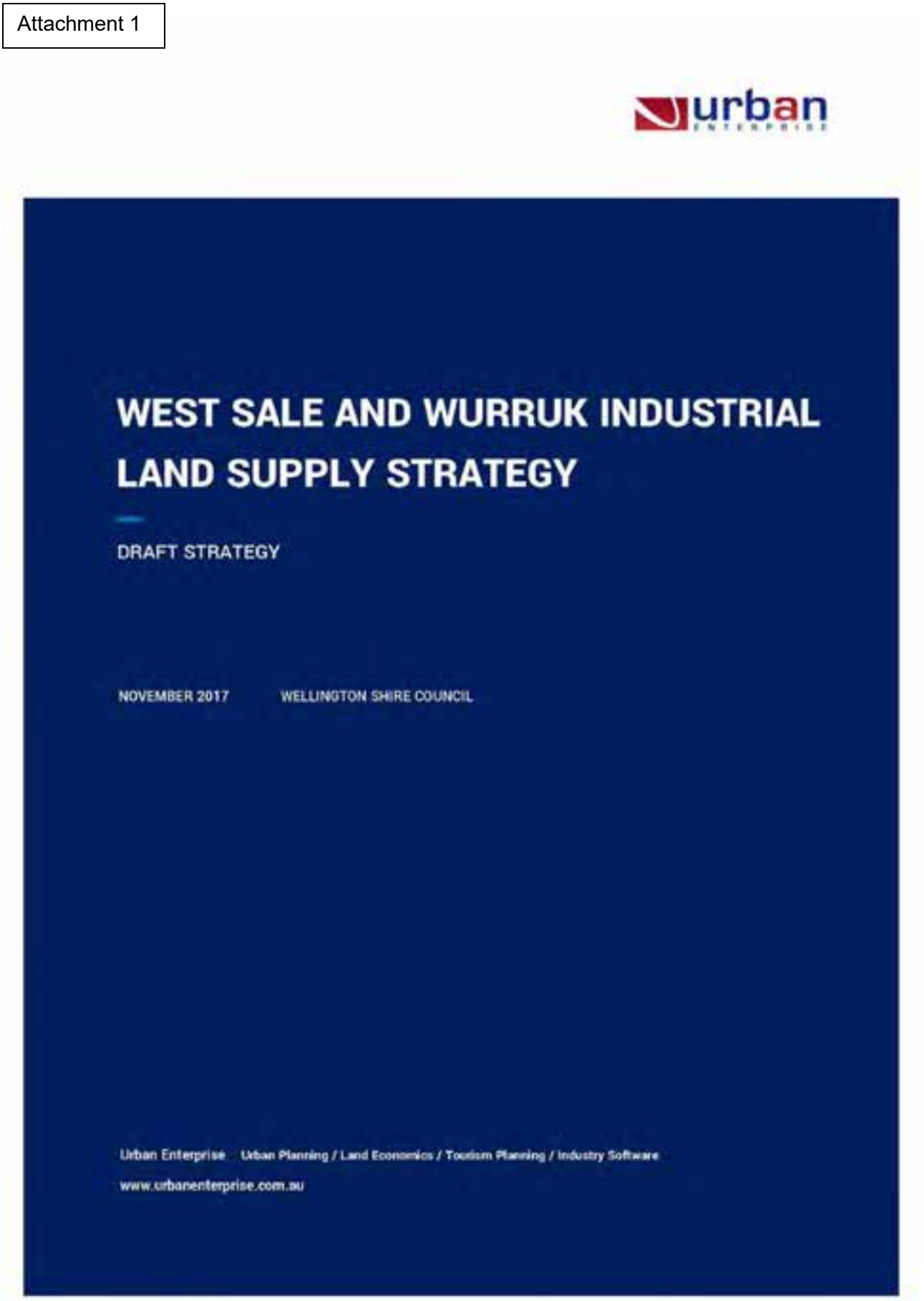
The Council website has also been kept up-to-date to reflect the progress and status of the project.

If Council decides to proceed with a formal period of public exhibition, which is proposed to take place between 11 December 2017 and 26 January 2018, all landowners and adjoining landowners to the Candidate Areas will be directly notified through the distribution of a newsletter.

Members of the community who have previously requested information updates on the project will also be directly notified.

The exhibition period will be the subject of a media release and an updated Council website page.

Attachment 1



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FILENAME: West Sale and Wurruk ICDS - Draft Strategy v1.2 171117

VERSION: 1.2

DISCLAIMER

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CONTENTS

FIGURES

TABLES

EXECUTIVE SUMMARY

Urban Enterprise was engaged by Wellington Shire Council (**Council**) to undertake the West Sale and Wurruk Industrial Land Supply Strategy. This report is the Draft Strategy which builds on an Analysis, Issues and Options Paper.

The report draws on a comprehensive consultation process which invited input from a diverse range of stakeholders including Council officers, State government, infrastructure agencies, businesses, landowners and other stakeholders potentially impacted by future industrial development.

POLICY, STRATEGY AND ECONOMIC CONTEXT

The Gippsland Regional Growth Plan identifies the Latrobe region as a focus for economic growth, while Sale is identified as a Regional Centre which should accommodate a range of services to support the surrounding region.

The Sale, Wurruk and Longford Structure Plan identified three key sites to the west of Sale for investigation for future industrial uses – these are reflected in the Sale Framework Plan which shows all three sites within the Settlement Boundary.

Policies and strategies identify the following economic strengths and opportunities for Sale and the region:

- Strengths of the economy in Sale include the defence and aviation sectors, oil and gas, and a diverse economy which enables the town to operate as a service centre for the broader region;
- Aviation, including the RAAF base and the West Sale Aerodrome, is a major opportunity for economic growth and employment in Sale and surrounds; and
- The key economic strengths of Wellington generally include defence, aviation, high quality agricultural land and oil and gas production.
- The Wellington Shire economy is relatively well diversified and is not reliant on a single industry to support the region, however many established industries are relatively mature and unlikely to drive major economic and employment growth;
- Major infrastructure investment is protecting existing strengths in high quality irrigated agricultural land and enhancing access and proximity to markets through improved road and rail infrastructure;
- Improvements and expansions of existing aviation infrastructure near Sale, including the East Sale RAAF Base and the West Sale Aerodrome, is likely to drive new economic opportunities in the aviation and related industries in Sale.

INDUSTRIAL LAND SUPPLY AND DEMAND

An analysis of industrial land **supply** in Sale found the following:

- Industrial land in Sale is fragmented across multiple precincts, many with interface conflicts with nearby residential uses and poor transport accessibility;
- There is approximately 19ha of vacant industrial land in Sale at present across 4 precincts, along with several larger sites that are either underutilised or disused (eg. Nylex);
- Overall, most industrial precincts have relatively poor access and interface issues. Only the Wurruk and Sale East precincts are considered appropriate and available to provide any meaningful opportunities to new industrial businesses, along with the potential strategic opportunities associated with large businesses seeking to occupy currently disused major properties such as the Nylex site;
- There are only two sites for strategic supply (Wellington Business Park and a site owned by Gippsland Grammar School) identified as appropriate for new large industrial businesses. One of these is proposed to

be progressively subdivided over time (Wellington Business Park) and the other does not appear to be on the market with no guarantee to be made available for industrial purposes (Gippsland Grammar).

- The remaining supply of land available for small and medium business currently has a total area of approximately 9 hectares across 25 smaller lots.
- Only one industrial area in Sale is being progressively subdivided to create new industrial lots (Sale East). This area is predominantly providing new lots in small stages, typically 1,500 – 2,000sqm in area, and
- Gaps identified in the existing land supply primarily relate to the lack of opportunities for large format industrial sites with separation from sensitive uses and ready access to major roads. The land size gaps are primarily in the medium to large lot sizes of 0.5-1ha, 1-2ha and 2ha+.

Given that investors and businesses typically prefer to locate on newer, higher quality lots, rather than existing lots with improvements or interface / access issues, there is a distinct lack of the type of land that would be attractive to new industrial businesses in Sale. The ongoing subdivision of Wellington Business Park is the only location where this type of land is being made available – the development of this area is expected to continue to deliver smaller lots that will be attractive to commercial and light industrial users.

The implications of the analysis of **demand** for industrial land in Sale and Wurruk include:

- There are two drivers of demand for industrial land, being local industrial business and larger regional/export industrial businesses;
- The local demand rate for industrial land is projected to be between 0.5 and 0.7 ha/annum for the next 15 years, leading to a requirement of between 7.5 and 10.5 hectares of local industrial land by 2031.
- Strategic demand is less readily quantifiable. Council and the developer of the Wellington Business Park have received multiple enquiries regarding larger lots between 2ha and 10ha over the past three years. Council should plan to accommodate larger businesses by providing a suitable supply of land with larger lot sizes (of at least 1 ha and up to 10ha).

An indicative allowance for at least 40 hectares of gross land is recommended which could accommodate in the order of 30 ha of industrial sites and at least 5-10 large businesses and a range of medium businesses. Rezoning further land as a contingency is also supported given the long lead times associated with planning for employment areas.

Main industrial business opportunities identified include:

- Local industrial growth led by growing population needs, such as construction, workshops, storage, mechanics, equipment hire, etc.
- Expansion or relocation of existing Sale and Wurruk businesses to the Candidate Areas to provide larger sites, better separation from sensitive use and easier access to the highway network, Latrobe and Melbourne; and
- New medium sized industrial businesses seeking proximity to existing regional produce and a suitable labour supply (Sale and Traralgon) and ready access to the highway network.

In the longer term and subject to infrastructure availability, the opportunity to utilise rail and air freight to distribute and export products may also attract certain business types, particularly in Candidate Area 2 which has direct access to the rail line as well as the West Sale Aerodrome.

Industries and business types that may be well suited to current opportunities and local advantages include:

- Aviation and associated industries, including safety, training, maintenance, recreation, storage, natural resource and emergency management, and advanced aviation technologies;
- Advanced manufacturing and engineering, including mineral resources and renewable energy technology;
- Food processing and value-adding, including those to support the agricultural and tourism sectors (eg. food and wine manufacturing); and
- Transport and distribution to assist export of local produce.

CANDIDATE AREA ASSESSMENT

Table S1 shows a summary of the candidate areas and the characteristics of each that have been identified throughout the analysis.

TABLE S1: CANDIDATE AREA SUMMARY

Attributes	Candidate Area 1	Candidate Area 2	Candidate Area 3
Land area	42 ha	55 ha	100 ha
Land ownership	2 owners, no identified constraints	5 owners, fragmented ownership could result in slow rate of development, no identified constraints	2 owners, potential ownership constraint to developing part of the area
Planning Zones and overlays	Farming Zone DDO6	Farming Zone DDO6 AEO1 (to be amended) AEO2 (to be amended)	Farming Zone DDO6
Current land use	Grazing	Rural residential Grazing Hospitality/Events	Grazing, animal breeding
Topography	Flat (sloping near river)	Flat	Flat
Key interfaces	Warrak Industrial Estate Thompson River	West Sale Aerodrome Future Heavy Vehicle Bypass Rail line	Princes Highway Fulham Correctional Centre Council animal pound
Road access	Constrained road access	Direct access future bypass and Heyfield Rd roundabout Secondary access	Direct access to highway Secondary access Hopkins Rd Potential bypass access (Heyfield Rd roundabout)
Rail access	Adjacent rail line (no station)	Adjacent rail line (no station)	Near rail line
Air freight	Near aerodrome	Adjacent aerodrome	Near aerodrome
Infrastructure Costs	Moderate	High (potentially multiple beneficiaries)	High
Native vegetation	Yes	Yes	Yes
Cultural heritage	Sensitivity – CHMP needed	Voluntary CHMP recommended	High sensitivity – CHMP needed
Economic Opportunities	- Extend Warrak Industrial estate - Leverage from existing business relationships and infrastructure	- Integrate with aerodrome uses - Leverage from heavy vehicle bypass	- Leverage from high exposure and access from Highway - Large sites possible
Main challenges	- Road access	- Multiple ownership and reduced prospect of short term transition - Native vegetation	- Development costs and encumbered land (drainage and cultural heritage) - Landowner intentions - Prison interface

Source: Urban Enterprise, 2017

Investigation of Candidate Areas has identified that each site has a range of opportunities and challenges that need to be considered. The Candidate Areas should be considered against the extent to which they meet the following criteria which generally apply to larger format industrial land uses:

1. Low number of land owners, larger lots, regular layout;
2. A low level of "entrenched" uses / investment in improvements, and landowners open to the prospect of selling or developing in the near future;
3. Low levels of encumbrances (eg. flooding, native vegetation, cultural heritage, etc) such that a reasonable proportion of the land can be developed without significant additional costs;
4. Flat land, readily serviced with costs at a level that is unlikely to compromise development feasibility;
5. Sufficient land that is suited to the types of demand identified / aligned with overall economic opportunities;
6. Separated from sensitive land uses;
7. Easily accessed from major roads, freight networks and export infrastructure;
8. Proximity to a labour force, a market and the source of produce; and
9. Ability to leverage from other Council and State investment.

Table S2 provides an assessment of the extent to which the Candidate Areas align with these criteria based on the analysis presented in this report. The assessment shows that although each of the Candidate Areas will have challenges to development, Candidate Area 2 best aligns with the criteria overall. This is primarily because there are no major issues identified with the area which cannot be overcome (i.e. those which present a potential barrier to development) compared with Area 1 (access issues) and Area 3 (potential cultural heritage issues as well as high infrastructure costs and a likely reduction in developable area due to stormwater retention requirements).

The main challenges to developing Candidate Area 2 could be addressed, including:

- Relatively high traffic infrastructure costs could be distributed across multiple beneficiaries; and
- Land ownership may restrict short term development but is not considered likely to be an enduring constraint to development.

Candidate Area 2 also presents significant potential economic benefits and synergies which could be derived from co-location with the Aerodrome (including the opportunity to form a consolidated aviation, manufacturing and business precinct), the potential future heavy vehicle bypass and the potential for long-term rail freight access.

TABLE S2 ASSESSMENT OF CANDIDATE AREAS

Criteria	Area 1	Area 2	Area 3
1	High	Medium	High
2	High	Medium	Medium
3	Medium	Medium	Medium
4	Medium	Medium	Low
5	High	High	High
6	Medium	High	Medium
7	Low	High	High
8	High	High	High
9	Low	High	Medium

Source: Urban Enterprise, 2017

RECOMMENDATIONS, STRATEGIES AND ACTIONS

Candidate Area 2 is recommended as the primary opportunity to provide industrial land. Rezoning of industrial land in this location has the potential to form part of a broader economic precinct which incorporates the West Sale Aerodrome and surrounding public land, supported by major road, rail and air distribution infrastructure.

Given that there are some potential challenges with development of this area which delay ultimate transition of this area to industrial uses, it is recommended that a secondary candidate area is also pursued for rezoning. Candidate Area 1 is considered the best opportunity for short term development given the low infrastructure costs and proximity to an existing industrial area, if road access can be secured and a Cultural Heritage Management Plan is prepared.

Concurrently seeking to advance planning for two separate areas will mitigate the risk of identifying a preferred site which is subsequently found to have considerable development constraints. If both areas are ultimately successful in being rezoned and delivering new land to the market, it is expected that each could play a different and complementary role.

The recommended actions should be undertaken concurrently wherever possible.

STRATEGY 1	**Increase the supply of industrial land suitable for medium and large lots in Sale and Wurruk**
ACTION 1.1	Adopt the Strategy
ACTION 1.2	Allocate resources to the completion of identified actions, including seeking external funding to support actions and catalyst infrastructure where relevant.
STRATEGY 2	**Develop a planning framework to guide and control future development**
ACTION 2.1	Prepare a Planning Scheme Amendment which covers the following actions under Strategy 2.
ACTION 2.2	Identify Candidate Area 1 and 2 as preferred industrial growth areas on the Sale Framework Plan, and retain the identification of Candidate Area 3 as a potential long term industrial growth area subject to demand.
ACTION 2.3	Rezone Candidate Area 1 to the Industrial 1 Zone and Candidate Area 2 to the Industrial 1 Zone or alternative zone associated with the broader economic precinct (such as a Special Use Zone).
ACTION 2.4	Prepare a Development Plan Overlay addressing the actions from Strategies 3, 4 and 5 as relevant, including Environment, Infrastructure and Cultural Heritage actions.
ACTION 2.5	Prepare a Design and Development Overlay addressing the actions from Strategy 6 and incorporating input from the West Sale Aerodrome and RAAF.
ACTION 2.6	Prepare a Development Contributions Plan Overlay and supporting documentation to formalise arrangements for shared infrastructure funding.
STRATEGY 3	**Define potential Cultural Heritage and ecological constraints to development**
ACTION 3.1	Require preparation of a formal Cultural Heritage Management Plan for Candidate Area 1.
ACTION 3.2	Require preparation of a Preliminary Ecology Assessment for Areas 1 and 2 to observe the presence of protected flora and fauna.
ACTION 3.3	Require preparation of a Preliminary Cultural Heritage Survey of Area 2.

STRATEGY 4	**Require consideration of specific infrastructure issues**
ACTION 4.1	Require the preparation of a survey and preliminary stormwater management plan for Candidate 2, ensuring that all findings and options consider ways to integrate with proposed works associated with the Aerodrome expansion.
ACTION 4.2	Require the preparation of a Risk Assessment with V/Line and the Road Authority to reveal the additional impacts on level crossings to be utilised for the relevant candidate area and measures required to mitigate any risk, building on the initial assessment prepared for this strategy.
STRATEGY 5	**Establish formal mechanisms for shared infrastructure funding**
ACTION 5.1	For Candidate Area 1, design suitable road access via Riverside Drive (including any necessary land acquisition or land swaps) and seek a funding contribution from relevant sources, including State government.
ACTION 5.2	As part of future planning for the broader Aerodrome precinct, identify opportunities to co-fund major shared infrastructure items for Candidate Area 2 such as intersections and sewer/water extensions.
ACTION 5.3	As part of any Planning Scheme Amendment, prepare a Development Contributions Plan (or equivalent mechanism) to set out requirements and conditions on which developers share major infrastructure costs.
STRATEGY 6	**Ensure that urban design is optimised both for industrial areas and interface areas**
ACTION 6.1	Apply a Design and Development Overlay which addresses each consideration outlined in this Strategy to any land to be rezoned to the Industrial 1 Zone.
STRATEGY 7	**Establish and promote strategic economic clusters**
ACTION 7.1	Partner with Regional Development Victoria to identify, support and fund the delivery of a strategic regional hub for aviation and related industries in Candidate Area 2 and surrounds.
ACTION 7.2	Prepare a Strategic Property and Economic Opportunities Plan for the broader area surrounding and including Candidate Area 2, incorporating the Aerodrome, other public land and land situated between the Princes Freeway and the rail-line.
ACTION 7.3	Liaise with VicRoads to identify the benefits of Sale Alternate Truck Route to future industrial land in Candidate Area 2 and ensure that planning for the route has regard for future industrial land use in this area.
ACTION 7.4	Partner with Invest Gippsland to promote new industrial land opportunities in Candidate Areas 1 and 2 and identify potential businesses and investors.
ACTION 7.5	In the medium term, liaise with V/Line regarding long term freight distribution options and potential to integrate with Candidate Area 2.

1. INTRODUCTION

1.1. ENGAGEMENT

Urban Enterprise was engaged by Wellington Shire Council (**Council**) to undertake the West Sale and Wurruk Industrial Land Supply Strategy.

This report is the Draft Strategy, which builds on the Analysis, Issues and Options Paper prepared in September 2017.

1.2. SCOPE

The scope of the project is to review the provision of existing industrial land, assess nominated future sites in the Structure Plan and consider future land requirements over the short to medium term in Wurruk and West Sale.

The scope includes:

- A review of the policy, strategy and economic context in Sale and the broader region;
- A thorough consultation program with major authorities, land owners, economic drivers, property interests and planning units;
- An assessment of the industrial demand and supply in Sale and Wurruk;
- An assessment of the infrastructure conditions and any issues associated with developing the Candidate Areas for future industrial land; and
- Identification of issues and options for providing ongoing industrial land supply in Sale.

This Paper will inform the subsequent preparation of a Draft Industrial Land Supply Strategy.

1.3. REPORT STRUCTURE

The report structure for this Draft Strategy includes:

- Section 2 provides a review of the policy strategy and economic context for the project;
- Section 3 includes a summary of the findings from the consultation process;
- Section 4 contains a review of the existing industrial land supply;
- Section 5 provides analysis and projection of demand for industrial land in Sale and Wurruk;
- Section 6 includes analysis of the proposed industrial candidate areas, including the findings of technical reports regarding Cultural Heritage, Infrastructure and Traffic; and
- Section 7 provides a summary of issues and options; and
- Section 8 outlines proposed strategies and actions.

The report is informed by four technical reports which are included in a separate **Appendices Report**.

1.4. CONSULTATION

This report draws on a comprehensive consultation process which invited input from a diverse range of stakeholders including:

- Wellington Shire Council officers within the Strategic Planning, Infrastructure Development and Business Development units;

- State government departments including the Department of Environment, Land Water and Planning (**DELWP**), Department of Economic Development, Jobs, Transport and Resources, (**DEDTJR**) and Regional Development Victoria (**RDV**).
- State government agencies including VicRoads, VicTrack, Environment Protection Authority (**EPA**) and Country Fire Authority (**CFA**).
- Infrastructure authorities including Gippsland Water, the West Gippsland Catchment Management Authority (**WGCMA**), Ausnet, Telstra, NBN.
- Other stakeholders including Aboriginal Victoria, Fulham Correctional Centre, West Sale Aerodrome and the Royal Australian Air Force (**RAAF**).
- All businesses currently occupying industrial land in Sale and Wurruk.
- All landowners within Candidate Area for future industrial land; and
- Selected real estate agents and developers.

Findings from consultation are included in the relevant sections of the report. A list of those consulted is provided in **Attachment C**. It is noted that not all stakeholders contacted provided input to the study.

1.5. KEY DEFINITIONS

INDUSTRIAL LAND

This project considers industrial land. Under the Victorian Planning Provisions at the time of this study, industrial land uses are permitted to establish within a range of planning zones, including the suite of three industrial zones (Industrial 1 Zone – IN1Z, Industrial 2 Zone – IN2Z, and Industrial 3 Zone – IN3Z), along with the Commercial 2 Zone (C2Z). This report defines industrial land as land within the four aforementioned planning zones.

VACANT LAND

In this report, land identified as 'vacant land' includes individual properties that are classified in Council's rates database as 'vacant' or as a 'development site', and/or was identified by a review of aerial photography or during a site visit as not being used for business purposes (i.e. no storage of materials, no visible business activity, no major improvements, etc). In some cases, sites with significant improvements may be identified as 'vacant' even though the buildings are not currently occupied (e.g. Nylex in Sale).

INDUSTRIAL LAND USE

Under the land use terms as defined in the Victorian Planning Provisions (clause 75), industrial land use generally falls within two broad land use terms as follows:

- "Industry", including materials recycling, refuse disposal, research and development centre, rural industry (such as abattoirs and sawmills), services industry (such as car wash and motor repairs), and
- "Warehouse", including commercial display areas, fuel depots, mail centres, milk depots and stores (such as boat and caravan storage, shipping container storage and others).

Although some other land uses are commonly found to be using industrial land (such as recreation, religious, transport terminals, offices, retail and utilities), references in this report to industrial land uses or users generally refer to the main uses of 'industry' and 'warehouse'.

INDUSTRIAL BUSINESSES AND EMPLOYMENT

Businesses and jobs in Australia are categorised by reference to the Australian and New Zealand Standard Industry Classification (ANZSIC) Code, which includes 16 broad industries. The ANZSIC industries which most closely align with and reflect industrial land use include:

- Manufacturing;
- Construction;
- Transport, Postal and Warehousing; and
- Wholesale Trade.

Other industries include both occupation and business types which typically use industrial land and other uses that typically *do not* use industrial land, including:

- Mining;
- Electricity, Gas, Water and Waste Services;
- Other services; and
- Rental, Hiring and Real Estate Services.

References to industrial 'industries' or business types generally to businesses and jobs within these ANZSIC codes.

DATA AREAS

Several different data areas are used within this report and are identified throughout this report. Refer to **Attachment A** for data area mapping.

2. POLICY AND STRATEGY CONTEXT

2.1. INTRODUCTION

This section provides an overview of the policy and strategy context for the project.

2.2. PLAN MELBOURNE

Plan Melbourne is guided by nine key principles, of which linking regional Victoria to Melbourne is one. This connectivity throughout the state aims to create increased economic opportunities through physical, social and economic links to the central cities.

Sale is identified as a Regional Centre, with the nearest Regional Centre in Gippsland being Bairnsdale and the nearest Regional City being Latrobe City.

The Plan also identifies the potential for a future airport to serve the long-term needs of the south-east Melbourne and the Gippsland region, which is relevant to potential future freight export opportunities and industrial land location decisions.

2.3. THE LATROBE VALLEY ECONOMIC GROWTH ZONE

Recently, the Latrobe Valley Economic Growth Zone was established, with financial incentives aiming to create jobs and grow local businesses in the region. Financial incentives include the reimbursement of a range of government fees and charges as well as property transactions. The incentives aim to retain these businesses in the region for an extended period to support the economic activity in the Latrobe Valley.

2.4. WELLINGTON PLANNING SCHEME

The Wellington Municipal Strategic Statement (MSS) identifies Sale as the main employment, education, medical and commercial centre of the Shire, providing a service role for the surrounding region of smaller towns and settlements. The MSS aims to establish the wider Sale region as a thriving regional city.

The MSS identifies that:

- Diversity of economic activity is a strength within Sale;
- The airfields in Wellington are important economic development assets;
- It is important to actively seek and develop new business opportunities, while generating wealth that stays in the Shire and provides employment;
- Sale, Wurruk and Longford will become strengthened with the development of the Defence sector as well as expansion of the oil and gas industries, and growth in health, education, recreation, tourism, retailing and general industry;
- The West Sale Aerodrome is as a key precinct to be developed as an industrial node;
- Wurruk is a location with the opportunity to provide the establishment of new industries and as a secondary activity node to complement Sale.
- The objective to facilitate industrial development in Sale and Wurruk includes the facilitation of westward expansion of the existing Wurruk Industrial Estate, along with the establishment of a multimodal interchange/transport and logistics hub at the West Sale Aerodrome. Land south of the Aerodrome and the Princes Freeway is also highlighted for large scale industry in the long term.

- Aviation, timber and tourism industrial sectors are important industries for development in the area.

2.5. SALE, WURRUK AND LONGFORD STRUCTURE PLAN

The Sale, Wurruk and Longford Structure Plan was prepared in 2010. The Structure Plan identified areas of residential growth in the Northern Growth Area (North Sale) as well as in the Western Growth Area (Wurruk) to accommodate expected population growth.

The objectives of the Structure Plan in relation to industry included:

- Protect existing industrial operations;
- Provide economic development and employment opportunities;
- Protect and enhance the capacity for RAAF Base and the Aerodrome to develop as major employment bases;
- Provide a multi-modal freight exchange area; and
- Enhance transport access to industrial areas.

The Structure Plan identified three candidate areas to be investigated for future industrial land at Wurruk, the West Sale Aerodrome and Fulham. These sites (shown in Figure 1) provide a total of almost 220 ha of potential industrial land. The sites are also shown within the Sale settlement boundary in the Sale Framework Plan (as part of the Gippsland Regional Growth Plan).

FIGURE 1 LOCATION OF FUTURE INDUSTRIAL AREAS, WEST SALE AND WURRUK

Source: Sale Wurruk and Longford Structure Plan, 2010

2.6. KEY POINTS

The important implications of the policy and strategy context for industrial land in Sale include:

- State policies identify the Latrobe region as a focus for economic growth, while Sale is identified as a Regional Centre which should accommodate a range of services to support the surrounding region.
- Strengths of the economy in Sale include the defence and aviation sectors, oil and gas, and a diverse economy which enables the town to operate as a service centre for the broader region.

- Aviation, including the RAAF base and the West Sale Aerodrome, is a major opportunity for economic growth and employment in Sale and surrounds; and
- Three key sites to the west of Sale were identified for investigation for future industrial uses.

3. ECONOMIC CONTEXT

3.1. INTRODUCTION

This section provides an overview of the existing economic context in Sale and the broader Gippsland Region and implications for industrial land in and near Sale.

3.2. GIPPSLAND REGION

The Latrobe Valley Industry and Employment Roadmap[1] identified that much of the region's competitive advantages are "located in the region's resource-based industries, including new employment that will be associated with the diversification of the region's energy sector, the expansion of agriculture and forestry, growth in advanced manufacturing and growth in population driven segments of the region's service industries and public sector."

The Gippsland Regional Growth Plan identified that:

- "To grow and diversify Gippsland's economy, efforts should be focused on the sectors of energy and earth resources, agriculture, forestry, fisheries, commercial and industrial development, and construction."
- There are natural mineral deposits "throughout much of Gippsland that could generate future economic activity".
- Morwell is a location where freight and logistics precincts would enable consolidation of freight activities and opportunities to increase the use of rail.
- The areas surrounding Sale include the Macalister Irrigation District which is to be protected as a "key asset for horticulture and dairy production" and "key agriculture and forestry land" to be protected to support "food production for domestic and export markets", and
- Sale is a "diverse commercial centre" where there is the opportunity to support "healthcare, retail, manufacturing and professional services" and "to increase defence industries and training". Opportunities for nearby towns of Maffra and Longford include "food manufacturing hubs that add value to local agricultural products".

The Gippsland Regional Growth Plan identifies the importance of productive agricultural land to the Gippsland economy, and includes a plan[2] which identifies that the majority of land in the region is classed as 'productive agricultural land'. Land to the north and north west of Sale is identified as 'prime productive agricultural land', which generally aligns with the Macalister Irrigation District.

3.3. WELLINGTON SHIRE ECONOMY

Key observations based on previous reports, data analysis and consultation relating to the Wellington economy are as follows:

- Wellington's Gross Regional Product is estimated at $2.534 billion. Wellington represents 18% of Gippsland Region's GRP of $14.240 billion. Both GRP per capita and GRP per worker are higher in Wellington than for the Gippsland Region.[3]

[1] State Government of Victoria, 2012.

[2] Figure 14 of the Gippsland Regional Growth Plan Background Report, p.25

[3] Remplan Economy Profile, 2015, Wellington Shire website

- The industries with the greatest value added are mining, rental hiring and real estate services, public administration and safety, and agriculture. Manufacturing represents a relatively low proportion of value added in Wellington (5.9%) compared with Gippsland (7.8%) and Victoria (10.1%).[3]
- The major industries which have underpinned Wellington's economy for some time include Defence, Public Administration, Oil and Gas, Health and Agriculture (particularly dairy). However, many of these industries are 'mature' and not necessarily expected to contribute to substantial jobs growth in the future.
- The unemployment rate in Wellington has increased steadily over the past 5 years, from 4.2% in March 2012 to 6.5% in March 2017, although the current rate is lower than neighbouring municipalities of Latrobe (10.2%) and East Gippsland (8.7%).[4]
- Sale is the major service centre for Wellington Shire, accommodating 44% of all employment (6,286 jobs).[5] Sale and Wurruk accommodate 51% of Wellington's Construction jobs, 51% of Wholesale trade jobs and 34% of Manufacturing jobs.
- The industrial business mix in Sale is generally comprised of small to medium companies, many of which perform "secondary" roles (i.e. businesses providing trades, products, equipment and services to support other industries in the region). The most common industry using industrial land in Sale is Construction, with several businesses also in the Manufacturing, Wholesale trade, and Transport industries.

3.3.1. WELLINGTON ECONOMIC DEVELOPMENT STRATEGY

The Wellington Economic Development Strategy (**EDS**) identifies many key industries that play a significant role in the Wellington economy and the importance of these industries in shaping the future of the region. The following section summarises important economic data and strategic direction that is identified in the EDS and the strength and weaknesses of the economy.

AGRIBUSINESS

The agribusiness industry has the largest physical presence in the Shire and generates a total output close to $5 billion. In dairy alone, it is currently worth around $820 million in farm, manufacturing and export value, approximately 6% of the national total. More than 10% of Wellington's workforce is employed in this sector.

The Shire also has 62% of Gippsland's private timber plantations and three timber mills. Wellington's large agribusiness sector creates service demand across the economy everything from machinery to training. Growth in agribusiness may not always result in a high number of new jobs in the industry, but it creates many more elsewhere in the economy, making it one of the most important sectors in Wellington.

Council will support the expansion and diversification of agribusiness activity. This includes considering productivity improvements through infrastructure investment and innovation, new niche markets, including agribusiness training, and new sectors (e.g. horticulture). In timber, the emphasis is on greater efficiency in milling, the potential use of biomass to become more energy efficient, and expanding both domestic and international markets.

These opportunities rely on better connectivity to suppliers and markets. Given the size of agribusiness and its importance across the region, the recently established Invest Gippsland group, led by Regional Development Australia, will continue support for the sector.

[3] Small Area Labour Markets, March Quarter 2017.

OIL AND GAS

Oil and gas extraction and processing directly employs around 350 people in Wellington at Exxon Mobil, which produces about 70% of Victoria's gas supply from the Longford plant. For the new few decades, it is expected that this sector will provide a large and stable number of secure, well paid jobs.

As the recent land use activity audit found, while the industry is mature and unlikely to expand much further, it has supported the creation of a significant number of supply chain enterprises in the Shire, particularly engineering, manufacturing and logistics firms, at a scale rarely found in rural Australia. This cluster is concentrated in Wurruk.

The key to supporting this industry is continuing to ensure that local quality of life attracts and retains workers in the region and reduces labour turnover rates.

PUBLIC ADMINISTRATION

Public administration. One sector that often goes unacknowledged when taking stock of local economic strengths is public administration. At the last Census, there were over 900 people working in this sector (not including Defence). This includes local, State and Commonwealth government agencies, as well as Fulham Correctional Centre. This sector has several distinct advantages including stable employment.

STRENGTHS AND WEAKNESSES

The Wellington Economic Development Strategy 2016 – 2022 (**EDS**) identified that:

- Wellington has both diversity and specialisation meaning it does not rely on just one industry sector for its economic security. Its benefits from specialisation in agribusiness, defence, oil and gas, public administration and health, which, together employ around 60% of the workforce;
- There is a growing number of people who are choosing to live in Wellington and commute to other parts of Gippsland for work (primarily Latrobe);
- Notwithstanding the stability, there are still some challenges:
    - Some of Wellington's major industries are quite mature and therefore not expected to contribute to job growth in a significant way in the future;
    - The level of commuting shows that there is relatively high economic integration within the region. This integration strengthens the local economy by creating bigger labour pools to draw from and consumer markets to sell into. However, it comes at the cost of lower employment self containment and self-sufficiency;
    - The number of university educated residents is steadily growing, but, from a low base, with the number of young graduates lower than for the rest of rural Victoria;
    - The proportion of working age residents is higher than for the rest of rural Victoria, but, overall, population growth is low. In fact, according to the State Government forecasts, it is at the lower end of the expected range for Gippsland;
    - Infrequent rail services between Melbourne and Sale/Bairnsdale will hamper economic growth in the region.

Figure 2 compares the local strength and estimated growth potential of the major industry sectors and subsectors in Wellington. The following sectors are identified as having both "industry growth potential" and "local competitive strengths":

- Aviation and Defence;
- Dairy cattle farming;
- Mining support; and
- Intensive agriculture.

Other industries with growth potential include forestry support, mineral product manufacturing, cement manufacturing, food and beverage services, heavy and civil engineering, and medical and other healthcare.

FIGURE 2 LOCAL INDUSTRY STRENGTH AND ESTIMATED GROWTH POTENTIAL

Source: Wellington Economic Development Strategy 2016 - 2022

INFRASTRUCTURE AS A DRIVER OF FUTURE GROWTH

The EDS highlights the importance of infrastructure and land supply in supporting economic and industrial development, including:

- The Macalister Irrigation District (MID) 2030 project has already delivered a substantial upgrade to one of Australia's most important irrigation infrastructure assets. It continues to increase agricultural output and investment, particularly in dairy, but increasingly in intensive horticulture. There is still some way to go to expand the system to its fullest potential, and given the likely impact of climate change on water security, the MID, and the region is an important agricultural asset;
- The duplication of the Princes Highway is making the journey to Traralgon and Melbourne safer and faster, improving connectivity for business travelers, freight and visitors. Better passenger rail services will further improve this connectivity;
- The Sale Alternate road route is important for Gippsland, but comes with the challenge of minimising any negative consequences for Sale itself;
- The EDS highlighted the importance of maintaining commercial and industrial land audits to monitor emerging and declining industries. Previous audits have found that although there is enough industrial land in the Shire to meet foreseeable demand, it is not all ideally located to be attractive to business; is not necessarily made up of the right lot sizes; or is not well serviced.

3.4. TRENDS, PROJECTIONS AND MAJOR PROJECTS

The following trends and projections for employment and industry changes are noted:

- Employment in Sale and Wurruk has increased by approximately 500 jobs over the past 10 years, with the greatest increases recorded in the Healthcare, Retail Trade, and Education and Training sectors. Industrial sectors have experienced mixed employment change, with small increases in Construction, Transport and Wholesale Trade employment offset by decreases in Manufacturing and Mining. The number of industrial businesses based in Sale has also increased slightly over the past 2 years, however some industries have contracted (e.g. Transport and Wholesale Trade).[5]
- Regional employment projections are for a decline in employment over the next 5 years in the Manufacturing and Mining industries (decrease of 500 jobs), offset by a projected increase in Construction, Transport, and Rental, hiring and real estate services employment (+ 500 jobs).[6]
- Population growth is projected to continue in Wellington Shire and Sale, with a rate of around 1% per annum projected for Sale (an additional 153 residents per annum). If realised, this level of growth would generate incremental increases in demand for local industrial land.

Importantly, several strategic infrastructure and other projects are underway or proposed in Wellington Shire and Sale which may present new business opportunities and flow on impacts for the Sale economy, including:

- West Sale Aerodrome expansion;
- East Sale RAAF base expansion and consolidation of a national training role;
- Princes Highway duplication and improvements to the railway line between Melbourne and Traralgon;
- A potential future alternative truck route which would bypass Sale via the Sale-Heyfield Road;
- Investment by Wellington Shire as part of the Port of Sale Precinct Redevelopment; and
- Planned and potential strategic infrastructure investment at the south-eastern fringe of Melbourne, including an expanded Port of Hastings and the prospect of a new airport at Koo Wee Rup.

However, a number of issues have created significant uncertainty regarding the short and long-term prospects of major industries near Sale, including:

- Closures and uncertainty relating to the future role of the coal mining / energy production industry in Latrobe;
- Reduced timber allocation to the Australian Sustainable Hardwoods mill in Heyfield;
- Milk price volatility impacting dairy farmers across Wellington Shire (and Victoria); and
- Industrial relations disputes and changing labour sourcing practices within Wellington's oil and gas industry.

Table 1 shows the unemployment rate for Wellington Shire and surrounding municipalities. This shows that over the last 5 years there has been an increasing trend in unemployment across the municipality, a trend which can been seen in all municipalities in the Gippsland region over this period. Despite this, Wellington remains with one of the lower rates of unemployment in the region.

[5] Australian Bureau of Statistics, 8165.0 - Counts of Australian Businesses, including Entries and Exits, Jun 2012 to Jun 2016.

[6] Australian Government Department of Employment, 2016 Regional Projections.

TABLE 1 UNEMPLOYMENT RATE, LATROBE-GIPPSLAND SA4, MARCH 2011-2017

Local Government Area	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
East Gippsland	5.4%	5.4%	5.7%	6.2%	6.1%	8.0%	8.7%
Wellington	**4.6%**	**4.2%**	**4.3%**	**4.5%**	**4.9%**	**5.1%**	**6.6%**
Latrobe	7.5%	8.5%	6.7%	7.2%	7.0%	9.4%	10.2%
Baw Baw	3.6%	3.5%	3.6%	4.0%	3.7%	4.7%	5.0%
South Gippsland	3.4%	3.1%	3.2%	3.7%	3.5%	4.5%	4.8%
Bass Coast	5.0%	4.3%	4.7%	5.0%	5.7%	7.3%	7.7%

Source: Small Area Labour Markets, March Quarter, 2017

Employment projections for the broader Gippsland region suggest that there is to be little to no net employment growth in industries that require industrial land in the short term, primarily due to structural transition occurring in the energy and mining industries and flow-on impacts.

Employment projections for the Gippsland-Latrobe SA4 region project declines in employment in the Mining and Manufacturing industries, while Construction, Wholesale Trade and Transport, Postal and Warehousing are projected to experience minor increases. Rental, Hiring and Real Estate services is expected to experience a large increase relative to the size of the industry, however most of this employment is unlikely to be experienced in industrial zones.

Although projections indicate weak industrial growth in the short term, structural changes in the economy may present the opportunity for reinvestment in other industries based on government investment and the availability of labour and local produce.

TABLE 2 PROJECTED EMPLOYMENT BY INDUSTRY IN GIPPSLAND-LATROBE, NOVEMBER 2020

Industry	Employment level Nov-2015 ('000)	Department of Employment Projections		
		Projected employment level Nov-2020 ('000)	Projected employment growth - five years to November 2020	
			('000)	(%)
Agriculture, Forestry and Fishing	16.3	16.8	0.5	3.0
Mining	1.4	1.3	-0.2	-11.2
Manufacturing	8.1	7.7	-0.4	-4.8
Electricity, Gas, Water and Waste Services	3.5	3.5	0.0	0.4
Construction	12.1	12.4	0.2	2.0
Wholesale Trade	2.9	2.9	0.0	1.6
Retail Trade	13.5	14.6	1.2	8.7
Accommodation and Food Services	9.4	10.6	1.2	12.9
Transport, Postal and Warehousing	4.1	4.3	0.2	5.9
Information Media and Telecommunications	1.1	1.2	0.0	3.8
Financial and Insurance Services	2.2	2.3	0.1	4.7
Rental, Hiring and Real Estate Services	1.1	1.3	0.2	15.4
Professional, Scientific and Technical Services	4.2	4.3	0.1	3.2
Administrative and Support Services	3.9	4.1	0.2	5.5
Public Administration and Safety	7.9	8.1	0.2	2.4
Education and Training	8.3	8.4	0.1	0.9
Health Care and Social Assistance	13.9	16.4	2.5	17.8
Arts and Recreation Services	1.6	1.7	0.1	4.2
Other Services	4.2	4.3	0.0	-1.1

Source: ABS labour force region - SA4 data, 2016 Regional Projections to November 2020

3.5. KEY FINDINGS

The key findings of this section are as follows:

- The key economic strengths of Wellington generally include defence, aviation, high quality agricultural land and oil and gas production.
- The Wellington Shire economy is relatively well diversified and is not reliant on a single industry to support the region, however many established industries are relatively mature and unlikely to drive major economic and employment growth.
- Major infrastructure investment is protecting existing strengths in high quality irrigated agricultural land and enhancing access and proximity to markets through improved road and rail infrastructure.
- Council expects economic opportunities to be generated in the industries of Aviation and Defence, Dairy cattle farming, Mining support, and Intensive agriculture.
- Sale plays an important role as a major service centre for the region, and as an industrial base for the major industries nearby, particularly oil and gas; and
- Improvements and expansions of existing aviation infrastructure near Sale, including the East Sale RAAF Base and the West Sale Aerodrome, is likely to drive new economic opportunities in the aviation and related industries in Sale.

4. INDUSTRIAL LAND SUPPLY

4.1. INTRODUCTION

This section provides an assessment of the existing supply of industrial land in Sale and Wurruk, as well as an overview of previous land supply studies for the area. This analysis focuses primarily on land in the Industrial 1 Zone, with a secondary review of land in the Commercial 2 Zone.

4.2. PREVIOUS LAND SUPPLY ASSESSMENTS

Previous assessments of industrial land supply in Sale are summarised as follows (noting that these reports considered land in the Industrial 1 Zone only):

- **Sale Industrial & Bulky Goods Zone Areas Review,** David Langmore (2004). The report identifies that there was approximately 100 hectares of IN1Z land in Sale. Of this zoned land, 28.8ha was identified as vacant industrial land. The report recommended that approximately 40-50 hectares of suitable land be rezoned to industrial zones. The period of projection for this report was 20 years.
- **Sale Industrial land and Retail Assessment,** Essential Economics (2006). As at 2006, Essential Economics identified that Sale had 100ha of industrial land, 22ha of which was potentially available for industrial development. It was estimated by Essential Economics that there would be demand for 60ha of industrial land by 2031 (25-year projection), meaning that approximately an additional 50ha of land would need to be rezoned to accommodate for annual growth, strategic development sites and relocation or expansion of existing businesses.
- **Industrial and Business Zones Review,** Coomes Consulting (2007). Adopted the same industrial land requirements of 50ha, plus bulky goods land requirement of 10-15ha. The West Sale Aerodrome site was identified as the preferred location for industrial rezoning.

4.3. CURRENT LAND SUPPLY

An audit of industrial land was undertaken by Urban Enterprise in August 2017 based on Council's rates database and verified through site visits.

It is estimated that there is currently 90.8 hectares of land in the Industrial 1 Zone in Sale, 71.1 hectares of which is occupied, and 18.7 hectares is vacant. 46.3 hectares of land is within the Commercial 2 Zone, 18.8 hectares of which are vacant and unconstrained.

Figure 3 shows the location of the existing industrial and commercial precincts in Sale and Wurruk. Each are located and labelled with an identification number and a precinct name. Land supply information is summarised in Table 3.

It is important to note that one industrial rezoning has occurred since the previous reports were prepared. In 2017, Amendment C81 rezoned approximately 7 hectares of unused public land from the Industrial 1 Zone to the Farming Zone and Public Park and Recreation Zone north of Raglans Street and west of Sakeyards Road (to the west of Precinct 2). The supply figures in this assessment do not include the land formerly in the IN1Z in that area. This is likely to be the cause of some discrepancy in the supply figures of this assessment and previous assessments.

FIGURE 3 LOCATIONS OF EXISTING INDUSTRIAL AND COMMERCIAL PRECINCTS, SALE AND WURRUK

Source: Urban Enterprise, 2017

TABLE 3 EXISTING INDUSTRIAL LAND SUPPLY BY PRECINCT, SALE, 2017

ID	Industrial Precincts (IN1Z)	Occupied	Vacant	Constrained	Total	% of sub-total	Vacancy (%)
1	Wurruk	18.6	3.9	0	22.5	25%	17%
2	Sale West	22.6	3.5	0	26.1	29%	13%
3	Sale East	25.2	10.7	0	35.9	40%	30%
4	Sale South	4.7	0.6	1.0	6.3	7%	10%
	Sub Total	**71.1**	**18.7**	**1.0**	**90.8**		21%
	Commercial Precincts (C2Z)						
5	Sale CBD	4.4	0.4	0	4.8	10%	8%
6	Sale North	12.8	18.8	0	30.6	66%	60%
7	Wurruk East	2.2	0.1	0	2.3	5%	4%
8	Sale South West	8.5	0	0	8.5	18%	0%
	Sub Total	**27.5**	**18.8**	**0**	**46.3**		**41%**
	Total	**98.1**	**37.5**	**1.0**	**136.6**		**27%**

Source: Wellington Shire Council Rates Data, 2017

LOT SIZE PROFILE

Table 4 shows the distribution of lot sizes within each precinct and Table 5 identifies the distribution of lot sizes of only the vacant parcels within these precincts. Analysis of the tables shows

- More than 80% of industrial lots are less than 0.5 hectares in size and none are larger than 10 hectares;
- Only 2 vacant industrial lots are greater than 1 hectare, one of which (Sale East – Wellington Business Park) is proposed to be subdivided for smaller lots and the other is owned by Gippsland Grammar and is not currently advertised for sale. This indicates a lack of capacity within the existing precincts to cater for medium and large strategic businesses to locate in Sale; and
- There are 21 smaller vacant industrial lots (less than 0.5 hectares) dispersed across Sale and Wurruk. These are mostly the remaining undeveloped lots from older subdivisions.

Figure 4 shows the location of the vacant industrial and Commercial 2 lots.

TABLE 4 PARCEL SIZE BY PRECINCT, SALE AND WURRUK, 2017

Size Category	Small		Medium		Large		
Industrial Precinct (Parcel size)	0 - 0.1	0.1 - 0.5	0.5 - 1	1 - 2	2 - 10	10+	Total
Wurruk	0	25	5	2	1	0	**34**
Sale West	12	15	5	6	2	0	**40**
Sale East	18	69	4	5	1	0	**94**
Sale South	1	7	3	1	0	0	**12**
Sub-total	**31**	**114**	**17**	**14**	**4**	**0**	**180**
Commercial Precinct (C2Z)	**0 - 0.1**	**0.1 - 0.5**	**0.5 - 1**	**1 - 2**	**2 - 10**	**10+**	**Total**
Sale CBD	17	11	1	0	0	0	**29**
Sale North	25	23	6	3	0	1	**58**
Wurruk East	2	2	1	1	0	0	**6**
Sale South West	4	4	1	1	1	0	**11**
Sub-total	**17**	**11**	**1**	**0**	**0**	**1**	**104**
Total	**79**	**154**	**26**	**19**	**5**	**1**	**284**
% of Total	28%	54%	9%	7%	2%	0%	

Source: Wellington Shire Council, 2017

TABLE 5 VACANT LOT PARCEL SIZE BY PRECINCT, SALE AND WURRUK, 2017

Size Category	Small		Medium		Large		
Industrial Precinct (Parcel size)	0 - 0.1	0.1 - 0.5	0.5 - 1	1 - 2	2 - 10	10+	Total
Wurruk	0	9	2	0	0	0	**11**
Sale West	1	1	1	0	1	0	**4**
Sale East	0	6	0	0	1	0	**7**
Sale South	1	3	1	0	0	0	**5**
Sub-total	**2**	**19**	**4**	**0**	**2**	**0**	**27**
Commercial Precinct (C2Z)	**0 - 0.1**	**0.1 - 0.5**	**0.5 - 1**	**1 - 2**	**2 - 10**	**10+**	**Total**
Sale CBD	2	1	0	0	0	0	**3**
Sale North	4	9	0	1	0	1	**15**
Wurruk East	1	0	0	0	0	0	**1**
Sale South West	0	0	0	0	0	0	**0**
Sub-total	**7**	**10**	**0**	**1**	**0**	**1**	**19**
Total	**9**	**29**	**4**	**1**	**2**	**1**	**46**
% of Total	20%	63%	9%	2%	4%	2%	

Source: Wellington Shire Council, 2017

FIGURE 4 LOCATION OF VACANT LOTS IN EXISTING PRECINCTS, SALE AND WURRUK

Source: Urban Enterprise, 2017

UNOCCUPIED INDUSTRIAL SITES

There were a number of industrial sites that were observed on the site visit to be unoccupied but not vacant, including two large strategic sites

- The former Nylex site in Precinct 2; and
- The former Avon Building Supplies site in Precinct 4.

These sites have not been included as 'vacant' supply as they do not represent a site that any business could immediately occupy and operate from given the substantial depreciated improvements on the site. These sites could provide a suitable location for certain larger businesses, however significant costs would be incurred in order to make the site fit for the new purpose. Unless specific locational advantages are seen in occupying established unoccupied sites, new businesses would more commonly seek vacant greenfield sites that can be improved to meet the specific needs of that business.

The former Avon Building Supplies site and surrounding land in Precinct 4 is identified in the Structure Plan as a 'Future Urban Residential' area and therefore is unlikely to play a role in providing industrial land supply in the future.

4.4. INDUSTRIAL PRECINCT PROFILES

This section provides an analysis of the conditions within existing industrial precincts in Sale and Wurruk based on Council's rates database, Australian Business Register data, Remplan Economy Data (for Council) and site visits. Some gaps in the ABR data are apparent, however this data provides a reasonable overview of the type of businesses which occupy each precinct.

4.4.1. WURRUK

LAND SUPPLY

- 22.5 hectares of zoned IN1Z land;
- A dedicated industrial subdivision;
- Many sites are occupied, however 3.9 hectares of land remains vacant in 11 properties (9 of which are less than 0.5ha).
- Lots commonly between 0.1 to 0.5 hectares, with only three larger lots over 1 hectare in area.
- One large lot greater than 2 hectares occupied by engineering facility 'Rotatab'.

BUSINESSES AND EMPLOYMENT

As shown in Table 6, the most common business types are within the Construction, Other services, Manufacturing and Transport industries. Employment is primarily in the Manufacturing and Construction industries. A number of large format manufacturing business are located in this area which serve the oil and gas industry.

TABLE 6 BUSINESS ACTIVITY AND EMPLOYMENT BY INDUSTRY, WURRUK

Industry	Number of businesses	% of Total	Employment %
Construction	3	15%	12%
Manufacturing	3	15%	27%
Other Services	3	15%	9%
Transport, Postal and Warehousing	3	15%	6%
All other industries	8	40%	50%
Total	**20**		

Source: Australian Business Register 2017, Remplan Economy, 2017.

INTERFACES

This precinct has interfaces with the Thomson River to the north, residential properties to the west, farming land to the west and the Melbourne to Bairnsdale rail-line to the south. Residential land in Wurruk is located to the south of the Princes Highway, with a separation distance of more than 100m. The western boundary of the area is separated from the residential zone by approximately 60m of parkland. An active recreation reserve is located to the north of the industrial area.

Overall there is good separation between the industrial uses and sensitive uses and no apparent interface issues.

ACCESS

The industrial properties do not share road use with the residential properties with a designated road (Hunt Place) providing access to the precinct from the Princes Highway via a roundabout. No access issues are apparent.

4.4.2. SALE WEST

LAND SUPPLY

- This precinct has a total of 27.1 hectares of industrial land across four separate areas.
- There is 3.5 hectares of vacant land across four properties, although the largest vacant property (more than 2 hectares) is owned by the nearby Gippsland Grammar School.
- The majority of the properties are less than 0.5 hectares, with 5 lots between 1 to 2 hectares.
- 2 large lots (greater than 2 hectares), occupied by the stock saleyards a vacant site owned by Gippsland Grammar School.

BUSINESSES AND EMPLOYMENT

Two major types of business activity are prominent in this area: Construction and Other Services, as shown in Table 7.

TABLE 7 BUSINESS ACTIVITY BY INDUSTRY, SALE WEST 2017

Industry	Number of businesses	% of Total	Employment %
Construction	7	30%	10.7%
Other Services	7	30%	9.1%
Retail Trade	3	13%	15.6%
All Other	6	26%	64.6%
Total	**23**		

Source: Australian Business Register, 2017

INTERFACES

There are a number of interfaces with sensitive uses throughout the precinct. The northern and southern industrial properties directly abut residential properties. The majority of sites are within 300 metres of residential areas, indicating the interface conflicts are likely to occur in this area.

ACCESS

Road access to the precinct is primarily via the busy Saleyards Road, which is not proximate to any arterial roads or the Princes Highway. Residential traffic also utilises this road through connections with Dawson Street and Cemetery Road. The rail-line dissects the precinct and provides a barrier to movement.

Overall, large vehicle access to the precinct from main roads is poor and a number of access conflicts are apparent.

4.4.3. SALE EAST

LAND SUPPLY

- The precinct includes the Wellington Business Park and contains the largest amount of industrial land of any precinct (35.9 hectares).
- The precinct includes land both north and south of Raglan Street.
- A total of 10.7 hectares is vacant, most of which is at the north eastern part of the precinct which is being progressively subdivided to create smaller lots (approximately 2,000 sqm).
- Most lots in this area are relatively small (70% are between 0.1 and 0.5 hectares).
- One 'balance' lot is more than 5 hectares which is proposed for further subdivision in the future.

- This precinct has 6 vacant lots, all sized between 0.1 and 0.5 hectares.

BUSINESSES AND EMPLOYMENT

The most common industry of businesses operating in the precinct is Construction. GBG Concrete & Construction occupies approximately 5 hectares of land in the Wellington Business Park. Many new businesses in the area (occupying newly constructed small warehouse / office premises) are commercial or recreational in use, including a number of businesses associated with aviation and the RAAF base in East Sale (eg. flight simulators).

TABLE 8 BUSINESS ACTIVITY BY INDUSTRY, SALE EAST 2017

Industry	Number of businesses	% of Total	Employment %
Construction	10	19%	27.1%
Professional, Scientific and Technical Services	7	13%	2.0%
Wholesale Trade	6	11%	2.4%
Retail Trade	6	11%	3.0%
All Other	24	45%	65.5%
Total	**53**		

Source: Australian Business Register, 2017; Remplan Economy, 2017.

INTERFACES

The Wellington Business Park primarily interfaces with farming land to the north and east. To the west, there is a separation of approximately 200 metres to any sensitive uses (residential), indicating limited chances of interface conflicts.

South of Raglan Street, however, industrial land directly abuts residential properties on three sides presenting a clear interface conflict and a high likelihood of conflicts associated with noise, light and other issues.

ACCESS

Access to the Wellington Business Park is good for large vehicles from Raglan Street, a Council arterial road, which connects the Princes Highway to the RAAF Base in East Sale. South of Raglan Street, the access points to the industrial and residential areas are shared.

The access is appropriate for a secondary industrial area, however access is not optimal for larger businesses and transport oriented uses which would generally seek direct or proximate access to a major highway without the need to travel through a major centre or utilise other access roads.

4.4.4. SALE SOUTH

LAND SUPPLY

- This small precinct has a total of 6.3 hectares.
- 1.5 hectares is currently vacant, with approximately 1 hectare of this supply being constrained by the Land Subject to Inundation Overlay (**LSIO**). Some former warehouses have recently been demolished, with these parcels now vacant.
- There are only 12 lots in this precinct, most between 0.1 and 0.5 hectares. There is only one lot greater than 1 hectare in size.
- There are 4 vacant parcels, 3 of which are between 0.1 and 0.5 hectares.

The former Avon Building Supplies site and surrounding land in Precinct 4 (Sale South) is identified in the Structure Plan as a 'Future Urban Residential' area and therefore is unlikely to play a role in providing industrial land supply in the future.

BUSINESSES AND EMPLOYMENT

The most prevalent business industry is Other Services, which are largely mechanical and automotive services. Education and training, Public administration & safety and Manufacturing industries are also represented, along with wood product manufacturing and a maintenance depot for Gippsland Grammar.

TABLE 9 BUSINESS ACTIVITY BY INDUSTRY, SALE SOUTH 2017

Industry	Number of businesses	% of Total	Employment %
Other Services	4	44%	2.4%
Education and Training	1	11%	14.2%
Manufacturing	1	11%	1.2%
Public Administration & Safety	1	11%	40.0%
All Other	3	33%	42.1%
Total	**9**		

Source: Australian Business Register, 2017

INTERFACES

Interfaces with sensitive uses exist to the south of the precinct, with residential properties separated from the industrial area by Stephenson Street. Relatively new residential lots to the south east are all within 200m of the existing industrial area, presenting a potential land use conflict.

The northern edge of the main industrial area has a small landscape buffer of 50 metres. The interface at McMillan Street has residential properties accessed from the same street as industrial properties, however industrial uses in this area are light (maintenance depot and storage sheds).

ACCESS

The precinct is well located adjacent to the South Gippsland Highway, providing direct large vehicle access. Some access conflicts with residential traffic exist on McMillan and Stephenson Streets, however. The precinct has reasonable proximity to the Princes Highway however proximity to the CBD limits efficiency of this access to the freeway network in both directions.

4.5. COMMERCIAL PRECINCTS

The extent to which land currently in the Commercial 2 Zone provides appropriate opportunities for industrial land use is summarised as follows:

- C2Z land in the Sale CBD occupies a total of 4.8 hectares, with only 0.4 hectares vacant. All vacant lots are less than 0.5ha. The central location within the township and the access to the main road contributes to the high occupancy rate, generally by retail and highway sales businesses.
- C2Z in Sale North is the largest concentration of land in that zone, with a total of 30.6 hectares of zoned land north of the Sale CBD, 16.3 hectares of which is vacant and yet to be developed. A number of vacant lots exist in this precinct, however all (except for the large strategic development site) are less than 0.1 hectares in size.
- C2Z land in Wurruk East covers 2.3 hectares, of which only 0.1 hectares is vacant. The precinct comprises a small cluster of dated showroom and office premises, along with a school.

- C2Z land in the south-west of Sale includes a total of 8.5 hectares and is fully occupied, except for one major disused site on the south side of the Princes Highway. Many businesses in this area fulfil an industrial role, including warehousing, along with showrooms, highway sales and a caravan park.

Overall, commercial precincts do not provide appropriate opportunities for new or expanded light industrial uses which are permitted in the zone. Commercial 2 Zone areas are generally well occupied by large format retail uses and highway sales. Two large development sites bookend the town – although these sites may be broadly suitable for industrial use, it is expected that the highest and best use of these sites is likely to be commercial / retail given the relative lack of alternative available land supply across Sale for those land uses.

4.6. KEY FINDINGS

- Industrial land in Sale is fragmented across multiple precincts, many with interface conflicts with nearby residential uses and poor transport accessibility.
- There is approximately 19ha of vacant industrial land in Sale at present across 4 precincts, along with a number of larger sites that are either underutilised or disused (eg. Nylex).
- Only one industrial area in Sale is being progressively subdivided to create new industrial lots (Sale East). This area is predominantly providing new lots in small stages, typically 1,500 – 3,000sqm in area.
- There have been no additions to the industrial land supply stock in recent years (i.e. through rezoning).
- Gaps identified in the existing land supply primarily relate to the lack of opportunities for large format industrial sites with separation from sensitive uses and ready access to major roads. The land size gaps are primarily in the medium to large lot sizes of 0.5-1ha, 1-2ha and 2ha+.
- Business activity in existing precincts is commonly within the construction industry, with manufacturing, professional, scientific and technical services and other services playing a secondary role.
- Overall, most industrial precincts have relatively poor main road access and interface issues. Only the Wurruk and Sale East precincts are considered appropriate and available to provide any meaningful opportunities to new industrial businesses, along with the potential strategic opportunities associated with large businesses seeking to occupy currently disused major properties such as the Nylex site.
- There are only two sites for strategic supply (Wellington Business Park and a site owned by Gippsland Grammar School) identified as appropriate for new large industrial businesses. One of these is proposed to be progressively subdivided over time (Wellington Business Park) and the other does not appear to be on the market with no guarantee to be made available for industrial purposes (Gippsland Grammar).
- The remaining supply of land available for small and medium business currently has a total area of approximately 9 hectares across 25 smaller lots.
- Given that investors and businesses typically prefer to locate on newer, higher quality lots, rather than existing lots with improvements or interface / access issues, there is a distinct lack of the type of land that would be attractive to new industrial businesses in Sale. The ongoing subdivision of Wellington Business Park is the only location where this type of land is being made available.

5. INDUSTRIAL LAND DEMAND

5.1. INTRODUCTION

In regional areas, demand for industrial land typically falls within two broad categories:

- Large regional/export industrial businesses, generally requiring large sites in proximity to transport infrastructure and separate from residential areas; and
- 'Local industrial' businesses that primarily serve demand generated by the local population. This type of business activity is generally closely linked to the scale of the local population and growth and requires smaller lots that are accessible to local residents and businesses, often close to the town centre.

The drivers of demand and the specific needs of businesses in each category can vary considerably. This section provides an analysis of demand for each type of industrial land, drawing on a range of data sources including population growth, building construction activity, employment projections, observed land consumption rates and discussions with real estate agents, developers and Council's Business Development Unit.

Please refer to **Attachment A** for data sources and geographic areas.

5.2. CONSULTATION

The findings are of consultation regarding industrial land demand are summarised as follows:

- Council receives occasional enquiries about the availability of larger industrial lots in the Sale area, however there are no suitable lots available in Sale at present which meet the needs of interested parties which has precluded any major businesses locating in the area.
- Enquiries for larger industrial lots are typically related to industries associated with agriculture (eg. hydroponics, broiler farms), food processing (eg. milk processing) and specialised manufacturing.
- Most larger industrial businesses state that their primary location need is 'market access', including air, road and rail connections to Melbourne, interstate and overseas, when investigating potential sites in Wellington.
- The proposed heavy vehicle bypass presents a significant opportunity to co-locate new industrial land with a designated freight / heavy vehicle route.
- The local industrial market is relatively subdued in Sale and Wurruk at present, however moderate demand has been experienced in recent years for new smaller industrial lots recently created in the Wellington Business Park; 5 smaller lots (approximately 2,000sqm) sold over the past 18 months, in addition to one larger lot (1ha) which was used to accommodate the expansion of an existing business. This has resulted in land consumption of approximately 2ha over 18 months in this area.
- Demand in Wellington Business Park is often linked to companies servicing the aeronautical industry associated with the East Sale RAAF Base (eg. flight simulators, training providers).
- Industrial land demand in Sale is primarily driven by existing businesses seeking a site to move from leasing to owner occupation.
- Industrial land sales in Wurruk have been limited in recent years and have only achieved low land prices (only 1 sale in past 18 months despite a number of lots being on the market). Most businesses in Wurruk serve the off-shore mining industry which is not strongly active at the moment.
- The majority of demand for industrial land in Sale is for areas close to town. Wurruk is appropriate for larger businesses but demand is weak at present for the mid-sized lots that are available in this area.
- The lack of larger lots is a significant gap in the local land supply, and despite the advantages of being close to town many existing industrial areas are not well located to transport routes.

- Consultation with DEDTJR Earth Resources identified that industrial land is important in supporting earth resource related industries (such as concrete batching plants), particularly those minerals in the surrounding local area.

5.3. PREVIOUS LAND CONSUMPTION ASSESSMENTS

Previous assessments suggest that a combined total of approximately 2.8-3.5 ha/annum is required for both local and strategic industrial demand in Sale and Wurruk.

5.4. POPULATION AND EMPLOYMENT GROWTH

POPULATION

Sale's population has increased at a moderate rate over the past 10 years (0.59% per annum), with the growth rate slowing over the past 5 years (0.47% p.a.). The rate of growth in Sale has been slightly lower than the rate experienced across the municipality, as shown in Table 10.

TABLE 10 ESTIMATED RESIDENTIAL POPULATION, SALE SA2, 2006-2016

Area	2006	2011	2016	Population growth (2006-2016)	Average Annual Change	Percentage average change
Wellington (LGA)	40,525	41,990	43,354	+2,829	+283	0.66%
Sale (SA2)	13,942	14,441	14,783	+841	+84	0.59%

Source: Census, 2006, 2011, 2016

The Sale population is projected to increase at a higher rate over the coming years than recent growth rates. Victoria in Future projects that Sale Town (including Wurruk) can expect an additional 2,300 residents in the next 15 years as shown in Table 11, a growth rate of almost 1% per annum. This projected increase in population growth is likely to lead to an increase in population driven demand for industrial land in Sale over the next 15 years.

TABLE 11 PROJECTED POPULATION GROWTH, WELLINGTON AND SALE VIFSA, 2016-2031

Area	2016	2031	Population growth (2016-2031)	Average annual change (no.)	Average annual change (%)
Wellington (S)	41,922	45,153	+3,230	+215	0.50%
VIFSA Sale Town	14,771	17,062	+2,291	+153	0.97%

Source: Victoria in Future, 2016

EMPLOYMENT

Table 12 shows the employment by industry of workers in Sale (SLA and SA2) between 2006 and 2011. Employment in Sale and Wurruk increased by 862 jobs between 2006 and 2011, which equates to an average increase of 172 jobs per annum. Census data for 2016 is to be released in October 2017.

The major drivers of employment growth from 2006 to 2011 were the Health Care and Social Assistance, Accommodation and Food Services and Construction industries. The overall increase in employment in industries typically requiring industrial land was +173 jobs over the period.

TABLE 12 EMPLOYMENT BY INDUSTRY SALE SLA AND SA2, 2006-2011

Industry	2006 (Sale SLA)	2011 (Sale SA2)	Change in Employment
Manufacturing	357	350	-7
Construction	400	521	+121
Wholesale Trade	118	151	+33
Rental, Hiring and Real Estate Services	82	103	+21
Industrial Sub-Total	**952**	**1,125**	**+173**
Agriculture, Forestry and Fishing	30	35	+5
Electricity, Gas, Water and Waste Services	47	69	+22
Mining	176	194	+18
Retail Trade	1189	1,201	+12
Accommodation and Food Services	470	589	+119
Transport, Postal and Warehousing	164	180	+16
Information Media and Telecommunications	72	47	-25
Financial and Insurance Services	141	142	+1
Professional, Scientific and Technical Services	234	276	+42
Administrative and Support Services	161	188	+27
Public Administration and Safety	461	529	+68
Education and Training	640	737	+97
Health Care and Social Assistance	1102	1,346	+244
Arts and Recreation Services	74	92	+18
Other Services	288	342	+54
Total	**6,285**	**7,147**	**+862**

Source: ABS Census, 2006 & 2011 Note: Data areas for employment changes between 2006 and 2011. 2006 data is based on the Sale SLA, while the 2011 data uses the Sale SA2. The SA2 at 2011 incorporates a slightly larger portion of land to the south west of Wurruk which is primarily farming land and therefore unlikely to affect the comparisons in any material way (with the exception of the Kilmany Park Paterson Centre).

PROJECTING INDUSTRIAL EMPLOYMENT AND LAND DEMAND

As at 2011, there were 1,125 jobs in industries likely to require industrial land in the Sale SA2 (including Wurruk). If it is assumed that employment growth will reflect projected population growth over the next 15 years, industrial employment in Sale would increase at 0.97% per annum.

This rate of growth would result in an additional 240 industrial jobs between 2011 and 2031 at a rate of 12 additional jobs per year, or an additional 180 industrial jobs in Sale over a typical 15 year projection period as shown in Table 13.

TABLE 13 PROJECTED SALE AND WURRUK INDUSTRIAL LAND REQUIREMENTS, - POPULATION MODEL

Area	Industrial Employment 2011	Average Annual Employment growth	Industrial Employment 2031	Additional Industrial Employment (2011-2031)	Average additional jobs per year	Additional Industrial Employment (2016-2031)
Sale SA2	1,125	0.97%	1,365	+240	+12	+180

Source: Urban Enterprise, 2017

Table 14 shows a conversion of the employment projection results into land requirements, assuming:

- An average industrial employment density of 100 sqm per employee for 'local industrial' uses;
- Average site coverage of 33% to allow for car parking, loading, access, outdoor storage, etc; and

- Net Developable Area to comprise 70% of gross developable area in new subdivisions (allowing for roads, drainage and open space).

The model shows that the estimated industrial land requirement to support population growth will be approximately 0.5ha per annum over the next 15 years. This is a simple method for estimating the scale of industrial land demand that may be generated purely by population growth. Other demand could be generated by larger businesses seeking a strategic site due to specific locational advantages.

The industrial employment growth during the period 2006 to 2011 of 173 additional jobs (Table 12) indicates that the population growth is not the only driver of industrial land demand.

TABLE 14 PROJECTED INDUSTRIAL LAND REQUIREMENTS - POPULATION MODEL

Employment Growth Demand Sale Industrial land to 2031	Average employment density (sqm/ employee)	Floorspace required (sqm)	Average Site coverage	Net land required (sqm)	Net land required (ha)	Net land % of gross land	Gross land required to 2031 (ha)	Gross land required per annum (he)
100	100	10,000	33%	55,000	5.5	70%	7.9	0.53

Source: Urbis Enterprise, 2017

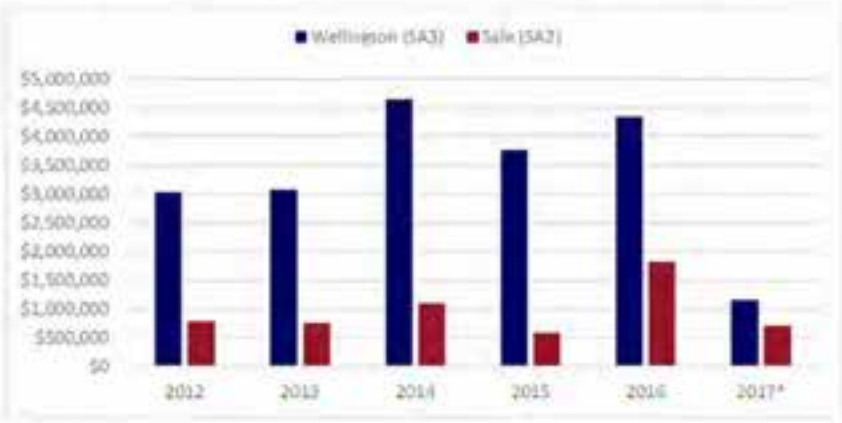
5.5. CONSTRUCTION AND DEVELOPMENT

The scale and trend of industrial building construction activity is a useful indicator of demand for industrial land in an area.

Over the period 2012 to 2016, industrial approvals in Sale averaged approximately $1m per annum, with a significant increase in 2016 compared with previous years. This increase aligns with the release of a new stage of lots in the Wellington Business Park, indicating that the creation of appropriately sized and located lots was able to meet a level of demand that was not met in previous years.

Figure 5 also demonstrates the ongoing importance of industrial development outside Sale across Wellington, reflecting the strong agricultural and resources focus of the economy and the role of Sale as primarily a service industrial location.

FIGURE 5 VALUE OF INDUSTRIAL BUILDING APPROVALS, WELLINGTON SHIRE, 2012-2017



Source: ABS Building Approvals. *2017 to June only

COUNCIL PLANNING AND BUILDING PERMITS

Table 15 shows the number of planning, building and subdivision permits approved by Wellington Shire Council in existing Industrial Zones and Commercial 2 Zones in Sale and Wurruk between 2006 and 2016.

Analysis of the data shows that:

- The trend in the number of planning permits in Sale and Wurruk has generally been consistent throughout the 10-year period of analysis. Data includes changes of use, new uses and subdivisions;
- Building approvals have been relatively consistent since 2010. Data includes new buildings, extensions and alterations;
- Larger industrial subdivisions took place in 2012 and 2014, with a total of 72 lots created over 10 years, and
- Only 20 new lots were created through subdivision in the Commercial 2 Zone over the past 10 years.

TABLE 15 NUMBER OF PLANNING AND BUILDING APPROVALS, SALE AND WURRUK, 2006-2016

	Planning Approvals	Building Approvals	Number of lots created	
			IN1Z	C2Z
2006	14	15	0	0
2007	31	17	2	1
2008	18	22	0	7
2009	15	9	4	1
2010	17	17	2	8
2011	17	14	1	0
2012	17	12	21	0
2013	13	12	0	0
2014	17	17	42	0
2015	10	10	0	0
2016	15	12	0	2
Total	**184**	**157**	**72**	**20**

Source: Wellington Shire, All Permit Applications, 2017

The available land area created by these subdivisions and the area of properties that have since had a new industrial facility constructed are shown in Table 16 based on Council's rates database and desktop analysis.

Through the 72 lots created by subdivision, 17.5 hectares of land was made available for industrial development, of which 7.6 hectares has since been occupied at an average rate of 0.7 hectares per annum. If this rate of development continued, there will be projected demand for 10.5 hectares of industrial land over the next 15 years.

TABLE 16 LAND CONSUMPTION DEMAND FROM SUBDIVISIONS, SALE

Land Type	Rate of lots created	Land Area created by subdivision	Land Area developed after subdivision (ha)	Rate of consumption (ha/annum)	Rate of Land Demand	Land Demand to 2031 (ha)
Industrial	72	17.5	7.6	0.7	0.7	10.5 ha

Source: Urban Enterprise, 2017

WELLINGTON BUSINESS PARK

Wellington Business Park is currently the only industrial area that is being progressively subdivided to create new industrial lots in Sale and Wurruk.

Discussions with the developer in September 2017 identified that 6 new lots were sold in the preceding 18 months, consuming a total of 2 hectares. As summarised in Table 17, five of these lots were occupied by businesses considered 'local' in nature and occupying lots of approximately 0.2 hectares, while the other was a 'strategic' site of approximately 1 ha.

Based on this data, the following findings have been drawn:

- Local industrial land consumption is relatively low but consistent at approximately 0.7 ha/annum;
- Strategic consumption is less predictable with only one lot being consumed in 18 months; and
- There is approximately 5 to 10 years of 'local' industrial land supply remaining in the Wellington Business Park.

TABLE 17 CONSUMPTION OF INDUSTRIAL LAND IN WELLINGTON BUSINESS PARK, JAN 2016 – AUG 2017

Type of Demand	Number of lots sold	Area consumed	Rate of consumption per annum
Local	5	1 ha	0.7 ha
Strategic	1	1 ha	0.7 ha
Total	6	2ha	1.4ha

Source: Wellington Business Park, 2017

5.6. OTHER DEMAND CONSIDERATIONS

A range of other considerations have been identified which should guide estimates of future industrial land demand as follows.

PROFILE OF DEMAND

There may be a degree of latent demand for larger vacant lots, given the lack of such lots available to the market over the past 5 years.

The release of new lots in the Wellington Business Park has led to a recent increase in industrial building activity, which has accommodated both traditional industrial land uses as well as non traditional uses such as offices, training and recreation. The role of 'local' industrial estates in providing land and floorspace to accommodate a range of business types is a trend that is occurring across regional and metropolitan areas. In the case of Sale, a lack of alternative business premises (such as existing vacant premises in the Commercial 2 Zone) is likely to continue to result in a wide range of business types seeking lower cost space in new industrial areas. These uses are generally driven by population growth which is expected to increase, and will seek proximity to residential and commercial areas such as in the Wellington Business Park. These uses also generally seek higher quality/amenity locations given the commercial nature and higher 'visitor' focus of the business activities; and

Although some existing industrial sites have sufficient land available to enable existing businesses to expand, other sites are well utilised, meaning that alternative sites would be required to facilitate expansion of existing businesses. Given the relative lack of larger sites, it is important that an allowance is made for the movement of existing businesses to new and larger premises for economic and employment growth.

These factors combine to indicate that Council should plan to provide for an industrial land supply which exceeds simply the modelled land requirements in this section. It is important, however, to consider how the strategic supply of industrial land proposed through potential rezoning of the candidate areas would align with the broader economic and infrastructure fundamentals of Sale within the Gippsland region.

IS SALE A COMPETITIVE LOCATION FOR MAJOR INDUSTRIAL LAND USE?

Major industrial businesses (those serving a state-wide, national or international market) generally seek the following locational attributes. Please note that this is not intended to be an exhaustive list:

- Proximity to ports, airports and other freight terminals for distribution and export of products;
- Access to major transport corridors, primarily highways/freeways and/or the rail freight network;
- Proximity to major sources of demand and labour (eg. metropolitan areas);

- Access to high-capacity infrastructure, such as water, gas and electricity;
- Proximity to source of inputs to production (eg. primary resources, input goods, etc); and
- Co-location with other major industrial businesses and supporting industries.

Gippsland itself is not optimally located in respect of the major export infrastructure in Victoria, namely Melbourne Airport and the Port of Melbourne, each of which are more easily accessed from the north and/or west of the metropolitan area of Melbourne.

From a regional perspective, Sale is located at the eastern 'end' of the Latrobe Valley. Other major Gippsland urban centres (Traralgon, Moe, Morwell and Warragul) are better located in terms of proximity and access to metropolitan infrastructure and markets, as well as the labour market provided in south-eastern Melbourne and growing in Baw Baw Shire. However, other regional centres in Gippsland do not offer a significant supply of undeveloped industrial land which has direct or ready access to the Princes Highway / Freeway, suitable for large vehicles and separated from other urban uses (with the exception of some existing and proposed employment land to the immediate east of Morwell).

Sale is well located in terms of proximity to primary produce in Wellington Shire and East Gippsland Shire, although processing networks are generally well established, such as timber mills in Heyfield and dairy processing in Maffra. The duplication of the Princes Highway to Sale and the prospect of a new alternative truck route bypassing the Sale CBD may improve the attractiveness of the West Sale area to transport-related businesses and to those seeking a base from which to service central and East Gippsland.

Overall, the characteristics of Sale do not closely align with the primary location criteria that would generally be utilised by major industrial businesses when seeking a site to service a wide market, however the Candidate Areas for this project do provide a relatively rare opportunity to meet regional demand and offer close proximity to a labour market and local produce.

POTENTIAL ECONOMIC AND INDUSTRIAL OPPORTUNITIES

The ongoing provision of appropriate industrial land in Sale is critical to support the growth of existing industries, as well as to facilitate opportunities for new industry growth, particularly those linked to innovation, research and production of new products and processes.

Sale's position as the service centre for Wellington Shire and the location for an existing concentration of industrial and commercial businesses presents the opportunity to foster greater concentrations of urban industrial uses which draw on local infrastructure, trades, suppliers and labour.

Other opportunities may exist to attract larger businesses serving broader markets, however the main opportunities for new businesses are likely to be driven by the need for service local and regional industries as opposed to the attraction of new major manufacturers / exporters.

Main industrial business opportunities identified include:

- Local industrial growth led by growing population needs, such as construction, workshops, storage, mechanics, equipment hire, etc.
- Expansion or relocation of existing Sale and Wurruk businesses to the Candidate Areas to provide larger sites, better separation from sensitive use and easier access to the highway network, Latrobe and Melbourne; and
- New medium sized industrial businesses seeking proximity to existing regional produce and a suitable labour supply (Sale and Traralgon) and ready access to the highway network.

In the longer term and subject to infrastructure availability, the opportunity to utilise rail and air freight to distribute and export products may also attract certain business types, particularly in Candidate Area 2 which has direct access to the rail line as well as the West Sale Aerodrome.

Given the significant challenges faced by many traditional industries, it is important that new land is available to encourage and accommodate new business types which relate to the natural strengths of the Sale area and which leverage local, State and Federal government investment. Industries and business types that may be well suited to current opportunities and local advantages include:

- Aviation and associated industries, including safety, training, maintenance, recreation, storage, natural resource and emergency management, and advanced aviation technologies;
- Advanced manufacturing and engineering, including mineral resources and renewable energy technology;
- Food processing and value-adding, including those to support the agricultural and tourism sectors (eg. food and wine manufacturing); and
- Transport and distribution to assist export of local produce.

The following section provides an analysis of the characteristics of the Candidate Areas and the extent to which those characteristics align with the economic opportunities identified in this report.

5.7. KEY FINDINGS

The implications of the analysis of demand for industrial land in Sale and Wurruk include:

- There are two drivers of demand for industrial land, being local industrial business and larger regional/export industrial businesses;
- The local demand rate for industrial land is projected to be between 0.5 and 0.7 ha/annum for the next 15 years, leading to a requirement of between 7.5 and 10.5 hectares of local industrial land by 2031;
- Strategic demand is less readily quantifiable. Council and the developer of the Wellington Business Park have received multiple enquiries regarding larger lots between 2ha and 10ha over the past three years. Council should plan to accommodate larger businesses by providing a suitable supply of land with larger lot sizes (of at least 1 ha and up to 10ha).
- Previous assessments suggest that a combined total of approximately 2.8-3.5 ha/annum is required for both local and strategic industrial demand in Sale and Wurruk.

It is recommended that Council plans to accommodate at least 1ha of "local" industrial land demand per annum, plus a strategic allowance sufficient to accommodate ongoing demand for larger lots separate to existing urban areas over the long term. Given that the current vacant land supply for medium and large lots is very limited, it is recommended that new industrial areas are planned which can accommodate demand over at least the next 15 years for medium (0.5ha to 2ha) and larger lots (2ha+).

An indicative allowance for at least 40 hectares of gross land is recommended which could accommodate in the order of 20 ha of industrial sites and at least 5-10 large businesses and a range of medium businesses. Rezoning further land as a contingency is also supported given the long lead times associated with planning for employment areas.

Main industrial business opportunities identified include:

- Local industrial growth led by growing population needs, such as construction, workshops, storage, mechanics, equipment hire, etc.
- Expansion or relocation of existing Sale and Wurruk businesses to the Candidate Areas to provide larger sites, better separation from sensitive use and easier access to the highway network, Latrobe and Melbourne; and
- New medium sized industrial businesses seeking proximity to existing regional produce and a suitable labour supply (Sale and Traralgon) and ready access to the highway network.

In the longer term and subject to infrastructure availability, the opportunity to utilise rail and air freight to distribute and export products may also attract certain business types, particularly in Candidate Area 2 which has direct access to the rail line as well as the West Sale Aerodrome.

Industries and business types that may be well suited to current opportunities and local advantages include:

- Aviation and associated industries, including safety, training, maintenance, recreation, storage, natural resource and emergency management, and advanced aviation technologies;
- Advanced manufacturing and engineering, including mineral resources and renewable energy technology;
- Food processing and value-adding, including those to support the agricultural and tourism sectors (eg. food and wine manufacturing); and
- Transport and distribution to assist export of local produce.

6. CANDIDATE AREA ANALYSIS

6.1. INTRODUCTION

This section provides an analysis of the conditions present at each of the proposed candidate areas for future industrial use.

6.2. PLANNING CONTEXT

The three identified Candidate Areas are each within the Farming Zone and have been identified in the Sale, Wurruk and Longford Structure Plan (2010) as areas to be investigated for rezoning to industrial land.

Three planning scheme amendments are currently underway or recently approved which may have implications for the study as follows:

- Amendment C84 (status: submitted to the Department for approval) - proposes to rezone land in the Wurruk Growth Area from LDRZ to GRZ1. This is in close proximity south-east of Candidate Area 1 in Wurruk. Any rezoning of the Candidate Area would need to consider the long term interface with the future residential area.
- Amendment C97 (status: submitted to the Department for approval) - proposes to rezone land at the Sale Sewerage Pump Station to enable Gippsland Water to build a new pump station to accommodate for the future long-term growth of Sale. It is expected that the new pump station would provide necessary infrastructure to service residential and industrial growth for the next 50 years, particularly providing for the projected urban growth in Wurruk; and
- Amendment C98 (status: Approved 2/11/17) - facilitates an extension to the West Sale Aerodrome runway by 300 metres at its eastern extremity and rezones land from FZ to the Special Use Zone. The amendment also substantially reduces the extent of the Airport Environs Overlay (AEO) that applies to the land surrounding the runway. These changes are shown in Figure 6, including the acquisition of land by Council which reduces the overall land area within Candidate Area 2.

FIGURE 6 AMENDMENT C98: RECENT CHANGES TO ZONES AND OVERLAYS, WEST SALE AERODROME

Source: Wellington Shire Council, 2017

6.3. CANDIDATE AREA 1: WURRUK

Candidate Area 1 at Wurruk is located immediately to the west of the existing Wurruk Industrial Precinct. Land within this Candidate Area has a total area of 42.3 hectares across 4 parcels.

6.3.1. PLANNING CONTEXT

PLANNING ZONES

The properties within Candidate Area 1 are within the Farming Zone (**FZ**). East of the site is the existing Wurruk Industrial 1 Zone (**IN1Z**), while land to the north is within the Public Conservation and Resource Zone (**PCRZ**) which includes the Thompson River.

Future planning zone changes likely to take place in the surroundings include potential rezoning of land from LDRZ to GRZ1 to the south-east of the candidate area (residential growth area). The amendment for this change is Amendment C84, which was heard at a panel hearing in July 2017. Further long-term rezoning south of the candidate area to a residential zone is also identified in the Structure Plan.

FIGURE 7 PLANNING ZONES, CANDIDATE AREA 1, WURRUK

Source: Urban Enterprise, 2017

OVERLAYS

The north western section of the Candidate Area is affected by the Land Subject to Inundation Overlay (**LSIO**) and a small section of the Flood Overlay (**FO**). Approximately 5 hectares of land (out of a total of 42ha) is affected by these overlays.

The entire Candidate Area and surrounds are affected by the Design and Development Overlay – Schedule 6 (**DDO6**). This overlay ensures that building height does not adversely affect the operation of the East Sale RAAF Base. A permit is not required for any building less than 15 metres in building height within the bounds of this overlay.

The planning overlays applicable to the site and surroundings are shown in Figure 8.

FIGURE 8 PLANNING OVERLAYS, CANDIDATE AREA 1, WURRUK

Source: Planning Maps Online, 2017

6.3.2. PROPERTY AND OWNERSHIP

Figure 9 shows the ownership of properties within the candidate area. The average lot size of the parcels within this candidate area is approximately 11 hectares.

Each land owner in Candidate Area 1 was consulted via phone to discuss the project and the future intentions for their land. It was apparent that the parcels in this location are primarily used for farm land / grazing. A substantial primary residence exists to the immediate west of the candidate area, the impact on which would need to be considered in any future planning for industrial use. Owners are open to further discussions about land and the potential for development. Property 1A is currently on the market for sale.

FIGURE 9 LAND OWNERSHIP, CANDIDATE AREA 1, WURRUK

Source: Urban Enterprise, 2017

6.3.3. INTERFACES AND POTENTIAL PLANNING AND PROPERTY CONSTRAINTS

The Candidate Area has interfaces with the existing Wurruk Industrial Estate, the railway line, Crown Land and the Thomson River to the north and farming land to the west.

An area of Low Density Residential Zone (**LDRZ**) is located to the south-east of the site, with the nearest dwelling more than 200 metres from the Candidate Area boundary. Future residential use foreshadowed to the south of the Princes Highway in the long term may impact typical buffer areas and should be considered in detailed planning.

The Candidate Area is currently accessed from the Princes Highway via an informal railway crossing (property 1B), while property 1A is landlocked and cannot be accessed via the existing road network. The existing rail crossing does not appear to be appropriate for large vehicles.

Ownership is not considered a constraint to future development within this Candidate Area.

6.4. CANDIDATE AREA 2: WEST SALE AERODROME

Candidate Area 2 is located adjacent to the West Sale Aerodrome and covers an area of approximately 60ha.

6.4.1. PLANNING CONTEXT

PLANNING ZONES

Land in Candidate Area 2 is within the Farming Zone (**FZ**). The Candidate Area is adjacent to the Special Use Zone – Schedule 1 (**SUZ1**), which contains the West Sale Aerodrome as shown in Figure 10.

Due to a current process involving land acquisition by Council to facilitate an expansion of the aerodrome, the original Candidate Area (as identified in the Structure Plan) has been separated into three sub-areas as follows:

- An area that is 'definite' for ongoing consideration as part of this study (54.5ha).
- An area that has 'potential' for ongoing investigation, although this area would be separated from the main candidate area by a new access road to the aerodrome (3.8ha); and
- An area that is now 'unlikely' to be appropriate for consideration as part of the Candidate Area due to being separated from the balance of the candidate area by the expanded aerodrome (2.0ha).

FIGURE 10 PLANNING ZONES, CANDIDATE AREA 2, WEST SALE AERODROME

Source: Urban Enterprise, 2017

OVERLAYS

The properties within this Candidate Area were previously impacted by the Airport Environment Overlay Schedules 1 and 2 (**AEO1**) (**AEO2**). As shown in the previous section (Figure 6), the extent of the AEO has recently been significantly reduced by Amendment C98, resulting in AEO2 applying to just 0.25 hectares of the Candidate Area and AEO1 removed from the Candidate Area.

DDO6 also impacts the full area of the Candidate Area, requiring planning permits for any building greater than 15 metres in height.

FIGURE 11 PLANNING OVERLAYS, CANDIDATE AREA 2, WEST SALE AERODROME

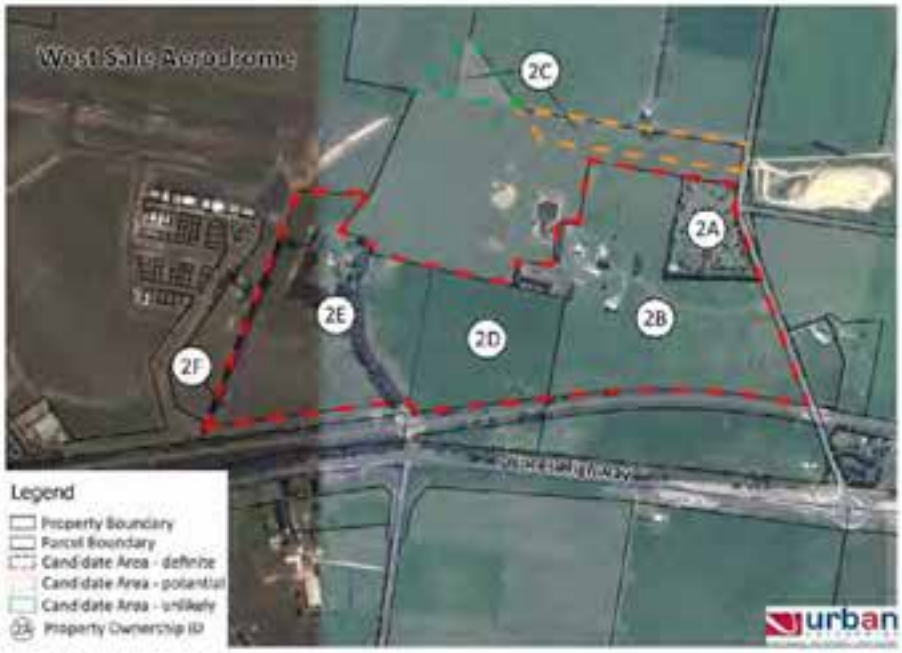
Source: Planning Maps Online, 2017

6.4.2. LAND OWNERSHIP

Candidate Area 2 includes 6 properties in separate ownership. Two larger lots are approximately 20 hectares in area. Figure 12 shows the location of each property within the candidate area.

All land owners in Candidate Area 2 were contacted and consultation was possible with all except one (the owner of the land identified as 'potential' and 'unlikely'). Land in this area is primarily used for residential purposes, with the remaining land providing grazing, cattle, vegetable and other farm activities. The western-most property is also occasionally used to host events within an old homestead. Land owners intend to continue living on their properties for the foreseeable future however no objections or constraints to future industrial development were identified.

FIGURE 12 LAND OWNERSHIP, CANDIDATE SITE 2, WEST SALE AERODROME



Source: Urban Enterprise, 2017

6.4.3. INTERFACES AND POTENTIAL PLANNING AND PROPERTY CONSTRAINTS

The Candidate Area is well separated from potential sensitive uses, with the exception of a single dwelling across Sale-Heyfield Road (in the Farming Zone). The interface with the West Sale Aerodrome would need to be considered through appropriate access, security and building design controls.

Land ownership is not considered to be a constraint to future development, however the multiple ownership and the variety of existing land uses could delay and/or complicate the prospects of short term development of the area for industrial purposes.

WEST SALE AERODROME

Consultation with the West Sale Aerodrome property manager and the property manager of the Federation Training Campus which currently operates within the aerodrome land revealed the following:

- The extension of the runway and development of new supporting facilities at the aerodrome (as outlined in the West Sale Aerodrome Masterplan) will cater to new training requirements for the RAAF and is likely to generate greater usage of the aerodrome and therefore could generate new associated business opportunities in the area.
- Council is currently going through the process of subdividing land within the aerodrome to create new freehold land which is to be sold to the private market for existing and new businesses associated with aviation to establish in the SUZ; and
- Federation Training currently lease a large area from Council as a training campus, however the improvements are dated and require significant investment to meet current market expectations. Federation is reviewing options to create a new campus elsewhere, which would result in them vacating the current site.

The implications of these circumstances are that the West Sale Aerodrome and surrounding public land is likely to experience a significant degree of change over the short to medium term, and that a range of new business opportunities could be created.

6.5. CANDIDATE AREA 3: FULHAM

The Candidate Area at Fulham is located south of the Princes Highway and east of the Fulham Correctional Facility on Hopkins Road. This area has the largest area of all Candidate Areas, with approximately 100 hectares across three properties.

6.5.1. PLANNING CONTEXT

PLANNING ZONES

Land is within the Farming Zone (**FZ**). The Fulham Correctional Facility to the immediate south-west is within the Special Use Zone (SUZ2).

FIGURE 13 PLANNING ZONES, CANDIDATE AREA 3, FULHAM

Source: Urban Enterprise, 2017

OVERLAYS

There are two overlays that impact the candidate area at Fulham, being AEO2 and DDO6, as shown in Figure 14. These overlays also affect the other candidate areas. DDO6 requires a permit for building construction greater than 15 metres in building height. The proposed amendment to the AEO2 will remove the overlay from the entire Candidate Area.

FIGURE 14 PLANNING OVERLAYS, CANDIDATE AREA 3, FULHAM

Source: Planning Maps Online, 2017

6.5.2. LAND OWNERSHIP

Figure 15 shows the location of the properties within Candidate Area 3. The lot sizes in this candidate area are considerably larger than in the other Candidate Areas: two of the sites are approximately 25 hectares in area and the largest property is approximately 45 hectares. One landowner owns two of the properties and a total of approximately 73 hectares of the land (shown as 3A in Figure 15).

Both land owners in this area were consulted. Each broader property is current used for residential purposes (dwelling not necessarily within the candidate area), with one containing significant improvements associated with animal breeding. Given the substantial investment in these improvements, the current use and ownership may present a constraint to development of part of this candidate area.

FIGURE 15 LAND OWNERSHIP CANDIDATE AREA 3

Source: Urban Enterprise, 2017

6.5.3. INTERFACES AND POTENTIAL PLANNING AND PROPERTY CONSTRAINTS

The Candidate Area is well separated from urban areas and has main interfaces with farming land and the Princes Highway.

The only potential sensitive use identified is the adjacent Fulham Correction Facility which is accessed from Hopkins Road. Consultation with the Facility identified that Hopkins Road is an important route if any prisoner evacuation is required and that the potential impact of industrial land use on the significant prisoner population (over 900) should be considered.

It is noted that the uses with adverse amenity potential clause of the Planning Scheme (Clause 52.10) does not explicitly include land used for a Correctional Facility as a sensitive use. Rather, the following list of sensitive uses are included: "land in a residential zone, Capital City Zone or Docklands Zone, land used for a hospital or an education centre or land in a Public Acquisition Overlay to be acquired for a hospital or an education centre." This issue would need further investigation if Candidate Area 3 were to be identified as the preferred location for future industrial land use.

Given the significant investment in improvements and the relatively entrenched land use, land ownership is a potential constraint to development in Candidate Area 3, particularly to the south of the Area.

6.6. BIODIVERSITY

A Desktop Biodiversity Assessment of each Candidate Area was undertaken by Ecology and Heritage Partners, dated August 2017. The full assessment is included in the **Appendices Report**.

The key findings of the report are summarised as follows:

- Current (2005) modelled mapping indicated that there is 35.35 hectares of native vegetation remaining within the three candidate areas. However, current aerial imagery shows little evidence of native canopy cover in Candidate Areas 2 and 3, while some remnant vegetation remains within Candidate Area 1.
- There is a small amount of wetland present in all three sites, with a total area of 2.23 hectares.
- Research and analysis identified endangered vegetation within Area 1 (6ha), Area 2 (14ha) and Area 3 (15ha) as shown in Table 18.
- It is possible that two listed ecological communities occur in the study area: Gippsland River Red Gum Grassy Woodland and associated native grassland, and Seasonal Herbaceous Wetlands.
- Native vegetation and biodiversity values are most likely to be present in Site 1 adjacent to the Thomson River. Opportunities for development are likely to have a lower impact on biodiversity values in other areas of Site 1 away from the river as well as within Sites 2 and 3.
- Native vegetation with the highest risk is located at the western end of Candidate Area 2.
- Any clearing of native vegetation would require a site assessment to determine the extent of clearing and the associated risk based pathway.
- The Candidate Areas occur within the same catchment as a Ramsar Wetland. As a result, management practices and construction techniques should be consistent with EPA Guidelines in respect of erosion and sediment control and surface water flows.
- There is potential for one listed flora species occurring: River Swamp Wallaby-grass. It is also possible that there may be habitat for three listed fauna species: Grey headed flying fox, growling grass frog and dwarf galaxias.
- Development of the areas would require a site assessment and hydrological assessment.
- Development may trigger an Environmental Effects Statement referral – a site assessment would be required to investigate this.

TABLE 18 EXTENT OF REMNANT NATIVE VEGETATION PRESENT WITHIN THE CANDIDATE AREAS, 2005

Site	EVC	EVC Number	Bioregional Conservation Status	Area (ha)
1	Plains Grassy Woodland	55	Endangered	1.36
1	Floodplain Riparian Woodland	56	Endangered	5.22
2	Plains Grassy Woodland	55	Endangered	8.19
2	Plains Grassy Woodland/ Gilgai Wetland Mosaic	259	Endangered	5.70
3	Plains Grassy Woodland	55	Endangered	14.81

Source: 2005 data, DELWP 2017b

6.7. CULTURAL HERITAGE

A Desktop Cultural Heritage Assessment of each Candidate Area was undertaken by Ecology and Heritage Partners, dated August 2017. The full assessment is included in the **Appendices Report**.

The key findings of the report are summarised as follows:

- A search of the VAHR identified a total of 4 registered Aboriginal Places (and their associated components) within the search area. These sites consist of a total of 3 site types comprising: a low density artefact distribution, stone artefact scatters and an earth feature. Three of these sites are located along the northern boundary of Candidate Area 3;
- Candidate Area 1 is situated within an area of cultural heritage sensitivity as it is situated within 200 m of a waterway, namely Thomson River. Given that previous archaeological investigations have identified the high likelihood of Aboriginal cultural heritage to be present within close proximity to the Thomson River there is high potential that Aboriginal cultural heritage will be present within Candidate Area 1;
- Candidate Area 3 is situated within an area of cultural heritage sensitivity as mapped under the Aboriginal Heritage Regulations 2007 as it is situated within 50 m of a number registered cultural heritage places which are listed on the Victorian Aboriginal Heritage Register. A aeolian landform is highly likely to be present within Area 3, with the place being assessed as having 'moderate scientific significance';
- Candidate Area 2 is not situated within an area of cultural heritage sensitivity, however proximity to the Aeolian sand deposit south of the Princes Highway has led to the recommended that if future industrial subdivision of Candidate Area 2 is to take place, further investigation is required in order to ascertain whether this sensitive landform is present;
- The proposed use for these Candidate Areas (i.e. industrial subdivision and development) is considered a "high impact activity". Therefore, an Aboriginal Cultural Heritage Management Plan is mandatory for Candidate Areas 1 and 3. An Aboriginal Cultural Heritage Management Plan is not required for Candidate Area 2, however it is recommended that a voluntary plan is undertaken.

6.8. INFRASTRUCTURE

An infrastructure analysis was undertaken by TGM Group dated August 2017 and included in the **Appendices Report**. The key findings of the assessment are as follows:

WATER SUPPLY

Findings from the modelling of water demand undertaken by Gippsland Water are:

- Candidate Area 1 can be serviced without any upgrades to the existing system, via an extension of the 150mm main along Hunt Place;
- Candidate Area 2 (and development of both Candidate Area 1 and Candidate Area 2) can be serviced with the existing network if moderate headlosses are accepted, particularly with the later scenario;
- Candidate Area 3 individually will require a minimum upsize to 300mm to avoid moderate to high headlosses along the 225mm distribution main (4.2 km section); and
- Any of the remaining options including Candidate Area 3 would require the 225mm distribution main to be upgraded to a 375 or 450 mm. Furthermore, the pumps at the Wurruk TWPS would need to be replaced in order to accommodate the increased flows and subsequent headlosses.

SEWER

Findings from modelling and investigation into the sewerage of each site identified:

- Candidate Area 1 could have approximately 50% of the area utilising the current sewer main at the Wurruk Industrial Estate, while the remaining area would require a new sewer pump station. All costs would be borne by the developer. Depending on the loading from the new estate the existing 150mm main may need to be increase to 225mm.
- Candidate Area 2 has no sewer currently, meaning that an upgrade would be required to the Fulham Correctional Facility Sewer Pump Station (pumps, electrics, detention storage) or the rising main that runs along Hopkins Road would need to be increased to reduce the frictional headloss; and
- Candidate Area 3 has no sewer, meaning this area would require an upgrade to both the Fulham Correctional Facility SPS and the rising main increased to reduce frictional headloss.

STORMWATER

Findings from analysis of drainage identified that:

- Candidate Area 1 would likely drain north of the site to the Thompson River. Overland flow to the river will be acceptable with treatment;
- Unique to this area is a flood levee known as the Kilmany Levee Bank. This area is unique as any stormwater that drains to the Levee and is not lost through evaporation and transpiration may need to be pumped past the levee bank. The cost of pumping the stormwater falls to the land holders who own land behind the levee. It is likely that part of Site 2 and all of Site 3 would drain to this point;
- Candidate Area 2 has an existing drain along the eastern extent of the airfield which drains down to the Central Gippsland. Extension of the runway will require re-arrangement of the final drainage in this area, but will ultimately drain to the same direction (to the north). It is likely that part of Candidate Area 2 will drain to the south and part to the north; and
- Candidate Area 3 has a nominated drain which is part of the Kilmany drainage system and can discharge into this drain. However, the final stormwater strategy will have to take into account a higher level of retention as any water not lost through evaporation and transpiration may ultimately drain into a private levee near the outlet to the Latrobe River. Future development needs to account for additional overflow from the land which would need to be managed by water harvesting or retention before ever hitting the levee bank. If stormwater does drain to the levy, it will need to be managed to meet best practice stormwater quality targets as well as ensure that the quantity is managed. This will potentially require additional onsite storage compared to traditional best practice stormwater treatment.

Further investigation into the possible approach to stormwater drainage in Candidate Area 2 was subsequently undertaken, with the following findings:

- There is an existing drain along the eastern extent airfield which eventually drains down to the Central Gippsland No. 4 drain to the north. Overland flow is expected to be possible with typical levels of retention, though further detailed investigation would be required to confirm this. The current project to extend the runway will require Wellington Shire Council to re-configure drainage in this area, however ultimately it is expected that stormwater associated with that project will drain to the same No. 4 drain;
- The current conditions are such that the majority of the candidate area falls to the north, however a small area falls and drains to the south including Williams Drive. Survey data available for this area is limited and the area is quite flat so it is difficult to clearly identify drainage catchments;
- West Gippsland Catchment Management Authority has indicated that part of site 2 drains to the south and discharges to the Kilmany Levee which is constrained by maintaining the current stormwater conditions.

- There is a reasonable likelihood that site 2 can be redeveloped and engineered to control a sizeable component of the catchment to the north. It is difficult to identify potential costs of this, but our expectation is that it would not be overly significant and can be managed through the planning permit process.
- There is always going to be a catchment area that still drains to the south, but this can be managed to ensure current pre-development flows are controlled to the south with some form of detention system in place to manage increased stormwater flows.

ELECTRICITY

- There appears to be current infrastructure sufficient to support additional loading of 1-2 MVA in the shorter term, which would support the first stages of development but may not be capable of supporting the ultimate demand of the sites.
- Augmentation to the existing lines can be undertaken and will increase the availability of power. This can be determined once development is undertaken.

GAS

- It is identified that the gas reticulation infrastructure is not of capacity to support any major industrial loads. To supply any major load, either duplication of the existing supply main or upstream augmentation may be required.

TELECOMMUNICATIONS

- Investigation into telecommunications indicated that NBN assets are located within this region. According to the NBN website it is also noted that the Wurruk region is NBN ready and new and existing development can connect to the NBN service.

6.9. TRAFFIC

This section provides findings regarding traffic infrastructure identified in a technical report prepared by Traffix Group dated October 2017 and included in the Appendices.

KEY TRANSPORT ROUTES

Key transport routes in the area include:

- Princes Highway – has been upgraded to a duplicate road from a two-way road, with speed limits between 80km/h and 100km/h are various points in the vicinity of the candidate areas.
- Sale-Heyfield Road – A State Arterial Road under control of VicRoads, located in the vicinity of Candidate Area 2. It is a two lane, two way rural road, which crosses the Melbourne-Bairnsdale railway line.
- Hopkins Road – A local road under control of the Wellington Shire Council. It provides access to the Fulham Correction Facility and rural properties and is located in the vicinity of Candidate Area 3.

It is identified that the Victorian Government has allocated funds to investigate the feasibility of formalising the Sale Alternative Truck Route. The route would north along Sale Heyfield Road, along Fulham Myrtlebank Road and then along Myrtlebank Road before connecting to the Princes Highway.

TRAFFIC VOLUMES AND INTERSECTION CAPACITIES

Traffic volumes on Princes Highway (<9,000 vpd two way), Sale Heyfield Road (<3,500 vpd two way), Hopkins Road, Hunt Place, Riverside Drive and Williams Drive are all low for the function that the roads perform.

Whilst no traffic generation estimates have been prepared at this stage for the three candidate areas, it is evident that intersection capacity is not going to be a constraint on access to each of the candidate areas given the relatively low traffic volumes on the adjacent road network. Accordingly, road safety and road function will be the main guides for the types of intersections at potential access points to the candidate areas.

ACCESS ISSUES

The creation of new large vehicle access points to the Candidate Areas is one of the major issues to be considered in this study, given the property ownership layout of Area 1, access required across the rail line for areas 1 and 2, and access intersections on the Princes Highway for all candidate areas.

Candidate Area 1

Candidate Area 1 is effectively land locked and requires new road access to be created. The options for new road access require either the creation of a new level crossing, or acquisition of private and potentially public land. Each of these prospects is not certain to be achieved, and would at the minimum require significant time and cost to deliver.

Consultation with VicTrack confirmed that any new level crossings would require Ministerial approval and are highly unlikely to be approved as a general rule. Therefore, options that do not require a new level crossing should be considered first.

Access to Candidate Area 1 without the creation of a new level crossing would require the creation of a new road reserve linking Hunt Place or Riverside Drive to the Candidate Area. A private property (currently owned and occupied by Rotafab) blocks access to the Candidate Area from the east. Part of this land would need to be acquired in order to extend Hunt Place or Riverside Drive through to the Candidate Area. Discussions with the property owner indicated that acquisition of land to extend Hunt Place through the site would not be supported given that such an alignment would bisect the site and severely impact on business operations.

Acquisition of a section of the land at its northern boundary could be possible, however, in order to extend Riverside Drive. Although this would not be the optimal access route (given the number of turns required for large vehicles to navigate), this could present a feasible access alternative for Candidate Area 1. Challenges to this alignment include the need to acquire at least 1 other private property, and potentially the need to acquire or abut Crown Land near the Thomson River. Discussions with the private landowner at the end of Riverside Drive (vacant lot through which the road could be extended) indicated positive sentiment towards this alignment, and DELWP indicated that there are no issues with the road abutting the Crown land.

Traffix advised that from a traffic engineering perspective, the extension of Riverside Drive is considered workable.

Candidate Area 2

Large vehicle access to Candidate Area two is more straightforward than Area 1, with an existing roundabout and level crossing at Sale-Heyfield Road that could be utilised. The prospect of a Sale – bypass using Sale Heyfield Road would further increase the attractiveness of this area from an accessibility perspective.

Access at the western end of the Area would be less straightforward, however, given the lack of a roundabout at Princes Highway and Williams Drive and the irregular road network near the Aerodrome entrance.

Candidate Area 3

Candidate Area 3 can be access directly from the Princes Highway, an advantage not available to the other areas. VicRoads would need to approve any such access, however, especially any access that does not utilise the existing roundabout at Sale Heyfield Road.

REQUIRED TRAFFIC INFRASTRUCTURE

The assessment of traffic infrastructure and capacity analysis identifies the following required upgrades that need to take place in order for the sites to suitable manage traffic.

Candidate Area 1: Wurruk

Princes Highway/Hunt Place

- The Princes Highway/Hunt Place roundabout needs to be upgraded to include a second lane added to the Hunt Place approach to accommodate the adopted traffic volumes.
- There is spare capacity within the existing Princes Highway/Hunt Place roundabout (with a second lane added to the Hunt Place approach) to accommodate the adopted traffic volumes.

Hunt Place

- Hunt Place will exceed the indicative daily traffic volume for a Local Access A - Road.
- Hunt Place nonetheless has a cross-section and industrial environment that can accommodate the anticipated volume of traffic.

Riverside Drive

- Riverside Drive will exceed the indicative daily traffic volume for a Local Access B - Road.
- Riverside Drive nonetheless has a cross-section and industrial environment that can accommodate the anticipated volume of traffic.

Extension of Hunt Place or Riverside Drive

- The extension of Riverside Drive to connect with Candidate Area 1 is preferable from a traffic engineering perspective than the extension of Hunt Place, although both options are workable.

Candidate Area 2: West Sale Aerodrome

- The completed analysis assumed that access to Candidate Area 2 would comprise access via both Sale-Heyfield Road and Princes Highway.

Sale Heyfield Road Access

- Two access points are required via Sale-Heyfield Road, in addition to access via Williams Drive, for Candidate Area 2.
- The volume of right turn "out" traffic from each site access on Sale-Heyfield Road needs to be restricted to 500 vph to achieve an appropriate level of performance for the assumed T-intersection configuration.
- There is spare capacity within the assumed T-intersection configuration to accommodate the adopted traffic volumes with two T-intersections on Sale-Heyfield Road.

Princes Highway/Sale-Heyfield Road

- The Princes Highway/Sale-Heyfield Road roundabout needs to be upgraded to include a second lane added to the Sale Heyfield Road approach to achieve acceptable intersection performance.
- There is spare capacity within the existing Princes Highway/Sale-Heyfield Road roundabout (with a second lane added to the Sale-Heyfield Road approach) to accommodate the adopted traffic volumes.

Princes Highway/Williams Drive

- The Princes Highway/Williams Drive intersection needs to be upgraded to a roundabout with two lanes on the Williams Drive approach to achieve acceptable intersection performance.
- There is spare capacity within the modified Princes Highway/Williams Drive intersection (roundabout with a second lane added to the Williams Drive approach) to accommodate the adopted traffic volumes.

Williams Drive

- The existing railway level crossing will need to be upgraded from flashing lights to flashing lights and boom gates.
- A two lane undivided carriageway in Williams Drive would be sufficient to accommodate the anticipated volume of traffic.

Candidate Area 3: Fulham

- At least two access points (assumed to be via Princes Highway/Hopkins Road and the Princes Highway/Sale-Heyfield Road roundabout) are required to accommodate the traffic anticipated to be generated by Candidate Area 3.
- The volume of traffic generated by Candidate Area 3 needs to be restricted to 80% of the initially projected traffic volume, namely 2,560 vph in the evening peak period.

Princes Highway/Sale-Heyfield Road

- The Princes Highway/Sale-Heyfield Road roundabout needs to be upgraded to a four leg roundabout, with the new leg on the southern approach to comprise a right turn lane, a shared through and right turn lane and a separate left turn lane, to achieve acceptable intersection performance.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is sufficient capacity within the modified Princes Highway/Sale-Heyfield Road roundabout to accommodate the adopted traffic volumes.

Princes Highway/Hopkins Road

- The Princes Highway/Hopkins Road intersection needs to be upgraded to a roundabout with two lanes on the Hopkins Road approach and a single lane on the Williams Drive approach to achieve acceptable intersection performance.
- There is spare capacity within the adopted geometry of the roundabout to accommodate the adopted traffic volumes.

Hopkins Road

- A two lane undivided carriageway in Hopkins Road would be sufficient to accommodate the anticipated volume of traffic.

VICTRACK

Consultation with VicTrack found that there will not be support for additional level crossings in the area. The following extract from a letter received from VicTrack outlines their position on level crossings and access to the sites:

"We do not support new level crossings without Ministerial approval. State Planning Policy Framework at Clause 18.02-4 requires that developments must 'provide for grade separation at railway crossing except with the approval of the Minister for Transport'. It adds unnecessary additional risk to the network when alternative routes could be explored.

If circumstances are that there is no alternative, the Minister for Public Transport should receive your letter and request Transport for Victoria to provide its advice. TfV would consult the transport family to form a view.

Specifically, for Industrial Site 1 we can advise that we would not support the introduction of an additional rail level crossing (and therefore additional access point on Princes Highway) adjacent to site 1. We believe that the exiting crossing at Hunt Place does not restrict industrial traffic and is a viable alternative."

6.10. INFRASTRUCTURE COSTS

Table 19 provides a comparison of upgrade requirements and expected costs of the infrastructure types assessed for each Candidate Area. The table relates to major shared infrastructure only (i.e. over and above usual development infrastructure).

The analysis shows that major infrastructure costs are expected to be lowest in Candidate Area 1 and highest in Candidate Area 3 in absolute terms. On a per hectare basis, costs are lowest in Candidate Area 1, and higher in Candidate Areas 2 and 3. It is noted that there is the possibility that access upgrades to Candidate Area 2 could be shared with other beneficiaries, including the aerodrome and related uses, if the timing and need for the items align.

It should be noted that this assessment assumes full development of each candidate area for standard industrial purposes (i.e. not heavy industrial requiring specific high-capacity infrastructure needs over and above a typical user). Costs are indicative based on discussions with infrastructure agencies and past experience.

TABLE 19 COMPARISON OF INFRASTRUCTURE COSTS

	Candidate Area 1		Candidate Area 2		Candidate Area 3	
Infrastructure item	Description of Upgrade	Cost	Description of Upgrade	Cost	Description of Upgrade	Cost
Roads and intersections	Hunt Place roundabout upgrade and Riverside Drive extension	$1.88m	2x Sale Heyfield Road intersections 2 x Princes Highway roundabout upgrades Williams Drive level crossing upgrade	$4.05m	2x Princes Highway roundabout upgrades	$1.8m
Water	Can be serviced without any upgrades to the existing system, via an extension of the 150mm main along Hunt Place	$0	Area 2 and Area 1 + Area 2 can be serviced with the existing network	$0	Site3 individually will require a minimum upsize to 300 mm to avoid moderate to high head losses along the 225mm distribution main (4.2km section) (@ $500/m)	$2.1m
Sewer	New sewer pump station for 50% of site	$0.75m		$1.5m	The Fulham Correctional SPS will need to be upgraded and the rising main upgraded (7.6km) (4.2km @ $500/m)	$4.2m
Stormwater	Wetland/Detention System	$1.0m	Wetland/Detention System	$2.0m	Wetland/Detention System ($2.5 m/l) and 900mm diameter outlet (4.0km @ $750/m)	$5.5m
Electricity		$0		$0		$0
Gas	Upgrade gas main to site	$0.18m		$1.35m	Upgrade gas main to site	$1.5m
Telecommunications		$0		$0		$0
Total		**$3.81m**		**$8.9m**		**$16.1m**
Total per ha		**$91,000**		**$162,000**		**$151,000**

Source: TDM, 2017, Tuffin, 2017, Note: costs exclude land acquisition

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7. CANDIDATE AREA SUMMARY AND ASSESSMENT

7.1. INTRODUCTION

This section provides a summary of the findings related to issues and options identified throughout the analysis of this report.

7.2. CANDIDATE AREA SUMMARY

Table 20 shows a summary of the candidate areas and the characteristics of each that have been identified throughout the analysis.

TABLE 20 CANDIDATE AREA SUMMARY

Attributes	Candidate Area 1	Candidate Area 2	Candidate Area 3
Land area	42 ha	55 ha	100 ha
Land ownership	2 owners, no identified constraints	5 owners, fragmented ownership could result in slow rate of development, no identified constraints	2 owners, potential ownership constraint to developing part of the area
Planning Zones and overlays	Farming Zone DDO6	Farming Zone DDO6 AEO1 (to be amended) AEO3 (to be amended)	Farming Zone DDO6
Current land use	Grazing	Rural residential Grazing Hospitality/Events	Grazing
Topography	Flat (sloping near river)	Flat	Flat
Key interfaces	Wurruk Industrial Estate Thompson River	West Sale Aerodrome Future Heavy Vehicle Bypass Rail line	Princes Highway Fulham Correctional Centre Council animal pound
Road access	Constrained road access	Direct access future bypass and Heyfield Rd roundabout Secondary access	Direct access to highway Secondary access Hopkins Rd Potential bypass access (Heyfield Rd roundabout)
Rail access	Adjacent rail line (no station)	Adjacent rail line (no station)	Near rail line
Air freight	Near aerodrome	Adjacent aerodrome	Near aerodrome
Infrastructure Costs	Moderate	High (potentially multiple beneficiaries)	High
Native vegetation	Yes	Yes	Yes
Cultural heritage	Sensitivity – CHMP needed	Voluntary CHMP recommended	High sensitivity – CHMP needed
Economic Opportunities	- Extend Wurruk Industrial estate - Leverage from existing business relationships and infrastructure	- Integrate with aerodrome uses - Leverage from heavy vehicle bypass	- Leverage from high exposure and access from Highway - Large sites possible
Main challenges	- Road access	- Multiple ownership and reduced prospect of short term transition - Native vegetation	- Development costs and encumbered land (drainage and cultural heritage) - Landowner intentions - Prison interface

Source: Urban Enterprise, 2017

7.3. OPTIONS ASSESSMENT

The demand and supply assessment found that there is a reasonable supply of land appropriate to accommodate smaller, local industrial uses and related businesses in the existing land in Sale. There is, however, a lack of larger sites with suitable buffers to sensitive uses and ready access to major transport infrastructure available in the Sale area to accommodate larger strategic businesses.

Investigation of Candidate Areas has identified that each site has a range of opportunities and challenges that need to be considered. The Candidate Areas should be considered against the extent to which they meet the following criteria which generally apply to larger format industrial land uses:

1. Low number of land owners, larger lots, regular layout;
2. A low level of 'entrenched' uses / investment in improvements, and landowners open to the prospect of selling or developing in the near future;
3. Low levels of encumbrances (eg. flooding, native vegetation, cultural heritage, etc) such that a reasonable proportion of the land can be developed without significant additional costs;
4. Flat land, readily serviced with costs at a level that is unlikely to compromise development feasibility;
5. Sufficient land that is suited to the types of demand identified / aligned with overall economic opportunities;
6. Separated from sensitive land uses;
7. Easily accessed from major roads, freight networks and export infrastructure;
8. Proximity to a labour force, a market and the source of produce; and
9. Ability to leverage from other Council and State investment.

Table 21 provides an assessment of the extent to which the Candidate Areas align with these criteria based on the analysis presented in this report. The assessment shows that although each of the Candidate Areas will have challenges to development, Candidate Area 2 best aligns with the criteria overall. This is primarily because there are no major issues identified with the area which cannot be overcome (i.e. those which present a potential barrier to development) compared with Area 1 (access issues) and Area 3 (potential cultural heritage issues as well as high infrastructure costs and a likely reduction in developable area due to stormwater retention requirements).

The main challenges to developing Candidate Area 2 could be addressed, including:

- Relatively high traffic infrastructure costs could be distributed across multiple beneficiaries; and
- Land ownership may restrict short term development but is not considered likely to be an enduring constraint to development.

Candidate Area 2 also presents significant potential economic benefits and synergies which could be derived from co-location with the Aerodrome (including the opportunity to form a consolidated aviation, manufacturing and business precinct), the potential future heavy vehicle bypass and the potential for long term rail freight access.

TABLE 21 ASSESSMENT OF CANDIDATE AREAS

Criteria	Area 1	Area 2	Area 3
1	High	Medium	High
2	High	Medium	Medium
3	Medium	Medium	Medium
4	Medium	Medium	Low
5	High	High	High
6	Medium	High	Medium
7	Low	High	High
8	High	High	High
9	Low	High	Medium

Source: Urban Enterprise, 2017.

8. STRATEGY

8.1. INTRODUCTION

This section identifies the recommended approach and actions for Council to facilitate the provision of new industrial land supply.

8.2. GENERAL RECOMMENDATIONS

Candidate Area 2 is recommended as the primary opportunity to provide new industrial land. Rezoning of industrial land in this location has the potential to form part of a broader economic precinct which incorporates the West Sale Aerodrome and surrounding public land, supported by major road, rail and air distribution infrastructure.

Given that there are some potential challenges with development of this area which could delay ultimate transition of this area to industrial uses, it is recommended that a secondary candidate area is also pursued for rezoning. Candidate Area 1 is considered the best opportunity for short term development given the relatively low infrastructure costs and proximity to an existing industrial area, subject to securing road access and the findings of a Cultural Heritage Management Plan.

Concurrently seeking to advance planning for two separate areas will mitigate the risk of identifying a preferred site which is subsequently found to have considerable development constraints, a prospect which cannot be completely ruled out through the analysis in this report. If both areas are ultimately successful in being rezoned and delivering new land to the market, it is expected that each could play a different and complementary role, whereby:

- Land near the aerodrome could form part of a strategic economic cluster which attracts larger businesses seeking distribution advantages and separation from urban areas, along with other businesses associated with aviation, while
- The Wurruk area could attract a mix of local business growth, medium sized businesses of a similar nature to existing businesses in Wurruk and potentially some smaller lots to provide some competition to the Wellington Business Park.

The recommended actions are outlined as follows and should be undertaken concurrently wherever possible to expedite the delivery of new industrial land.

8.3. STRATEGIES AND ACTIONS

STRATEGY 1 **Increase the supply of industrial land suitable for medium and large lots in Sale and Wurruk**

This Strategy has identified that there is a supply gap in Sale and Wurruk for new industrial lots greater than 1ha in area. This gap may have contributed to lost investment and employment over recent years. It is recommended that Council adopts this strategy and pursues the actions identified to address the land supply gap as a matter of priority.

ACTION 1.1 **Adopt the Strategy**

ACTION 1.2 **Allocate resources to the completion of identified actions, including seeking external funding to support actions and catalyst infrastructure where relevant.**

STRATEGY 2 **Develop a planning framework to guide and control future development**

The following actions are recommended to implement the findings into the Wellington Scheme.

ACTION 2.1 **Prepare a Planning Scheme Amendment which covers the following actions under Strategy 2.**

ACTION 2.2 **Identify Candidate Area 1 and 2 as preferred industrial growth areas on the Sale Framework Plan, and retain the identification of Candidate Area 3 as a potential long term industrial growth area subject to demand.**

ACTION 2.3 **Rezone Candidate Area 1 to the Industrial 1 Zone and Candidate Area 2 to the Industrial 1 Zone or alternative zone associated with the broader economic precinct (such as a Special Use Zone).**

ACTION 2.4 **Prepare a Development Plan Overlay addressing the actions from Strategies 3, 4 and 5 as relevant, including Environment, Infrastructure and Cultural Heritage actions.**

ACTION 2.5 **Prepare a Design and Development Overlay addressing the actions from Strategy 6 and incorporating input from the West Sale Aerodrome and RAAF.**

ACTION 2.6 **Prepare a Development Contributions Plan Overlay and supporting documentation to formalise arrangements for shared infrastructure funding.**

STRATEGY 3 **Define potential Cultural Heritage and ecological constraints to development**

Candidate Area 1

- A Cultural Heritage Management Plan is required due to the high likelihood of aboriginal cultural heritage being present in the area. This process may take up to 12 months.
- Require preparation of a Preliminary Ecology Assessment. If there is evidence of protected species, targeted surveying will be required to confirm the initial assessment, with a focus on Growling Grass Frog, Grey-headed Flying Fox, Dwarf Galaxias and potential flora including Plains Grassy Woodland and Floodplain Riparian Woodland (any surveying is required to occur between October and February for the Growling Grass Frog)

Candidate Area 2

- Cultural Heritage is not immediately apparent in Candidate Area 2, therefore not formally triggering the need for a Cultural Heritage Management Plan. However, given the proximity to Candidate Area 3 and the potential for the sand deposits on that site to extend into Area 2, it is recommended that a preliminary Cultural Heritage Survey be undertaken. This is not a formal or binding assessment but will provide evidence as to whether any Cultural Heritage is likely to be present and will assist in mitigating the risk of major time delays if cultural heritage is identified during the subdivision stage, given that if any form of heritage was to be found during development, work must immediately cease, and a Cultural Heritage Management Plan undertaken.

- Require preparation of a preliminary Ecology Assessment in conjunction with assessment of Candidate Area 1.

ACTION 3.1 **Require preparation of a formal Cultural Heritage Management Plan for Candidate Area 1.**

ACTION 3.2 **Require preparation of a Preliminary Ecology Assessment for Areas 1 and 2 to observe the presence of protected flora and fauna.**

ACTION 3.3 **Require preparation of a Preliminary Cultural Heritage Survey of Area 2.**

STRATEGY 4 **Require consideration of specific infrastructure issues**

The following infrastructure issues should be addressed as part of further planning for the candidate areas:

- More detailed survey data of the area is required to assess drainage catchments. With this data a stormwater management plan could be prepared to provide a clearer indication of development layout and the drainage works which will maximise the drainage catchment to the north and minimise stormwater flow to the south.
- The importance of vehicle access across the rail line warrants a review of the impact of traffic on rail crossings in the vicinity.

ACTION 4.1 **Require the preparation of a survey and preliminary stormwater management plan for Candidate 2, ensuring that all findings and options consider ways to integrate with proposed works associated with the Aerodrome expansion.**

ACTION 4.2 **Require the preparation of a Risk Assessment with V/Line and the Road Authority to reveal the additional impacts on level crossings to be utilised for the relevant candidate area and measures required to mitigate any risk, building on the initial assessment prepared for this strategy.**

STRATEGY 5 **Establish formal mechanisms for shared infrastructure funding**

The provision of major infrastructure is required for all candidate areas. Infrastructure should be funded from a range of sources, primarily development proponents. Public investment / facilitation will also be important to unlock Candidate Area 1 with respect to road access from Hunt Place and Riverside Drive.

A range of potential beneficiaries exist for upgrades to infrastructure to support Candidate Area 2 – the timing, specific beneficiaries and potential funding partners should be identified and a plan formulated to optimise delivery of key enabling infrastructure in this area. This should also take into account the timing of the proposed Sale Alternative Truck Route works.

Development Contributions Plans (DCP) are likely to be required to formalise the delivery and funding of major shared infrastructure items in Candidate Area 2, and potentially Candidate Area 1 (although section 173 agreements may be an alternative in this area given there are only 2 landowners).

ACTION 5.1 **For Candidate Area 1, design suitable road access via Riverside Drive (including any necessary land acquisition or land swaps) and seek a funding contribution from relevant sources, including State government.**

ACTION 5.2 **As part of future planning for the broader Aerodrome precinct, identify opportunities to co-fund major shared infrastructure items for Candidate Area 2 such as intersections and sewer/water extensions.**

ACTION 5.3 **As part of any Planning Scheme Amendment, prepare a Development Contributions Plan (or equivalent mechanism) to set out requirements and conditions on which developers share major infrastructure costs.**

STRATEGY 6 Ensure that urban design is optimised both for industrial areas and interface areas

The ultimate development of each Candidate Area will need to have close regard to urban design to:

- Provide a high quality environment for businesses, workers and visitors;
- Attract investment and business interest, given that key disadvantages of many existing industrial areas in Sale include relatively poor design quality and interface conflicts;
- Respond to the natural features of the nearby areas (especially the Thomson River in Candidate Area 1 and any areas of native vegetation and wetlands to be retained in either area) and integrate internal natural systems (eg. stormwater drainage reserves and overland flow paths) into usable open spaces as part of developments;
- Provide for active transport and local open space connections where possible;
- Present an attractive entrance to the Sale and Wurruk urban area along the Princes Highway corridor, using measures such as landscaping and setbacks where relevant;
- Protect existing uses from any impacts created by building design (eg. aerodrome and RAAF Base, however it is noted that existing controls are already in place to manage this);
- Protect new uses from impacts of existing uses, such as aerodrome noise, if and where relevant;
- Mitigate any impacts that development may on surrounding sensitive uses, including through setback or siting requirements for particular uses near the long term Wurruk residential growth area in Candidate Area 1; and
- Include suitable transition arrangements if part of a Candidate Area is developed while residences remain in others.

Other design and development controls may also be considered necessary to accord with Council's standard approach to urban design in industrial areas. It is also important to consider the cost impact on development when drafting urban design controls.

ACTION 6.1 Apply a Design and Development Overlay which addresses each consideration outlined in this Strategy to any land to be rezoned to the Industrial 1 Zone.

STRATEGY 7 Establish and promote strategic economic clusters

Candidate Area 2 in particular presents the opportunity to form part of a strategic economic cluster, incorporating the aerodrome and other public land. Actions are proposed which support and develop this concept and can be implemented by Council and other government agencies to facilitate investment in this area.

ACTION 7.1 Partner with Regional Development Victoria to identify, support and fund the delivery of a strategic regional hub for aviation and related industries in Candidate Area 2 and surrounds.

ACTION 7.2 Prepare a Strategic Property and Economic Opportunities Plan for the broader area surrounding and including Candidate Area 2, incorporating the Aerodrome, other public land and land situated between the Princes Freeway and the rail-line.

ACTION 7.3 Liaise with VicRoads to identify the benefits of Sale Alternate Truck Route to future industrial land in Candidate Area 2 and ensure that planning for the route has regard for future industrial land use in this area.

ACTION 7.4 Partner with Invest Gippsland to promote new industrial land opportunities in Candidate Areas 1 and 2 and identify potential businesses and investors.

ACTION 7.5 In the medium term, liaise with V/Line regarding long term freight distribution options and potential to integrate with Candidate Area 2.

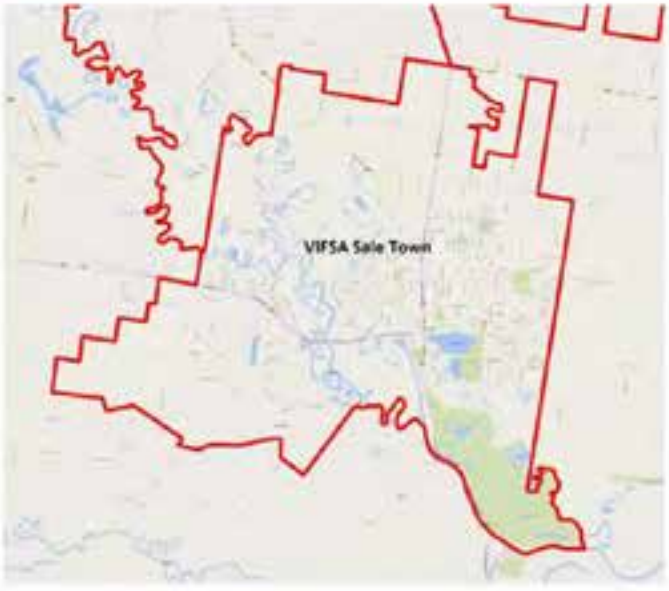
ATTACHMENTS

ATTACHMENT A DATA AREA BOUNDARIES

TABLE 22 SALE SA2 BOUNDARIES, 2006, 2011, 2016

Source: Remplan, 2017

FIGURE 16 VIFSA SALE TOWN BOUNDARY, 2016



Source: Victoria to Future 2016

ATTACHMENT B LIST OF CONSULTATION

Agency/Business Name	Interest	Representative
VicRoads	Transport and access	Stuart Fenech
Ausnet	Infrastructure	John Beaty
Gippsland Water	Infrastructure	Pete Young
West Gippsland Catchment Management Authority	Infrastructure	Adam Dawe
Environment Protection Authority	Planning and environment	Sarah Nash
Department of Environment, Land, Water and Planning	Planning, environment and public land	Alan Freitag, Carmel Henderson, John Brinson
Wellington Shire Officers	Planning	Barry Hearsey
Wellington Shire Officers	Planning	Ben Proctor
Wellington Shire Officers	Infrastructure	Sam Pye
DEDJTR	Transport and access	Kylie Franklin
DEDJTR	Earth resources	David Wilson
VicTrack	Transport and access	Emma Demuyne
Land/Business Owner	Business	John Kendton
Telstra	Infrastructure	
NBN	Infrastructure	
APA	Infrastructure	
Rotahub	Candidate area interface	Geoff Lindrea
Graham Chalmer Real Estate	Real estate	Chris Morrison
Wellington Business Park	Development	Grant Wolfe
Fulham Correction Facility	Candidate area interface	Col Cooke
West Sale Aerodrome (managed by Wellington Shire)	Candidate area interface	Daniel Gall
Federation Training	Candidate area interface	Darrin Day
Warrak Land owner	Candidate area interface	Des Kranis
Candidate Land Owner (area 1)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 1)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Candidate Land Owner (area 2)	Candidate Area Owner	Details withheld
Contacted but no specific or detailed input received		
Aboriginal Victoria	Cultural heritage	
Country Fire Authority	Emergency Services	
Regional Development Victoria	Business / Economics	
Committee for Wellington	Business / Economics	

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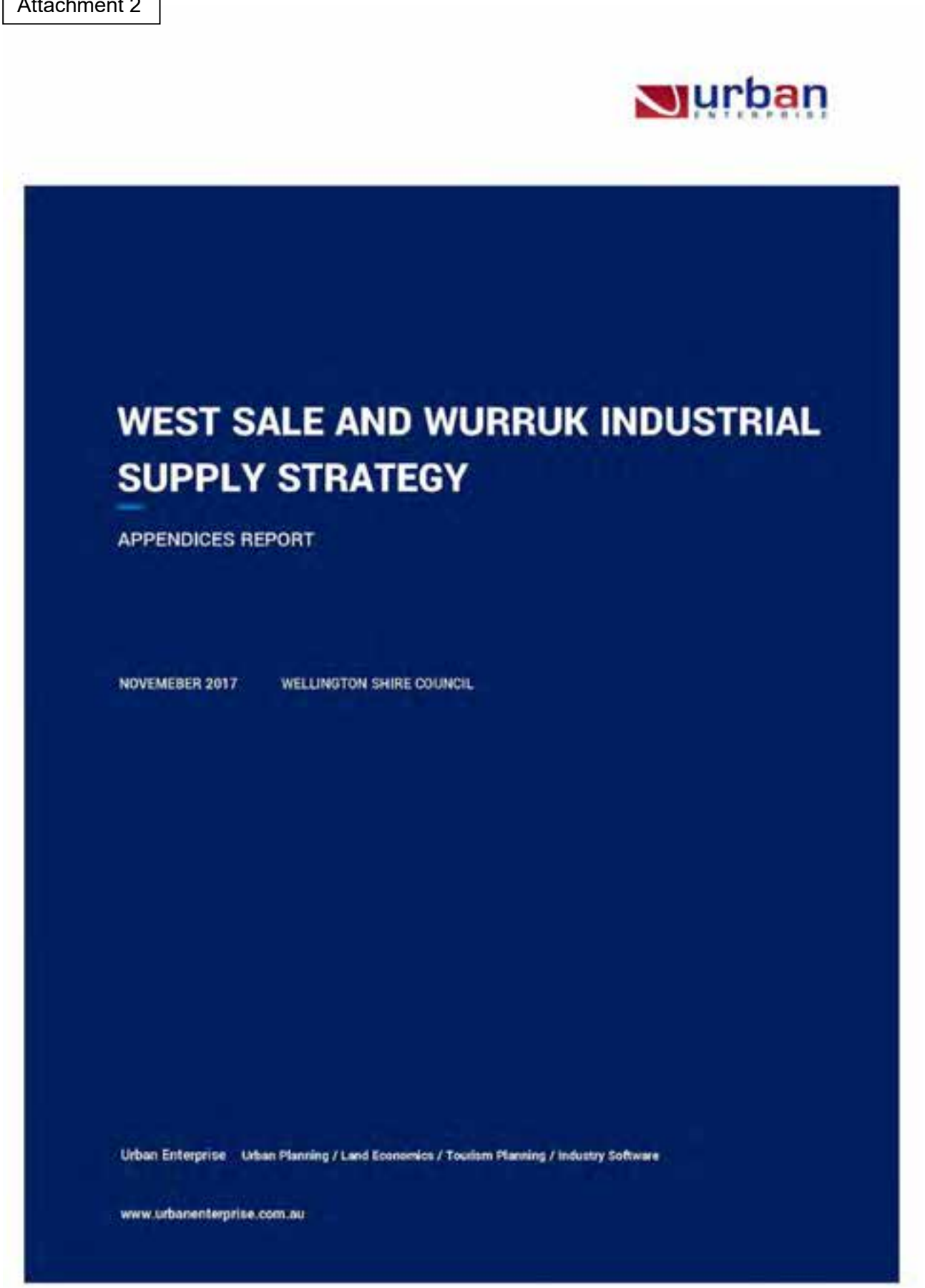
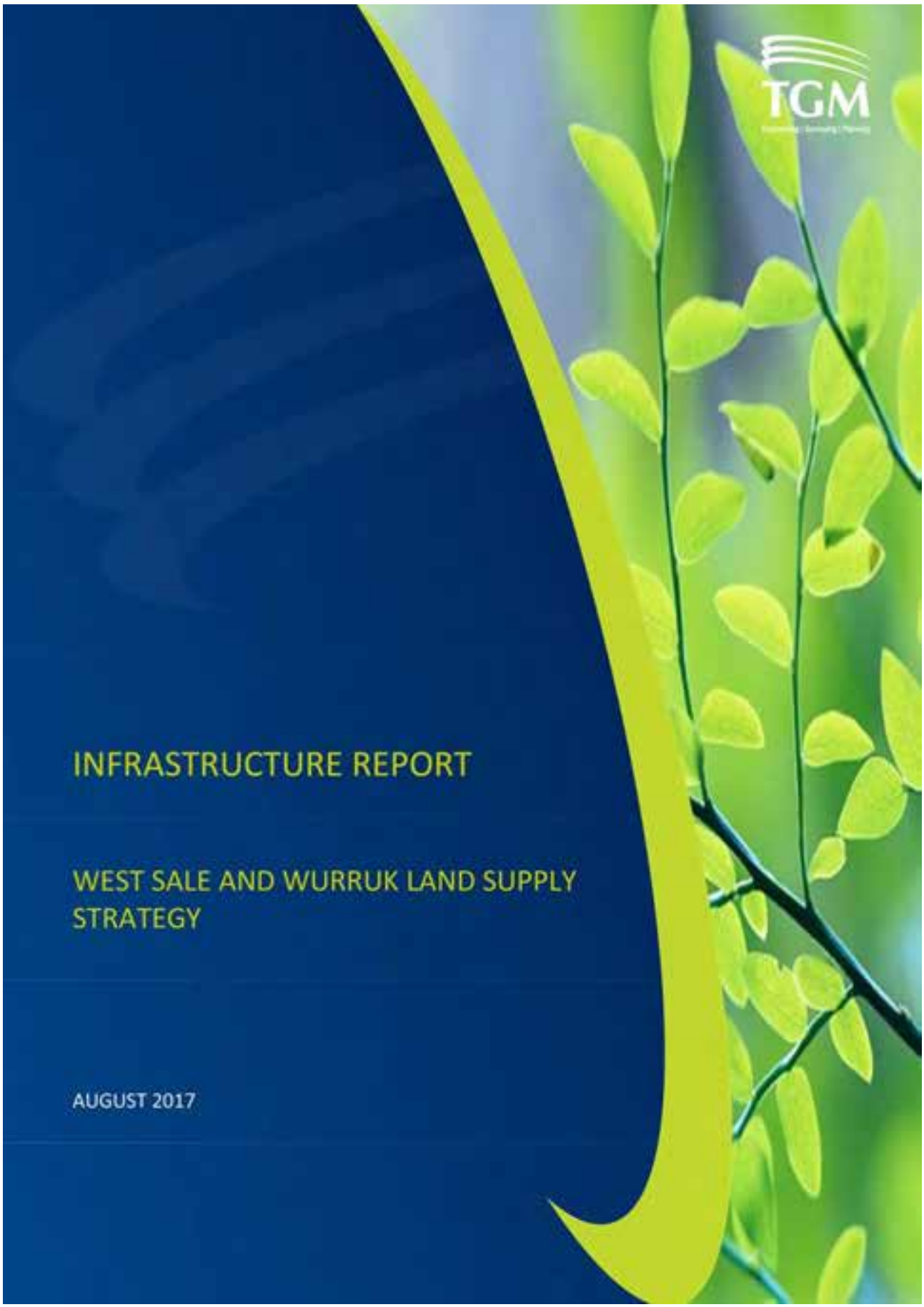
Attachment 2



APPENDIX A INFRASTRUCTURE REPORT


TGM
INFRASTRUCTURE REPORT
WEST SALE AND WURRUK LAND SUPPLY STRATEGY
AUGUST 2017

Infrastructure Report
WEST SALE AND WURRUK LAND SUPPLY STRATEGY
August 2018

Document Status

Version	Document type	Reviewed by	Approved by	Date issued
01	DRAFT REPORT	J.LYNCH	B.VOCALE	28/08/2017
02	REPORT	J.LYNCH	B.VOCALE	01/09/2017
03	REPORT	J.LYNCH	B.VOCALE	10/11/2017

Project Details

Project Name:	INFRASTRCUTURE REPORT – WEST SALE AND WURRUK LAND SUPPLY STRATEGY
Client:	Urban Enterprise
Client Project Manager	Joe Lynch
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TGM Reference:	16702-201
Date:	28 August 2017

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Contents

List of Figures

1 Introduction

This report supports the Strategy which is to provide a land use planning rationale to justify, rezone and facilitate the development of an appropriate area of land, in the short-medium term, within West Sale and Wurruk in accordance with the recommendations of the adopted 'Sale, Wurruk and Longford Structure Plan (2010)'.

The three sites nominated within the Structure Plan for potential future industrial growth are located:

- **Site 1**

To the west of the existing industrial zoned land in Wurruk; The site is within Wurruk and lies to the west of the existing industrial estate, between the Princes Highway (and railway line) to the south and the Thompson River to the north. It is approximately 42Ha in area and is currently within the Farming Zone. The site is partially affected by the Flood and Land Subject to Inundation Overlays to the north. Figure 1 outlines the area for Site 1.

Figure 1: Site 1

- **Site 2**

Site 2 lies to the north of the Princes Highway and to the east of the West Sale Aerodrome. Figure 2 outlines the Site 2 area.

The site is approximately 79Ha in area and is currently within the Farming Zone. Both the Airport Environs Overlay 1 & 2 apply to the land. The activities of the adjacent Aerodrome are a potential constraint on the land – particularly given that a process is currently underway to facilitate a 300m extension to the eastern end of the existing runway. Recent discussions between Urban Enterprise and

the Aerodrome Manager and Wellington Shire Council has indicated a land swap is required to facilitate an extension to the runway at the aerodrome. With this land swap the area adjustment is a definite 54.5ha with a potential 3.8ha another 2.0ha which is considered unlikely to be included. This land swap arrangement for Site 2 is detailed in Figure 3.

- **Site 3**

Site 3 lies to the east of the Fulham Correctional Centre and to the south of the Princes Highway. The land is approximately 104Ha in area and is currently within the Farming Zone. The land is affected by the Airport Environs Overlay 2. Figure 2 outlines the Site 3 area.

Figure 2: Site 2 and 3

Figure 3: Site 2 modified

This report focuses on:

Identifying the key infrastructure requirements (including associated financial costs) that are necessary to 'unlock' the potential for the development of the identified additional land in the short-medium term that will assist in delivering the land to the market.

The following areas will be subjects of interest focussed on in this report:

- Water supply.
- Sewerage.
- Local government development requirements.
- Stormwater and issues inherent from local flooding and catchment management.
- Electricity.
- Gas supply.
- Telecommunications.

2 Summary of Previous Studies

A number of previous studies including the development Sale, Wurruk and Longford Structure plan have been undertaken in recent times and provide the platform for the West Sale and Wurruk Industrial Land Supply Strategy. Below is a brief summary of the previous investigations relevant to infrastructure in the West Sale and Wurruk area:

- Sale, Wurruk and Longford Structure Plan including Issues and Options Paper (2010):

  The structure plan identified the areas in West Sale and Wurruk to facilitate industrial development. It is was acknowledged capacity issues associated with providing cost-effective service infrastructure (e.g. piped water and sewerage) was apparent.

- Wellington Shire Council: Economic Development Strategy (2016-2022)

  This report identified facilitating investment in infrastructure with the need to continue to invest in ports, rail and roads.

- Gippsland Regional Growth Plan (2014)

  This report is a broader scale assessment and identifies Sale as an area that contains infrastructure. However, to facilitate growth it requires mid to high levels of investment to deliver infrastructure to support future growth.

- Wellington Planning Scheme Policy and Zone Amendments – Industrial and Business Zones (October 2007)

  The report identified the West Sale Aerodrome and adjoining land as favourable sites suitable to accommodate future industrial land provision but acknowledged one of the major constraints to be the lack of infrastructure provision.

- Sale Industrial Land and Retail Assessment (May 2006)

  This report identifies the need for any future industrial land supply to have appropriate transport connectivity and available infrastructure to service development.

- Sale Industrial and Bulky Goods Zone Areas Review (October 2004)

  This report identifies that most industries require a range of services in order to operate effectively. While most industries have a standard requirement for services, it is important to acknowledge few industries are heavy users of various services and this is an important consideration when assessing existing infrastructure or new infrastructure.

3 Site infrastructure assessments

3.1 Water Supply

Gippsland Water is the authority responsible for the provision of water facilities. The advice provided by Gippsland Water (GW) is:

Gippsland Water (GW) have completed water modelling to determine the effect of the three candidate sites on the existing infrastructure and advise what upgrades are required to service the ultimate scenario. For the base case GW used 500 lots via a sole feed from the residential area known as "The Ridge" water main. This was to test the existing 225mm main within Wurruk. Beyond 500 lots in Wurruk a secondary interconnection main is needed along Settlement Road. A copy of the water modelling report is in Appendix 1 of this report which includes a plan detailing the three nominated sites and the future residential growth area included in the modelling.

The three identified areas, as well a future subdivision were assigned relevant diurnal patterns to simulate their usage: The diurnal pattern applied for the Industrial sectors were based on the existing pattern for the Wurruk/Sale Industrial sector and an additional 20%. The current residential pattern in the catchment was applied to the 500 lot subdivision.

An average peak demand was applied to each of the areas by assuming a peak day consumption rate of 1300 L/Lot/Day and 5 lots per hectare for the industrial areas.
The peak hour demands of the three industrial areas were:

- Site 1 = 6.1 L/s
- Site 2 = 10.1 L/s
- Site 3 = 20.2 L/s

The findings from modelling undertaken by Gippsland Water are:

- Site 1 can be serviced without any upgrades to the existing system, via an extension of the 150 mm main along Hunt Place. For modelling purposed a 180 OD HDPE 100 main was used.
- Site 2 and Site 1 + Site 2 can be serviced with the existing network if moderate headlosses are accepted, particular with the later scenario,
- Site 3 individually will require a minimum upsize to 300 mm to avoid moderate to high headlosses along the 225 mm distribution main (4.2 km section).
- Any of the remaining options including Site 3, requires the 225 mm distribution main to upgraded to a 375 or 450 mm. Furthermore the pumps at the Wurruk TWPS would need to be replaced in order to accommodate the increased flows and subsequent headlosses.

Basically the preliminary modelling and analysis indicates that Site 1 and Site 2 could be supported with minor pump station upgrades. Beyond that the 5km distribution main will need to be increased from 225mm to likely 375mm.

3.2 Sewer

Gippsland Water is the authority responsible for the provision of sewerage reticulation. The advice provided by Gippsland Water (GW) is:

Sewer - Site 1 (about 30 developable hectares)

The current Wurruk Estate has a SPS (sewer pump station) with capacity for the additional 30 hectares.

The current sewer main to the north of current estate (Riverside Drive) has a sewer main with an Upstream Invert Level of 9.91 metres.

To service all of the area, with a sewer main extension the IL at the west extent of Area 1 will need to be about 17 metres.

Therefore about 50% of this area can gravitate and the other 50% will need to have a new sewer pump station.

All of the costs for this infrastructure would be borne by the developer.

Depending on the loading from the new estate the existing 150mm main may need to be increase to 225mm.

Figure 4: Site 1 – Existing Sewer Infrastructure

Sewer - Site 2 (about 50 developable hectares) – assessed individually

There is no sewer in this area. The rising main from the Fulham Correctional Facility SPS runs up Hopkins Road and then along the Princes Hwy into Wurruk (roundabout before bridges). About 7600 metres in length.

The rising main is DN200 DICL PN35 RRJ.

The typical dry weather loading in GW region for light industrial is about 6500 litres/day/hectare. Therefore an average dry weather of 3.8 l/s for the 50 hectares.

With wet weather added – increase by factor of 6 (rule of thumb) – therefore about 22.8 l/s.

Potentially this 22.8 l/s could be injected in the rising main, at chainage 1600 metres, however this will significantly impact the flow rate of the Fulham Correctional SPS (FC SPS).

The frictional headloss of the FC SPS is currently about 35 metres (35 l/s). Adding an additional 22.8l/s at chainage 1600, will increase the frictional headloss by another 52 metres.

For this area to go either the FC SPS will need to be upgraded (pumps, electrics, detention storage) or the rising main increased to reduce the frictional headloss.

Sewer – Site 3 (about 100 developable hectares) – assessed individually

There is no sewer in this area. The rising main from the Fulham Correctional Facility SPS runs up Hopkins Road and then along the Princes Hwy into Wurruk (roundabout before bridges). About 7600 metres in length.

The rising main is DN200 DICL PN35 RRJ.

The typical dry weather loading in GW region for light industrial is about 6500 litres/day/hectare. Therefore an average dry weather of 7.6 l/s for the 100 hectares.
With wet weather added – increase by factor of 6 (rule of thumb) – therefore about 45.6 l/s.
The injection point would be at chainage 300m, and again will significantly affect the flow rate of FC SPS.

The frictional headloss of the FC SPS is currently about 35 metres. Adding an additional 45.6l/s at chainage 300, will increase the frictional headloss by another 143 metres (178 metre of friction).

For this area to go **BOTH** the FC SPS will need to be upgraded **AND** the rising main increased to reduce the frictional headloss.

Old rising main from Fulham.

Figure 5 details an abandoned GW rising main which has been identified by the water authority as a potential item of infrastructure that could potentially be utilised as a stormwater outlet. It may have a benefit to provide a slow release outlet for stormwater from future development in the area. The condition of the rising main is considered to be fair.

Figure 5: Old 150mm diameter rising main from Fulhams

3.3 Stormwater

Wellington Shire Council

The existing local drainage is maintained by Wellington Shire Council (WSC). Advice from Wellington Shire Council engineering department is:

The typical IDM industrial street cross section drawing of. Table 2 Urban Road / Street characteristics in the IDM (refer Figure 6 below) would enable for appropriate overland flow paths for stormwater.

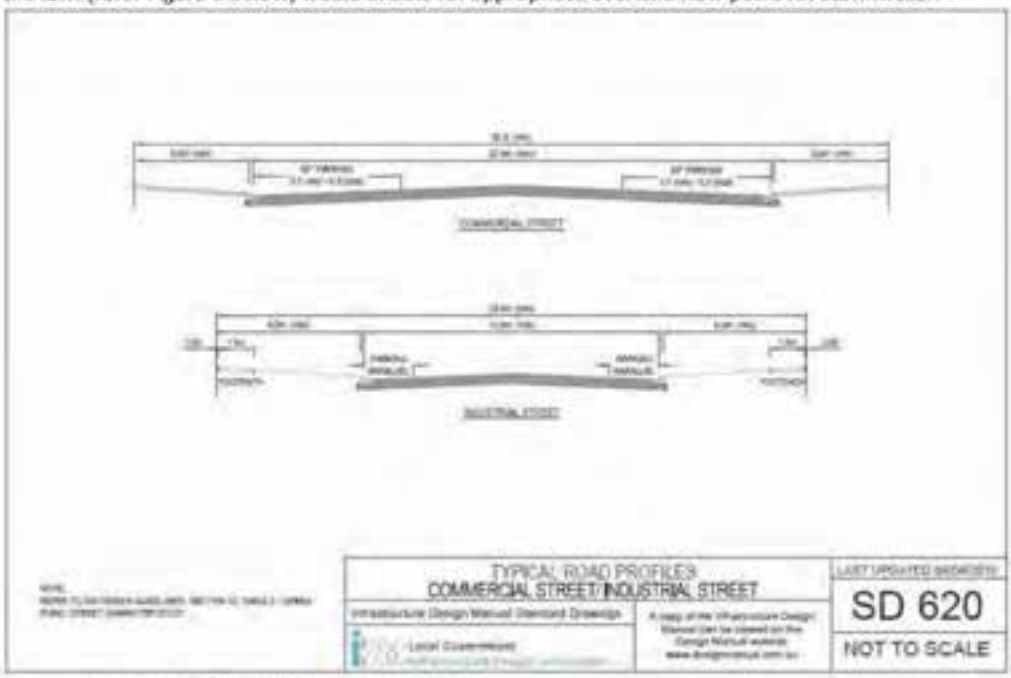


Figure 6: Typical industrial street cross section

Drainage will follow the same approach as a typical low density residential zone development. Industrial subdivisions drainage must cater for the 10% AEP event with 1% event typically as overland flow. Outfalls for the candidate areas are described below:

- **Site 1**

Subject to West Gippsland Catchment Management Authority (WGCMA) approval/conditions but likely to the Thompson River to the north of the site. Overland flow to river will be okay with treatment;

- **Site 2**

There is an existing drain along the eastern extent airfield which eventually drains down to the Central Gippsland No. 4 drain as highlighted in Figure 7. Overland flow is expected to be okay with typical levels of retention though it will require further detailed investigation. There is a current project to extend the runway which Wellington Shire Council will be required to re-arrange the final drainage in this area but it will ultimately drain to the same No. 4 drain.

Figure 7: Central Gippsland Drain No.4

- **Site 3**

There is a nominated drain which is part of the Kilmany drainage system as per Figure 8. The site can discharge into this drain however the final stormwater strategy may need to take into account for a higher level of retention as any water not lost through evaporation and transpiration may ultimately drain to the private levee near the outlet to the Latrobe River. Any future development needs to account for any additional overflow from the land which would need to be managed by water harvesting or retention before ever hitting the levee bank which is approximately 7km away from the site.

Figure 8: Kilmany Drain

West Gippsland Catchment Management Authority

West Gippsland Catchment Management Authority (WGCMA) are a government organisation responsible for managing the land and water resources in West Gippsland. Advice from the West Gippsland Catchment Management Authority (CMA) includes:

Figure 9 highlights the designated waterways and known flood extents in the Wurruk area.

Unique to this area is a flood levee known as the Kilmany Levee Bank. Although this area is unique as any significant stormwater flow that drains to this area needs to be pumped past the levee bank, it is acknowledge that pumping of stormwater is very infrequent. The actual flow from the catchment that reaches the levee bank is very minimal as most water is either stored in existing farm dams, waterways and lost through evaporation and transpiration. The cost of pumping the stormwater falls to the land holders who own land behind the levee.

It is likely that part of Site 2 and all of Site 3 would drain to this point. Without further detailed hydrological and hydraulic analysis which is not included in this study, it is difficult to determine the actual size of sub catchment within site 2 that drains to the Kilmany drain. However, the land in the region is reasonably flat and therefore future development can be engineered to ensure a significant portion of the catchment drains to the north and discharges into the Central Gippsland Drain No.4.

In Figure 9 WGCMA have highlighted the drainage path from Site 2 and Site 3 to the Kilmany Levee which is shown as a red line.

If stormwater does drain to this location it will need to be managed to meet best practice stormwater quality targets as well as ensure that the quantity is managed. This will potentially require additional on site storage compared to traditional best practice stormwater treatment.

Based on the above requirements TGM have calculated that to manage stormwater runoff to pre development rates and volumes requires drainage reserves to be set aside to enable stormwater detention. The encumbered land for:

- Site 2 is 4.06ha
- Site 3 is 8.48ha

Which equates to approximately 8 % of the land area. The above is based on a rudimentary calculation and does not include any detailed assessment to calculate flood hydrographs and assess streamflow routing. Hence the area required to set aside for stormwater detention may possibly be of a greater percentage that those above. The above also assumes an average storage depth of 0.5m. If the storage depth can be increased this can reduce the actual area required for detention.

As noted in section 3.2 Gippsland Water have advised of a redundant rising main that heads to the La Trobe River from Fulham correctional facility via Hopkins Road. This a 150mm diameter pipe which would have capacity to discharge a small amount of stormwater. It would have minimal benefit to reduce the on site detention. To provide a more appropriate sized drainage outlet along this route a nominal size 900mm diameter pipe is recommended. The distance to the La Trobe River is 400m so the cost to deliver this this drainage outfall is approximately $3.0 million.

It is noted that Site 1 does not require the same level of stormwater detention as there is a great ability to discharge the stormwater to the Thompson River. However, Site 1 is subject to flooding from the Thompson River and therefore is affected by a flood extents. The area that is encumbered by a flood extents can be utilised so locate a stormwater treatment system including any additional flood storage. Final approvals would be subject to WGCMA assessment.

Figure 9: Designated Waterway and Kilmany Drain

3.4 Electricity

The advice from Ausnet, the electrical authority responsible for electricity infrastructure, is that it appears the current infrastructure is sufficient to support additional loading of 1–2 MVA in the shorter term.
As shown in Figure 10 AusNet Services has two rural style 22kV line known as MFA23 and SLE14 distribution feeders.

- These feeders presently have the capability to support 1-2MVA in the location shown.
- This should be suitable for the first stages of development.
- This may not be capable of supporting the ultimate demand of these sites. This will depend significantly on the electrical demand of customers within the estate.
- Augmentation two the lines can be undertaken and this will increase the availability of power. This can be determined once development is undertaken.
  Normal supply policy contribution and cost will be incurred to reticulate the site.

Figure 10: Electricity – Existing Infrastructure

3.5 Gas

APA Group are responsible for managing the gas supply network in Sale. The advice received from APA includes:

- The subject sites are adjacent to existing gas reticulation infrastructure but not of a capacity to support any major industrial loads. The current infrastructure has been installed to suit the supply required for Fulham and the Aerodrome.
- APA Networks do not automatically reticulate industrial estates, supply is determined from customer connection requests – generally made through a retailer.
- To supply any major load, either duplication of the existing supply main or upstream augmentation maybe required.

3.6 Telecommunications

The agent for the roll out of the telecommunication services will be the responsibility of the National Broadband Network (NBN).

The Dial before you Dig information indicates NBN assets are located within this region. According to the NBN website it is also noted that the Wurruk region is NBN ready and new and existing developments can connect to the NBN service through a NBN provided.

There is no expectation for any backhaul charges.

4 Site Infrastructure Comparison

Based on the infrastructure assessments the below table assesses a comparison between each site in terms of what infrastructure upgrades are necessary and what the potential costs are required for upgrade to these area to meet the future development. The below table is based on a light industry demand.

	Site 1		Site 2		Site 3	
Infrastructure Item	Description of Upgrade	Cost ($ mil)	Description of Upgrade	Cost ($ mil)	Description of Upgrade	Cost ($ mil)
Water	Can be serviced without any upgrades to the existing system, via an extension of the 150 mm main along Hunt Place	$0	Site 2 and Site 1 + Site 2 can be serviced with the existing network	$0	Site 3 individually will require a minimum upsize to 300 mm to avoid moderate to high headlosses along the 225 mm distribution main (4.2 km section) (@$500/m)	$2.1 mil
Sewer	New sewer pump station for 50% of site.	$0.75	Fulham Correction SPS to be upgraded	$1.5	The Fulham Correction SPS will need to be upgraded ($2.1mil) **AND** the rising main upgraded (7.6km). (4.2km @ $500/m)	$4.2
Stormwater	Wetland/ Detention System	$1.0	Wetland/ Detention System	$2.0	Wetland/ Detention System ($2.5mil) and 900mm dia outfall (4.0km @$750/m)	$5.5
Electricity		$0		$0		$0
Gas	Upgrade gas main to site	$0.18	Upgrade gas main to site	$1.35	Upgrade gas main to site	$1.50
Telecommun-ications		$0		$0		$0
TOTAL		$1.93		$4.85		$13.30

Figure 11: Infrastructure comparison

5 Summary

The three nominated sites in West Sale and Wurruk have been assessed to determine whether existing infrastructure can support future industrial development and where necessary, what investments are necessary and what constraints exists. The assessment was based on assessing existing data and reports, and consultation with key authorities and stakeholders.

Based on previous studies it was identified the areas had a reasonable level of infrastructure in the area but there was a definite need for investment to facilitate future growth.

The study has determined that Site 1 has the least investment required while Site 3 requires the highest investment. It is important to acknowledge the land areas are not equal so it is disproportionate. If the areas were of equal size the actual costs would change. However, it is clear that site 2 and 3, regardless of their size do have infrastructure constraints, namely sewer and stormwater.

It was established that Site 3 is heavily constrained with site stormwater management in that any increase in stormwater outflow from future development impacts downstream landowners who are required to manage existing stormwater from upstream properties. Changes to the stormwater conditions adversely impacts these landowners. Site 2 also has a sub catchment area subject to the same conditions to site 3. Hence, to manage stormwater for Site 2 and 3 land from these areas are to be made available for on-site detention.

Site 1 is subject to having access to the existing industrial area to the east and has been assumed in this report. Therefore direct access to this industrial area is necessary to ensure development of Site 1, otherwise, the infrastructure investment will be more significant.

Finally, this report has assessed the land use for industrial growth primarily on light industry demand. Should there be an industrial business that require a heavy demand on infrastructure it would result in the need for larger infrastructure upgrades to those identified in this report. However, given the assessment is based on the same industrial demand for each of the candidate sites it is a relative comparison and it would be expected similar differences but on larger cost scales.

1 Appendix 1 (Gippsland Water - Water Modelling Report)

West Sale & Wurruk Industrial Modelling Results

Objective:

Determine the effect the three candidate areas identified in the West Sale & Wurruk Industrial Land Management Strategy would have on the existing water infrastructure in the area, and determine what upgrades are required to service the ultimate scenario (3 areas).

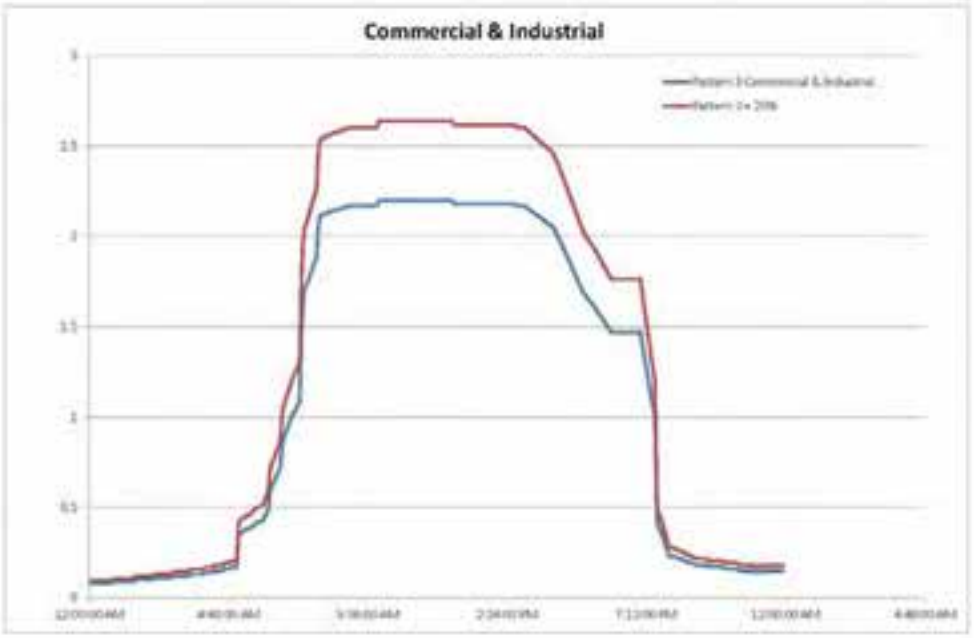
Procedure:

The three identified areas, as well a future subdivision were assigned relevant diurnal patterns to simulate their usage: The diurnal pattern applied for the industrial sectors were based on the existing pattern for the Wurruk/Sale Industrial sector and an additional 20%. The current residential pattern in the catchment was applied to the 500 lot subdivision.

An average peak demand was applied to each of the areas by assuming a peak day consumption rate of 1300 L/Lot/Day and 5 lots per hectare for the industrial areas.

The peak hour demands of the three industrial areas were:

- Area 1 = 6.1 L/s
- Area 2 = 10.1 L/s
- Area 3 = 20.2 L/s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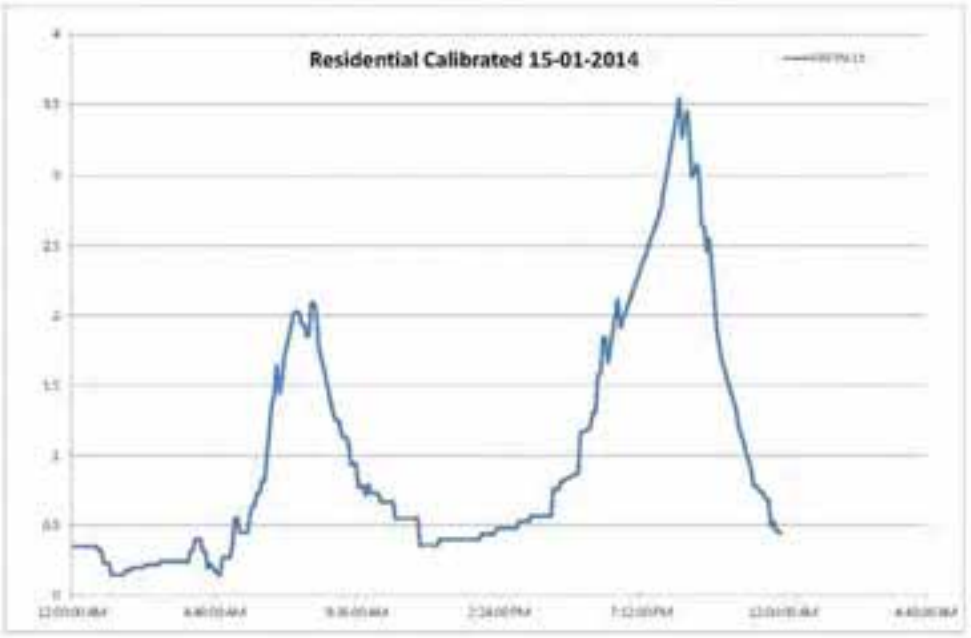

Residential Calibrated 15-01-2014

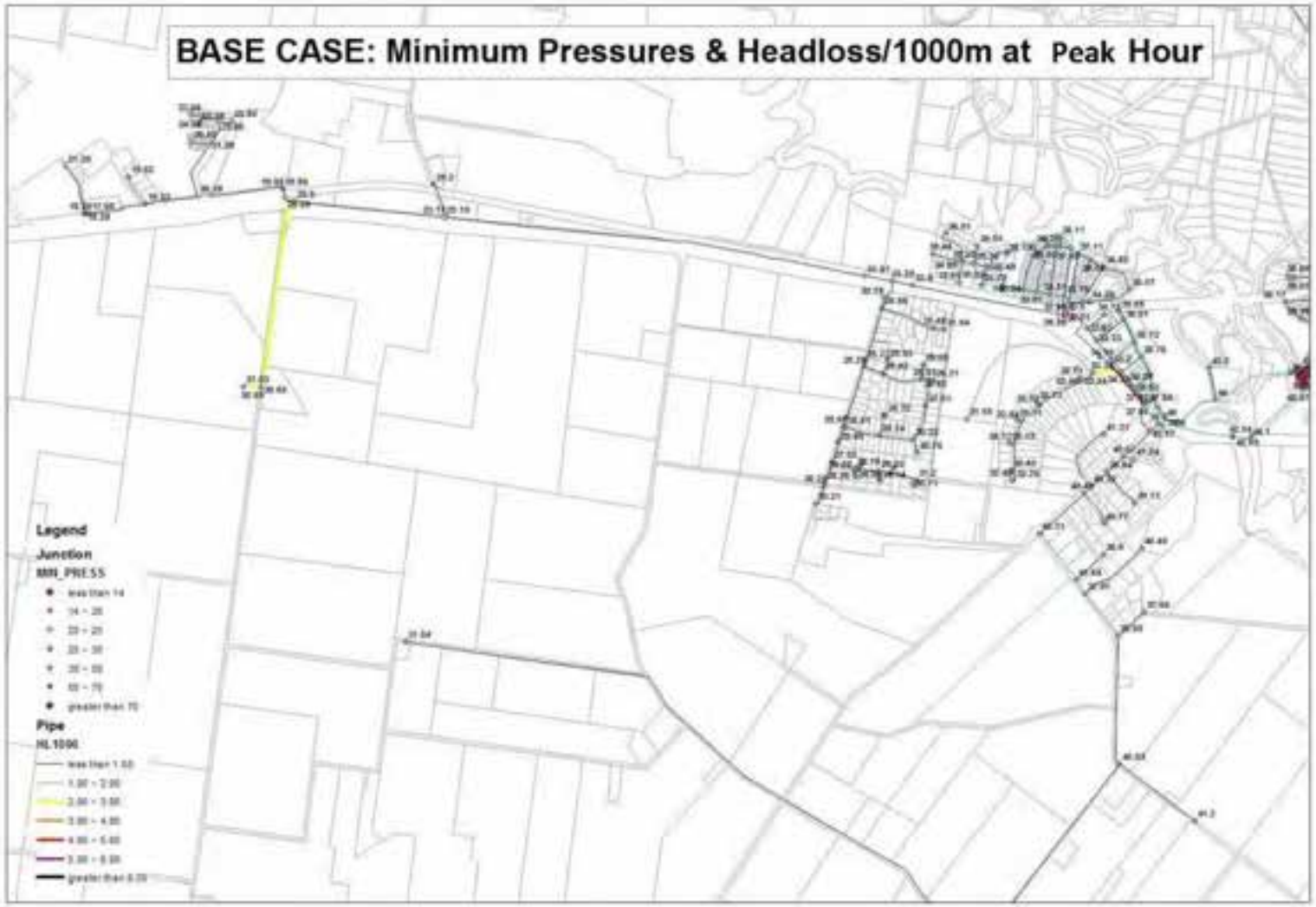
Results

Scenario	Pressure Affects	Headloss Affects	Infrastructure Upgrades Required
Base Case	Minimum Pressure = **17.98 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	Negligible headloss along 225 mm distribution main, with 2-3m headloss/100m along 150 mm main to Wurruk Correctional Facility.	Nothing Required
AREA 1	Minimum Pressure = **17.75 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	Negligible headloss along 225 mm distribution main, with 2-3m headloss/1000 m along 150 mm main to Wurruk Correctional Facility.	Nothing Required
AREA 2	Minimum Pressure = **18.65 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	1-2 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	4.2 km of 300 mm main is required to replace the existing 225 mm distribution main to minimise headloss. The main should be larger than 300 mm (i.e. 375 mm) if Area 3 is also planned.
AREA 3	Minimum Pressure = **18.53 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	2-3 m headloss/1000 m along 5.0 km section of 225 mm main. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	4.2 km of 300 mm main is required to replace the existing 225 mm distribution main to minimise headloss. The main should be larger than 300 mm (i.e. 375 mm) if Area 3 is also planned.
AREA 1 + AREA 2	Minimum Pressure = **18.63 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	1-2 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	No upgrades are required if GW are willing to accept moderate headloss during peak periods along the 4.2 km section of the 225 mm main.
AREA 1 + AREA 2 + AREA 3	All pressures west of Sale Heyfield Road are well below customer charter. The Wurruk Booster Pump Station is unable to produce the required head to over the headloss and the increased demand of the industrial areas.	4-5 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	4.2 km of >300 mm main is required to replace the existing 225 mm distribution main to minimise headloss and bring pressures to customer charter levels. Furthermore the Wurruk TWPS cannot produce the head required to overcome the substantial headloss. A larger main is likely to reduce the headloss in the main, thus potentially eliminating the need for a pump upgrade.
AREA 1 + AREA 2 + AREA 3 (With 300 mm Upgrade)	Pressures are better with 300 mm main; however areas west of Hopkins Road still remain below charter.	1-2 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2.	This scenario shows that a 300 mm main is not sufficient and hence a 375 or 450 mm is required if both Areas 2 and 3 are proposed. Pressures issues still remain and hence with this ultimate scenario, a pump capable of producing around 100m head would be required.

AREA 2 + AREA 3	All pressures west of Sale Heyfield Road are well below customer charter. The Wurruk Booster Pump Station is unable to produce the required head to over the headloss and the increased demand of the industrial areas.	4-5 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	4.2 km of >300 mm main is required to replace the existing 225 mm distribution main to minimise headloss and bring pressures to customer charter levels. Furthermore the Wurruk TWPS cannot produce the head required to overcome the substantial headloss. A larger main is likely to reduce the headloss in the main, thus potentially eliminating the need for a pump upgrade.
AREA 2 + AREA 3 (With 300 mm Upgrade)	Pressures are better with 300 mm main; however areas west of Lyon Crescent still remain below charter.	1-2 m headloss/1000 m along 4.2 km section of 225 mm main. 2-3 m headloss along new 150 mm main to service Area 2.	This scenario shows that a 300 mm main is not sufficient and hence a 375 or 450 mm is required if both Areas 2 and 3 are proposed. Pressures issues still remain and hence with this ultimate scenario, a pump capable of producing around 100m head would be required
AREA 1 + AREA 3	Minimum Pressure = **18.57 m** at the westerly most point at the corner of Mortimer Drive and Hawker Place.	2-3 m headloss/1000 m along 5.0 km section of 225 mm main. 4-5 m headloss/1000 m along Wurruk Correctional Facility main.	The 5.0 km section of 225 mm main would need to be upgraded to a minimum of 300 mm to ensure moderate-high headlosses are not experienced during peak periods.

Conclusion

- Area 1 can be serviced without any upgrades to the existing system, via an extension of the 150 mm main along Hunt Place. For modelling purposed a 180 OD HDPE 100 main was used.
- Area 2 and Area 1 + Area 2 can be serviced with the existing network if moderate headlosses are accepted, particular with the later scenario,
- Area 3 individually will require a minimum upsize to 300 mm to avoid moderate to high headlosses along the 225 mm distribution main (4.2 km section).
- Any of the remaining options including Area 3, requires the 225 mm distribution main to upgraded to a 375 or 450 mm. Furthermore the pumps at the Wurruk TWPS would need to be replaced in order to accommodate the increased flows and subsequent headlosses.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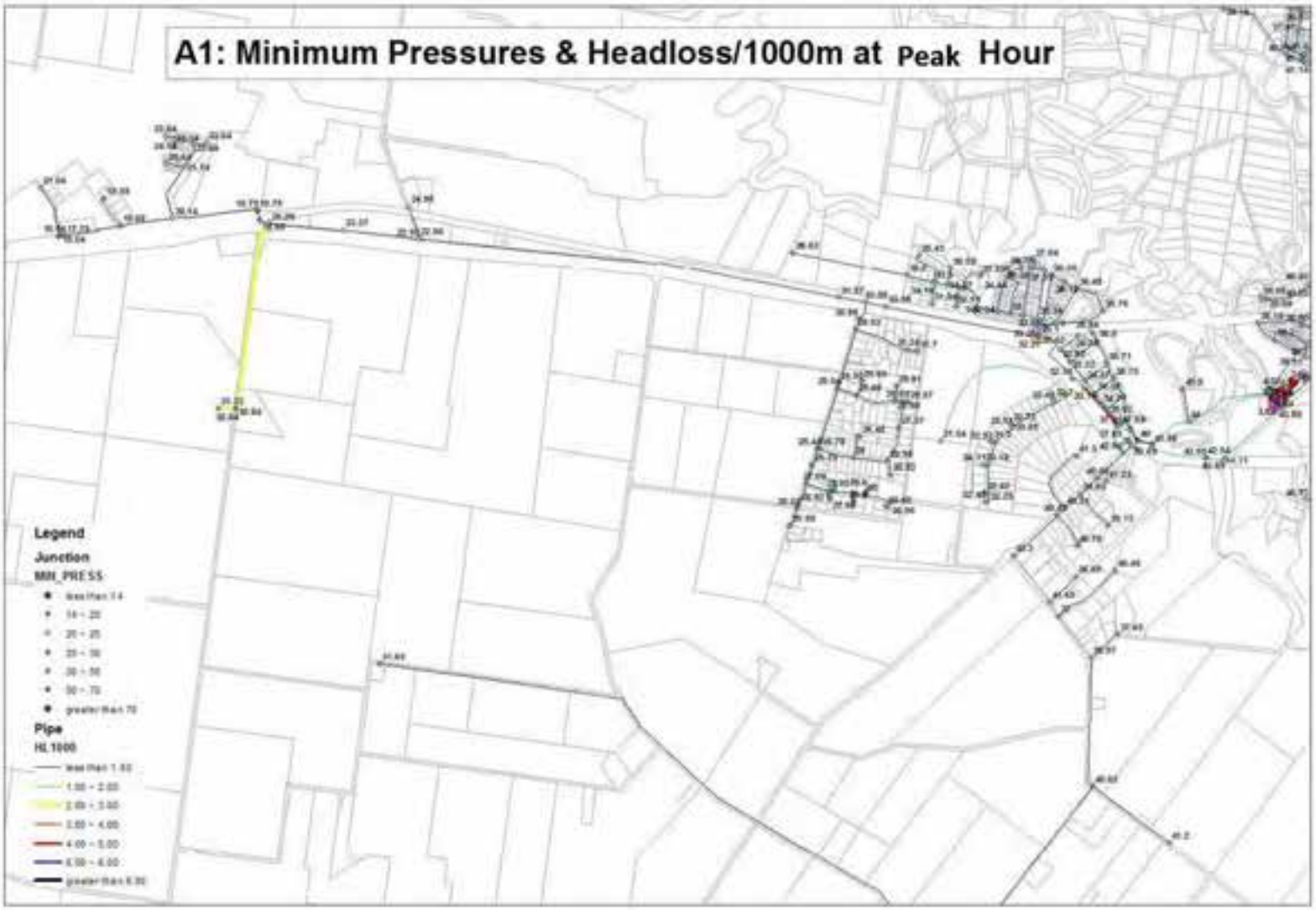
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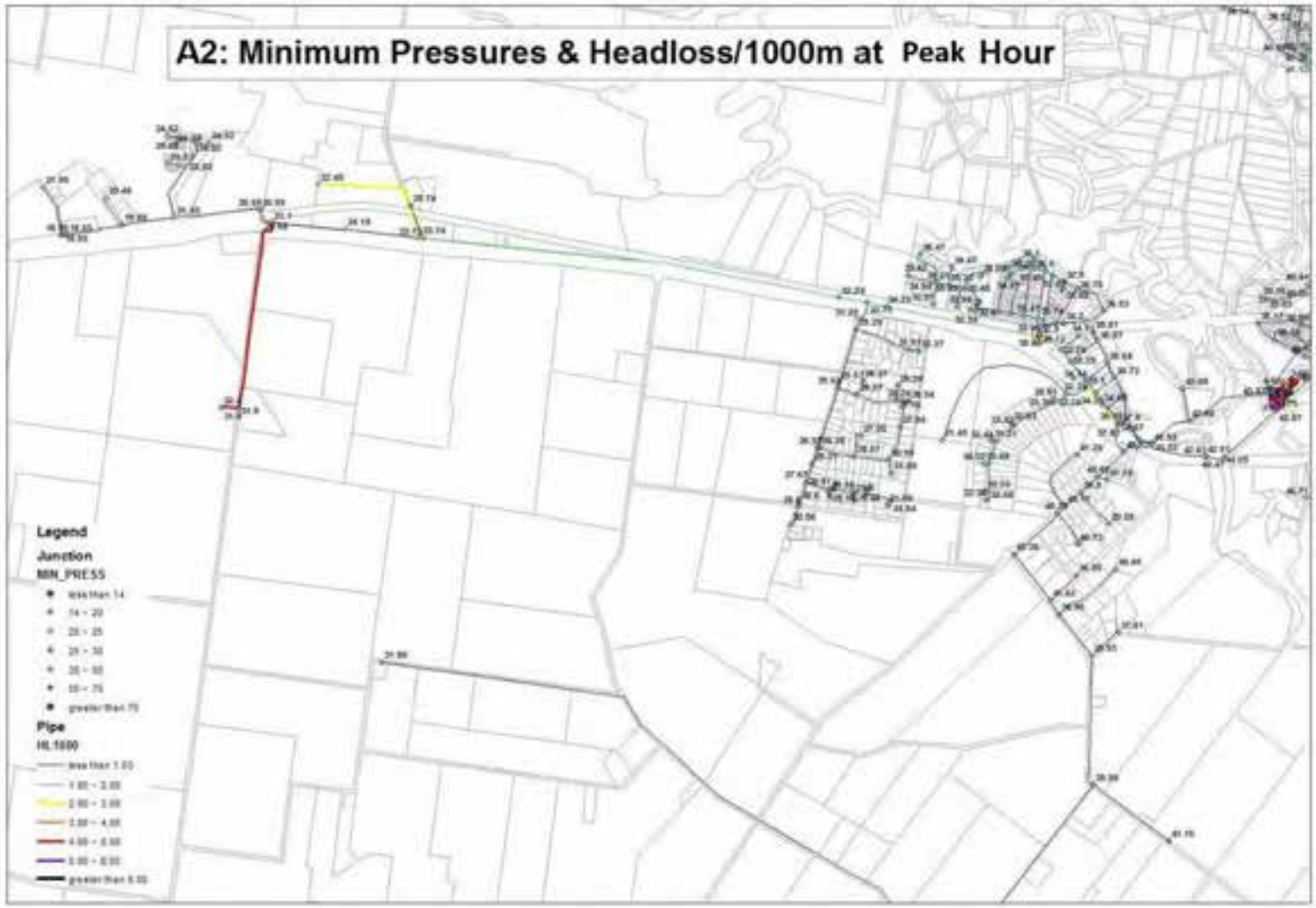
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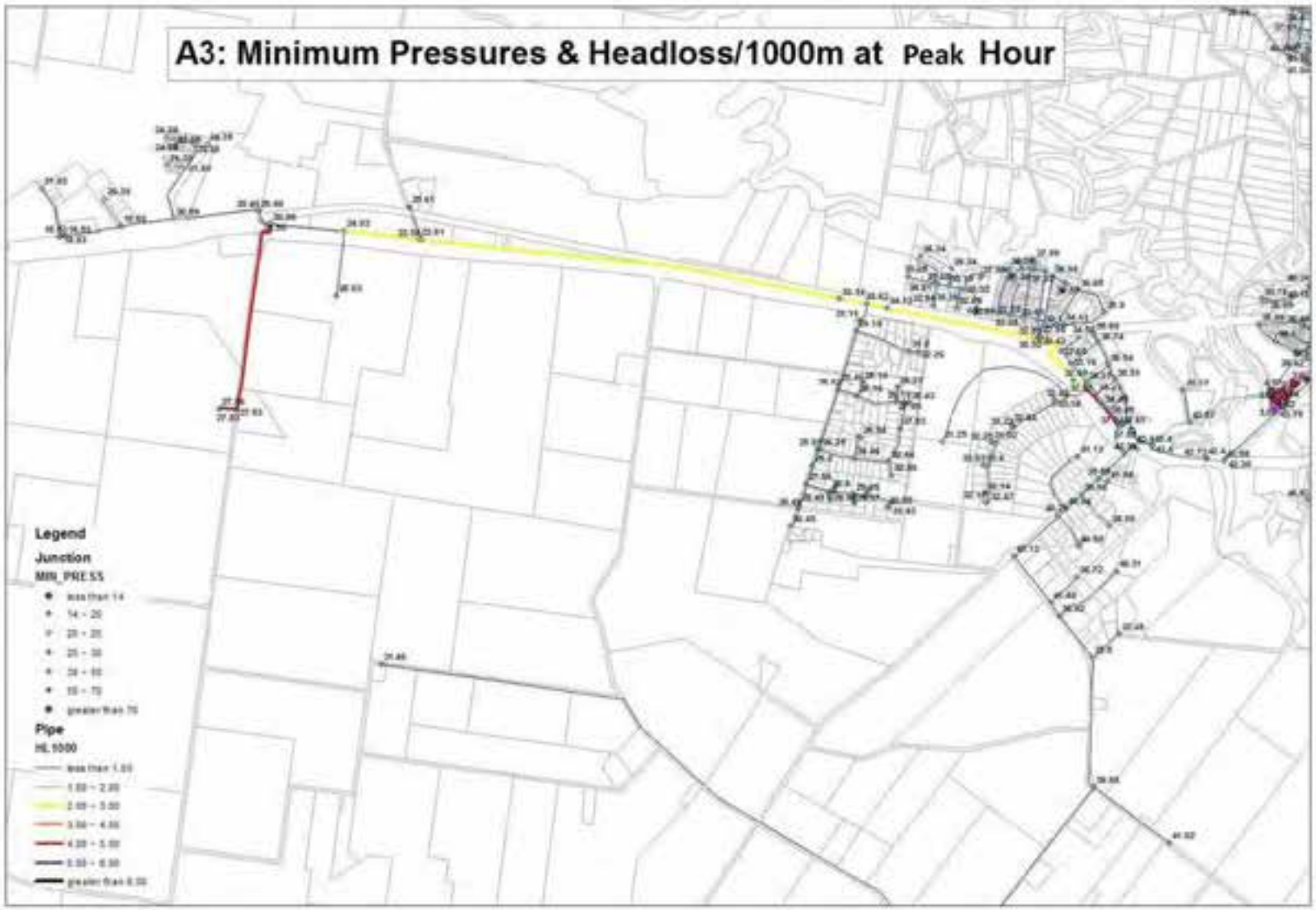
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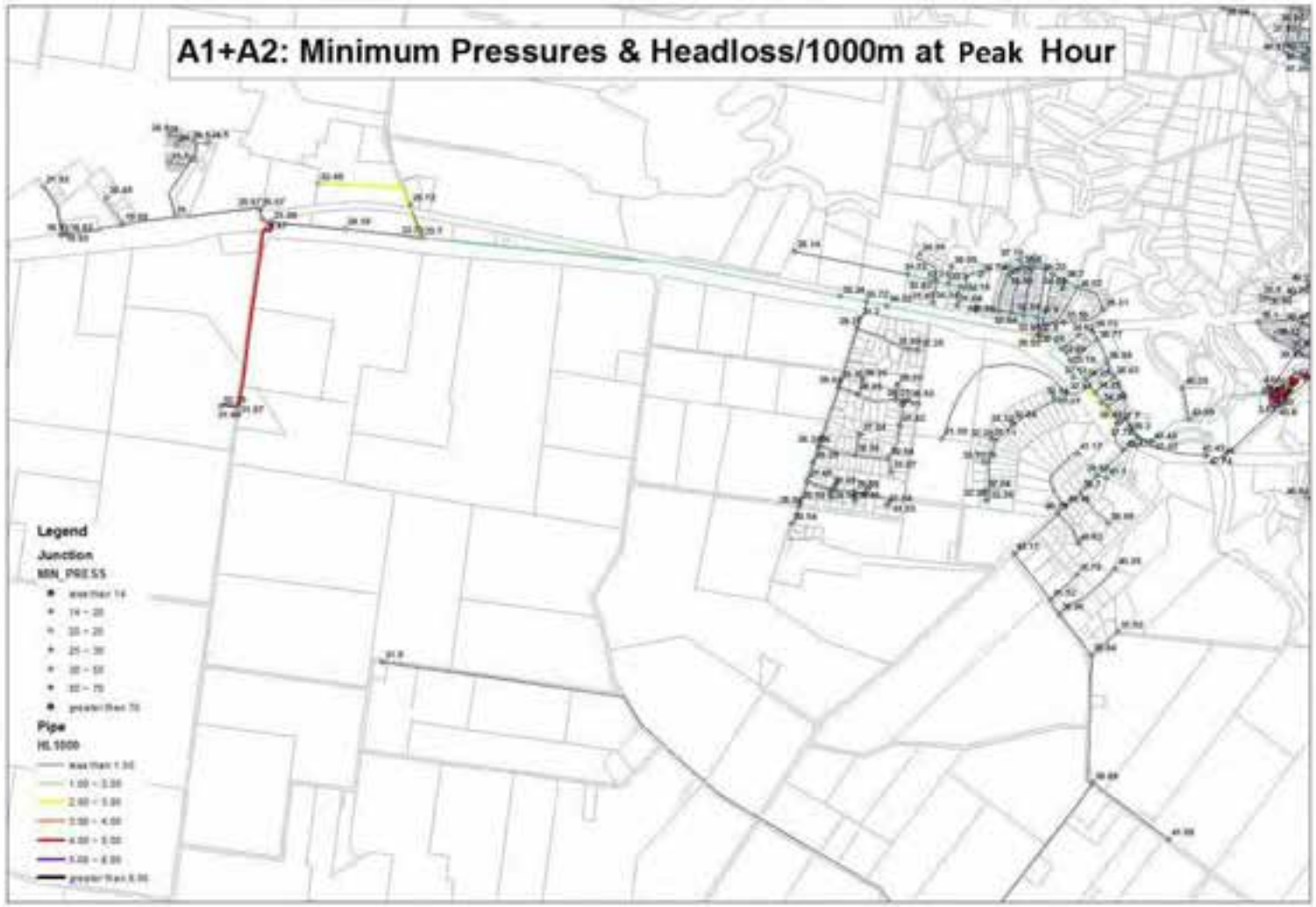
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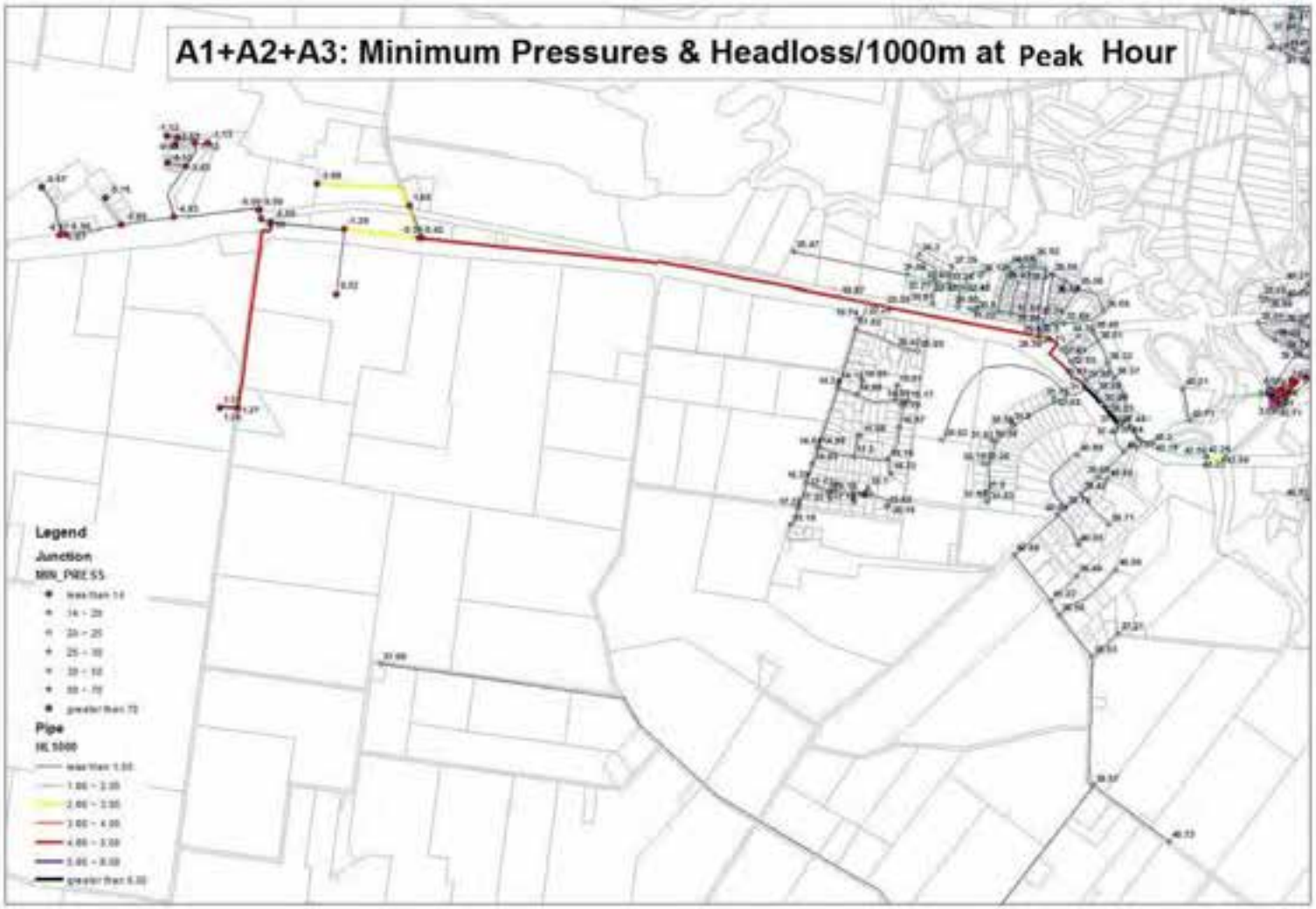
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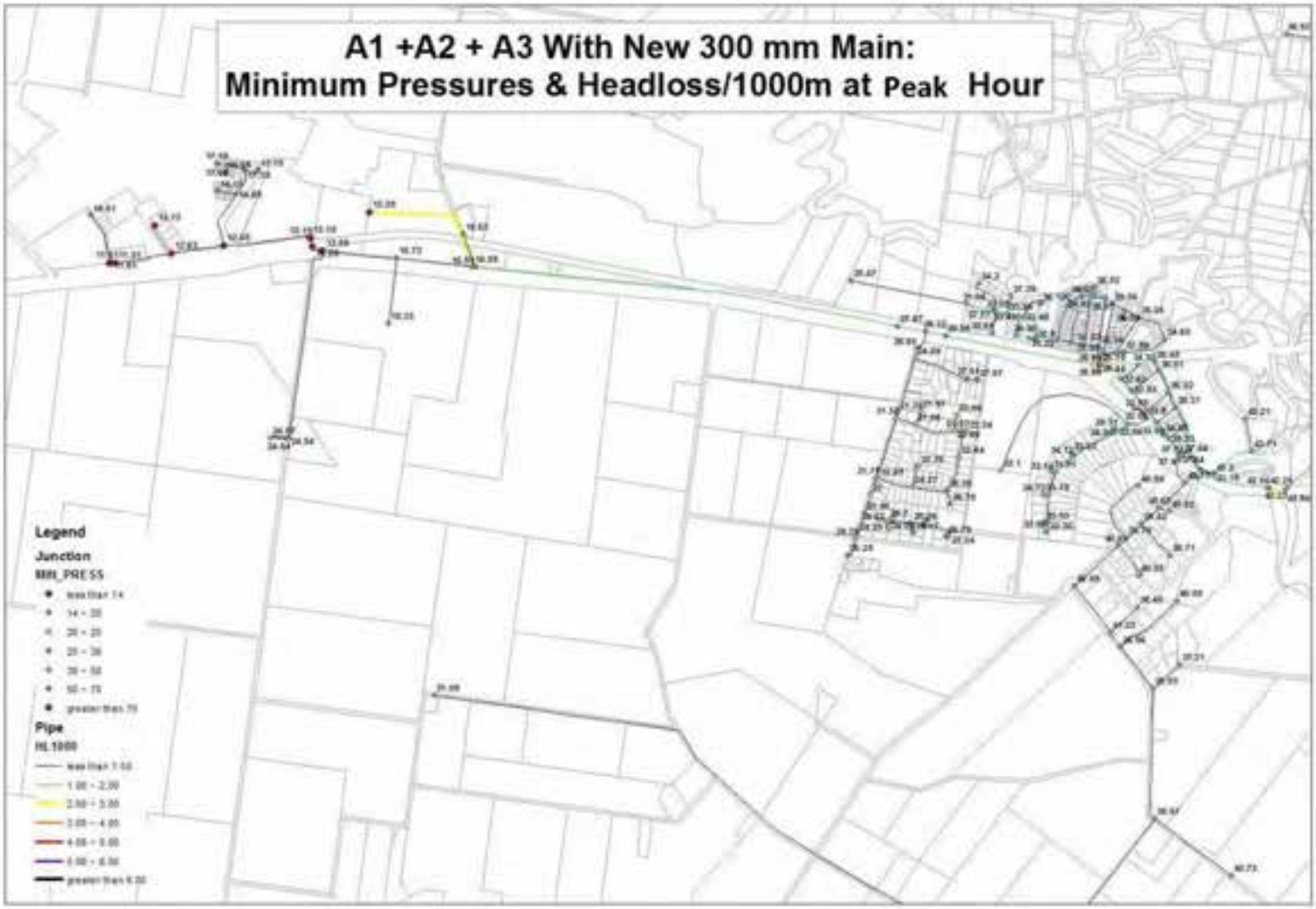
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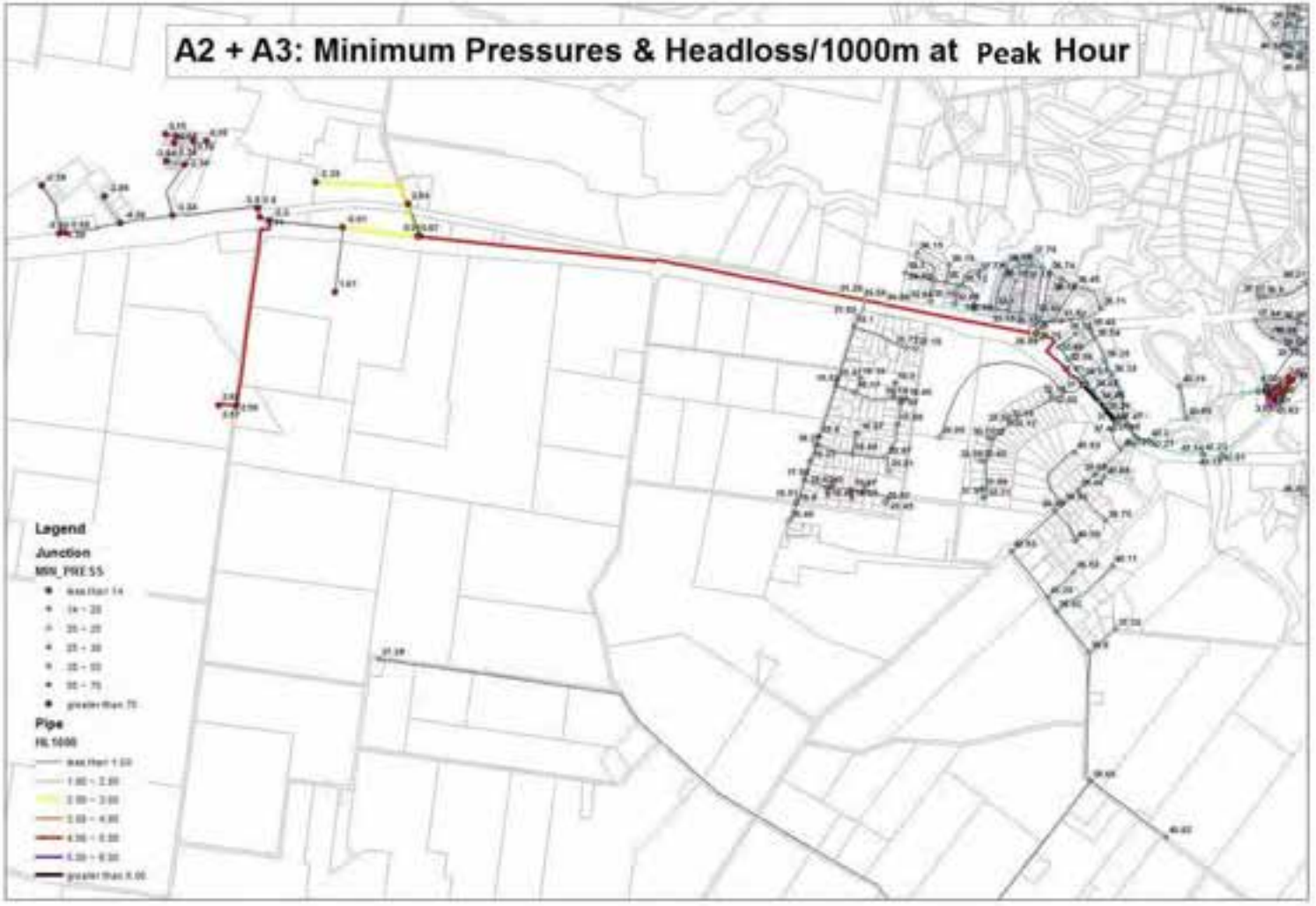
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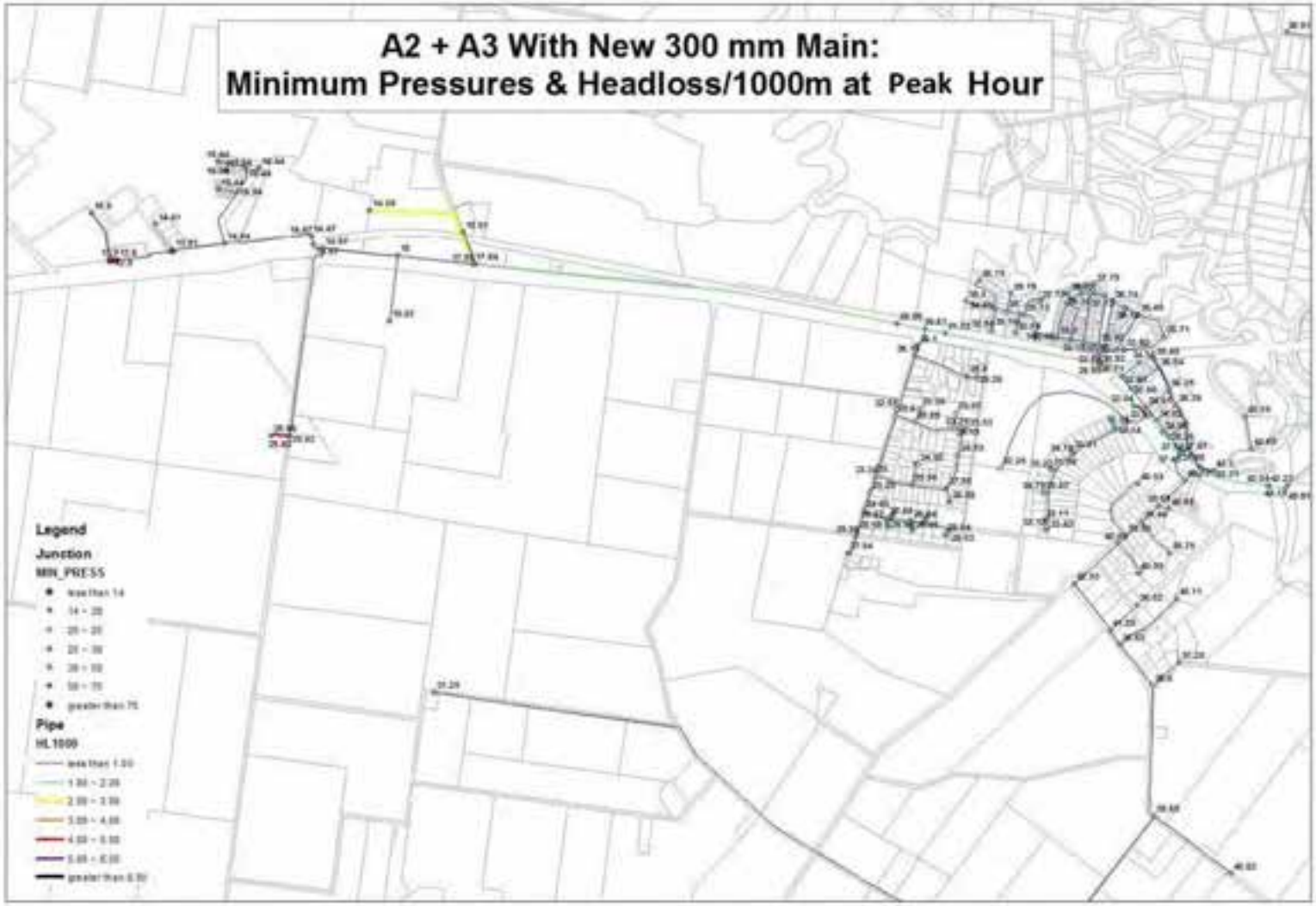
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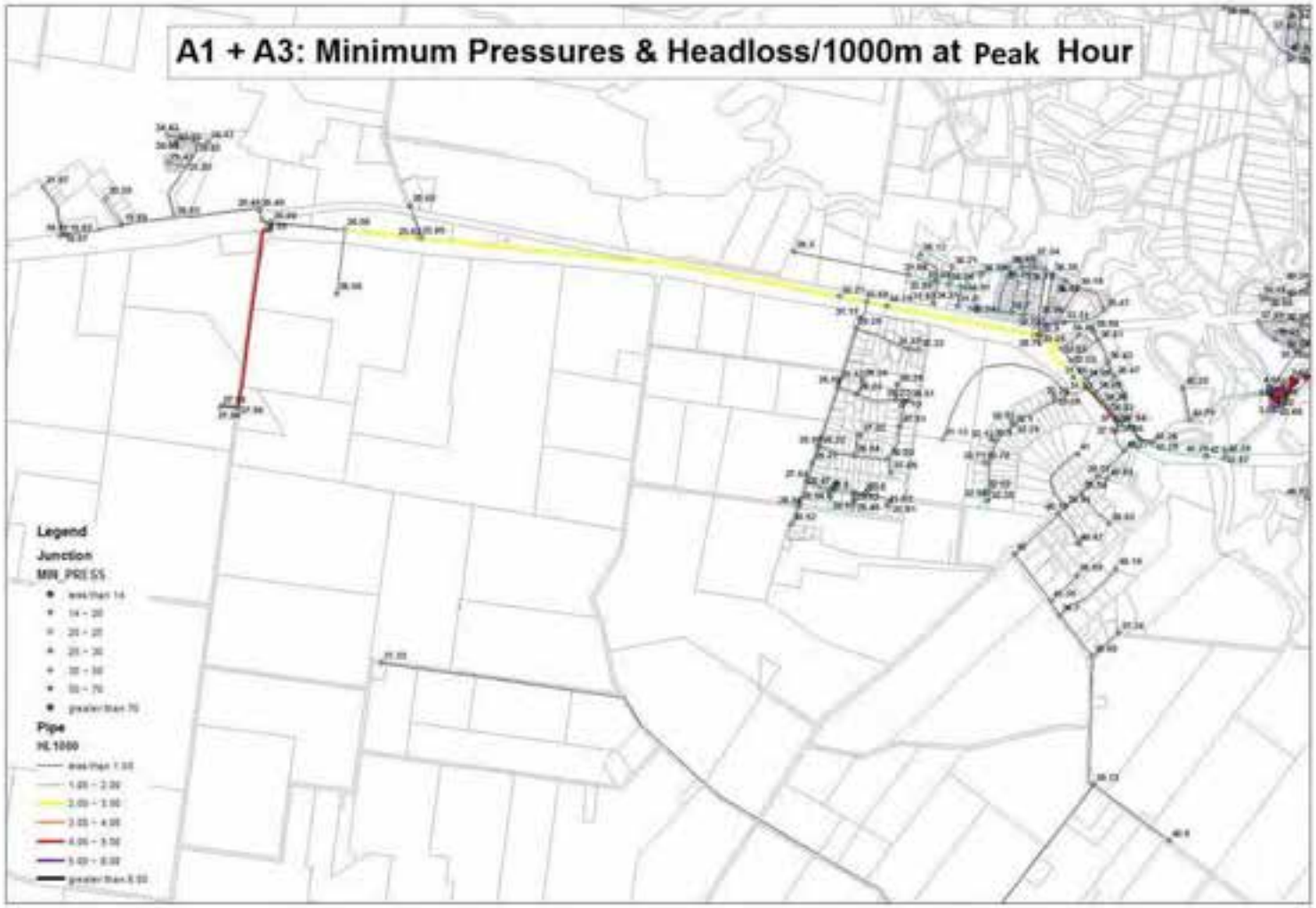
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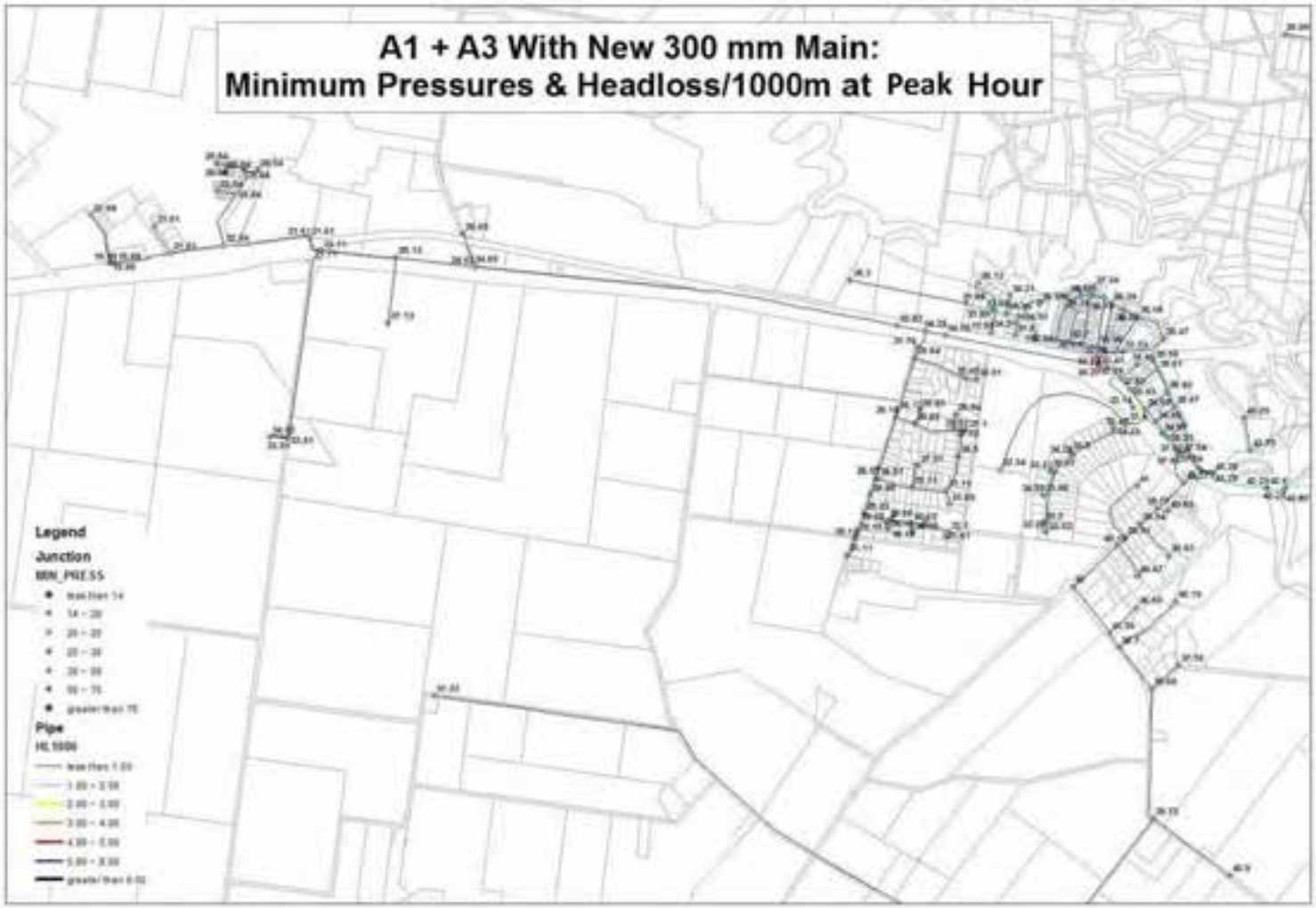
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APPENDIX B TRAFFIC REPORT

TraffixGroup

Traffic Engineers and Transport Planners

Traffic Engineering Assessment

West Sale and Wurruk Industrial Land Supply Strategy

Prepared for

Urban Enterprise

October, 2017

22735R-02A

DRAFT

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Traffic Engineering Assessment

West Sale and Wurruk Industrial Land Supply Strategy

Document Control

Issue No.	Type	Date	Prepared By	Approved By
A	Draft	25/10/2017	D. Robertson	D. Robertson

Traffix Template Version 1.1 – March, 2016

Our Reference: Document1

Table of Contents

1 Introduction

Traffix Group has been engaged by Urban Enterprise to undertake a traffic engineering assessment of the West Sale and Wurruk Industrial Land Supply Strategy being undertaken by Urban Enterprise on behalf of Wellington Shire Council.

This report provides a traffic engineering assessment of the three candidate areas under consideration as part of the Strategy.

2 West Sale and Wurruk Industrial Land Supply Strategy

2.1 Overview

Wellington Shire Council has engaged Urban Enterprise to prepare the West Sale and Wurruk Industrial Land Supply Strategy. The Strategy will review the provision of existing industrial land, assess nominated future sites and consider future land requirements over the short to medium term in Wurruk and West Sale.

2.2 Candidate Areas

Three candidate areas have been nominated for review as part of the Strategy. These are described as follows:

- Candidate Area 1: Wurruk
  - West of the existing industrial zoned land in Wurruk
  - Land area: 42 ha
- Candidate Area 2: West Sale Aerodrome
  - North of Princes Highway and east of West Sale Aerodrome (west of Sale-Heyfield Road)
  - Land area: 55 ha
- Candidate Area 3: Fulham
  - South of Princes Highway and east of Fulham Correctional Centre (east of Hopkins Road)
  - Land area: 100 ha

The locations of the three candidate areas are shown in Figure 1.

Source: Urban Enterprise

Figure 1: Candidate Area Locations

3 Existing Conditions

3.1 Road Network

3.1.1 Princes Highway

Princes Highway is a State Highway under the control of VicRoads. It is in the Road Zone Category 1 (RDZ1) under the Wellington Planning Scheme.

In the vicinity of the candidate sites it has recently been upgraded to a duplicated road from a two way road.

Roundabouts control its intersections with Hunt Place and Sale-Heyfield Road. Its intersections with Reid Drive, Polocross Lane and Hopkins Road/Williams Drive are controlled by wide median treatments (with Princes Highway having priority).

The speed limit along Princes Highway is 80 km/h eastwards from approximately 300m west of Hunt Place and 100 km/h from that point west to west of Hopkins Road.

Princes Highway in the vicinity of the candidate sites is shown in Photographs 1 and 2. It is noted that at the time the road was inspected, the duplication was not completed.

Photograph 1: Princes Highway View East from Reid Drive (Westbound Carriageway)

Photograph 2: Princes Highway View West from Reid Drive (Eastbound Carriageway)

3.1.2 Sale-Heyfield Road

Sale-Heyfield Road is a State Arterial Road under the control of VicRoads. It is in the Road Zone Category 1 (RDZ1) under the Wellington Planning Scheme. It extends north/northwest from its T-intersection with Princes Highway (controlled by a roundabout).

In the vicinity of Candidate Area 2 it comprises a 7.0m wide two lane two way rural road with gravel shoulders.

Sale-Heyfield Road crosses Melbourne-Bairnsdale railway line approximately 200m north of Princes Highway. The railway level crossing is controlled by flashing lights and boom gates.

The speed limit along Sale-Heyfield Road is 80 km/h between Princes Highway and the bend to the north, and 100 km/h north of that point.

Sale-Heyfield Road in the vicinity of the candidate site is shown in Photographs 3 and 4.

Photograph 3: Sale-Heyfield Road View South to Railway Level Crossing

Photograph 4: Sale-Heyfield Road View North to Bend North of Princes Highway

3.1.3 Hopkins Road

Hopkins Road is a local road under the control of Wellington Shire Council. Hopkins Road is aligned in a north-south direction, intersecting as a cross road with Princes Highway/Williams Drive to the north (controlled by a wide median treatment with priority to Princes Highway) and extending south to Settlement Road (approximately 4.4km). It provides access to Fulham Correctional Centre and rural properties.

In the vicinity of Candidate Area 3 it comprises a 6.4m wide two lane two way rural road.

Wellington Shire Council's Register of Public Roads classifies Hopkins Road as Local Access A - Road (*A major access road for local residential or commercial traffic or public facility. Must be a through road or road to significant destination.*) with an indicative daily traffic volume of 150-1,500 vpd.

Hopkins Road in the vicinity of the candidate site is shown in Photograph 5.

Photograph 5: Hopkins Road View South from Princes Highway

3.1.4 Other Roads

Hunt Place

Hunt Place is a local road under the control of Wellington Shire Council. It is an industrial road with a carriageway width of 12.3m and kerb and channel. It extends north from its T-intersection with Princes Highway (controlled by a roundabout) before turning east-west and terminating as a dead end (court bowl) at its western end. It provides access to the industrial zone in Wurruk.

Hunt Place crosses Melbourne-Bairnsdale railway line approximately 50m north of Princes Highway. The railway level crossing is controlled by flashing lights and boom gates.

Wellington Shire Council's Register of Public Roads classifies Hunt Place as Local Access A - Road (*A major access road for local residential or commercial traffic or public facility. Must be a through road or road to significant destination.)* with an indicative daily traffic volume of 150-1,500 vpd.

Hunt Place is shown in Photographs 6 to 9.

Photograph 6: Hunt Place View West to End from Riverside Drive

Photograph 7: Hunt Place View East from Riverside Drive

Photograph 8: Hunt Place View North from Railway Level Crossing

Photograph 9: Hunt Place View South Across Railway Level Crossing to Princes Highway

Riverside Drive

Riverside Drive is a local road under the control of Wellington Shire Council. It is an industrial road with a carriageway width of 12.3m and kerb and channel. It extends north from its cross-intersection with Hunt Place/Plant Court (Hunt Place has priority) before turning northwest and terminating as a dead end (court bowl) at its western end. It provides access to the industrial zone in Wurruk.

Wellington Shire Council's Register of Public Roads classifies Riverside Drive as Local Access B - Road (*A minor access road for local residential or commercial traffic.*) with an indicative daily traffic volume of 30-500 vpd.

Riverside Drive is shown in Photographs 10 and 11.

Photograph 10: Riverside Drive View Southeast from End

Photograph 11: Riverside Drive View to Courtbowl

Williams Drive

Williams Drive is a local road under the control of Wellington Shire Council. It extends north from its cross-intersection with Princes Highway/Hopkins Road (controlled by a wide median treatment with priority to Princes Highway) before turning west and then north before terminating at West Sale Aerodrome. It also provides access to Victorian Emergency Management Training Complex, Gippsland Armed Forces Museum and Federation Training - Fulham Campus via Mortimer Drive.

Williams Road crosses Melbourne-Bairnsdale railway line approximately 70m north of Princes Highway. The railway level crossing is controlled by flashing lights.

Wellington Shire Council's Register of Public Roads classifies Williams Drive as Local Access A - Road (*A major access road for local residential or commercial traffic or public facility. Must be a through road or road to significant destination.*) with an indicative daily traffic volume of 150-1,500 vpd.

Williams Drive is shown in Photographs 12 to 14.

Photograph 12: Williams Drive View North to Railway Level Crossing

Photograph 13: Williams Drive View West from Bend North of Princes Highway

Photograph 14: Williams Drive View Southwest from Airport End of Road

3.2 Traffic Volumes

Traffic volume data provided by VicRoads is shown in Table 1. The locations of the counts are shown in Figure 2.

Table 1: Traffic Volumes (1)

Location	Two Way Daily Volume	% Commercial Vehicles
Sale-Heyfield Road 200m North of Princes Highway	3,139 vpd	14.4%
Princes Highway Between Sale-Heyfield Road and Polocross Lane	7,081 vpd	14%
Princes Highway 320m West of Sale-Heyfield Road	8,920 vpd	16.7%

(1) Dates of counts unknown.

Source: Google Maps

Figure 2: Traffic Count Locations

Wellington Shire Council has no traffic volume data for Hopkins Road, Hunt Place, Riverside Drive or Williams Drive. Based on Council's Road Management Plan, these roads have the following indicative daily traffic volumes:

- Hopkins Road: 150-1,500 vpd
- Hunt Place: 150-1,500 vpd
- Riverside Drive: 30-500 vpd
- Williams Drive: 150-1,500 vpd

3.3 Crash History

Princes Highway between Hopkins Road and Reid Drive has recently been upgraded to a duplicated road from a two way road. Accordingly, recent crash history is no longer relevant to an assessment of the safety of this section of road.

4 Sale Alternative Truck Route

The Victorian Government has allocated funds to investigate the feasibility of formalising the Sale Alternative Truck Route, with a business case to be submitted for funding consideration by November, 2017. VicRoads and Wellington Shire Council are jointly involved with this project as the roads are both arterial and municipal maintained.

Figure 3 shows a plan with the route highlighted in red.

Source: VicRoads

Figure 3: Sale Alternative Truck Route

As part of the planning works VicRoads is investigating a number of intersection improvements with potential land acquisition requirements to accommodate these, as well as an increased road reserve on the Sale-Heyfield Road. No information is currently available as to the location and width of this increased road reserve.

5 Traffic Generation Rates

5.1 Overview

Guide to Traffic Generating Developments Version 2.2 October 2002 (RTA NSW) (the "RTA guide") provides guidance as to the traffic generation of a range of land uses, including industrial uses.

The RTA guide provides the following overview of industry traffic generation:

The peak traffic generation period for industrial land use is generally determined by three key factors: employee density, travel mode and peak period travel distribution. The employee density will vary with the industry type - from a low density at traditional warehouses to a high density at high-tech industrial developments. The peak period travel distributions (i.e. the proportion of workers who travel to or from the site in the peak hour), varies with the type and extent of development. A single use factory generally has a higher proportion of workers travelling in the peak hour than a factory unit development, where different employees have different work patterns. As work patterns continue to overlap, the percentage of those travelling in the peak hour declines.

The generation rates given below are for single use developments. Lower rates might be appropriate for multiple-use developments, as discussed above.

5.2 Factories

The RTA guide provides the following traffic generation rates for factories:

- Daily vehicle trips: 5 per 100m^2 gross floor area
- Evening peak hour vehicle trips: 1 per 100m^2 gross floor area

5.3 Warehouses

The RTA guide provides the following traffic generation rates for warehouses:

- Daily vehicle trips: 4 per 100m^2 gross floor area
- Morning peak hour vehicle trips: 0.5 per 100m^2 gross floor area

5.4 Adopted Traffic Generation Rates

The critical time period for traffic impact assessment is typically the evening peak hour.

For the purposes of this assessment, the traffic generation rates for "factories" have been adopted (being the higher daily rate and having an evening peak hour rate); namely:

- Daily vehicle trips: 5 per 100m² gross floor area
- Evening peak hour vehicle trips: 1 per 100m² gross floor area

It is noted that these rates have generally been derived from metropolitan areas. Experience suggests that traffic generation rates for industrial uses in regional areas could be in the order of 20% less than these rates.

The adoption of these rates for the West Sale and Wurruk Industrial Land Supply Strategy therefore may result in an overestimation of the volumes of traffic likely to be generated by the candidate areas and, subsequently, an overestimation of the likely traffic impact of the development of the candidate areas.

5.5 Floor Areas

The traffic generation rates detailed above are based on floor areas of the land use. At strategic planning level, floor areas are typically not known, as is the case here. For the purposes of this assessment, the following "rules of thumb" have been applied:

- Proportion of total site area available for industrial use: 80% (1)
- Proportion of industrial land available for buildings: 40% (2)

(1) Allows for access roads, reserves, floodways, water treatment ponds, etc.

(2) Allows for accessways, car parking, etc.

Therefore, the traffic generation rates detailed in Section 5.4 will be applied to 32% (= 80% x 40%) of the total land area of each candidate area.

5.6 Broad Traffic Distribution

All candidate areas are located some 5km west of Sale and some 40km east of Traralgon. Accordingly, it is assumed for the purposes of this assessment that 40% of employees will reside in Traralgon and 60% will reside in Sale.

Also for the purposes of this assessment, it is assumed that 90% of the evening peak hour traffic generated by the candidate areas will be outbound movements and 10% will be inbound movements.

6 Traffic Engineering Impact Assessment of Candidate Areas

6.1 Candidate Area 1: Wurruk

6.1.1 Potential Access Options

Five potential access options have been identified for Candidate Area 1. These are shown diagrammatically in Figure 4 and described below.

Source: NearMap

Figure 4: Candidate Area 1 - Potential Access Options

Option 1.1

- Connection through existing industrial estate via extension of Riverside Drive and via Hunt Place roundabout on Princes Highway.

Option 1.2

- Connection through existing industrial estate via extension of Hunt Place and via Hunt Place roundabout on Princes Highway.

Option 1.3

- New access opposite Reid Drive.
- Change existing wide median treatment to a roundabout.
- Add fourth leg on north side.

Option 1.4

- New roundabout on Princes Highway.
- Location to be determined.
  - No sight distance constraints.

Option 1.5

- Left in/left out to Princes Highway.
- One or two accesses?
- Use existing wide median treatments at Polocross Lane and Reid Drive for vehicles to U-turn.
- Location(s) dependent on weaving distances.

6.1.2 Traffic Generation

Candidate Area 1 has a land area of 42 ha.

The resultant likely traffic volumes generated by Candidate Area 1 are therefore:

- Daily vehicle trips: 6,720 vpd
- Evening peak hour vehicle trips: 1,344 vph

6.1.3 Traffic Distribution

All traffic generated by Candidate Area 1 will be generated to or from Princes Highway. As detailed in Section 6.1.1, access to Candidate Area 1 is, in essence, via either the Hunt Place roundabout on Princes Highway or via a new connection(s) across the Melbourne-Bairnsdale railway line (and potentially together with via the Hunt Place roundabout on Princes Highway).

The provision of a new railway level crossing(s) on the Melbourne-Bairnsdale railway line is unlikely to be achieved. Accordingly, from a capacity perspective, only access via the Hunt Place roundabout on Princes Highway has been assessed. This is the most conservative approach as all traffic generated by Candidate Area 1 will access the area by a single access point.

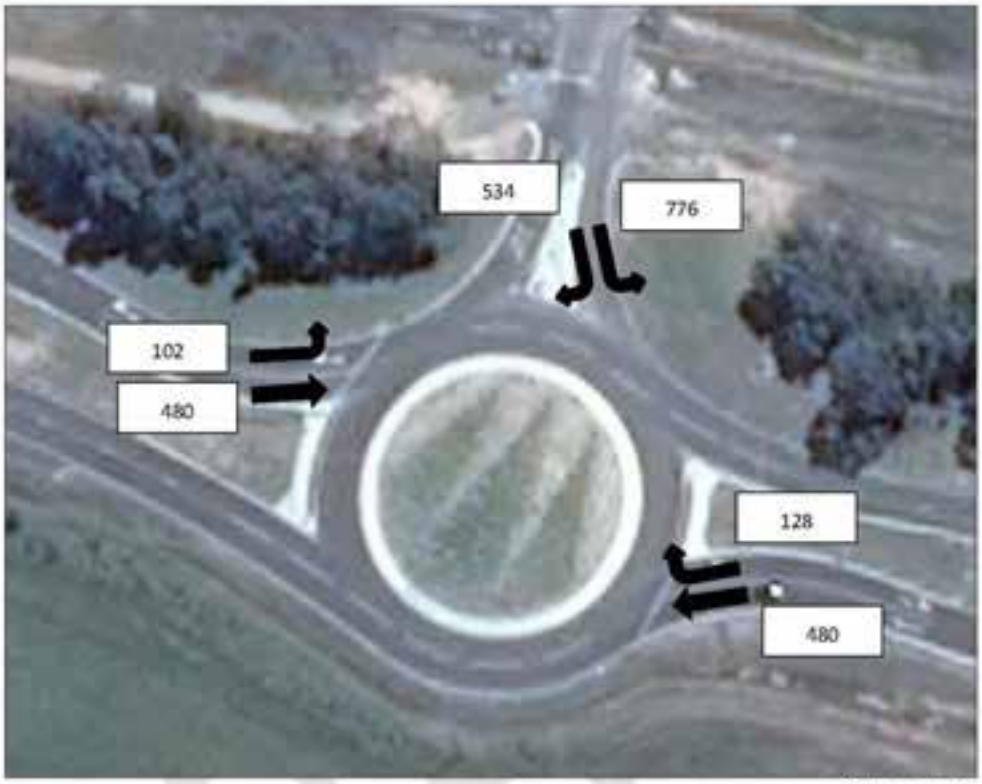
6.1.4 Traffic Volumes

As shown in Figure 2, Princes Highway east of Sale-Heyfield Road carries in the order of 7,100 vpd. Assuming that the evening peak hour volume is 15% of the daily volume equates to an evening peak hour volume of 1,065 vph. It is anticipated that this volume will be roughly evenly split between eastbound and westbound, ie 530 vph in each direction.

No traffic volume data is available for Hunt Place. A volume of 100 vph in each direction has been assumed for the purposes of this analysis.

Candidate Area 1 is anticipated to generate 1,344 vph in the evening peak hour. It is assumed that this will comprise 1,210 vph outbound and 130 vph inbound, split 40% to/from the west and 60% to/from the east (as detailed in Section 5.6).

This analysis and assumptions result in the traffic volumes shown in Figure 5.



Source: NearMap

Figure 5: Candidate Area 1 Traffic Volumes
Princes Highway/Hunt Place

It is noted that this does not allow for any growth in traffic volumes along Princes Highway. Also, it is assumed that Candidate Areas 2 and 3 are not developed.

6.1.5 Traffic Impact

SIDRA has been used to analyse the capacity of the affected intersections. SIDRA provides information about the capacity of an intersection in terms of a range of parameters, described as follows:

- **Degree of Saturation (DoS)** is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement. Various values of degree of saturation and their rating are shown in Table 2.
- The **95th Percentile Queue** represents the maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour.
- **Average Delay** (seconds) is the average delay time that can be expected for all vehicles making a particular movement in the peak hour.

Table 2: SIDRA Levels of Service

Level of Service		Intersection Degree of Saturation		
		Unsignalised Intersection	Roundabout	Signalised Intersection
A	Excellent	≤ 0.60	≤ 0.60	≤ 0.60
B	Very Good	0.60 - 0.70	0.60 - 0.70	0.60 - 0.70
C	Good	0.70 - 0.80	0.70 - 0.85	0.70 - 0.90
D	Acceptable	0.80 - 0.90	0.85 - 0.95	0.90 - 0.95
E	Poor	0.90 - 1.00	0.95 - 1.00	0.95 - 1.00
F	Very Poor	≥ 1.0	≥ 1.0	≥ 1.0

Princes Highway/Hunt Place

The traffic volumes shown in Figure 5 and the existing geometry of the intersection were input into SIDRA to assess the likely performance of the Princes Highway/Hunt Place intersection. The analysis showed that an additional lane (short left turn) was required on the northern leg (Hunt Place) to achieve acceptable intersection performance.

The output of the SIDRA analysis (including the adopted geometry) for the modified geometry is attached at Appendix A and is summarised in Table 3.

Table 3: Candidate Area 1 - Princes Highway/Hunt Place SIDRA Analysis

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Princes Highway (East Approach)			
Through	0.32	8.4 sec	21.4m
Right	0.32	16.8 sec	18.6m
Hunt Place (North Approach)			
Left	0.68	6.3 sec	44.2m
Right	0.59	13.2 sec	31.6m
Princes Highway (West Approach)			
Left	0.21	5.7 sec	12.2m
Through	0.21	6.0 sec	12.21m

The intersection operates with on overall Level of Service A.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the existing Princes Highway/Hunt Place roundabout (with a second lane added to the Hunt Place approach) to accommodate the adopted traffic volumes.

Hunt Place

Hunt Place has a carriageway width of 12.3m and is classified by Council as a Local Access A - Road with an indicative daily traffic volume of 150-1,500 vpd.

Assuming that Hunt Place currently carries 1,000 vpd (at Princes Highway), this volumes will increase to 7,720 vpd following development of Candidate Area 1. Whilst this exceeds the indicative daily traffic volume for a Local Access A - Road, Hunt Place nonetheless has a cross-section and industrial environment that can accommodate this volume of traffic.

Riverside Drive

Riverside Drive has a carriageway width of 12.3m and is classified by Council as a Local Access B - Road with an indicative daily traffic volume of 30-500 vpd.

Assuming that Riverside Drive currently carries 300 vpd (at Hunt Place), this volume will increase to 7,020 vpd following development of Candidate Area 1 (assuming no connection to Candidate Area 1 via Hunt Place). Whilst this exceeds the indicative daily traffic volume for a Local Access B - Road, Riverside Drive nonetheless has a cross-section and industrial environment that can accommodate this volume of traffic.

Connection Through to Riverside Drive or Hunt Place

Access to Candidate Area 1 via the Princes Highway/Hunt Place roundabout requires the extension of either (or both) Riverside Drive or Hunt Place through existing privately owned industrial land at the western end of the Wurruk industrial estate. These are shown diagrammatically in Figure 6 and Figure 7.

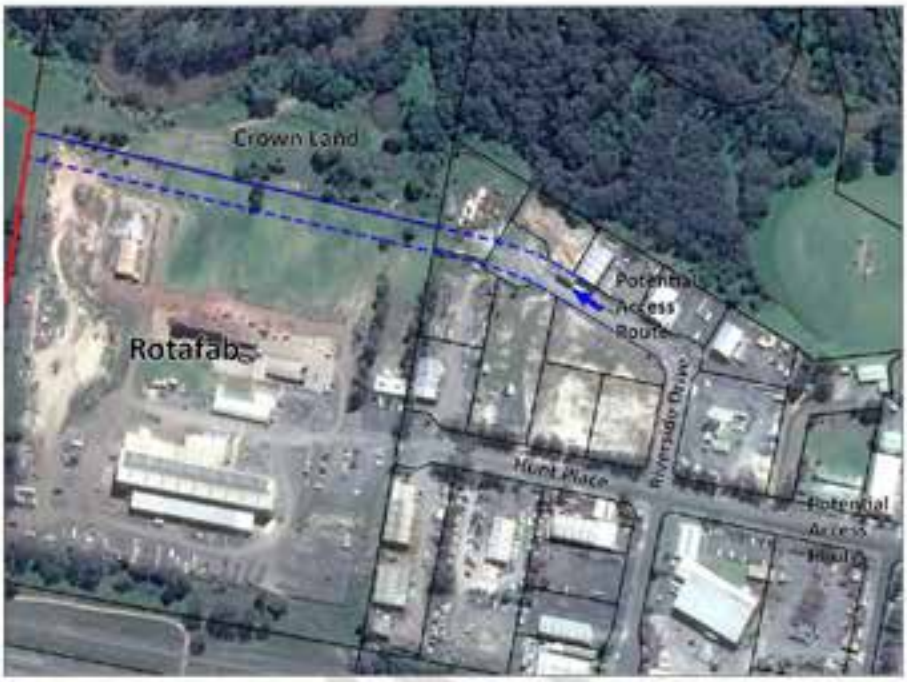


Figure 7: Potential Riverside Drive Extension

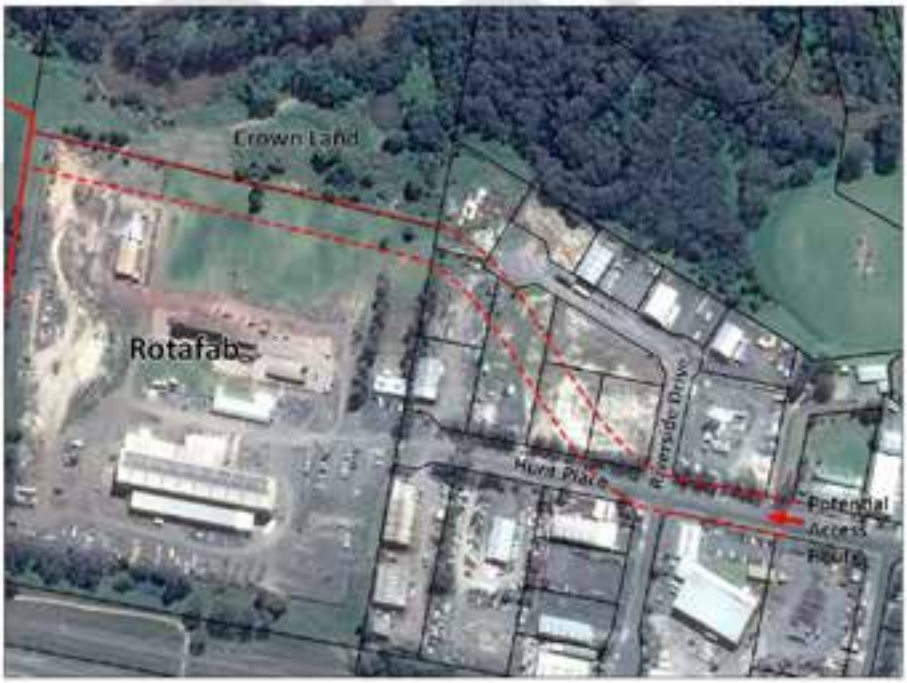


Figure 8: Potential Hunt Place Extension

From a traffic engineering perspective, both of these options are workable, with the following noted:

- The Riverside Drive extension requires less new road construction and impacts fewer properties.
- The Riverside Drive extension results in a significant volume of turning traffic at the Hunt Place/Riverside Drive intersection. No capacity issues are anticipated due to the low volumes of traffic in the west and south legs of the intersection.
- The Hunt Place extension results in the northern leg of the Riverside Drive intersection being located on the inside of a curve, with restricted sight distances to the right (west).

The Riverside Drive extension is the preferable option.

6.2 Candidate Area 2: West Sale Aerodrome

6.2.1 Potential Access Options

Four potential access options have been identified for Candidate Area 2. These are shown diagrammatically in Figure 6 and described below.

Source: NearMap

Figure 6: Candidate Area 2 - Potential Access Options

Option 2.1

- Full movement T-intersection(s) on Sale-Heyfield Road.

Option 2.2

- Service road(s) to Sale-Heyfield Road.

Option 2.3

- New road off Williams Drive, north into Site 2.
- Create T-intersection with north-south movement having priority.
- Use existing wide median treatment at Princes Highway/Hopkins Road/Williams Drive, or upgrade to a roundabout?

Option 2.4

- Access via West Sale Aerodrome (Williams Drive).
- Use existing wide median treatment at Princes Highway/Hopkins Road/Williams Drive, or upgrade to a roundabout?

6.2.2 Traffic Generation

Candidate Area 2 has a land area of 55 ha.

The resultant likely traffic volumes generated by Candidate Area 2 are therefore:

- Daily vehicle trips: 8,800 vpd
- Evening peak hour vehicle trips: 1,760 vph

6.2.3 Traffic Distribution

As discussed in Section 6.2.1, access to Candidate Area 2 is potentially possible via Sale-Heyfield Road and Williams Drive. It is assumed that both roads will be utilised for access purposes.

6.2.4 Traffic Volumes

As shown in Figure 2, Princes Highway west of Sale-Heyfield Road carries in the order of 8,900 vpd and Sale-Heyfield Road north of Princes Highway carries in the order of 3,100 vpd. Assuming that the evening peak hour volume is 15% of the daily volume equates to an evening peak hour volume of 1,335 vph on Princes Highway and 465 vph on Sale-Heyfield Road. It is anticipated that these volumes will be roughly evenly split in each direction on both roads.

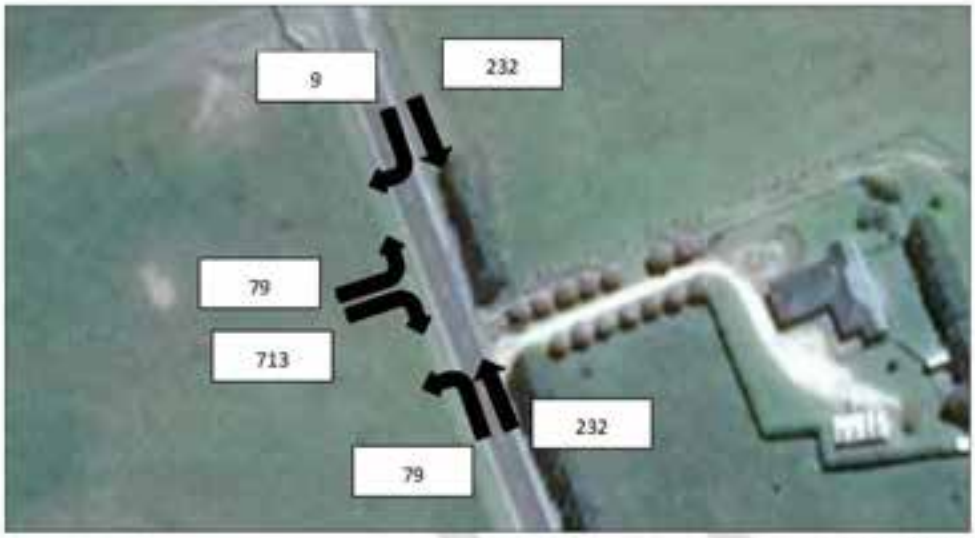
No traffic volume data is available for Williams Drive. A volume of 100 vph in each direction has been assumed for the purposes of this analysis.

No traffic volume data is available for Hopkins Road. A volume of 100 vph in each direction has been assumed for the purposes of this analysis.

Candidate Area 2 is anticipated to generate 1,760 vph in the evening peak hour. It is assumed that this will comprise 1,560 vph outbound and 180 vph inbound, split 10% to/from north and 90% to/from south on Sale-Heyfield Road and 40% to/from the west and 60% to/from the east on Princes Highway (as detailed in Section 5.6).

For the purposes of this analysis, it is assumed that traffic generated by Candidate Area 2 will be evenly split between access via Sale-Heyfield Road and via Princes Highway (via Williams Drive).

This analysis and assumptions result in the traffic volumes shown in Figures 7 to 9. (Note - these volumes include traffic generated by the candidate area to/from both access points.)

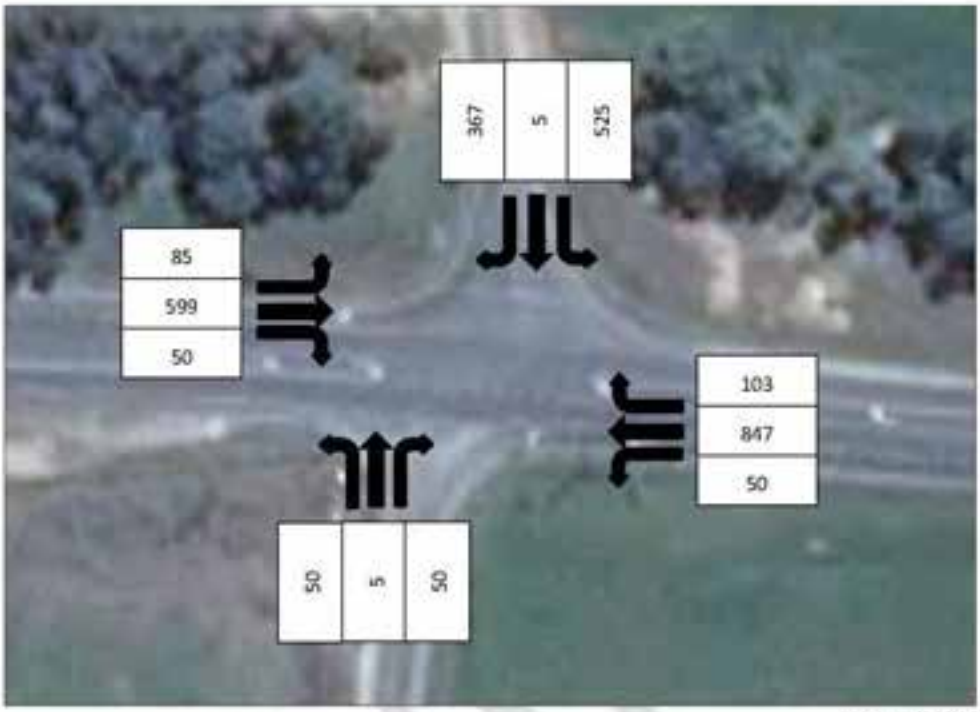


Source: NearMap

Figure 7: Candidate Area 2 Traffic Volumes
Sale-Hayfield Road/Site Access (One Access Point)

Source: NearMap

Figure 8: Candidate Area 2 Traffic Volumes
Princes Highway/Sale-Heyfield Road



Source: NearMap

Figure 9: Candidate Area 2 Traffic Volumes
Princes Highway/Williams Drive

It is noted that this does not allow for any growth in traffic volumes along Princes Highway or Sale-Heyfield Road. Also, it is assumed that Candidate Areas 1 and 3 are not developed.

6.2.5 Traffic Impact

Sale-Heyfield Road/Site Access

The traffic volumes shown in Figure 7 were input into SIDRA to assess the likely performance of a future Sale-Heyfield Road/site access T-intersection. The analysis showed that the site access leg operated at a DoS greater than 1.0, due to the volume of right turn "out" movements. Further analysis was undertaken to ascertain the maximum number of right turn "out" movements to achieve a DoS of 0.90.

The output of the SIDRA analysis (including the reduced right turn "out" volume) for the adopted geometry is attached at Appendix B and is summarised in Table 4.

Table 4: Candidate Area 2 - Sale-Heyfield Road/Site Access SIDRA Analysis

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Sale-Heyfield Road (South Approach)			
Left	0.05	7.2 sec	0.0m
Through	0.14	0.0 sec	0.0m
Sale-Heyfield Road (North Approach)			
Through	0.14	0.0 sec	0.0m
Right	0.01	8.3 sec	0.2m
Site Access (West Approach)			
Left	0.06	10.5 sec	2.2m
Right	0.90	30.4 sec	119.4m

This analysis demonstrates that:

- Two access points are required via Sale-Heyfield Road, in addition to access via Williams Drive, for Candidate Area 2; and
- The volume of right turn "out" traffic from each site access on Sale-Heyfield Road needs to be restricted to 509 vph.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the assumed T-intersection configuration to accommodate the adopted traffic volumes with two T-intersections on Sale-Heyfield Road.

Princes Highway/Sale-Heyfield Road

The traffic volumes shown in Figure 8 and the existing geometry of the intersection were input into SIDRA to assess the likely performance of the Princes Highway/Sale-Heyfield Road intersection. The analysis showed that an additional lane was required on the northern leg (Sale-Heyfield Road) to achieve acceptable intersection performance.

The output of the SIDRA analysis (including the adopted geometry) for the modified geometry is attached at Appendix C and is summarised in Table 5.

Table 5: Candidate Area 2 - Princes Highway/Sale-Heyfield Road SIDRA Analysis

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Princes Highway (East Approach)			
Through	0.42	8.7 sec	30.5m
Right	0.42	17.2 sec	26.2m
Sale-Heyfield Road (North Approach)			
Left	0.63	11.6 sec	32.1m
Right	0.61	17.2 sec	33.9m
Princes Highway (West Approach)			
Left	0.44	6.0 sec	31.9m
Through	0.44	6.4 sec	31.9m

The intersection operates with on overall Level of Service B.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the existing Princes Highway/Sale-Heyfield Road roundabout (with a second lane added to the Sale-Heyfield Road approach) to accommodate the adopted traffic volumes.

Princes Highway/Williams Drive

The traffic volumes shown in Figure 9 and the geometry of a roundabout were input into SIDRA to assess the likely performance of the Princes Highway/Williams Drive intersection. The analysis showed that two lanes were required on the northern leg (Williams Drive) to achieve acceptable intersection performance.

The output of the SIDRA analysis (including the adopted geometry) for the modified geometry is attached at Appendix D and is summarised in Table 6.

Table 6: Candidate Area 2 - Princes Highway/Williams Drive SIDRA Analysis

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Hopkins Road (South Approach)			
Left	0.20	7.4 sec	7.5m
Through	0.20	7.0 sec	7.5m
Right	0.20	14.2 sec	7.5m
Princes Highway (East Approach)			
Left	0.46	7.5 sec	32.2m
Through	0.46	8.1 sec	32.2m
Right	0.46	16.3 sec	28.7m
Williams Drive (North Approach)			
Left	0.50	5.7 sec	23.7m
Through	0.47	6.0 sec	19.9m
Right	0.47	13.2 sec	19.9m
Princes Highway (West Approach)			
Left	0.27	5.8 sec	15.3m
Through	0.27	6.2 sec	15.3m
Right	0.27	13.9 sec	14.5m

The intersection operates with on overall Level of Service A.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is significant spare capacity within the existing Princes Highway/Williams Drive roundabout (with a second lane added to the Williams drive approach) to accommodate the adopted traffic volumes.

Williams Drive

As detailed in Section 6.2.1, access to Candidate Area 2 via Williams Drive is via either or both a new road off Williams Drive directly into the candidate area or West Sale Aerodrome.

Both will necessitate an upgrade to the railway level crossing from flashing lights to flashing lights and boom gates.

The predicted daily traffic volume on Williams Road at Princes Highway is in the order of 5,500 vpd (comprising 4,400 vpd from Candidate Area 2 and 1,000 vpd existing). A two lane undivided carriageway would be sufficient to accommodate this level of traffic.

6.3 Candidate Area 3: Fulham

6.3.1 Potential Access Options

Seven potential access options have been identified for Candidate Area 3. These are shown diagrammatically in Figure 10 and described below.

Source: NearMap

Figure 10: Candidate 3 - Potential Access Options

Option 3.1

- New access opposite Sale-Heyfield Road.
- Add fourth leg on south side of roundabout on Princes Highway.

Option 3.2

- Left in/left out to Princes Highway.
- One or two accesses?
- Use existing roundabout at Sale-Heyfield Road and existing wide median treatment at Hopkins Road/Williams Drive.
- Location(s) dependent on weaving distances.

Option 3.3

- Service road(s) to Princes Highway.

Option 3.4

- New roundabout on Princes Highway.
- Location to be determined.
  - No sight distance constraints.

Option 3.5

- Full movement T-intersection(s) on Hopkins Road.
- Maintain existing wide median treatment at Princes Highway/Hopkins Road/Williams Road or upgrade to a roundabout?

Option 3.6

- Direct access to Hopkins Road.
- Requires large lots to front Hopkins Road.
- Corner sites to take access off internal road.

Option 3.7

- Service road(s) to Hopkins Road.

6.3.2 Traffic Generation

Candidate Area 3 has a land area of 100 ha.

The resultant likely traffic volumes generated by Candidate Area 3 are therefore:

- Daily vehicle trips: 16,000 vpd
- Evening peak hour vehicle trips: 3,200 vph

6.3.3 Traffic Distribution

All traffic generated by Candidate Area 3 will be generated to or from Princes Highway via the Princes Highway/Sale-Heyfield Road roundabout and/or via the Princes Highway/Hopkins Road.

6.3.4 Traffic Volumes - Single Access Point

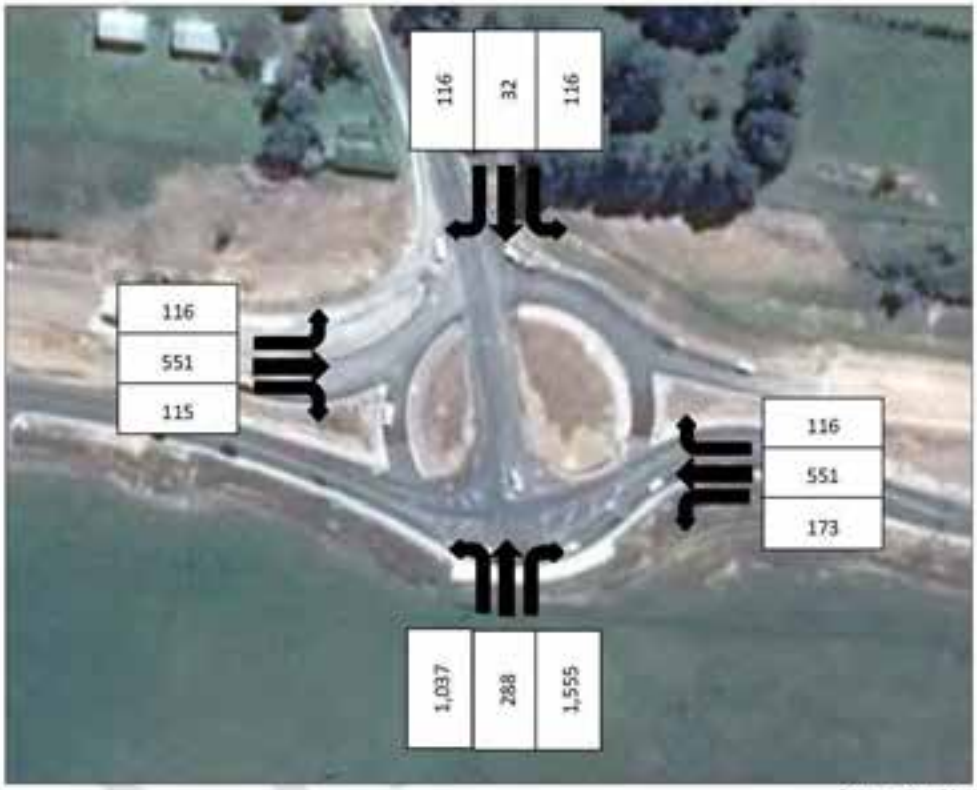
As shown in Figure 2, Princes Highway west of Sale-Heyfield Road carries in the order of 8,900 vpd. Assuming that the evening peak hour volume is 15% of the daily volume equates to an evening peak hour volume of 1,335 vph. It is anticipated that this volume will be roughly evenly split between eastbound and westbound, ie 670 vph in each direction.

No traffic volume data is available for Williams Drive. A volume of 100 vph in each direction has been assumed for the purposes of this analysis.

No traffic volume data is available for Hopkins Road. A volume of 100 vph in each direction has been assumed for the purposes of this analysis.

Candidate Area 3 is anticipated to generate 3,200 vph in the evening peak hour. It is assumed that this will comprise 2,880 vph outbound and 320 vph inbound, split 10% to/from the north on Sale-Heyfield Road and 90% to Princes Highway, split 40% to/from the west and 60% to/from the east (as detailed in Section 5.6).

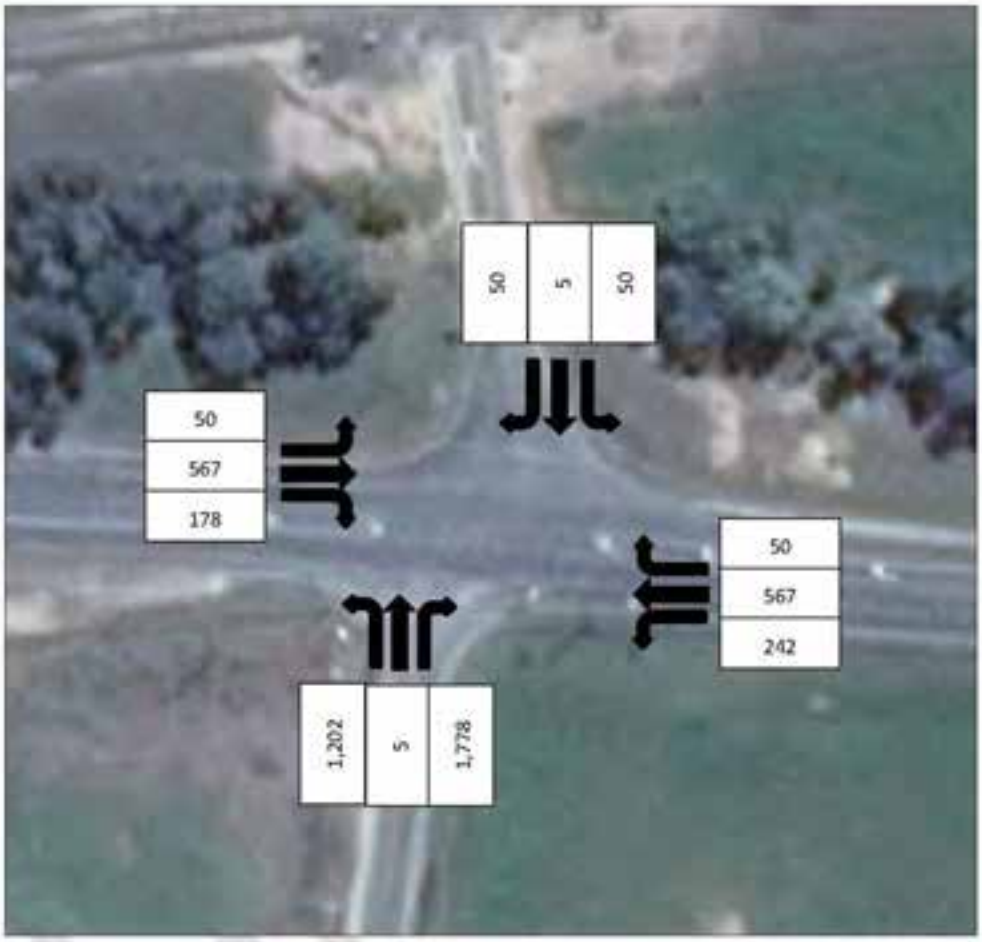
Assuming all traffic generated by Candidate Area 3 is accessed via the Princes Highway/Sale-Heyfield roundabout, this analysis and assumptions result in the traffic volumes shown in Figure 11.



Source: NearMap

Figure 11: Candidate Area 3 Traffic Volumes
Access Only via Princes Highway/Sale-Heyfield Road

Assuming all traffic generated by Candidate Area 3 is accessed via the Princes Highway/Sale-Heyfield roundabout, this analysis and assumptions result in the traffic volumes shown in Figure 12.



Source: NearMap

Figure 12: Candidate Area 3 Traffic Volumes
Access Only via Princes Highway/Hopkins Road

It is noted that this does not allow for any growth in traffic volumes along Princes Highway, Sale-Heyfield Road, Williams Road or Hopkins Road. Also, it is assumed that Candidate Areas 1 and 2 are not developed.

6.3.5 Traffic Impact - Single Access point

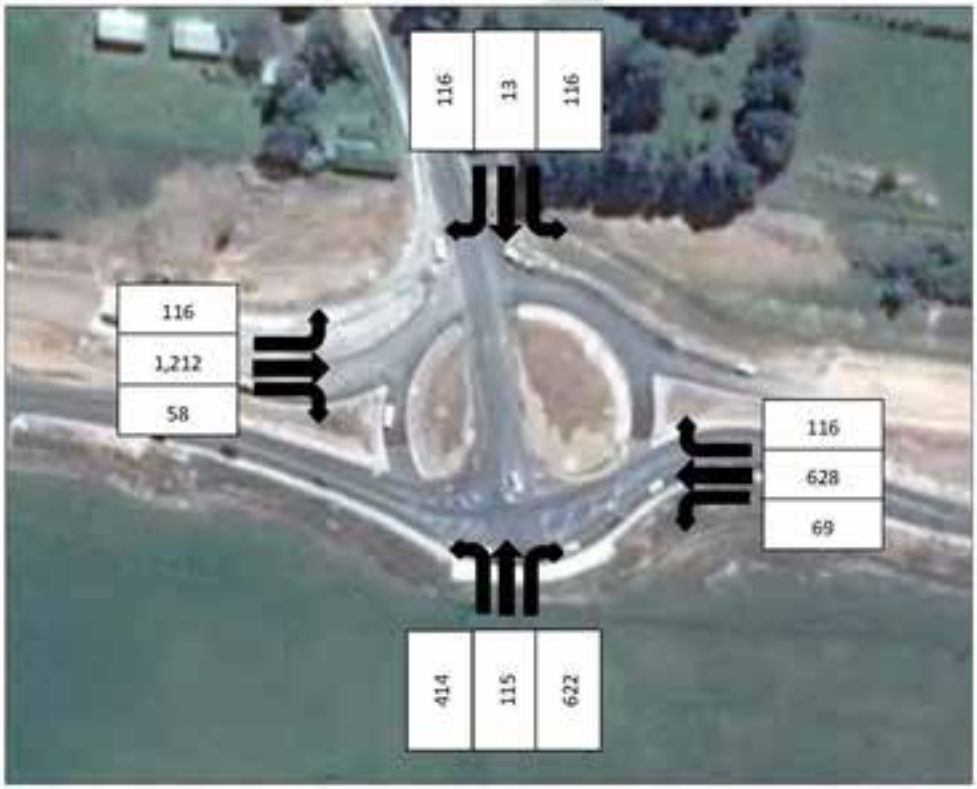
The traffic volumes shown in Figures 11 and 12 were input into SIDRA to assess the likely performance of the Princes Highway/Sale-Heyfield Road and Princes Highway/Hopkins Road intersections. It was apparent that the volume of traffic anticipated to be generated by Candidate Area 3 could not be accommodated by a single access point.

6.3.6 Traffic Volumes - Two Access Points

For the purposes of this further analysis, it is assumed that traffic generated by Candidate Area 3 is equally split between via the Princes Highway/Sale-Heyfield roundabout and the Princes Highway/Hopkins Road intersection.

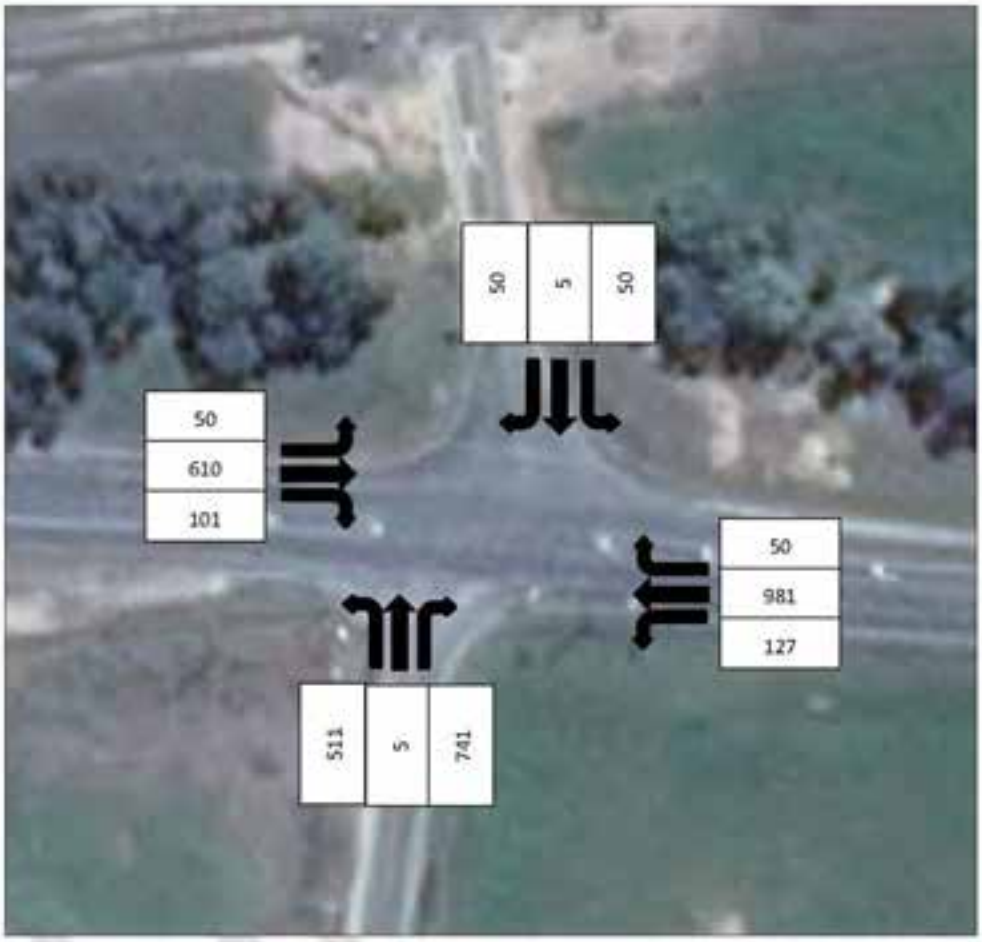
The initial SIDRA analysis resulted in excessive degrees of saturation due to the total volume of traffic generated and the movement of that traffic through the adjacent intersection. An iterative analysis of reduced traffic generated by Candidate Area 3 resulted in satisfactory intersection performance with 80% of the initially projected traffic volume; namely, 2,560 vph in the evening peak period.

This results in the traffic volumes shown in Figures 13 and 14. (Note - these volumes include traffic generated by the candidate area to/from both access points.)



Source: NearMap

Figure 13: Candidate Area 3 Traffic Volumes (Two Access Points) Princes Highway/Sale-Heyfield Road



Source: NearMap

Figure 14: Candidate Area 3 Traffic Volumes (Two Access Points)
Princes Highway/Hopkins Road

Princes Highway/Sale-Heyfield Road

The traffic volumes shown in Figure 11 and a modified geometry of the intersection were input into SIDRA to assess the likely performance of the Princes Highway/Sale-Heyfield Road intersection. The modification comprised a new leg on the southern approach with a right turn lane, a shared through and right turn lane and a separate left turn lane.

The output of the SIDRA analysis (including the adopted geometry) is attached at Appendix E and is summarised in Table 7.

Table 7: Candidate Area 3 - Princes Highway/Sale-Heyfield Road SIDRA Analysis (Two Access Points)

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Site (South Approach)			
Left	0.30	6.5 sec	12.0m
Through	0.34	7.0 sec	14.6m
Right	0.34	15.0 sec	14.6m
Princes Highway (East Approach)			
Left	0.34	5.7 sec	218.5m
Through	0.34	6.1 sec	218.5m
Right	0.34	14.0 sec	17.7m
Sale-Heyfield Road (North Approach)			
Left	0.66	21.2 sec	36.4m
Through	0.66	21.5 sec	36.4m
Right	0.66	29.0 sec	36.4m
Princes Highway (West Approach)			
Left	0.94	26.9 sec	156.8m
Through	0.94	29.6 sec	156.8m
Right	0.94	40.3 sec	135.1m

The intersection operates with on overall Level of Service B.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is sufficient capacity within the modified Princes Highway/Sale-Heyfield Road roundabout to accommodate the adopted traffic volumes.

Princes Highway/Hopkins Road

The traffic volumes shown in Figure 12 and the geometry of a roundabout were input into SIDRA to assess the likely performance of the Princes Highway/Hopkins Road intersection. The roundabout included two lanes on the south approach (Hopkins Road) (shared right and through and separate left) and a single lane on the north approach (Williams Drive).

The output of the SIDRA analysis (including the adopted geometry) is attached at Appendix F and is summarised in Table 8.

Table 8: Candidate Area 3 - Princes Highway/Hopkins Road SIDRA Analysis (Two Access Points)

Movement	Degree of Saturation	Average Delay	95th Percentile Queue
Hopkins Road (South Approach)			
Left	0.82	16.4 sec	57.3m
Through	0.90	18.2 sec	99.1m
Right	0.90	25.8 sec	99.1m
Princes Highway (East Approach)			
Left	0.42	5.6 sec	29.1m
Through	0.42	6.1 sec	29.1m
Right	0.42	14.1 sec	27.6m
Williams Drive (North Approach)			
Left	0.23	12.1 sec	9.8m
Through	0.23	12.3 sec	9.8m
Right	0.23	19.8 sec	9.8m
Princes Highway (West Approach)			
Left	0.67	19.3 sec	77.5m
Through	0.67	20.7 sec	77.5m
Right	0.67	30.8 sec	61.9m

The intersection operates with on overall Level of Service B.

Whilst this analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the adopted geometry of the roundabout to accommodate the adopted traffic volumes.

Hopkins Road

The predicted daily traffic volume on Williams Road at Princes Highway is in the order of 7,500 vpd (comprising 6,400 vpd from Candidate Area 3 and 1,000 vpd existing). A two lane undivided carriageway would be sufficient to accommodate this level of traffic.

6.4 Conclusions - Capacity Analysis

6.4.1 Candidate Area 1: Wurruk

Princes Highway/Hunt Place

- The Princes Highway/Hunt Place roundabout needs to be upgraded to include a second lane added to the Hunt Place approach to accommodate the adopted traffic volumes.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the existing Princes Highway/Hunt Place roundabout (with a second lane added to the Hunt Place approach) to accommodate the adopted traffic volumes.

Hunt Place

- Hunt Place will exceed the indicative daily traffic volume for a Local Access A - Road.
- Hunt Place nonetheless has a cross-section and industrial environment that can accommodate the anticipated volume of traffic.

Riverside Drive

- Riverside Drive will exceed the indicative daily traffic volume for a Local Access B - Road.
- Riverside Drive nonetheless has a cross-section and industrial environment that can accommodate the anticipated volume of traffic.

Extension of Hunt Place or Riverside Drive?

- The extension of Riverside Drive to connect with Candidate Area 1 is preferable from a traffic engineering perspective than the extension of Hunt Place, although both options are workable.

6.4.2 Candidate Area 2: West Sale Aerodrome

- The completed analysis assumed that access to Candidate Area 2 would comprise access via both Sale-Heyfield Road and Princes Highway.

Sale-Heyfield Road Access

- Two access points are required via Sale-Heyfield Road, in addition to access via Williams Drive, for Candidate Area 2.
- The volume of right turn "out" traffic from each site access on Sale-Heyfield Road needs to be restricted to 509 vph to achieve an appropriate level of performance for the assumed T-intersection configuration.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the assumed T-intersection configuration to accommodate the adopted traffic volumes with two T-intersections on Sale-Heyfield Road.

Princes Highway/Sale-Heyfield Road

- The Princes Highway/Sale-Heyfield Road roundabout needs to be upgraded to include a second lane added to the Sale-Heyfield Road approach to achieve acceptable intersection performance.

- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the existing Princes Highway/Sale-Heyfield Road roundabout (with a second lane added to the Sale-Heyfield Road approach) to accommodate the adopted traffic volumes.

Princes Highway/Williams Drive

- The Princes Highway/Williams Drive intersection needs to be upgraded to a roundabout with two lanes on the Williams Drive approach to achieve acceptable intersection performance.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the modified Princes Highway/Williams Drive intersection (roundabout with a second lane added to the Williams Drive approach) to accommodate the adopted traffic volumes.

Williams Drive

- The existing railway level crossing will need to be upgraded from flashing lights to flashing lights and boom gates.
- A two lane undivided carriageway in Williams Drive would be sufficient to accommodate the anticipated volume of traffic.

6.4.3 Candidate Area 3: Fulham

- The completed analysis indicated that:
  - At least two access points (assumed to be via Princes Highway/Hopkins Road and the Princes Highway/Sale-Heyfield Road roundabout) are required to accommodate the traffic anticipated to be generated by Candidate Area 3.
  - The volume of traffic generated by Candidate Area 3 needs to be restricted to 80% of the initially projected traffic volume; namely, 2,560 vph in the evening peak period.

Princes Highway/Sale-Heyfield Road

- The Princes Highway/Sale-Heyfield Road roundabout needs to be upgraded to a four leg roundabout, with the new leg on the southern approach to comprise a right turn lane, a shared through and right turn lane and a separate left turn lane, to achieve acceptable intersection performance.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is sufficient capacity within the modified Princes Highway/Sale-Heyfield Road roundabout to accommodate the adopted traffic volumes.

Princes Highway/Hopkins Road

- The Princes Highway/Hopkins Road intersection needs to be upgraded to a roundabout with two lanes on the Hopkins Road approach and a single lane on the Williams Drive approach to achieve acceptable intersection performance.
- Whilst the analysis is based on a number of broad assumptions (including the adopted traffic generation rates), the SIDRA analysis nonetheless shows that there is spare capacity within the adopted geometry of the roundabout to accommodate the adopted traffic volumes.

Hopkins Road

- A two lane undivided carriageway in Hopkins Road would be sufficient to accommodate the anticipated volume of traffic.

6.5 Qualitative Assessment of Potential Access Options

A qualitative assessment of the potential access options is shown in Table 9.

Table 9: Qualitative Assessment of Potential Access Options

Option	Description	Pro's	Con's	Comments
Candidate Area 1				
1.1	Connection via Riverside Drive	Uses existing roundabout at Princes Highway/Hunt Place Uses existing railway level crossing - upgrade not needed?	Requires land acquisition Potentially through sensitive area adjacent to Thomson River	
1.2	Connection via Hunt Place	Uses existing roundabout at Princes highway/Hunt Place Uses existing railway level crossing - no upgrade required?	Requires land acquisition	
1.3	Access via Princes Highway/ Reid Drive	Uses existing intersection location	Requires new railway level crossing May require land acquisition	Change existing wide median treatment to a roundabout
1.4	New roundabout on Princes Highway		Requires new railway level crossing Creates an additional roundabout on Princes Highway	No sight distance issues Location dependent on spacings to treatments to east and west
1.5	Left in/left out to Princes Highway	Uses existing treatments at Polocross Drive (wide median treatment) and at Reid Drive (roundabout) Some flexibility in location(s) of intersection(s)	Requires new railway level crossing May require wide median treatment at Polocross Drive to be upgraded to a roundabout	Location(s) dictated by weaving distances

Option	Description	Pro's	Con's	Comments
Candidate Area 2				
2.1	T-intersection(s) on Sale-Heyfield Road	Uses existing roundabout at Princes Highway/Sale-Heyfield Road Uses existing railway level crossing - no upgrade required? Flexibility in location(s) of intersection(s)	Bend in Sale-Heyfield Road limits potential location(s)	Must allow for potential road reserve widening for Sale Alternative Truck Route
2.2	Service road(s) to Sale-Heyfield Road	Allows development to front Sale-Heyfield Road Uses existing roundabout at Princes Highway/Sale-Heyfield Road Uses existing railway level crossing - no upgrade required? Flexibility in location(s) of service road(s)	Bend in Sale-Heyfield Road limits potential location(s)	Must allow for potential road reserve widening for Sale Alternative Truck Route
2.3	New road off Williams Drive	Uses existing wide median treatment at Princes Highway/Williams Road /Hopkins Road Uses existing railway level crossing	Upgrade of existing railway level crossing required May require wide median treatment at Princes Highway/ Williams Road/Hopkins Road to be upgraded to a roundabout	New T-intersection with north-south traffic having priority and west leg (existing) giving way
2.4	Access via West Sale Aerodrome	Uses existing wide median treatment at Princes Highway/Williams Road /Hopkins Road Uses existing railway level crossing	Upgrade of existing railway level crossing required May require wide median treatment at Princes Highway/ Williams Road/Hopkins Road to be upgraded to a roundabout Access via aerodrome car park and environs	

Option	Description	Pro's	Con's	Comments
Candidate Area 3				
3.1	Access via Princes Highway/Sale-Heyfield roundabout	Uses existing intersection location	May require land acquisition	
3.2	Left in/left out to Princes Highway	Uses existing treatments at Hopkins Road/Williams Drive (wide median treatment) and at Sale-Heyfield Road (roundabout)	May require wide median treatment at Hopkins Road/Williams Drive to be upgraded to a roundabout	Location(s) dictated by weaving distances No sight distance issues
3.3	Service road(s) to Princes Highway	Allows development to front Princes Highway Utilises existing treatments at Hopkins Road/Williams Drive (wide median treatment) and at Sale-Heyfield Road (roundabout) Flexibility in location(s) of service road(s)	May require wide median treatment at Hopkins Road/Williams Drive to be upgraded to a roundabout	Location(s) dictated by weaving distances No sight distance issues
3.4	New roundabout on Princes Highway		Creates an additional roundabout on Princes Highway	No sight distance issues Location dependent on spacings to treatments to east and west
3.5	T-intersection(s) on Hopkins Road	Uses existing wide median treatment at Princes Highway/Hopkins Road/Williams Drive Flexibility in location(s) of intersection(s)	May require existing wide median treatment at Princes Highway/Hopkins Road/Williams Drive to be upgraded to a roundabout	No sight distance issues
3.6	Direct access to Hopkins Road	Allows development to front Hopkins Road Uses existing wide median treatment at Princes Highway/ Hopkins Road/Williams Drive	Large lots only to front Hopkins Road Corner sites to take access off side road	No sight distance issues

Option	Description	Pro's	Con's	Comments
3.7	Service road(s) to Hopkins Road	Allows development to front Hopkins Road Uses existing wide median treatment at Princes Highway/ Hopkins Road/Williams Drive		No sight distance issues

7 Indicative Costs of Mitigating Works

To assist the comparison of the candidate areas, preliminary indicative costs of the upgrades required as detailed in this report (major intersections and railway level crossings) have been prepared. It is noted that these preliminary indicative costs are not based on any plans, surveys, locations of services and the like, and as such should only be relied upon for a relative comparison of the potential costs of the treatments.

Further, it is noted that, as detailed in Sections 6.1.1, 6.2.1 and 6.3.1, a number of access options exist for the candidate areas including service roads and direct property access (eg on Hopkins Road). These have not been costed.

Table 10 provides a comparison of the relative costs of the required upgrades as detailed in this report.

Table 10: Comparison of Relative Costs of Required Upgrades [1]

	Works	Preliminary Indicative Cost [1]	
		Works	Total
Candidate Area 1	Second lane on north (Hunt Place) approach to Princes Highway/Hunt Place roundabout	$180,000	$1,880,000
	Riverside Drive extension [2]	$1,700,000	
Candidate Area 2	T-intersections on Sale-Heyfield Road (two)	$1,800,000	$4,050,000
	Second lane on north (Sale-Heyfield Road) approach to Princes Highway/Sale-Heyfield Road roundabout	$250,000	
	Upgrade Princes Highway/Williams Drive intersection to a roundabout (with two lanes on northern (Williams Drive) approach)	$1,500,000	
	Upgrade Williams Drive railway level crossing	$500,000	
Candidate Area 3	Add fourth (southern) leg to Princes Highway/Sale-Heyfield Road roundabout [2]	$300,000	$1,800,000
	Upgrade Princes Highway/Hopkins Road intersection to a roundabout	$1,500,000	

(1) It is noted that these preliminary indicative costs are not based on any plans, surveys, locations of services and the like, and as such should only be relied upon for a relative comparison of the potential costs of the treatments.

(2) Excludes land acquisition costs.

Appendix A
SIDRA Output
Candidate Area 1 - Princes Highway/Hunt Place

Appendix B
SIDRA Output
Candidate Area 2 - Sale-Heyfield Road/Site Access

227355-02A

Appendix C
SIDRA Output
Candidate Area 2 - Princes Highway/Sale-Heyfield Road

227355-02A

Appendix D
SIDRA Output
Candidate Area 2 - Princes Highway/Williams Drive

227358-02A

Appendix E
SIDRA Output
Candidate Area 3 - Princes Highway/Sale-Heyfield Road

227355-02A

Appendix F
SIDRA Output
Candidate Area 3 - Princes Highway/Hopkins Road

227355-02A

APPENDIX C CULTURAL HERITAGE REPORT

APPENDIX D BIODIVERSITY REPORT

ecology & heritage partners

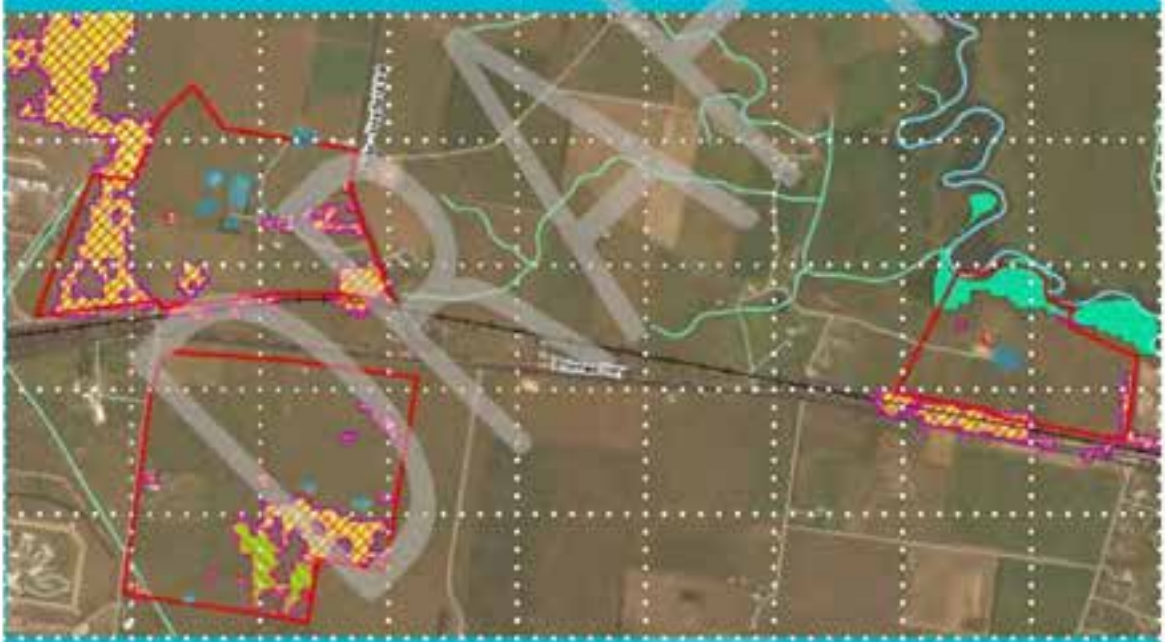
Draft Report

Desktop Biodiversity Assessment: West Sale and Wurruk Industrial Land Supply Strategy

Prepared for

Urban Enterprise

September 2017



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Contents

Document Control

Assessment	Desktop Biodiversity Assessment
Address	West Sale and Wurruk Industrial Land Supply Strategy
Project number	9353
Project manager	Lyndsey Vivian (Consultant Botanist)
Report reviewer	Tom Wright (Senior Botanist)
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Mapping	Monique Elsley (GIS Coordinator)
File name	9353_EHP_WestSaleandWurrukIndustrialDevelopment_DraftDDv2_05092017
Client	Urban Enterprise
Bioregion	Gippsland Plain
CMA	West Gippsland
Council	Wellington Shire Council

Report versions	Comments	Comments updated by	Date submitted
Draft 1	-		14/08/2017
Draft v2	Correction of labels/descriptions of Sites 2 and 3 in figures and text	LV	06/09/2017

1 Introduction

Ecology and Heritage Partners Pty Ltd was commissioned by Urban Enterprise to conduct a Desktop Biodiversity Assessment for the West Sale and Wurruk Industrial Land Supply Strategy. The Strategy will inform Wellington Shire Council whether sufficient, appropriately zoned industrial land is available to meet the forecast demand over a short-medium term (five to ten-year period) and ensure that its future development can occur in a coordinated and timely manner.

The purpose of this desktop biodiversity assessment was to identify ecological values that are known to, or are likely to occur within the study area, and determine the potential regulatory and legislative implications, and potential key constraints, for future industrial use of the sites. This report discusses the results of the assessment in relation to relevant Commonwealth and State environmental legislation. The report also provides recommendations to address or reduce impacts and, where necessary, highlights components that require further investigation, such as targeted surveys.

1.1 Study Area

The study area is located at West Sale and Wurruk, approximately 12 kilometres west of Sale, Victoria (Figure 1). This assessment covers three sites along the Princes Highway, which have the following characteristics:

- Site 1: located to the west of the existing industrial zoned land in Wurruk:
    - Approximately 42 ha in size;
    - Zoned as Farming Zone; and,
    - The northern boundary backs on to the Thompson River and riverside vegetation.
- Site 2: located to the north of the Princes Highway and to the east of the West Sale Aerodrome:
    - Approximately 79 ha in size; and,
    - Zoned as Farming Zone.
- Site 3: located to the south of the Princes Highway and east of the Fulham Correctional Centre:
    - Approximately 104 ha in size; and,
    - Zoned as Farming Zone.

According to the Department of Environment, Land, Water and Planning (DELWP) Native Vegetation Information Management (NVIM) Tool (DELWP 2017a), the study areas occur within the Gippsland Plain bioregion. The study area is located within the jurisdiction of the West Gippsland Catchment Management Authority (CMA) and the Wellington Shire Council municipality.

2 Methods

2.1 Desktop Assessment

The following relevant literature, online-resources and databases were reviewed to provide an assessment of flora and fauna values associated with the study area:

- The DELWP NVIM Tool (DELWP 2017a) and NatureKit (DELWP 2017b) for:
    - Modelled data for location risk, remnant vegetation patches, scattered trees and habitat for rare or threatened species;
    - Current wetlands; and,
    - The extent of historic and current EVCs.
- EVC benchmarks (DELWP 2017c) for descriptions of EVCs within the relevant bioregion;
- The Victorian Biodiversity Atlas (VBA) for previously documented flora and fauna records within the project locality (DELWP 2017d);
- The Illustrated Flora Information System of Victoria (IFLISV) (Gullan 2017) for assistance with the distribution and identification of flora species;
- The Commonwealth Department of the Environment (DoEE) Protected Matters Search Tool (PMST) for matters of National Environmental Significance (NES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (DoEE 2017);
- Relevant listings under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), including the latest Threatened and Protected Lists (DELWP 2017e; DELWP 2016);
- The Planning Maps Online (DELWP 2017f) and Planning Schemes Online (DELWP 2017g) to ascertain current zoning and environmental overlays in the study area;
- Other relevant environmental legislation and policies as required; and,
- Aerial photography of the study area.

2.2 Permitted Clearing Assessment (the Guidelines)

Under the *Planning and Environment Act 1987,* Clause 52.17 of the Planning Schemes requires a planning permit from the relevant local Council to remove, destroy or lop native vegetation. The assessment process for the clearing of vegetation follows the 'Permitted clearing of native vegetation - Biodiversity assessment guidelines' (the Guidelines) (DEPI 2013). The 'Biodiversity assessment handbook - Permitted clearing of native vegetation' (the Handbook) provides clarification regarding the application of the Guidelines (DELWP 2015).

For the purposes of this desktop assessment, modelled native vegetation and condition scores provided by DELWP (2017b) was used to estimate the extent of native vegetation to be removed and quantity and quantity of biodiversity offsets that may be required for each site. However, a site assessment will be required to assess the extent and quality of native vegetation to be removed prior to submitting a planning permit to Council. The sub-sections below explains this process.

2.2.1 *Risk-based Pathway*

The Guidelines manage the impacts on biodiversity from native vegetation removal using a risk-based approach. Two factors – extent risk and location risk – are used to determine the risk associated with an application for a permit to remove native vegetation. The location risk (A, B or C) has been determined for all areas in Victoria and is available on DELWP's Native Vegetation Information Management (NVIM) Tool (DELWP 2017a). Determination of risk-based pathway is summarised in Table 1.

Table 1. Risk-based pathways for applications to remove native vegetation (DEPI 2013)

Extent		Location A	Location B	Location C
Native Vegetation	< 0.5 hectares	Low	Low	High
	≥ 0.5 hectares and < 1 hectare	Low	Moderate	High
	≥ 1 hectare	Moderate	High	High
Scattered Trees	< 15 scattered trees	Low	Moderate	High
	≥ 15 scattered trees	Moderate	High	High

Notes: For the purpose of determining the risk-based pathway of an application to remove native vegetation the extent includes any other native vegetation that was permitted to be removed on the same contiguous parcel of land with the same ownership as the native vegetation to be removed, where the removal occurred in the five year period before an application to remove native vegetation is lodged.

2.2.2 *Vegetation Assessment*

Native vegetation (as defined in Table 2) is assessed using two key parameters: extent (in hectares) and condition. Extent is determined through a field assessment. The condition score for Moderate and High Risk-based pathways must be assessed through a habitat hectare[1] assessment conducted by a qualified ecologist. The condition score for Low Risk-based pathways may be based on either modelled data available on the NVIM Tool (DELWP 2017a), or through a habitat hectare assessment.

In addition, all mapped wetlands (based on the DELWP 'Current Wetlands' layer) must be included as native vegetation, with the modelled condition score assigned to them (DELWP 2017b).

[1] A 'habitat hectare' is a unit of measurement which combines the condition and extent of native vegetation.

Table 2. Determination of remnant native vegetation (DEPI 2013)

Category	Definition	Extent	Condition
Remnant patch of native vegetation	An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native. OR An area with three or more native canopy trees where the canopy foliage cover is at least 20 per cent of the area.	Measured in hectares. Based on hectare area of the remnant patch.	Vegetation Quality Assessment Manual (DSE 2004).
Scattered tree	A native canopy tree that does not form part of a remnant patch.	Measured in hectares. Each scattered tree is assigned an extent of 0.071 hectares (30m diameter).	Scattered trees are assigned a default condition score of 0.2.

Notes: Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'.

2.2.3 *Offsets*

Offsets are required to compensate for the permitted removal of native vegetation.

The offset requirements for Low risk-based pathway applications are calculated using the NVIM Tool, resulting in a Biodiversity Assessment Report.

The offset requirements for a Moderate or High risk-based pathway are calculated by DELWP, based on the vegetation condition scores determined during a biodiversity assessment. This results in a Biodiversity Assessment Report OR Biodiversity Impact and Offset Requirements report (BIOR) produced by DELWP.

For the purposes of this desktop assessment, a scenario of native vegetation clearing was carried out using modelled native vegetation and condition scores provided by DELWP (2017b), and assuming that all of the modelled vegetation within the three sites is proposed to be removed. The estimation of the offsets required was calculated using the EnSym offsets tool.

2.3 Assessment Qualifications and Limitations

Data and information held within the ecological databases and mapping programs reviewed in the desktop assessment (e.g. VBA, PMST, Biodiversity Interactive Maps etc.) are unlikely to represent all flora and fauna observations within, and surrounding, the study area. It is therefore important to acknowledge that a lack of documented records does not necessarily indicate that a species or community is absent.

The assessment was based on desktop information only and did not include a site assessment.

3 Results

3.1 Native Vegetation

3.1.1 *Ecological Vegetation Classes (EVCs)*

Pre-1750 modelled EVC mapping indicates that study area would have been historically dominated by Plains Grassy Woodland (EVC 55) and Plains Grassy Woodland/Gilgai Wetland Mosaic (EVC 259), with smaller areas of Floodplain Reedbed (EVC 863) and Floodplain Riparian Woodland (EVC 56) located along the banks of the Thomson River in Site 1 (DELWP 2017b).

Current (2005) modelled mapping of EVCs indicates that approximately 35.35 hectares of native vegetation remains within the study area (Table 3) (DELWP 2017b). Plains Grassy Woodland is modelled as occurring in all three sites, with the largest extent (14.91 hectares) of this EVC occurring within the western side of Site 2 (Figure 2). Floodplain Riparian Woodland is also modelled to be present within Site 1, and Plains Grassy Woodland/Gilgai Wetland Mosaic is modelled to be present in Site 3. All of these EVCs have a Bioregional Conservation Status of Endangered.

Table 3. Extent of remnant native vegetation modelled to be present in each of the three sites within the study area (2005 data; DELWP 2017b).

Site	EVC	EVC Number	Bioregional Conservation Status	Area (ha)
1	Plains Grassy Woodland	55	Endangered	1.36
1	Floodplain Riparian Woodland	56	Endangered	5.22
2	Plains Grassy Woodland	55	Endangered	8.16
2	Plains Grassy Woodland/ Gilgai Wetland Mosaic	259	Endangered	5.70
3	Plains Grassy Woodland	55	Endangered	14.91

Recent and historical aerial imagery suggests that remnant vegetation is still present within Site 1 adjacent to Thomson River (Plate 1a). However, current aerial imagery shows little evidence of native canopy cover throughout the Site 2 and 3, and it is likely that parts of these Sites have been cleared and used for agriculture (Plate 1b-c).

Rows of trees are present along fencelines and driveways, however many appear to be in straight lines and are possibly planted, which would mean that they are exempt from native vegetation clearing regulations. In particular, the area in the west of Site 2 appears to be largely cleared of any woodland vegetation, contrary to DELWP's current EVC modelling (see Figure 2). A site assessment will be required to confirm that these trees are indeed planted. It is possible that some of these trees are scattered remnant trees and/or small areas of remnant woodland. It is also possible that a native understorey and groundcover persists in some areas, even though a canopy is lacking.

Plate 1. Recent aerial imagery of the three sites. (a) Site 1; (b) Site 2; (c) Site 3. Source: ESRI; date not provided.

3.1.2 *Current Wetlands*

The DELWP Current Wetlands layer identified wetlands present in all three sites, with a total area of 2.23 hectares (Figure 2; Table 4; DELWP 2017b). Due to the difficulty in mapping wetlands, under the Guidelines all mapped wetlands based on this layer that are to be impacted must be included as native vegetation, with the modelled condition score assigned to them (DELWP 2017b).

Table 4. Extent of mapped wetlands present in each of the three sites within the study area (DELWP 2017b).

Site	Area (ha)
1	0.59
2	1.42
3	0.23

3.2 *Significance Assessment*

3.2.1 *Flora*

The VBA contains records of five nationally significant and 19 State significant flora species previously recorded within 10 kilometres of the study area (DELWP 2017d) (Appendix 1.1; Figure 4). The PMST nominated an additional five nationally significant species which have not been previously recorded but have the potential to occur in the locality (DoE 2017).

The majority of the nearby significant flora records are from the Holey Plains State Park, located approximately 10 km to the south west of the study area, with a smaller number of records in nearby riparian and wetland habitats within the Gippsland Lakes and a nearby flora reserve (Herb Guyatt Flora Reserve) (Figure 4).

It is possible that the native vegetation present within Site 1 adjacent to Thomson River provides habitat for significant flora. However given the remainder of the Site 1, and all of Site 2 and Site 3 appears to be cleared there are unlikely to be any other areas that provide habitat for significant flora, particularly if understorey vegetation has been heavily disturbed. It is also possible that the small wetland areas indicated by the DELWP Current Wetlands layer provide habitat for significant flora species; however, this is dependent on the history and degree of disturbance (which is likely to be high) and will need to be clarified with a site assessment.

Depending on the condition of the remnant vegetation near Thomson River, and the condition of any other remnant vegetation that may be present (including wetlands), there may be suitable habitat for several State significant flora species (Appendix 1). In particular, Rough-grain Love-grass *Eragrostis trachycarpa* and Lanky Buttons *Leptorhynchos elongatus* have been recorded in roadside vegetation adjacent to Site 2, although these records are from the early 1990s and the species may no longer persist in the area.

Two nationally significant species have been found within 10 km of the study area within the last ten years: Wellington Mint-bush *Prostanthera galbraithiae* and River Swamp Wallaby-grass *Amphibromus fluitans*. Further notes on these two species are as follows:

Wellington Mint-bush

There are several records of the nationally significant Wellington Mint-bush located in the Holey Plains State Park. This park is the stronghold for this species, and supports ten of the 11 current or recently known populations of Wellington Mint-bush, with plants from the 11th population at Dutson Downs (approximately 25 km east of the study area) not being recorded since 1986 (Carter and Walsh 2006). Given the lack of records outside of the Holey Plains State Park, and that the preferred habitat of Wellington Mint Bush is heathy open forest, heathland and heathy woodland usually on gravelly sand (Carter and Walsh 2006), it is unlikely that the study area supports habitat for this species.

River Swamp Wallaby-grass

River Swamp Wallaby-grass is known from the Rosedale, Meeniyan and Wonthaggi areas in Gippsland, and occurs in both natural and man-made water-bodies, including swamps, lagoons, billabongs and dams (TSSC 2008). Habitat could potentially occur within the study area for River Swamp Wallaby-grass, within wetlands

and remnant vegetation near Thomson River. A site assessment would establish the presence of suitable habitat and the species' likelihood of presence.

3.2.2 *Fauna*

The VBA contains records of six nationally significant, 22 State significant and 9 regionally significant fauna species previously recorded within 10 kilometres of the study area (DELWP 2017d) (Appendix 2.1; Figure 5). The PMST nominated an additional 11 nationally significant species which have not been previously recorded but have the potential to occur in the locality (DoE 2016).

Habitat within the study area may be suitable to support three EPBC Act-listed species, namely Grey-headed Flying Fox *Pteropus poliocephalus*, Dwarf Galaxias *Galaxiella pusilla* and Growling Grass Frog *Litoria raniformis*.

Grey-headed Flying Fox is a highly mobile species and forages on flowering eucalypts, which may be present within the woodland patch to the north-east of the study area (Site 1).

Wetland habitat within the study area, including farm dams may provide suitable habitat for a range of aquatic and wetland dependant fauna including fish, frogs and wetland birds. Nationally significant fauna that may utilise this habitat include Dwarf Galaxias and Growling Grass Frog *Litoria raniformis*. These species also have potential to occur in the adjoining Thomson River which may be impacted by the project due to sedimentation and changes in hydrology.

There are a high number of records of State and regionally significant wetland birds within 10 kilometres of the study area including Magpie Goose *Anseranas semipalmata*, Musk Duck *Biziura lobata*, Australian Shoveler *Anas rhynchotis*, Hardhead *Aythya australis*, Eastern Great Egret *Ardea modesta*, Pied Cormorant *Phalacrocorax varius*, Royal Spoonbill *Platalea regia* and Latham's Snipe *Gallinago hardwickii*. However most of these records are contained within the larger wetlands associated with Sale Common Nature Conservation Reserve located approximately 6 kilometres to the south-east of the study area.

The VBA and PMST contain records for 15 migratory species. The majority of records are from the coastline, lakes and wetlands in the surrounding landscape associated with the Gippsland Lakes Ramsar site (Figure 5). Aerial imagery indicates that the study area does not support any significant water bodies, and as such it is unlikely to provide 'important habitat' for migratory species as defined under the EPBC Act; although, migratory species may fly over the study area during their migration period or en-route to better quality habitats in the surrounding area.

3.2.3 *Communities*

Three nationally listed ecological communities are predicted to occur within 10 kilometres of the study area (DoEE 2017):

- Natural Damp Grassland of the Victorian Coastal Plains;
- Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated and Native Grassland; and,
- Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains.

Any Plains Grassy Woodland that is present within the study area will need to be assessed against the condition thresholds for the Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated and Native Grassland, as the study area falls within the indicative area for the occurrence of this community (Plate 2), and the Gippsland Plains Grassy Woodland EVC can correspond to this community (DEWHA 2010).

Plate 2. Indicative map of the distribution of the Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated and Native Grassland (DEWHA 2010).

It is unlikely that Natural Damp Grassland of the Victorian Coastal Plains occurs within the study area, given that grassland EVCs are not modelled to occur (DELWP 2017b), and that the study area has been used for agricultural purposes, likely resulting in a high level of understorey degradation.

Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains has potential to occur in the study area. The DELWP Current Wetlands layer indicates the presence of several wetlands, and there is an area of modelled Plains Grassy Woodland/Gilgai Wetland Mosaic EVC in Site 3 (Figure 2). The listing advice for this community lists Gilgai Wetland (EVC 678) as one of the EVCs that can correspond with the Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains ecological community (TSSC 2012). If the area has been significantly disturbed as a result of cultivation, then the potential for this community to occur is low.

Two FFG Act-listed ecological communities are modelled to occur in the study area (Figure 2, DELWP 2017b):

- Central Gippsland Plains Grassland; and,
- Forest Red Gum Grassy Woodland.

Both of these communities correspond to the nationally significant Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated and Native Grassland, and may occur in the study area if remnant Plains Grassy Woodland is found to occur.

3.3 Permitted Clearing Assessment (the Guidelines)

3.3.1 *Vegetation proposed to be removed*

In the event that native vegetation within the three sites is proposed to be cleared, a site assessment would be required to determine the extent of clearing and the associated risk-based pathway. Location Risk for each site is provided in Figure 3. An explanation of how risk-based pathway is determined is provided in Section 2.2.1.

For the purposes of this desktop assessment, a scenario of native vegetation clearing was investigated using modelled native vegetation and condition scores provided by DELWP (2017b), and assuming that all of the modelled vegetation is proposed to be removed. The estimation of the offsets required was calculated using the EnSym offsets tool.

Note that this includes the extent of modelled EVCs as well as the extent of wetlands provided in the DELWP Current Wetlands layer.

Site 1:

The study area is within Location A, with 7.170 hectares of modelled native vegetation present. If all modelled vegetation is proposed to be removed, the permit application would fall under the Moderate Risk-based pathway.

Table 5. Permitted Clearing Assessment (the Guidelines).

Risk-based pathway	Moderate
Total Extent*	7.170
Remnant Patch (ha)	7.170
Scattered Trees (no.)	0
Location Risk	A
Strategic Biodiversity Score	0.332

* Extent based on modelled native vegetation extent provided by DELWP (2017b)

Site 2:

The study area is within Location A, with 16.323 hectares of modelled native vegetation present. If all modelled vegetation is proposed to be removed, the permit application would fall under the Moderate Risk-based pathway.

Table 5. Permitted Clearing Assessment (the Guidelines)

Risk-based pathway	High
Total Extent*	16.337
Remnant Patch (ha)	16.337
Scattered Trees (no.)	0
Location Risk	C
Strategic Biodiversity Score	0.770

* Extent based on modelled native vegetation extent provided by DELWP (2017b)

Site 3:

The study area is within Location A, with 14.089 hectares of modelled native vegetation present. If all modelled vegetation is proposed to be removed, the permit application would fall under the High Risk-based pathway.

Table 4. Permitted Clearing Assessment (the Guidelines)

Risk-based pathway	Moderate
Total Extent*	14.101
Remnant Patch (ha)	14.101
Scattered Trees (no.)	0
Location Risk	A
Strategic Biodiversity Score	0.111

* Extent based on modelled native vegetation extent provided by DELWP (2017b)

3.3.2 *Offset Targets*

Based on an estimate of 100% loss of vegetation modelled by DELWP, the offset requirement for native vegetation removal is as follows: Site 1 = 1.762 General Biodiversity Equivalence Units (BEU); Site 2 = 1.728 General BEUs along with 9.023 Specific units of habitat for Rough-grain Love-grass; Site 3 = 0.471 General BEUs. Please note that these results are based on desktop data only and are unlikely to represent the true offset targets at each site.

Table 6. Offset targets, based on the assumption of 100% loss of all modelled vegetation (DELWP 2017b) within study area. BEU = Biodiversity Equivalence Units

	Site 1	Site 2	Site 3
General Offsets Required	1.762 General BEUs	1.728 General BEUs	0.471 General BEUs
Specific Offsets Required	None	9.023 specific units of habitat for Rough-grain Love-grass	None
Vicinity (catchment / LGA)	West Gippsland CMA or Wellington Shire Council	West Gippsland CMA or Wellington Shire Council	West Gippsland CMA or Wellington Shire Council
Minimum Strategic Biodiversity Score*	0.265	0.443	0.089

4 Legislative and Policy Implications

4.1 *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)

The EPBC Act establishes a Commonwealth process for the assessment of proposed actions likely to have a significant impact on any matters of National Environment Significance (NES), described in Table 7.

Table 7. Potential Impacts to matters of National Environmental Significance (NES)

Matter of NES	Potential Impacts
World Heritage properties	The proposed action will not impact any properties listed for World Heritage.
National heritage places	The proposed action will not impact any places listed for national heritage.
Ramsar wetlands of international significance	The study area occurs within the same catchment as one Ramsar wetland (DoEE 2017): Gippsland Lakes. Management practices and construction techniques should be consistent with Construction Techniques for Sediment Pollution Control (EPA 1991) and Environmental Guidelines for Major Construction Sites (EPA 1996). It is possible that the proposed action will impact the ecological character of any Ramsar wetland if erosion and sediment control, and changes to surface-water flows, is not properly considered.
Threatened species and ecological communities	There is potential for one listed flora species occurring in the study area – River Swamp Wallaby-grass. It is possible that there may be habitat for three fauna species listed under the EPBC Act: Grey-headed Flying Fox, Growling Grass Frog and Dwarf Galaxias. It is possible that two listed communities occur in the study area: Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated and Native Grassland occurs within the study area; and, Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains.
Migratory and marine species	The PMST search nominated 15 migratory species as having been recorded within 10 kilometres of the study area (DoEE 2017). However, the study area is unlikely to provide important habitat that migratory species would be dependent upon.
Commonwealth marine area	The proposed action will not impact any Commonwealth marine areas.
Nuclear actions (including uranium mining)	The proposed action is not a nuclear action.
Great Barrier Reef Marine Park	The proposed action will not impact the Great Barrier Reef Marine Park.
Water resources impacted by coal seam gas or mining development	The proposed action is not a coal seam gas or mining development.

4.1.1 *Implications*

Development of the study area has potential to have a significant impact upon two matters of NES: Ramsar Wetlands of International Significance, and, threatened species and ecological communities. A site assessment is recommended to determine the presence and potential impact to threatened species and ecological communities. A hydrological assessment is recommended to determine what impact the development is likely to have on the water quality and quantity of Thomson River and downstream

Gippsland Lakes. If a significant impact to any matter of NES is likely, the proposed development should be referred to the Commonwealth Minster of the Environment for consideration under the EPBC Act. -

4.2 *Environment Effects Act 1978*

The EE Act provides for assessment of proposed actions that are capable of having a significant effect on the environment via the preparation of an Environment Effects Statement (EES). A project with potential adverse environmental effects that, individually or in combination, could be significant in a regional or State context should be referred. An action may be referred for an EES decision where:

- one of the following occurs:
  - Potential clearing of 10 hectares or more of native vegetation from an area that:
    - is of an EVC identified as endangered by DELWP;
    - is of Very High conservation significance; or,
    - is not authorised under an approved Forest Management Plan or Fire Protection Plan.
  - Potential long-term loss of a significant proportion (1-5% depending on conservation status of species) of known remaining habitat or population of a threatened species within Victoria.
- or where two or more of the following occur:
  - Potential clearing of 10 hectares or more of native vegetation, unless authorised under an approved Forest Management Act or Fire Protection Plan;
  - Matters listed under the FFG Act:
    - Potential loss of a significant area of a listed ecological community;
    - Potential loss of a genetically important population of an endangered or threatened species;
    - Potential loss of critical habitat; or,
    - Potential significant effects on habitat values of a wetland supporting migratory birds.

4.2.1 *Implications*

More than 10 hectares of EVCs identified as Endangered has been modelled by DELWP occur within the study area. As such, development of the study area may trigger an EES referral. A site assessment to confirm the extent of Endangered EVCs should be undertaken before assessing whether an EES referral is required.

4.3 *Flora and Fauna Guarantee Act 1988 (Victoria)*

The FFG Act is the primary legislation dealing with biodiversity conservation and sustainable use of native flora and fauna in Victoria. Proponents are required to apply for an FFG Act Permit to 'take' listed and/or protected flora species, listed vegetation communities and listed fish species in areas of public land (i.e. within road reserves, drainage lines and public reserves). An FFG Act permit is generally not required for

removal of species or communities on private land, or for the removal of habitat for a listed terrestrial fauna species.

There may be suitable habitat within the study area for species 'listed' or 'protected' under the FFG Act, however this will need to be confirmed by a site assessment (Appendix 1, Appendix 2).

4.3.1 *Implications*

An FFG Act permit is not required to impact on listed species or ecological communities on private land. However, the presence of FFG Act-listed species and ecological communities is relevant when assessing triggers for an EES referral.

4.4 *Planning and Environment Act 1987*

The *Planning and Environment Act 1987* outlines the legislative framework for planning in Victoria and for the development and administration of planning schemes. All planning schemes contain native vegetation provisions at Clause 52.17 which require a planning permit from the relevant local Council to remove, destroy or lop native vegetation on a site of more than 0.4 hectares, unless an exemption under clause 52.17-7 of the Victorian Planning Schemes applies (Appendix 1.5.3) or a subdivision is proposed with lots less than 0.4 hectares[3]. Local planning schemes may contain other provisions in relation to the removal of native vegetation.

4.4.1 *Planning Zones and Overlays*

The study area is located within the Wellington Shire Council municipality. The following zoning and overlays apply (DELWP 2017f, 2017g):

- Farming Zone (FZ);
- Flood and Land Subject to Inundation Overlay (Schedule 6); and,
- Public Use Schedule 1 (PUZ1).

4.4.2 *The Guidelines*

The State Planning Policy Framework and the decision guidelines at Clause 52.17 (Native Vegetation) and Clause 12.01 require Planning and Responsible Authorities to have regard for 'Permitted clearing of native vegetation - Biodiversity assessment guidelines' (the Guidelines) (DEPI 2013).

4.4.3 *Implications*

Based on an estimate of modelled DELWP data, and assuming 100% loss of vegetation, the following pathways apply:

- Site 1:

[3] In accordance with the Victorian Civil and Administrative Tribunal's (VCAT) decision Villawood v Greater Bendigo CC (2005) VCAT 2703 (20 December 2005) all native vegetation is considered lost where proposed lots are less than 0.4 hectares in area and must be offset at the time of subdivision.