



# GREEN WEDGE MANAGEMENT PLAN

City of Greater Dandenong  
(Revised January 2017)



## PROJECT CONTROL

NAME	NO.	PM APPROVED	PD APPROVED	DATE
Final GWMP	1	CL	LR	14/11/14
Revised GWMP	2	WW	JB	14/12/16

The Study Team recognises that the State of Victoria has an ancient and proud Aboriginal history and complex ownership and land stewardship systems stretching back many thousands of years. We would like to acknowledge the Traditional Owners of this land, and offer our respect to the past and present Elders and through them to all Aboriginal and Torres Strait Islander People.

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# Abbreviations & Glossary

## ABBREVIATIONS

BIM	Biodiversity Interactive Map
CASS	Coastal Acid Sulfate Soils
CHMP	Cultural Heritage Management Plan
DEPI	Department of Environment and Primary Industries
DPCD	Department of Planning and Community Development
DTPLI	Department of Transport Planning and Local Infrastructure
EVC	Ecological Vegetation Classes
EPA	Environment Protection Authority
ETP	Eastern Treatment Plant
GWMP	Green Wedge Management Plan
HO	Heritage Overlay
IN2Z	Industrial 2 Zone
LPPF	Local Planning Policy Framework
OAAV	Office of Aboriginal Affairs Victoria
PBN	Principal Bicycle Network
PC PAN	Post Closure Pollution Abatement Notice
PPF	Planning Policy Framework
SEGW	South East Green Wedge
SPPF	State Planning Policy Framework
UGB	Urban Growth Boundary
VITM	Victorian Integrated Transport Model
VPO	Vegetation Protection Overlay

## GLOSSARY

Clarke Road precinct	The northern portion of Green Wedge land in the City of Greater Dandenong in Springvale South.
Ecological Vegetation Classes	The standard unit for classifying vegetation types in Victoria.
Fluvial	Produced by the action of a river or stream.
Gateway	A place of entry, or a point of transition from one situation to another, primarily marking place.
Greater Dandenong Green Wedge	Study area for this project which consists of the South East Green Wedge in the City of Dandenong.
Greater Dandenong Planning Scheme	A legal document that sets out policies and provisions for the use, development and protection of land use in Greater Dandenong. It contains State and local planning policies, zones and overlays and other provisions that affect how land can be used and developed. It indicates if a planning permit is required to change the use of land, or to construct a building or make other changes to the land.
Green Wedge	Non-urban areas of metropolitan Melbourne which lie outside the Urban Growth Boundary and were created to provide relief from continuous development and safeguard areas for agriculture, biodiversity, recreation, open space, natural resources, heritage and landscape conservation.



Green Wedge Management Plan (GWMP)	A strategy that identifies the vision, objectives and actions for the sustainable development and management of a Green Wedge.	State Planning Policy Framework (SPPF)	Comprises general principles for land use and development in Victoria. It sets visions, objectives, strategies and decision guidelines that must be taken into consideration by local Councils when making a planning decision.
Main portion of the Greater Dandenong Green Wedge	The main portion of Green Wedge land in the City of Greater Dandenong, located at the southern end of the municipality in Keysborough, Bangholme and Lyndhurst.	Zones	Relates to a particular use and is associated with a specific purpose such as residential, commercial or industrial. Each zone has policy guidelines that will describe whether a planning permit is required and set out application requirements and decision guidelines. These requirements must be considered when applying for a permit. All land is covered by a zone in Victoria.
Local Planning Policy Framework (LPPF)	Sets the local and regional strategic policy context for a municipality. It consists of the Municipal Strategic Statement and specific local planning policies.		
Overlays	Apply to specific areas to provide controls or planning provisions that address a particular issue such as environmental, landscape, heritage and flooding. These requirements operate in addition to those provided by the land's zoning.		
Planning Policy Framework (PPF)	The revised policy framework for planning in Victoria introducing structural changes and refinements to the existing SPPF. The PPF, currently under review, aims to better integrate and align local planning policies with State and regional policy.		
Pluvial	Marked or formed by abundant rainfall.		
Urban Growth Boundary (UGB)	A boundary identified in the planning scheme within which future growth and development should be contained in order to reduce urban sprawl and encourage higher densities closer to key nodes and centres.		







## Executive Summary

# Summary

## GREEN WEDGE MANAGEMENT PLAN

This Green Wedge Management Plan (GWMP) is the City of Greater Dandenong's strategy for the future of its portion of the South East Green Wedge. This consists of two areas in the municipality, as shown on Map 1 on page 10:

- a large area at the southern end of the municipality (the main portion), and
- a small area in the north of the municipality, the 'Clarke Road precinct'.

The Plan is summarised in Figure 1 opposite. It consists of a 20 year vision for the future of the Greater Dandenong Green Wedge. An overall vision is provided as well as a vision for each theme: Water, Natural Environment, Land Use, Transport & Access and Built Form & Heritage. Objectives and actions are provided for each theme to implement the Plan over the next five years after which time the objectives and actions can be reviewed.

The purpose of the 5 year review will be to adjust priorities and resources rather than to make significant changes to the vision, objectives and actions. The review may identify other issues or actions for consideration at this time or further resources required.

The Plan takes into consideration the various stakeholders responsible for the management of the Greater Dandenong Green Wedge and resources available.

Council has identified five priority objectives which are also shown opposite in bold:

- Improve flood and inundation management (A1)
- Protect existing ecological values (B1)
- Provide greater certainty to Green Wedge owners regarding the preferred land uses (C1)
- Optimise and improve the safety, function and efficiency of movement and linkages to, from and through the Greater Dandenong Green Wedge (D1)
- Maintain open, landscape-dominated vistas throughout the Greater Dandenong Green Wedge (E1)

A number of actions have been identified in the Action Plan (refer to *Appendix J*) to be achieved in the next five years. These include:

- Undertake detailed flood and inundation mapping (A1.1)
- Facilitate the undertaking of further flora and fauna assessments (B1.1)
- Prepare a 'whole of route' way finding strategy (D1.1)
- Distribute educational information to the community regarding a range of issues (this relates to multiple actions)
- Update the planning scheme to reflect this Plan (this relates to multiple actions)






The identification of 'priority objectives and actions' allows Council to focus on a small number of actions and outcomes first.

A number of actions are relevant to two or more themes and have been cross referenced in the Action Plan. Other actions are listed as needing to be undertaken in a chronological order (i.e. A3.2 cannot occur before A3.1). This ensures the actions are undertaken in a coherent manner.

While Council is not solely responsible for the management and conservation of the Greater Dandenong Green Wedge, Green Wedge Councils have been directed, through the State Government's Practice Note, to take the lead role in forming partnerships with the community, State Government Departments and other agencies to enable integrated planning across the public and private realm in these areas. However, as Council is not the primary land owner or land manager, its ability to affect change in the area is restricted to its decision-making role and other, more minor roles such as advocacy.












Figure 1: Summary of the Plan's key elements

Vision Review in 20 years	The Greater Dandenong Green Wedge will provide a green, spacious relief from surrounding urban development. It will support a range of activities— agriculture, water treatment, recreation, education, and rural living – that are carefully located and designed to respect the important environmental, cultural heritage, water management, landscape, and amenity values and functions of the region.				
	WATER	NATURAL ENVIRONMENT	LAND USE	TRANSPORT & ACCESS	BUILT FORM & HERITAGE
	Water processes are managed to support environmental values, enhance amenity and recreational opportunities, improve water quality, and protect infrastructure assets and private property.	Indigenous vegetation provides a rich and connected habitat for fauna that supports the biodiversity of the broader metropolitan area with priority given to the protection and management of ecological areas of highest value.	Land uses are carefully located and managed to be consistent with the values and functions of the Greater Dandenong Green Wedge.	The movement network supports vehicles and active transport in a safe, efficient and legible manner.	Cultural heritage and landscape values are understood and respected.
Themes Review in 20 years					
Priority Objectives	<p>Improve flood and inundation management.</p> <p>Improve water quality within and downstream of the Greater Dandenong Green Wedge.</p> <p>Reinstate and reconnect natural waterways.</p> <p>Enhance the role of the Greater Dandenong Green Wedge as a water management asset.</p>	<p>Protect existing ecological values.</p> <p>Enhance ecological values and improve connectivity.</p> <p>Increase community awareness through education and involvement in ecological improvements.</p>	<p>Provide greater certainty to Green Wedge owners regarding the preferred land uses.</p> <p>Support the expansion and diversification of agricultural activity.</p> <p>Protect the ongoing viability of regionally significant assets.</p> <p>Ensure new uses do not adversely impact on existing land uses or compromise the establishment of future preferred land uses.</p> <p>Facilitate better land management.</p> <p>Strengthen and promote the educational, recreational, sporting and cultural role.</p> <p>Manage risks associated with potential soil and water contamination.</p>	<p>Optimise and improve the safety, function and efficiency of movement and linkages to, from and through the Greater Dandenong Green Wedge.</p> <p>Advocate for better public transport coverage.</p>	<p>Maintain open, landscape-dominated vistas throughout the Greater Dandenong Green Wedge.</p> <p>Identify, protect and promote existing heritage values.</p>
Objectives Review in 5 years	<h3>Actions</h3> <p><i>Found in the body of the Plan at the end of the chapter for each theme</i></p> <p>Review in 5 years</p>				

MAP 1: SPATIAL ELEMENTS OF THE PLAN

LEGEND

-  Study Area
-  Green Wedge precincts
-  Minimum subdivision area (hectares)
-  Proposed Green Wedge A Zone (C1.1 & C1.2)
-  Proposed Public Park & Recreation Zone (C1.3)
-  Improve flood and inundation management (A1)
-  Protect existing ecological values (B1)
-  Advocate for upgrades to the arterial road network (D1.7)
-  Protect and promote existing heritage values (E2)

Provide greater certainty to Green Wedge owners regarding the preferred land uses (C1):

Preferred land use by precinct

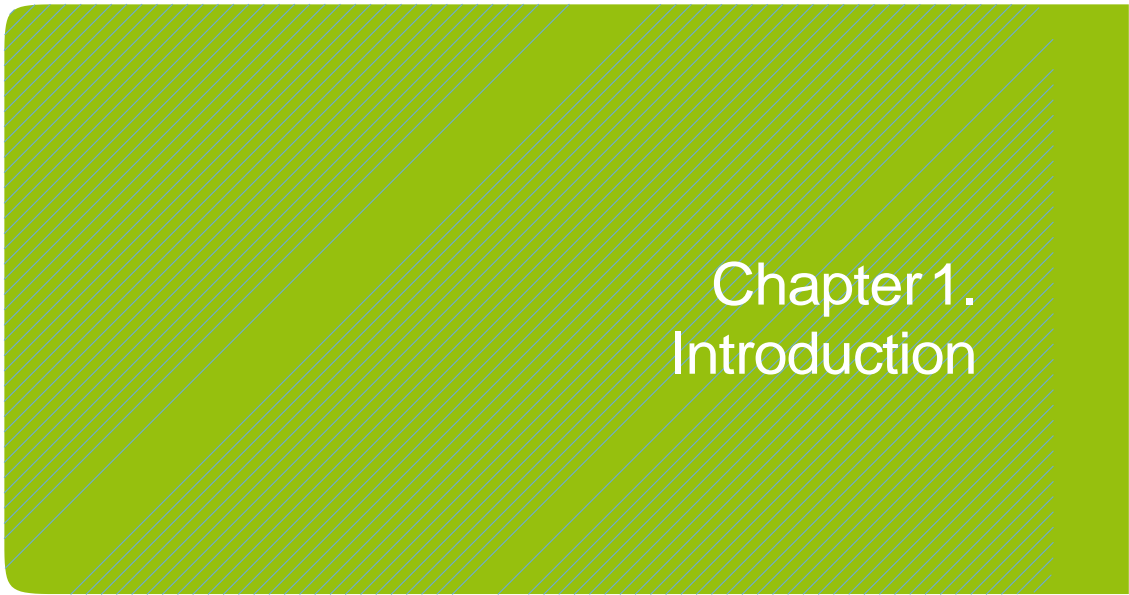
-  Uses of benefit to surrounding community
-  Recreation, or rural living in a park like environment
-  Open space, recreation, rural living & less intensive agricultural uses
-  Agriculture, other rural uses, open space, recreation uses
-  Waste water treatment & provision of recycled water
-  Agriculture, other rural uses, open space & recreation
-  Agriculture, other rural uses, open space & low scale community institutional, recreational & tourism-related uses



0 2 kms





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## Chapter 1. Introduction

# Introduction

## 1.1 WHAT IS A GREEN WEDGE?

Green Wedges are the non-urban areas of metropolitan Melbourne that lie outside the Urban Growth Boundary. There are 12 designated Green Wedge areas, spanning 17 municipalities, which collectively form a ring around the city. They are a legacy of the visions and planning decisions of the past, having first been proposed in planning strategies in the 1960s.

The vision for the Green Wedges is to encourage their proper management and to protect them for non-urban uses. Located in between defined growth areas, these non-urban areas are designed to provide relief from continuous development. They were created to safeguard areas for agriculture, biodiversity, recreation, open space, natural resources, heritage and landscape conservation and to preserve locations for service industries and infrastructure away from urban uses such as the airport, freeway reservations, quarries and waste management operations. The management of Melbourne's Green Wedges needs to be tailored to each of the Green Wedges individual features.

The City of Greater Dandenong (Greater Dandenong) Green Wedge is located in the middle of the broader 'South East Green Wedge' which extends from Clarinda in the City of Kingston, to Cranbourne South in the City of Casey.



Figure 2: Melbourne's Green Wedges

Source: DTPLI, 2014



## 1.2 WHAT IS A GREEN WEDGE MANAGEMENT PLAN?

A Green Wedge Management Plan (GWMP) is a Council adopted strategy that identifies the vision, objectives and actions for the sustainable development of each Green Wedge. All Green Wedges should have a Management Plan to provide clear land management direction for the area and the process for developing such a plan is outlined in a State Government Practice Note<sup>1</sup>. The process must include extensive engagement with all stakeholders, including land owners, businesses and residents in a Green Wedge. All interested parties are to have the opportunity to input into the vision and objective setting of a GWMP, as well as comment on a draft version of the plan.

The plan should provide the Council, land owners, business operators and residents with certainty about the future of the Green Wedge and all the land within it. Relevant government authorities should be involved in the process and the plan should be implemented through the planning scheme (through the Local Planning Policy Framework), as well as other mechanisms and processes, to provide it with statutory weight. A GWMP must provide justification for any necessary change to a municipal Planning Scheme.

The principles that are required to underpin preparation of a Green Wedge Management Plan are:

- Consistency with relevant State Government policies and strategies;
- A common basis for the preparation of the plan;
- A well informed, inclusive plan preparation process;
- A common approach to the preparation of all plans; and
- Involvement of stakeholders and landowners.

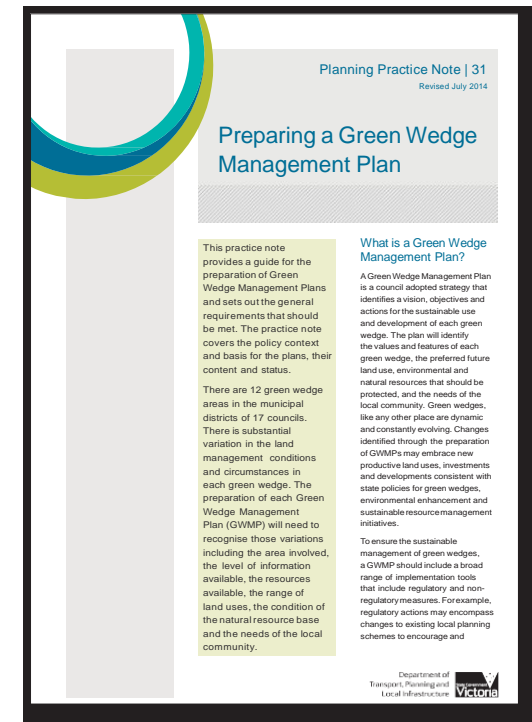


Figure 3: State Government Planning Practice Note 31

*A General Practice Note has been produced by the State Government to guide the preparation of Green Wedge Management Plans.*

<sup>1</sup> Planning Practice Note 31: *Preparing a Green Wedge Management Plan*, DTPLI (2014)

# Introduction

## 1.3 WHY DO WE NEED A GREEN WEDGE MANAGEMENT PLAN?

The City of Greater Dandenong adopted a planning policy for its Green Wedge in 2002. This policy has provided guidance for the area over the period since, however it is now outdated and requiring review. Department of Transport, Planning and Local Infrastructure's (DTPLI) 2014 Planning Practice Note 31: *Preparing a Green Wedge Management Plan* highlights the need for management plans to ensure the proper management and protection of each of Melbourne's 12 designated Green Wedges.

In 2008, the DPCD (now DTPLI) in conjunction with the Councils with responsibility for the South East Green Wedge (SEGW) prepared a Background Report and an Issues Paper intended to form a base of information to enable preparation of the Green Wedge Management Plan for the South East Green Wedge (SEGW).

Recognising the urgent need to update its local policy and provide strategic direction for this highly significant portion of its City, the City of Greater Dandenong has chosen to prepare a plan for the part of the South East Green Wedge within its municipal boundaries. The City of Kingston has prepared its own Plan for its section of the South East Green Wedge.

A variety of pressures highlight the urgency of this project. These include ongoing pressure to expand the Urban Growth Boundary, changes to existing land uses, flooding issues, a desire to enhance recreation links, demand for more public open space, the need to improve water management, and a variety of environmental issues.

## 1.4 STUDY AREA

The Study Area, known as the 'Greater Dandenong Green Wedge' comprises all land outside the Urban Growth Boundary within the City of Greater Dandenong, covering a total of approximately 3,740 hectares (29% of the total area of the municipality). The main portion of the Greater Dandenong Green Wedge, in the south of the municipality, extends roughly from Hutton/Perry/Glasscocks Road to Thompsons Road and is bounded by the Mornington Peninsula Freeway to the west, and Westernport Highway to the east. It includes parts of the suburbs of Keysborough, Bangholme and Lyndhurst. The northern-most portion, the 'Clarke Road precinct', is centred around Clarke Road between Westall, Springvale and Heatherton Roads in Springvale South.

The majority of the Greater Dandenong Green Wedge is in private ownership. It includes many facilities and land uses of strategic importance to the surrounding region and to the wider metropolitan area, including:

- The Eastern Treatment Plant and related odour buffers (economic and environmental values)
- Areas of landscape and environmental significance (social and environmental values)
- Areas with potential for waste-water recycling (economic and environmental values)
- Designated odour and safety buffers near Dandenong South industrial area (economic, environmental and social values)
- Locations with productive agricultural potential (economic value)



MELBOURNE

Phillip Bay

- LEGEND**
- South East Green Wedge
  - Other Green Wedge Land
  - Urban Growth Boundary (UGB)
  - Greater Dandenong Local Government Area
  - Other Local Government Areas
  - Existing Waterways

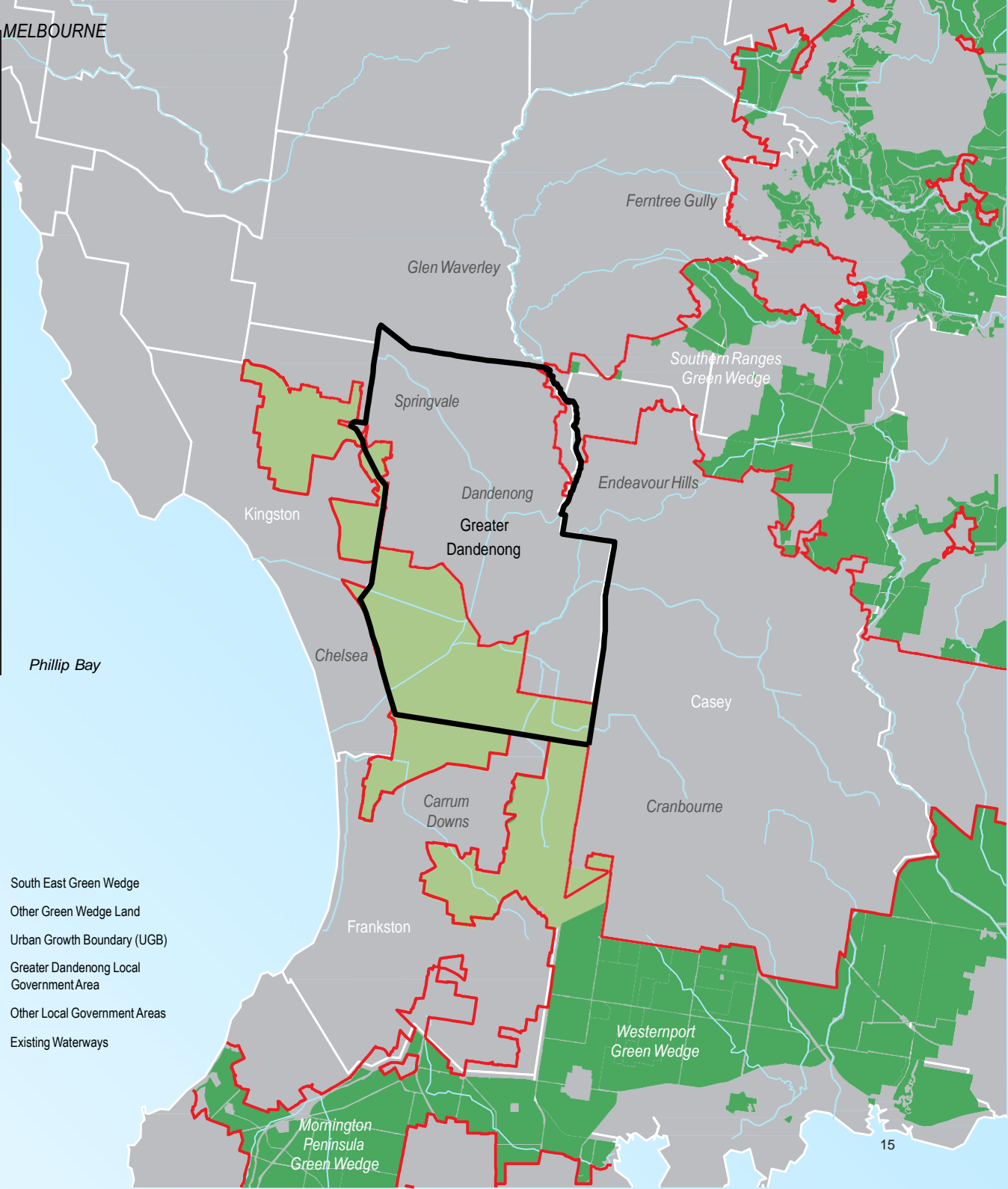
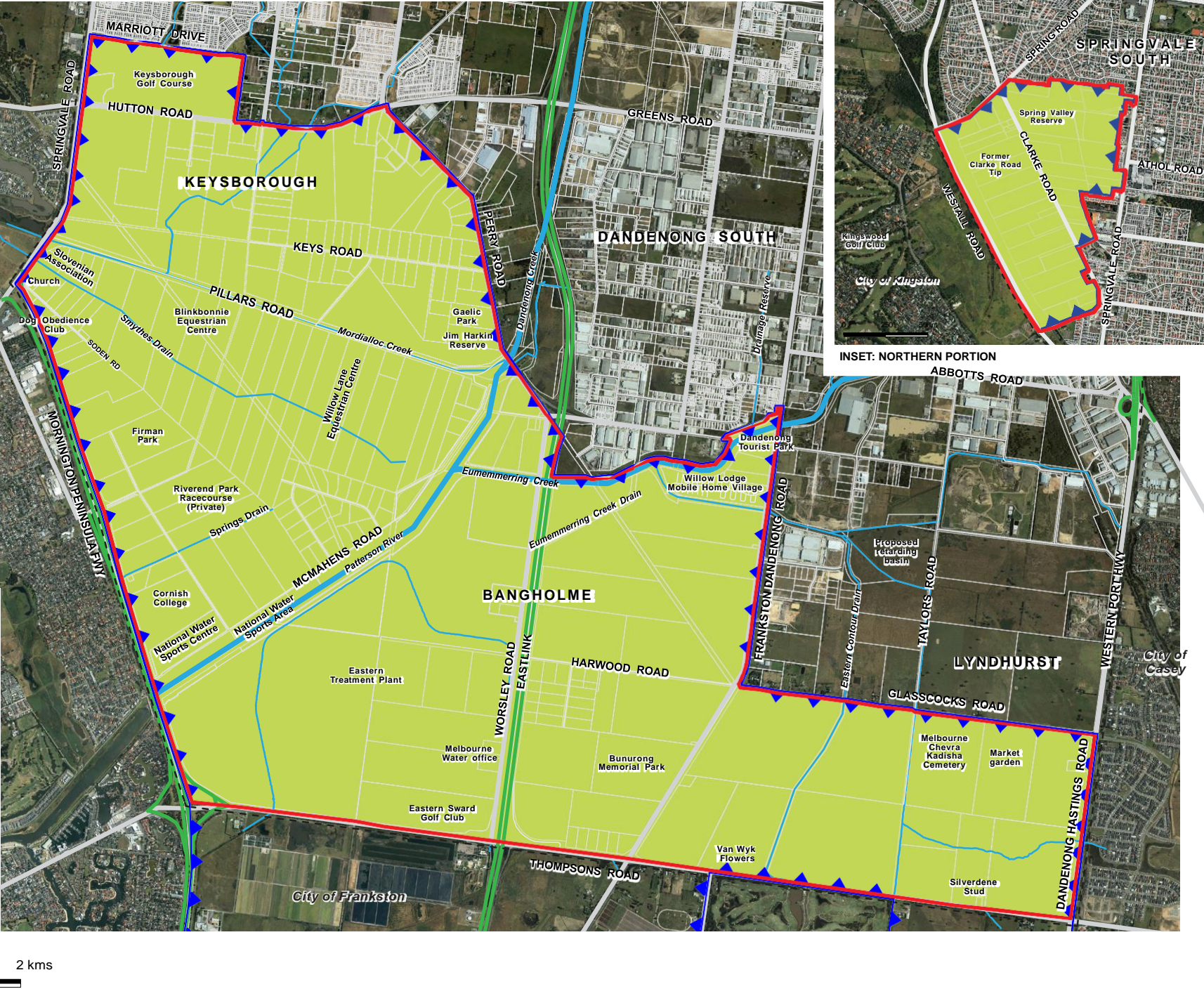


Figure 4: Context Map



MAP 2: STUDY AREA





# Introduction

## 1.5 PROJECT AIMS & OBJECTIVES

The Greater Dandenong Green Wedge Management Plan has been developed and guided by the following aim:

**The Greater Dandenong Green Wedge needs a clear vision for its future – a vision that builds on the strengths of its varied assets and has the support of its major stakeholders and the wider community.**

The purpose of the Plan is to provide direction for all land within the Green Wedge and propose planning scheme controls and other measures to achieve the following key project outcomes:

- A clear vision, role and purpose for the Green Wedge.
- Identification of environmental values and features that should be protected and enhanced.
- A strategic direction for land use and development, consistent with government policies and strategies.
- A clearly articulated strategic direction through the Planning Scheme and associated planning controls.
- Sustainable land management practices and appropriate resource management for the long term viability of the Green Wedge.

- An understanding of the expectations and needs of land owners and the wider community.
- A clear monitoring and review process to ensure the Plan remains relevant.
- Consideration of the rural zoning changes introduced by the Minister for Planning as of 1 July 2013.
- Future integration of the Greater Dandenong Green Wedge Management Plan with relevant plans in the Cities of Kingston, Frankston and Casey.

By setting clear directions on future land use, this document is designed to provide a framework on which decision making for the area can be based; providing greater certainty for landholders, developers and the community.

Importantly, the Plan will in no way consider any revisions or changes to the Urban Growth Boundary (UGB). This issue has been investigated through the 'Anomalies' process, and alterations to the UGB are considered a State Government matter. The existing UGB forms the boundary of the Greater Dandenong Green Wedge study area.

## 1.6 PROJECT PROCESS

The Green Wedge Management Plan is the result of a two year process including two rounds of community engagement, as outlined in the diagram to the right.

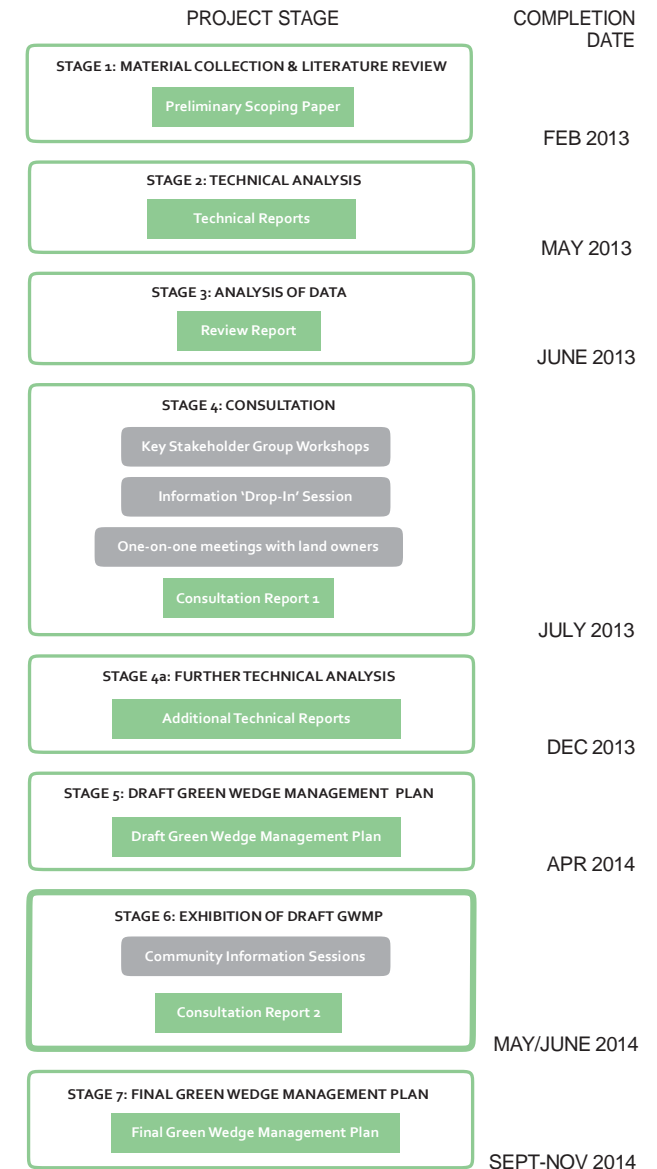


Figure 5: GWMP Process Diagram

# Introduction

## 1.6 CONSULTATION

The involvement of and consultation with various stakeholders including private land owners and occupiers, organisations and government departments, and service authorities is a fundamental component of the preparation of the Plan.

Two stages of consultation occurred as part of the project, as outlined below.

### ISSUES CONSULTATION (STAGE 4)

Stages 1-3 resulted in the preparation of a Review Report to highlight the study teams initial background investigations and findings relating to issues and opportunities facing the Green Wedge.

On Tuesday 23rd July 2013, workshops were held with key stakeholders and on Tuesday 30th July 2013, an Information 'Drop-In' Session was held at Council's former offices in Dandenong which was open to the community. One-on-one interviews were also held with land owners during the Drop-In Session. The purpose of the consultation was to seek public input into the issues that the GWMP should address, as well as to hear ideas and aspirations regarding the long-term use of the Green Wedge.

### DRAFT GWMP CONSULTATION (STAGE 6)

The Draft GWMP was on exhibition for a 6 week period between 28 April and 13 June 2014. Two Information 'Drop-In' Sessions were held in May at Council offices in Lonsdale Street, Dandenong. Submissions in response to the Draft GWMP could be made by mail (by letter or

completed feedback form), email or online survey. The purpose of this consultation was to seek feedback on the content of the Draft GWMP.

The feedback received has helped to inform preparation of the Plan. Further detail relating to 'What We've Heard' from the community and other stakeholders is provided throughout this GWMP under each of the five key themes as well as in the Vision and Implementation chapters.

## 1.7 STRUCTURE OF THIS REPORT

The GWMP is structured around five key themes including:

- Chapter 3: Drainage & Water Management
- Chapter 4: Natural Environmental
- Chapter 5: Land Use
- Chapter 6: Transport & Access
- Chapter 7: Built Form & Heritage

Chapter 2 provides a vision for the future of the Greater Dandenong Green Wedge.

Chapter 8 discusses the implementation of the project.

## 1.8 SUPPORTING TECHNICAL ANALYSIS

As part of the preparation of the GWMP, a range of specialist consultants were engaged to provide expert analysis and information relating to the various themes, as outlined above. These consultants consisted of:

Drainage & Water Management: Alluvium

Natural Environment: Biosis

Land Use Economics: Urban Enterprise

Agricultural Land Use: RMCG Consulting

Transport & Access: GTA Consultants

Cultural Heritage: Benchmark Heritage Management

The outcomes of the various technical analyses have formed the basis of the analysis and recommendations provided in the GWMP. Copies of the various technical reports can be found in the appendices to this GWMP.



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## Chapter 2. A Vision for the Green Wedge

# A Vision for the Green Wedge

## 2.1 KEY INFLUENCES

### STRATEGIC CONTEXT

State and local planning policies and studies provide the strategic context within which the Greater Dandenong Green Wedge Management Plan needs to be considered. A short summary of the key strategic documents is provided below.

Numerous other State and local policies and plans have provided background information and strategic input into the development of the Green Wedge Management Plan. A full list of documents with relevance to the Greater Dandenong Green Wedge is contained in *Appendix A: Existing Policy Context*.

#### PLAN MELBOURNE: METROPOLITAN PLANNING STRATEGY (2014)

In 2014, the Premier, Minister for Planning and Minister for Transport launched *Plan Melbourne*, a 50 year planning strategy for metropolitan Melbourne. The plan emphasises the need to establish a permanent metropolitan urban boundary to protect the values of non-urban land, including opportunities for productive agricultural activities and the protection of significant landscapes. It identifies the potential for Green Wedge areas to enhance the food production capability of metropolitan Melbourne and protect significant water and sewerage assets, including the Eastern Treatment Plant (ETP).

A key pillar of *Plan Melbourne* is the introduction of the 'State of Cities' concept, which has the objective to 'maximise the growth potential of Victoria which [will]

deliver choice, opportunity and global competitiveness'. The State of Cities will strengthen the connections and linkages both within Victoria and metropolitan Melbourne by integrating regional growth plans. Underpinning this integration is the need to deliver a permanent boundary around Melbourne.

*Plan Melbourne* identifies the need to 'lock in' an urban growth boundary in order to secure the future use of green wedges and their surrounding peri-urban regions for agricultural, biodiversity, open space and heritage related uses. It defines Green Wedges as:

*'Open landscapes around Melbourne's outskirts, originally set aside in the 1970s to conserve rural activities and significant natural features from Melbourne's outward growth. Green wedges are defined in the Planning and Environment Act 1987 as land outside the Urban Growth Boundary, as described in a metropolitan fringe local government planning scheme'.*

*Plan Melbourne* further recognises the potential for green wedges throughout Melbourne to be well-placed to take advantage of global food trends due to their temperate, climate, high quality soils and agricultural potential.

Immediately adjoining the Greater Dandenong Green Wedge to the north and east is Dandenong South, which *Plan Melbourne* recognises as a state significant industrial precinct and National Employment Cluster.

*Plan Melbourne* aims to deliver an expanded central city that links national employment clusters and state significant industrial precincts through an enhanced transport network. Known as 'the Integrated Economic Triangle', *Plan Melbourne* outlines its objectives to connect the Hastings - Dandenong Corridor with the Hume corridor to the north and the Wyndham - Geelong corridor to the south-west.

*Plan Melbourne* recognises that sensitive and incompatible uses are encroaching on the Eastern Treatment Plant which may result in risks to urban amenity and health.

The plan also acknowledges the role and importance of agriculture within the Victorian economy and includes objectives to protect and enhance agricultural production.

#### PREPARING A GREEN WEDGE MANAGEMENT PLAN PLANNING PRACTICE NOTE

The State Government's Planning Practice Note 31: *Preparing a Green Wedge Management Plan* has been used to guide the preparation of this plan. It has informed the structure of the plan, its process and its recommendations.

## KEY INFLUENCES Cont...

### GREEN WEDGE PLANNING PROVISIONS PLANNING PRACTICE NOTE

The State Government's Planning Practice Note 62: *Green Wedge Planning Provisions* provides information and advice regarding:

- Part 3AA of the Planning and Environment Act 1987
- Core Planning Provisions for Metropolitan Green Wedge Land
- The application of zones to green wedge land in the context of the reformed rural zones September 2013

### UGB ANOMALIES ADVISORY COMMITTEE REPORT

In 2011 The Minister for Planning appointed the Urban Growth Boundary (UGB) Anomalies Advisory Committee (the Committee) to provide advice on the suitability of including sites identified by non-growth area Councils as significant anomalies to the Urban Growth Boundary. The committee recommended that three sites within the study area be included in the UGB applying the Residential 1 Zone (now General Residential Zone): 159-171 and 173-191 Clarke Road, Springvale South, 462 Springvale Road and 81-143 Clarke Road and 516-522 Springvale Road.

In addition the Committee considered a 337ha site within the Green Wedge Zone defined as the "Bangholme Precinct", bounded by Eumemmerring Creek, Frankston Dandenong Road, Harwood Road

and EastLink. The Committee resolved to not include the "Bangholme Precinct" within the UGB as it did not constitute a 'planning anomaly', but instead represented a major policy change which was beyond the scope of the Committee. The Committee recommended that the possibility of an urban future for the area should be further investigated via the Council's Green Wedge Review (this Plan).

As part of this project it was recognised that further investigation and study is needed to look at industrial land supply and demand across the CGD municipality in general. Council will look to commence the Industrial Change and Demand Study and Review of Commercial Zones project shortly. Expectations of urban development replacing existing uses are not the purpose of the Plan.

### SOUTH EAST GREEN WEDGE ISSUES PAPER

In 2008, the Department of Planning and Community Development (DPCD) (now Department of Transport, Planning and Local Infrastructure) in conjunction with the Councils with responsibility for the South East Green Wedge (SEGW) prepared a Background Report and an Issues Paper for the South East Green Wedge. The paper provides a collection of information and analysis for the South East Green Wedge in the Cities of Kingston, Greater Dandenong, Frankston and Casey. The Background Report and Issues Paper has provided a useful starting point for the development of the Greater Dandenong Green Wedge Management Plan.



Figure 6: "Bangholme Precinct" from UGB Anomalies Report

*The Committee resolved not to include this precinct within the Urban Growth Boundary (UGB) because it did not constitute a 'planning anomaly'.*



# A Vision for the Green Wedge

## KEY INFLUENCES Cont...

### ENVIRONMENTAL SUSTAINABILITY STRATEGY 2010

The City of Greater Dandenong's Environmental Strategy (2010) sets goals, objectives and priorities for action to reduce the municipality's environmental impacts and provide environmental leadership. This includes the protection of flora and fauna, improvements to water quality in waterways and making it easier to walk and cycle in the municipality. The State of the Environment report is the key reporting mechanism for this strategy.

### STATE OF THE ENVIRONMENT REPORT 2012-2013

The State of the Environment 2012-2013 (2013) report for Greater Dandenong provides an assessment of environmental trends and the municipality's environmental performance. The report highlights the poor to moderate quality of the waterways throughout the Green Wedge, as well as the adverse impact of increased residential and industrial land in Dandenong South and Keysborough on the remaining remnant vegetation in these areas.

## STATUTORY CONTEXT

### STATE PLANNING POLICY FRAMEWORK (SPPF)

The State Planning Policy Framework (SPPF) contains the overarching state policy on Green Wedges at Clause 11.04-7. This Policy objective is to protect the Green Wedges of Metropolitan Melbourne from inappropriate development. Relevant Green Wedge strategies from the SPPF include:

- Ensure strategic planning and land management of each Green Wedge area to promote and encourage its key features and related values.
- Support development in the Green Wedge that provides for environmental, economic and social benefits.
- Consolidate new residential development within existing settlements and in locations where planned services are available and Green Wedge area values can be protected.
- Plan and protect major transport facilities that serve the wider Victorian community, such as airports and ports with their associated access corridors.
- Protect important productive agricultural areas such as Werribee South, the Maribyrnong River flats, the Yarra Valley, Westernport and the Mornington Peninsula.
- Protect areas of environmental, landscape and scenic value.
- Protect significant resources of stone, sand and other mineral resources for extraction purposes.

### LOCAL PLANNING POLICY FRAMEWORK (LPPF)

Local planning policies contained in the Greater Dandenong Planning Scheme reinforce the State policy directions by seeking to protect and reinforce the existing rural landscape typology, restore the ecological functions and values of the area and ensure that development responds positively to the existing rural landscape and typology. The key local planning policy relevant to this Plan is Clause 22.02 Green Wedge Local Planning Policy.

## KEY INFLUENCES Cont...

### PLANNING SCHEME ZONES

Planning scheme zones control the uses that can occur on land, and overlays generally control the form that the development may take. The Green Wedge is controlled by the Greater Dandenong Planning Scheme.

#### Green Wedge Zone (GWZ)

The majority of the study area (64%) is within the Green Wedge Zone (approximately 2,401ha). The Green Wedge Zone provides opportunity for agricultural uses and limits non-rural uses to those that either support agriculture or tourism, or that are essential for urban development but cannot locate in urban areas for amenity and other reasons (such as treatment plants and landfills).

The Greater Dandenong Planning Scheme states that the purpose of the Green Wedge Zone is:

- To provide for the use of land for agriculture;
- To recognise, protect and conserve Green Wedge land for its agricultural, environmental, historic, landscape, recreational and tourism opportunities, and mineral and stone resources;
- To encourage use and development that is consistent with sustainable land management practices;
- To encourage sustainable farming activities and

provide opportunity for a variety of productive agricultural uses;

- To protect, conserve and enhance the cultural heritage significance and the character of open rural and scenic non-urban landscapes; and
- To protect and enhance the biodiversity of the area.

The Schedule to the Green Wedge Zone specifies a minimum subdivision area of 40ha, except for all land north of Mordialloc Creek and south of Hutton Road where a minimum lot size of 6ha is specified, and all land north of Hutton Road and the Clarke Road precinct where a minimum lot size of 4ha applies.

#### Public Use Zone (PUZ)

Land in the Green Wedge contains two Public Use Zones:

- PUZ1 (Service & Utility) applies to the Eastern Treatment Plant.
- PUZ5 (Cemetery/crematorium) applies to Bunurong Memorial Park and the Melbourne Chevra Kadisha Cemetery.

The purpose of the zone is to recognise public land use for public utilities and community services and facilities.

#### Urban Floodway Zone (UFZ)

The Urban Floodway Zone applies to the Patterson River, Mordialloc Creek and Eumemmerring Creek and adjoining land. The purpose of the zone is to identify waterways within urban areas which have the greatest risk and frequency of being affected by flooding, and to protect water quality and waterways as natural resources.

#### Public Park and Recreation Zone (PPRZ)

The Public Park and Recreation Zone applies to the majority of the northern portion of the Green Wedge, covering the area of land known as Spring Valley Reserve.

#### Special Use Zone (SUZ)

The Special Use Zone 2 applies to a small portion of land in the northern section of the Green Wedge, adjoining Spring Valley Reserve. The land is part of the buffer zone of the former Clarke Road landfill and covers approximately 4.2ha. The purpose of the zone is to provide interim use of the land compatible with the use and development of nearby land.

The Special Use Zone 6 applies to Cornish College. The purpose of SUZ6 is to provide for the continued use and development of land for the purpose of an

# A Vision for the Green Wedge

## KEY INFLUENCES Cont...

education centre and child care centre (kindergarten) in accordance with the *Cornish College Master Plan 2014-2024*. Additionally SUZ6 seeks to ensure development is consistent with sustainable management practices and protects and enhances the biodiversity of the area.

### Green Wedge A Zone (GWAZ)

The Green Wedge A Zone does not currently apply to the study area. The purpose of the GWAZ however is to provide for the use of land for agriculture, protect and enhance biodiversity, environmental and heritage features of the area and to ensure that the amenity of existing rural areas is protected.

### PLANNING SCHEME OVERLAYS

There are a number of planning scheme overlays that apply to specific portions of the Greater Dandenong Green Wedge including:

- Environmental Significance Overlay (ESO3): Eastern Treatment Plant Buffer Area;
- Land Subject to Inundation Overlay (LSIO);
- Heritage Overlay (HO); and
- Public Acquisition Overlay (PAO).

More detail relating to planning scheme overlays is provided in *Appendix A: Existing Policy Context*.

### OTHER PLANNING SCHEME PROVISIONS

Clause 57 applies to metropolitan green wedge land and seeks to protect it from uses and development that would diminish its values. It also aims to:

- Protect productive agricultural land from incompatible uses and development;
- Ensure the scale of use is compatible with the non-urban character of metropolitan green wedge land;
- Encourage the location of urban activities in urban areas;
- Provide transitional arrangements for permit applications made to the responsible authority before 19 May 2004; and
- Provide deeming provisions for metropolitan green wedge land.

The Core Planning Provisions within Clause 57 set out prohibitions and restrictions on certain uses and the subdivision of non-urban land outside the Urban Growth Zone.




The provision generally applies to land zoned Green Wedge, Green Wedge A, Farming, Rural Activity, Rural Conservation, Special Use.

In Greater Dandenong, the schedule to the clause lists Special Use Zone Schedule 6 (Cornish College) as an area where this provision does not apply.





MAP 3: EXISTING ZONES

LEGEND



-  Study area
-  Urban Growth Boundary (UGB)
-  City of Greater Dandenong boundary

EXISTING ZONES




Rural

-  Green Wedge Zone (GWZ)
-  Farming Zone (FZ)



Special Purpose

-  Urban Floodway Zone (UFZ)
-  Special Use Zone (SUZ)



Industrial

-  Industrial 1 Zone (IN1Z)
-  Industrial 2 Zone (IN2Z)
-  Industrial 3 Zone (IN3Z)



Public Land

-  Public Use Zone (PUZ) - Transport
-  PUZ1 Public Use Zone - Service & Utility
-  PUZ5 Pulic Use Zone- Cemetery/ Crematorium
-  Road Zone - Category 1 (RDZ1)
-  Road Zone - Category 2 (RDZ2)
-  Public Park & Recreation Zone (PPRZ)
-  Public Conservation & Resource Zone (PCRZ)

Residential

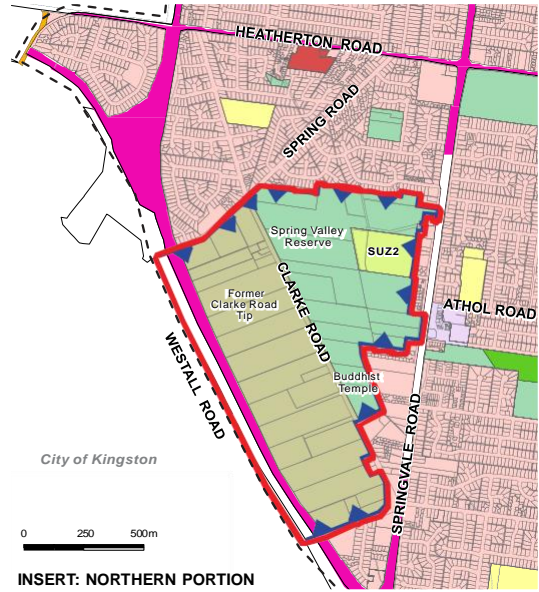
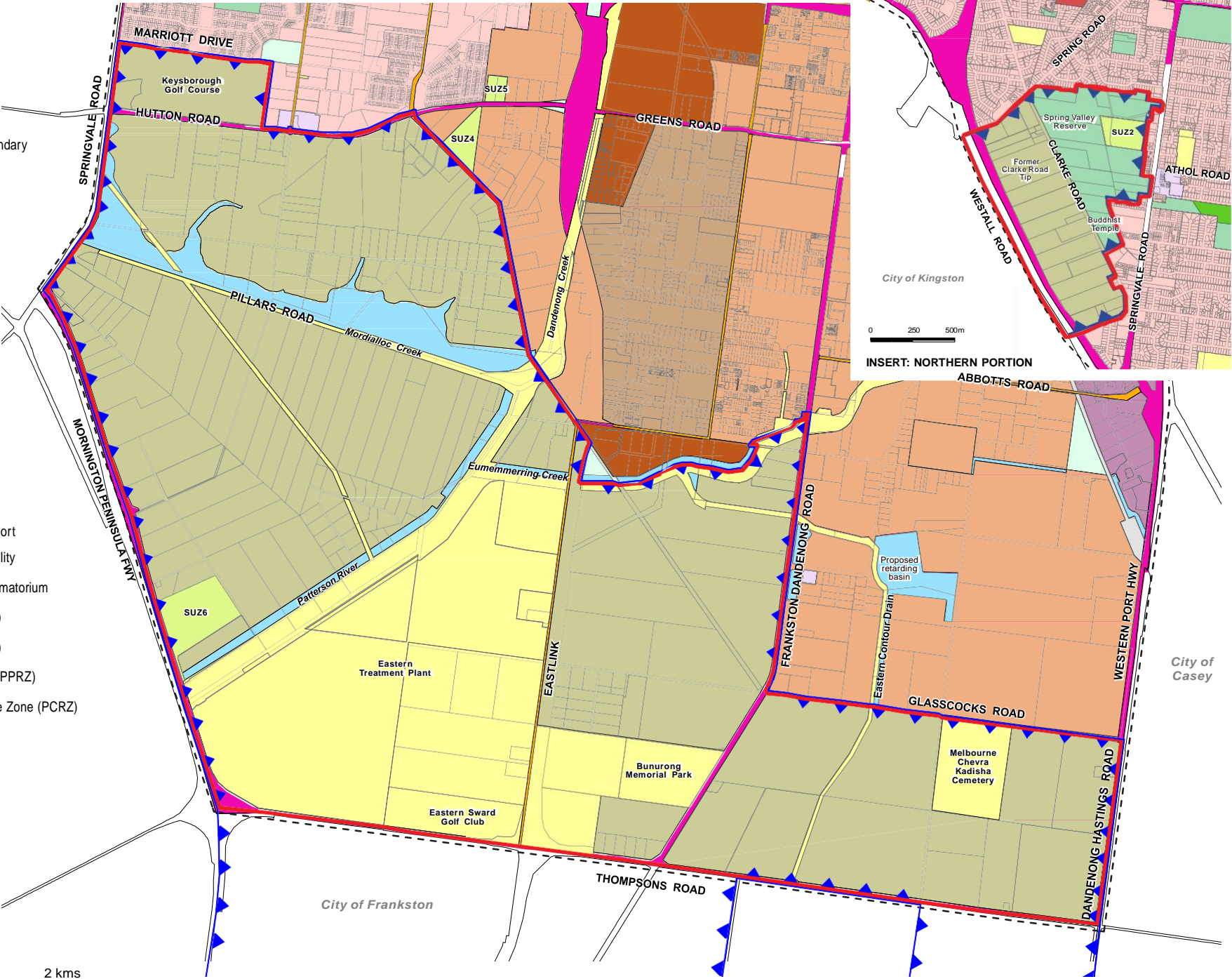
-  General Residential Zone (GRZ)
-  Mixed Use Zone (MUZ)

Commercial

-  Commercial 1 Zone (C1Z)
-  Commercial 2 Zone (C2Z)



0 1 2 kms



# A Vision for the Green Wedge

## KEY INFLUENCES Cont...

### REFORMED ZONES FOR VICTORIA

Planning zones in Victoria have recently been reformed and updated. The zone reforms simplify requirements, allow a broader range of activities to be considered, and change the range of zones that can apply in some instances.

As part of the State Government zones review and reform process, a number of changes were made to the Green Wedge Zone, which applies to 64% of the GWMP study area. Changes to the Green Wedge Zone included:

- New purpose statement to provide for the use of land for agriculture;
- Making many agricultural uses exempt from a permit requirement;
- Removing permit requirements for other uses such as primary produce sales and rural store;
- Removing the prohibition on primary and secondary schools;
- Removing the prohibition on place of assembly and including an associated condition;
- Removing the requirement for a mandatory Section 173 agreement which restricts future subdivision after an initial subdivision is approved;
- Increasing the threshold for persons that can be accommodated in a bed and breakfast from six to 10 without a permit;

- Retaining in conjunction and other related conditions for function centre, group accommodation, research and development centre, research centre, residential building, residential hotel and restaurant; and
- Including additional decision guidelines for primary and secondary schools.

The changes to the Green Wedge Zone do not represent a major policy or land use shift in the Green Wedge, but may facilitate opportunities to locate new uses within the Green Wedge, as discussed below. As the vast majority of privately owned land in the study area is within the Green Wedge Zone, this represents a significant development opportunity and the Green Wedge Management Plan needs to carefully manage these opportunities to ensure that desirable uses are supported and appropriately located, while undesirable uses are controlled and avoided where possible.

#### Schools

The revised Green Wedge Zone removes the previous prohibition on Primary and Secondary Schools, which are now included as a Section 2 Use (planning permit required).

#### Primary Produce Sales

Primary Produce Sales can now be provided without the need for a permit provided that they are not within 100 metres of a dwelling in separate ownership and the area for display and sale does not exceed 50 square metres.

#### Rural Store

Rural Store can now be provided in the new Green Wedge Zone in conjunction with agriculture. This must be the only Rural Store on a lot in a building, not a dwelling, and have a gross floor area of less than 100 square metres.

#### Accommodation, Function Centres & Restaurants

The revised Green Wedge Zone retains the following requirements for Function Centres, Group Accommodation, Residential Buildings, Residential Hotels and Restaurants:

- Need for a planning permit;
- Must be provided in conjunction with Agriculture, Outdoor Recreation Facility, Rural Industry or Winery;
- Any maximum patron, dwelling or bedroom number requirements; and
- Must be on a lot at 40 hectares (unless specified otherwise in the zone schedule).

The revised zone now allows for these uses to be provided in conjunction with natural systems.

#### Research & Development Centre

Research and Development Centres can now be provided in conjunction with an outdoor recreation facility. This use would generally locate in industrial areas, and considering the land value difference between the Green Wedge and neighbouring industrial

areas, the Green Wedge could potentially become an attractive location for this use subject to meeting the use conditions.

#### Place of Assembly

The Green Wedge Zone no longer prohibits Place of Assembly (other than Hall and Restricted Place of Assembly) and incorporates it as a Section 2 Use (permit required) on the condition that the use does not take place for more than 10 days in a calendar year. A number of uses categorised as Place of Assembly were already permitted including Exhibition Centre, Place of Worship and Function Centre.

## 2.2 SCENARIOS

In the development of the Green Wedge Management Plan, a range of scenarios for the future of the main portion of the Greater Dandenong Green Wedge were considered and tested.

The broad scenarios are:

1. Maintain current management
2. Improve the environment
3. Prioritise subdivision and development

Feedback received through public consultation to date has been diverse in relation to desired levels of development in the area. This diversity is reflected in the scenarios. Scenarios 1 and 2 reflect community desires to preserve the Green Wedge as a landscape, agricultural and 'green' break. Scenario 3 reflects desires for further subdivision for residential development which are most common west of Patterson River and advocated for a range of subdivision sizes between 0.4ha and 12ha.

The scenarios were used to assess the impacts of the different potential outcomes on the Green Wedge, particularly in relation to future drainage and water management. They are presented for the purpose of explaining the issues and the possible implications of the adoption of a scenario or combination of scenarios in this Plan.

Evaluation of these scenarios has taken into consideration the role of the Greater Dandenong Green Wedge from both a metropolitan and local context in relation to its management over the next 100 years.

### SCENARIO 1: MAINTAIN CURRENT MANAGEMENT

This scenario is essentially a 'business as usual' scenario that acknowledges the continuing role of the Green Wedge and assumes no significant changes to the management of this area. This allows for construction of an additional 43 dwellings within the existing zone provisions. This, combined with continuing development and change in areas upstream from the Greater Dandenong Green Wedge, is likely to result in increased flooding, water logging and water quality issues as well as declines in the condition of infrastructure, agricultural productivity and rural living. Even if no additional dwellings are built, the current level of investment in local road and drainage infrastructure is unlikely to keep pace with the ongoing decline in assets. Therefore, greater and ongoing commitment will be required to maintain current standards.

This scenario recognises the expectations of existing land owners and allows for additional new uses to establish provided clear parameters are met regarding drainage, water management, traffic, parking and other planning requirements.

This scenario would allow the Green Wedge to continue to provide relief from continuous development and to protect agricultural land and production, environmental and heritage assets, the Eastern Treatment Plant and the open landscape. The recent changes to the Green Wedge Zone enable additional investment and may



# A Vision for the Green Wedge

## SCENARIOS Cont...

generate greater interest in the area due to the number of possible land uses increasing. This scenario could lead to the declining conditions of the area particularly if further investment in infrastructure improvements is not provided. A judicious application of scenario 1 could also result in improved ecological outcomes. It is unlikely to require any changes to the planning scheme.

This scenario will require continued and increased Council funding for ongoing maintenance. Some improvement may be able to be funded by development contributions but ongoing maintenance will largely be the responsibility of Council, as is presently the case.

### SCENARIO 2: IMPROVE ENVIRONMENT

This scenario would involve rehabilitation of waterways and wetlands, including the planting of native and indigenous trees. It provides for improved recreational and ecological links. It restricts the possibility to develop existing lots where residential or other uses would otherwise be possible in the future and restricts further commercial or residential development and subdivision. It may also come at the expense of existing agricultural land as land uses will focus on conservation and water management. This scenario may require the public purchase of land.

This scenario is expected to result in improved ecological outcomes, visual amenity and flood storage capacity in the area. A purely ecological focus for the Green Wedge, while more desirable environmentally, would detract from the agricultural purpose of the area. This scenario could involve modifying the planning controls in the area such as increasing the minimum lot sizes or rezoning land to Public Conservation and Resource Zone. This scenario also poses an issue of equity because it would remove development rights from existing owners with few additional direct benefits to them. The benefit of this approach would be to the wider community, including areas not within the municipality and metropolitan Melbourne as a whole.

This scenario will incur substantial incremental costs which will be borne over an extended time period. It is difficult to determine the extent of the costs for this scenario because of the varying levels of work that could be done to achieve this. In addition, the source of funding for improvements would largely be reliant on government - Council, State or Federal.

### SCENARIO 3: PRIORITISE SUBDIVISION & DEVELOPMENT

In this scenario, forms of rural living development would be allowed in the Green Wedge at a much increased level than currently. The zone provisions would need to be altered to allow for further residential development. Two variations have been considered which provide for various degrees of rural living development (1ha and 5ha subdivision). These subdivision sizes were chosen to demonstrate what could happen.

#### 5HA MINIMUM SUBDIVISION SIZE

If all properties currently zoned Green Wedge were allowed to subdivide to 5 hectare lots (with one dwelling per lot) an additional 362 dwellings could be constructed. This would require an estimated 57 kilometres of new roads and another 26 kilometres of existing roads upgraded to support increased traffic volumes. This will require additional Council funding particularly to fund the increased ongoing maintenance and renewal costs.

#### 1HA MINIMUM SUBDIVISION SIZE

Further subdivision, particularly for smaller lots, was requested most frequently west of the Patterson River. If all properties were allowed to subdivide into 1 hectare lots (with one dwelling per lot) in this area it would allow for an additional 1,200 dwellings. An estimated 64 kilometres of new roads would be required, and another 13 kilometres of existing roads would need to be

## SCENARIOS Cont...

upgraded to support increased traffic volumes. This will require additional Council funding to fund the increased ongoing maintenance and renewal costs.

### BOTH VARIATIONS

Both variations would result in significant increases in impermeable surfaces leading to vastly increased runoff, regardless of controls that might be applied for the water sensitive urban design of subdivision. Extensive water management infrastructure would be required in the form of drainage systems, retarding basins, water and urban design landscaping, elevated roadways and land fill and excavation. This scenario is expected to exacerbate existing flooding issues in the area and result in a substantially altered and managed landscape with ongoing management issues.

This scenario would require changes to planning controls which involves approval by State Government. The minimum subdivision size, specified in the schedule to the Green Wedge Zone, could be reduced to achieve this. Allowing further subdivision, however, may not be considered in keeping with the role of Green Wedge Zone. It would change the look and feel of the Green Wedge.

This scenario is expected to require costly construction and maintenance of public infrastructure. It might be possible to obtain the initial development costs for public infrastructure from the developers. However, from a practical point of view, the provision of infrastructure by the developers can only work where the full extent of all infrastructure is provided in

advance to staged and incremental lot development. A preliminary costing has found that even with a Development Contributions Plan and future rate revenue to Council, these funds are unlikely to cover the full maintenance and renewal costs that would be expected.

### CLARKE ROAD PRECINCT

Note that scenarios for the Clarke Road precinct have not been assessed in a similar manner due to the Spring Valley Reserve being in public ownership and due to the fact that the former landfill site on Clarke Road is in its aftercare period and subject to the requirements of the EPA.

## 2.3 PREFERRED SCENARIO

Broadly speaking, current management of the land (scenario 1) with elements of an ecological focus (scenario 2) is the preferred scenario for the main portion of the Greater Dandenong Green Wedge. This will ensure the area continues to provide relief from continuous development and, with investment for additional improvements, will also safeguard the values of the area including the protection of agricultural land and production, environmental and heritage assets, the Eastern Treatment Plant and the open landscape.

A purely ecological focus for the Green Wedge (scenario 2), while more desirably environmentally, would detract from the agricultural purpose of the area. This scenario also poses an issue of equity because it would remove development rights to existing owners with few additional benefits. Scenario 2 could assist in lessening the flood threat as land would remain open. A judicious application of scenario 1 could also result in improved ecological outcomes.

Scenario 3 is expected to exacerbate existing issues in the area as well as result in costly construction and maintenance of public infrastructure, and a vastly altered landscape.

# A Vision for the Green Wedge

## 2.4 VISION

An overarching vision for the Green Wedge sits over a vision for each theme considered in this report. This in turn informs the objectives and actions identified for each theme to implement the Plan. The vision will be applied for the next 15-20 years and is based on the key values that have been recognised in the area. The vision responds to the scenarios that have been considered for the main portion of the Greater Dandenong Green Wedge and was supported by the majority of submissions received as part of the draft GWMP consultation process.

The elements of the Plan: its vision, themes, objectives and actions are illustrated on the following page.

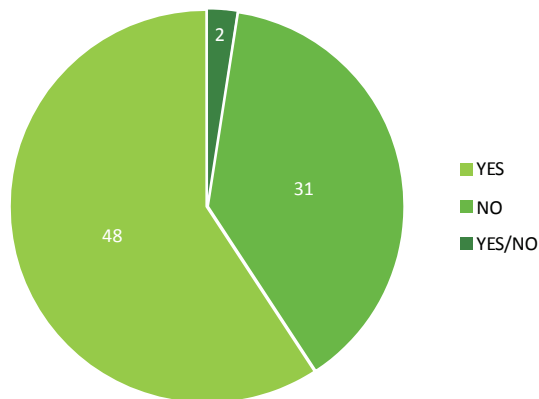







Figure 7: Responses to the question 'Do you agree with Council's vision for the Green Wedge?'

Source: Draft Greater Dandenong Green Wedge Management Plan submissions, April-June 2014

Figure 8: Summary of the Plan's key elements

<div> <div>Vision</div> <div>Review in 20 years</div> </div> <div> <div>Themes</div> <div>Review in 20 years</div> </div> <div> <div>Priority Objectives</div> <div>Review in 5 years</div> </div> <div> <div>Objectives</div> <div>Review in 5 years</div> </div>	<p>The Greater Dandenong Green Wedge will provide a green, spacious relief from surrounding urban development. It will support a range of activities— agriculture, water treatment, recreation, education, and rural living – that are carefully located and designed to respect the important environmental, cultural heritage, water management, landscape, and amenity values and functions of the region.</p>				
	<p><b>WATER</b></p> <p>Water processes are managed to support environmental values, enhance amenity and recreational opportunities, improve water quality, and protect infrastructure assets and private property.</p> 	<p><b>NATURAL ENVIRONMENT</b></p> <p>Indigenous vegetation provides a rich and connected habitat for fauna that supports the biodiversity of the broader metropolitan area with priority given to the protection and management of ecological areas of highest value.</p> 	<p><b>LAND USE</b></p> <p>Land uses are carefully located and managed to be consistent with the values and functions of the Greater Dandenong Green Wedge.</p> 	<p><b>TRANSPORT &amp; ACCESS</b></p> <p>The movement network supports vehicles and active transport in a safe, efficient and legible manner.</p> 	<p><b>BUILT FORM &amp; HERITAGE</b></p> <p>Cultural heritage and landscape values are understood and respected.</p> 
	<p>Improve flood and inundation management.</p> <p>Improve water quality within and downstream of the Greater Dandenong Green Wedge.</p> <p>Reinstate and reconnect natural waterways.</p> <p>Enhance the role of the Greater Dandenong Green Wedge as a water management asset.</p>	<p>Protect existing ecological values.</p> <p>Enhance ecological values and improve connectivity.</p> <p>Increase community awareness through education and involvement in ecological improvements.</p>	<p>Provide greater certainty to Green Wedge owners regarding the preferred land uses.</p> <p>Support the expansion and diversification of agricultural activity.</p> <p>Protect the ongoing viability of regionally significant assets.</p> <p>Ensure new uses do not adversely impact on existing land uses or compromise the establishment of future preferred land uses.</p> <p>Facilitate better land management.</p> <p>Strengthen and promote the educational, recreational, sporting and cultural role.</p> <p>Manage risks associated with potential soil and water contamination.</p>	<p>Optimise and improve the safety, function and efficiency of movement and linkages to, from and through the Greater Dandenong Green Wedge.</p> <p>Advocate for better public transport coverage.</p>	<p>Maintain open, landscape-dominated vistas throughout the Greater Dandenong Green Wedge.</p> <p>Identify, protect and promote existing heritage values.</p>
	<p><b>Actions</b></p> <p><i>Found in the body of the Plan at the end of the chapter for each theme</i></p> <p>Review in 5 years</p>				



The Greater Dandenong Green Wedge has a number of significant water related issues and constraints that impact on the suitability of the area for many land uses. However, these constraints also provide opportunities to enhance the ecological character and water related outcomes from the Greater Dandenong Green Wedge for surrounding populations and Greater Melbourne as a whole.

(Alluvium, 2013)



## Chapter 3. Drainage & Water Management



# Drainage & Water Management

## 3.1 INTRODUCTION

A large proportion of the Greater Dandenong Green Wedge is former swamp land (Carrum Carrum Swamp) as shown opposite in Figure 9 and in Map 5 on page 37. The swamp provided for indigenous communities and a variety of fauna. In 1879, the swamp was drained as part of a wider program of land drainage across Victoria. This took place to improve transport links and enable agricultural practices.

The area is generally low lying with minimal surface gradient. Map 4 illustrates the elevation of the Green Wedge, which highlights the low lying land, in the main portion of the Greater Dandenong Green Wedge. The Clarke Road precinct does not contain any waterways, and has no known issues relating to flooding.

Over many years the Dandenong Creek and its tributaries have been substantially altered; including the introduction of concrete channelling for drainage and flood mitigation purposes.

Despite the original and subsequent drainage and flood mitigation works, the Greater Dandenong Green Wedge continues to have flooding and drainage issues. These issues stem not only from the land's inherent nature and its past land management, but also from upstream and adjoining land management. The Greater Dandenong Green Wedge is part of a water system across many eastern and south-eastern municipalities and is affected by the ongoing urban development and run-off received from this catchment.

Although the Green Wedge area is served with open drains, the lie of the land, the levees, and the limited number of outlets restrict the drainage capacity of the drains. As a result, roads and properties are often subjected to overland flow during storm events.

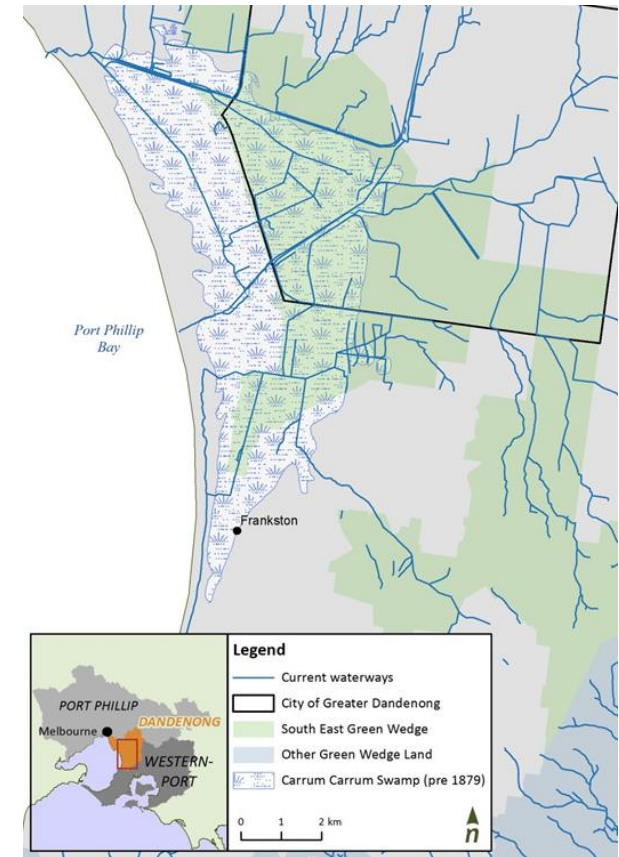
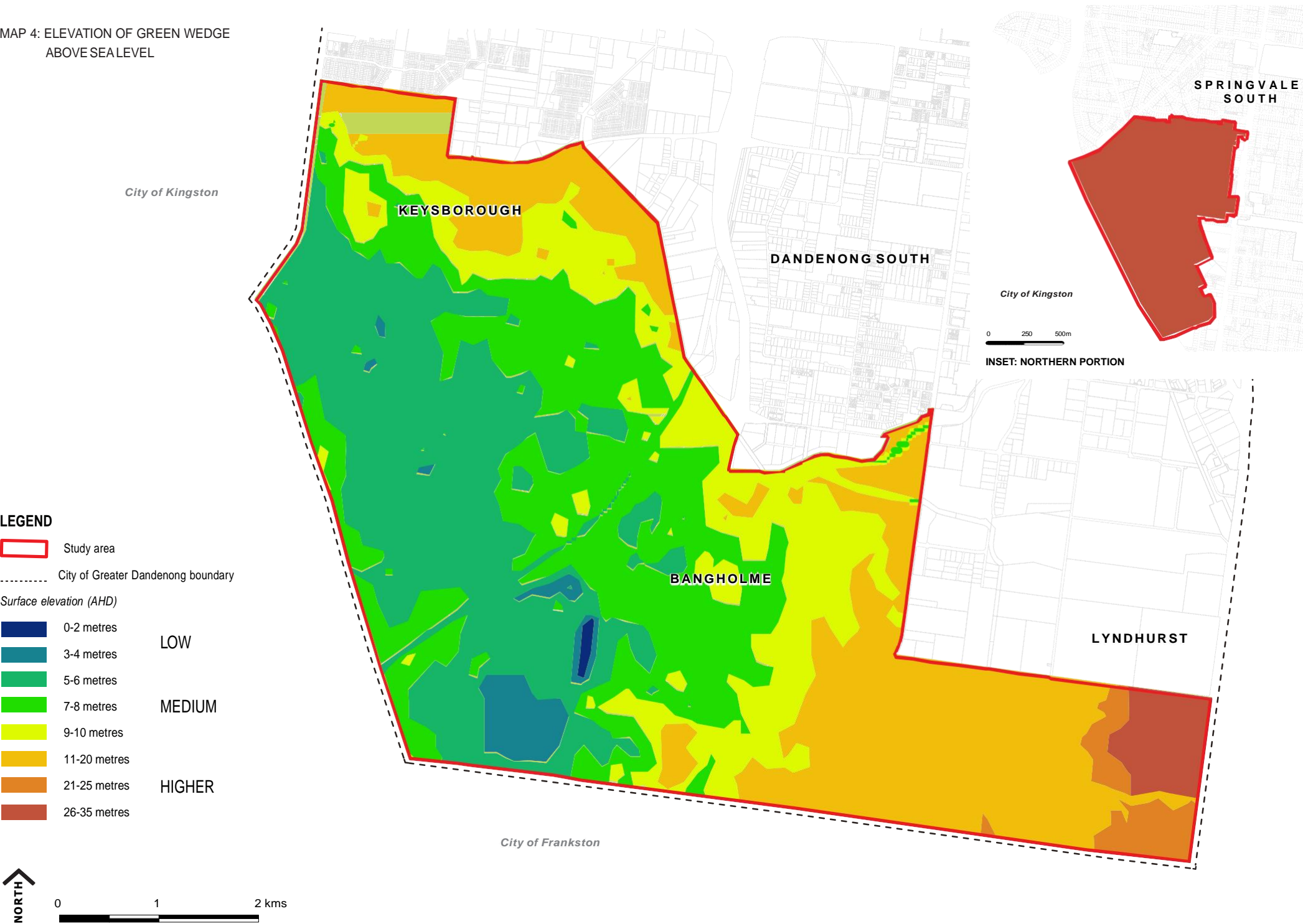


Figure 9: Approximate extent of the former Carrum Carrum Swamp

Source: DSE geospatial layer on pre-European wetlands (Alluvium, 2013)

MAP 4: ELEVATION OF GREEN WEDGE  
ABOVE SEALEVEL





# Drainage & Water Management

## 3.2 ASSETS & VALUES

A number of waterways with major levee banks dissect the Greater Dandenong Green Wedge landscape. These include the Patterson River, Mordialloc Creek, Dandenong Creek, Eumemmerring Creek, and Eastern Contour Drains. Other watercourses include Smythes, Springs and Taylor Drains, which provide the local drainage for various areas. In addition, there are a number of Melbourne Water retarding basins planned within the Greater Dandenong Green Wedge to support surrounding industrial areas (Dandenong South) and residential areas in Casey (Lyndhurst). These waterways and their associated basins and wetlands are an important feature and function of the Greater Dandenong Green Wedge.

While the Greater Dandenong Green Wedge can be assessed in terms of its constraints that limit development (e.g. flood extent), such an assessment undervalues other key components of the area and the opportunity that water and its management in the area presents to the municipality, the region and Greater Melbourne. This land will become increasingly important due to the urbanisation of its surrounds.

These opportunities and values include:

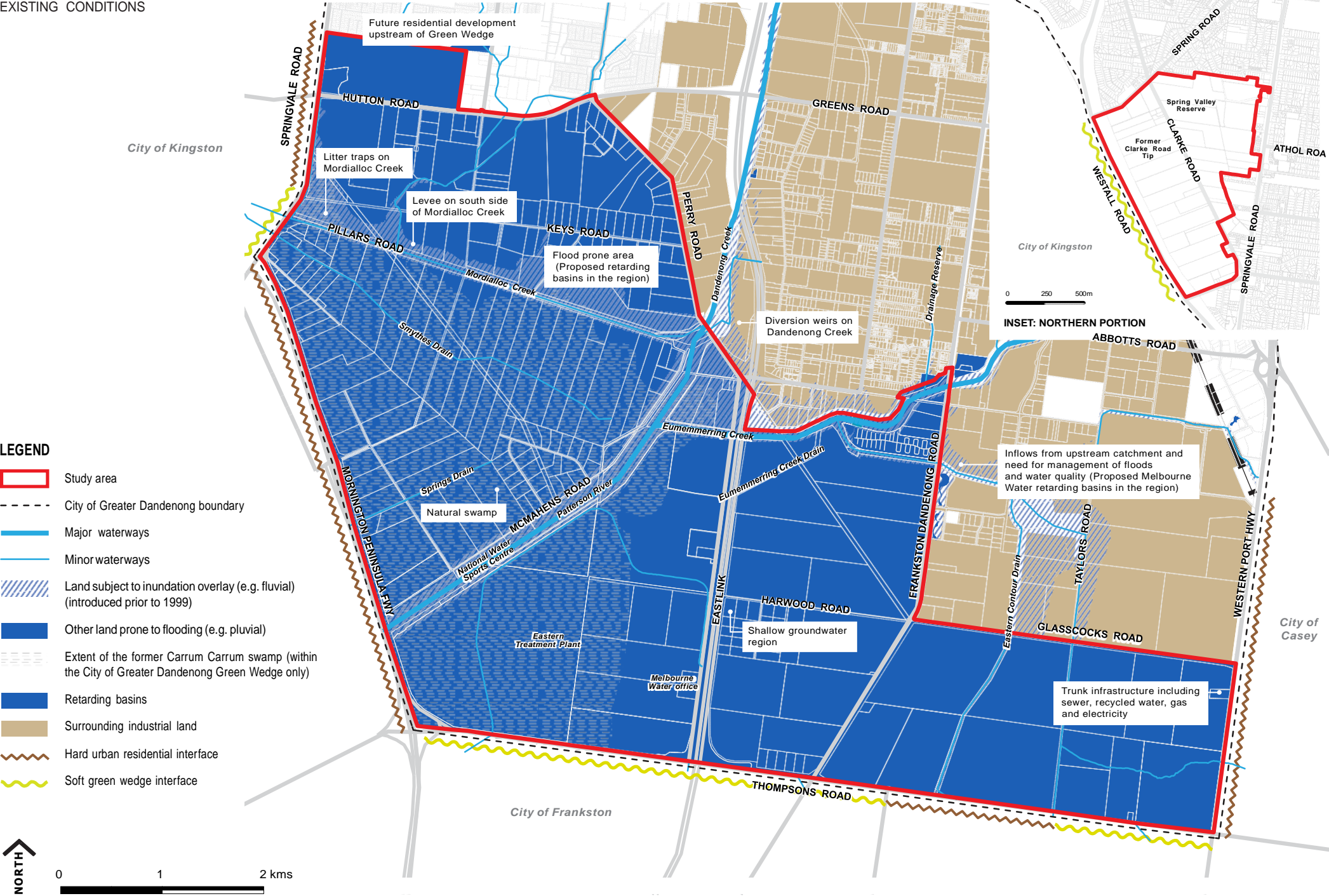
- Ecological outcomes that link and contribute to broader ecological goals, sustainability and liveability;
- Public and commercial recreation venues such as the National Water Sports area, bird watching and passive recreation around and along waterways;
- Flood mitigation, in reducing downstream drainage problems on adjoining residential, commercial and industrial land;
- Treatment of stormwater runoff into Port Phillip Bay;
- Provision of utilities to support local and broader Melbourne, such as the Eastern Treatment Plant, a key asset of regional significance;
- Water recycling through stormwater harvesting; and
- Water quality improvements through retention and wetlands.



Figure 10: Eastern Treatment Plant

Source: <http://www.sustainabilitymatters.net.au/>

MAP 5: DRAINAGE & WATER MANAGEMENT  
EXISTING CONDITIONS





# Drainage & Water Management

## 3.3 KEY ISSUES & CONSTRAINTS

Key issues and constraints identified in relation to the drainage and water management within the Green Wedge include:

- **Low lying elevation:** The Greater Dandenong Green Wedge is a low point in the catchment and has poor drainage. The area has flooded in the past and flooding in the area is likely to occur in the future. This poses an issue for the provision of infrastructure which is made more complicated and costly. For example, new roads would need to be constructed on a raised rural road type formation to avoid being flooded, which could create barriers to water flow paths.
- **Groundwater:** The close proximity of the water table (which is the top of groundwater) is a constraint in the way the land form is altered, both now and into the future. The proximity of groundwater to the land surface has implications for road construction, building foundations, and most land uses.
- **Limited flood storage capacity:** While the area is known to flood, there is a constraint in the capacity (or volume) available for flood retarding within the current system. Flooding in the area is likely to be exacerbated by increasing volumes of stormwater runoff associated with increasing urban development in the catchment and the predicted impacts of climate change. It is for these reasons that Melbourne Water has and continues to engage with local land owners. Melbourne Water has proposed the placement of retarding basins within the Greater Dandenong Green Wedge to manage inflows to the Green Wedge and limit the impacts of upstream development on downstream communities and stakeholders.
- **Effect of human activity on the health of waterways:** The City of Greater Dandenong is predominantly urban, characterised by residential, commercial and industrial use areas. The further urbanisation of land over time has increased the amount and rate of runoff generated, thus creating a large number of pollution sources and adversely affecting the water quality of creeks and rivers throughout the Green Wedge. An increase in population and human activity has also led to an increase in litter. If not properly mitigated, there is a potential risk for further biodiversity loss and degraded waterways.
- **High maintenance and repair costs:** The presence and use of a range of roads and drains are a constraint, restricting flows, and requiring regular repair and maintenance. The combination of low lying elevation and high groundwater levels also present challenges to road provision. Roads can only be constructed for rural purposes to ensure the protection of road pavements from high water tables. Existing roads such as Pillars Road, McMahrens Road, Keys Road and Riverend Road suffer from high maintenance and repair costs due to the road pavements being subject to both water logging and flood inundation. The underlying soils can also result in movement which breaks up roads. An elevated road network would also create a need for additional drainage works.
- **Information gaps:** There are a number of existing gaps in knowledge and information relating to drainage & water management in the Greater Dandenong Green Wedge, including out-of-date flood mapping and limited water quality data. Refer to *Appendix C: Drainage & Water Management Technical Report: Gaps Analysis Report* (Alluvium, 2013) for more detail.
- **Climate change:** is likely to increase the frequency and severity of storm events and sea level rise which may have an increased impact on the existing extent of inundation.
- **Coastal Acid Sulfate Soils (CASS):** The Greater Dandenong Green Wedge has a high presence of prospective acid sulfate soils, particularly in the western portion of the study area. Potential impacts relating to the disturbance of coastal acid sulfate soils include acidification of waterways, degradation of ecology, corrosion of infrastructure, adverse human health effects, and irreversible change to landforms and soils (Refer to *Chapter 4: Natural Environment* for further detail on CASS).



### 3.4 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. 38 submitters commented on the theme of Drainage & Water Management, as summarised below.*

- Sixteen (16) submitters were concerned with flooding issues. Fourteen (14) of these submitters supported improved management of flooding and inundation.

*A priority of this Plan is to improve flood and inundation management in the Greater Dandenong Green Wedge. A variety of actions are included to achieve this objective including further inundation mapping, further community education concerning local law obligations for the maintenance of private drains and working with Melbourne Water for improved controls and other flood mitigation measures.*

- Five (5) submitters advocated undertaking a comprehensive drainage strategy to better manage the area and inform development of the land.

*Informed in part by flood and inundation issues inherent to the area, this Plan has resolved to limit further development in the Greater Dandenong Green Wedge. This Plan proposes further flood and inundation mapping which will assist with improving land management.*

Two (2) submitters were concerned with gaps in the Alluvium report.

*The most up-to-date data has been assessed as part of this project. We recognise that some data is incomplete and the Plan acknowledges the need for more data gathering and monitoring in relation to drainage and water management.*

# Drainage & Water Management

## 3.5 VISION

Water processes are managed to support environmental values, enhance amenity and recreational opportunities, improve water quality, and protect infrastructure assets and private property.

*Plan Melbourne* highlights the importance of protecting significant water and sewerage assets, including the Eastern Treatment Plant (direction 5.6) which is in the Greater Dandenong Green Wedge. The plan also emphasises the need for whole-of-water cycle management (direction 5.5) which seeks to make better use of available water sources and minimise the impact of flooding.

The Greater Dandenong Green Wedge has a number of significant water related issues and constraints that impact on the suitability of the Greater Dandenong Green Wedge for many land uses. These constraints include the area's low elevation, water logging of soils, potential acid sulfate soils, poor water quality in waterways, poor surface drainage, flooding, and land at risk of flooding in the event of levee failures. These will be exacerbated by climate change (changes to rainfall, runoff and sea level) and ongoing upstream development that will increase runoff and reduce runoff quality. However, these constraints also provide opportunities. In particular the constraints provide opportunities to enhance the ecological character and water related outcomes from the Greater Dandenong

Green Wedge for surrounding populations and Greater Melbourne as a whole.

A management approach that recognises the constraints of the Greater Dandenong Green Wedge and capitalises on the opportunities arising from these constraints is recommended. This requires the existing subdivision provisions to be retained at a minimum to allow for flooding and inundation management to be improved.

Improvements to water quality and management also require further investigation to provide detailed plans for implementation that achieve wider community benefit. This should determine funding sources and any further planning requirements.

Given the region is low lying and prone to flooding there are many opportunities to integrate water harvesting with potential new wetland areas. Opportunities also exist to buy Class A water from the Eastern Treatment Plant through tapping into existing infrastructure. Water harvesting could provide recycled water supply suitable for sport and recreational areas, gardens, cleaning operations, etc.

## 3.6 OBJECTIVES & ACTIONS

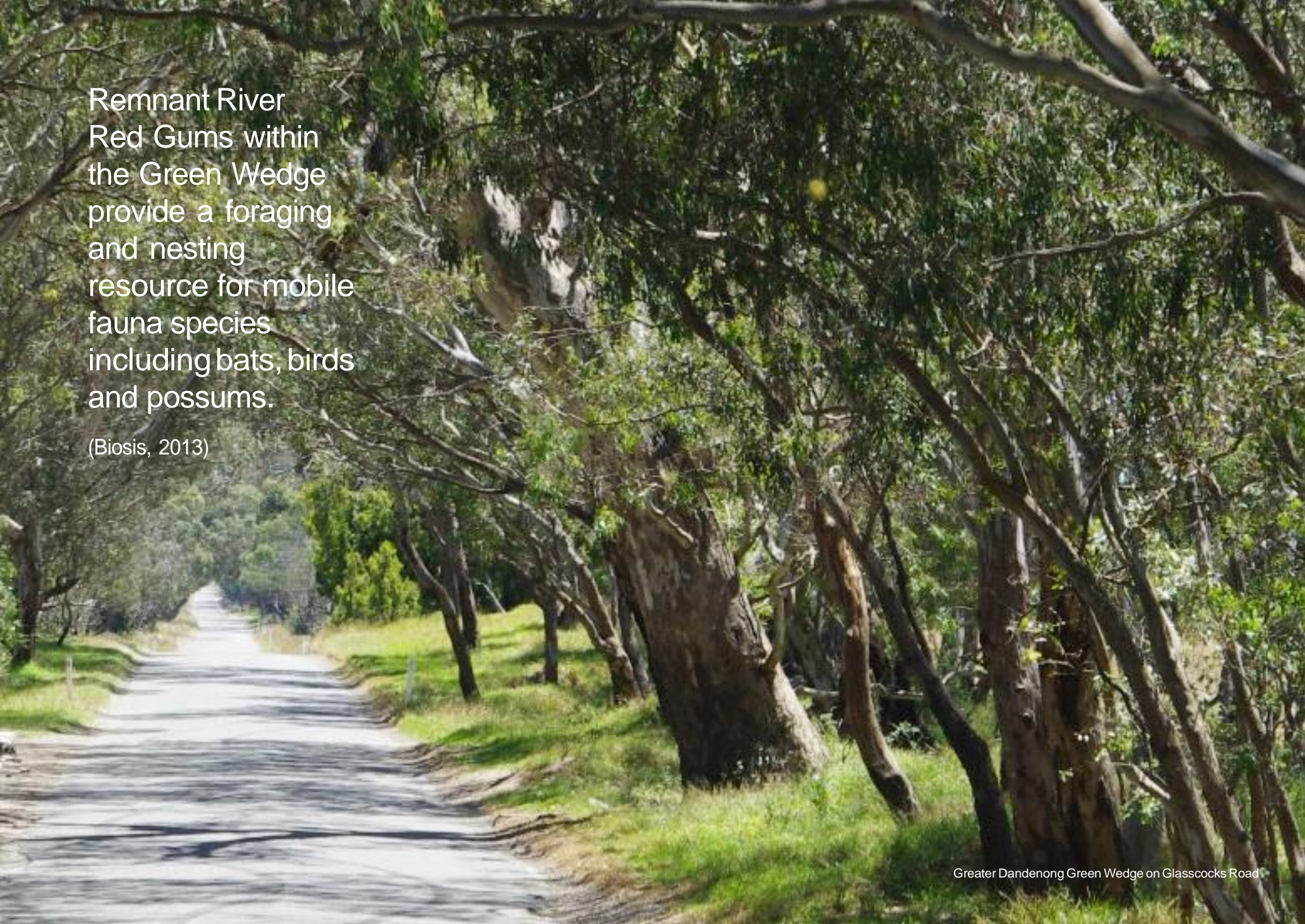
### A1 Improve flood and inundation management (Priority objective).

- A1.1 Undertake detailed flood inundation mapping for the Greater Dandenong Green Wedge, with consideration for climate change (increased rainfall intensity and increased sea level rise) and projected upstream development.
- A1.2 Advocate for Melbourne Water to review and update the geographical extent of the Land Subject to Inundation Overlay (LSIO) in the Greater Dandenong Green Wedge.
- A1.3 Advocate for Melbourne Water to undertake a risk assessment associated with levee failure in the Greater Dandenong Green Wedge.
- A1.4 Identify mitigation opportunities within the Greater Dandenong Green Wedge which may reduce flood and inundation mitigation in the Green Wedge area and / or adjacent catchments (including retarding basins and other drainage infrastructure).
- A1.5 Advocate to identify flood management requirements in catchments adjacent to the Greater Dandenong Green Wedge, consistent with flood management predictions.
- A1.6 Develop local stormwater drainage master plans consistent with the land use and development objectives of the Greater Dandenong Green Wedge Management Plan.

## OBJECTIVES & ACTIONS Cont...

	These plans should, at a minimum, consider:		stations to monitor water flows and quality in the Greater Dandenong Green Wedge.		with waterway improvements in the Greater Dandenong Green Wedge (including as part of A3.1).
	<ul style="list-style-type: none"> <li>- structural and non-structural mitigation options to alleviate flood risks in the catchment; and</li> <li>- an integrated approach to water management that includes: <ul style="list-style-type: none"> <li>· water quality improvement and/or alternative water supply opportunities; and</li> <li>· cost-benefit analysis of the proposed options.</li> </ul> </li> </ul>	A2.3	Advocate for Melbourne Water to undertake regular monitoring of pollution in creeks and waterways within the Greater Dandenong Green Wedge and in industrial estates upstream of the Green Wedge.	A3.3	Advocate for beneficial social, recreational and environmental outcomes to be achieved through the design and management of new and existing waterways in the Greater Dandenong Green Wedge (refer to A1, B2, C6 and D1).
A1.7	Apply planning controls (e.g. overlays) for flood-prone areas in the Greater Dandenong Green Wedge where appropriate (following A1.1 and A1.2).	A2.4	Continue to support works undertaken by Melbourne Water to improve waterway health in the Greater Dandenong Green Wedge.	<b>A4</b>	<b>Enhance the role of the Greater Dandenong Green Wedge as a water management asset.</b>
A1.8	As part of information distributed regarding the Greater Dandenong Green Wedge, educate the community about flooding and inundation issues and drain ownership (distribute with B3.4, C5.2, D1.8, E1.3 and E2.6).	A2.5	Encourage best practice stormwater management practices within and further upstream of the Greater Dandenong Green Wedge through local policy and Council public space (roads, verges, public land) management techniques.	A4.1	In partnership with Melbourne Water and local land owners, investigate alternative water management and supply options in the Greater Dandenong Green Wedge including stormwater harvesting and recycled water infrastructure (refer to A1.4).
<b>A2</b>	<b>Improve water quality within and downstream of the Greater Dandenong Green Wedge.</b>	<b>A3</b>	<b>Reinstate and reconnect natural waterways.</b>	A4.2	Ensure that transport infrastructure projects are supported by Environmental Management Plans that address localised impacts on water and environmental resources.
A2.1	Investigate methods for funding of future improvements to water management and quality in the Greater Dandenong Green Wedge.	A3.1	In partnership with Melbourne Water and local land owners, investigate options to improve the concrete-lined sections of channels and other in-stream structures in the Greater Dandenong Green Wedge to accommodate natural riverine processes so that the appearance and function of the waterways is ameliorated e.g. by removing the concrete lining.	A4.3	Investigate opportunities for Aquifer Storage and Recovery (ASR), via designated stormwater collection areas, infiltration ponds or galleries to improve water quality and availability.
A2.2	Advocate for the identification of suitable locations for additional water course gauging	A3.2	Investigate, with Melbourne Water and local land owners, opportunities to enhance open spaces and pathway linkages in association	A4.4	Investigate incentives and controls to encourage individual land owners to install on-site water storage infrastructure.



A photograph of a dirt road winding through a dense forest of large, mature Red Gum trees. The trees have thick, gnarled trunks and dense green foliage. The road is unpaved and stretches into the distance, flanked by grassy areas and more trees. The scene is brightly lit, suggesting a sunny day.

Remnant River  
Red Gums within  
the Green Wedge  
provide a foraging  
and nesting  
resource for mobile  
fauna species  
including bats, birds  
and possums.

(Biosis, 2013)



## Chapter 4. Natural Environment

# Natural Environment

## 4.1 INTRODUCTION

The Greater Dandenong Green Wedge is located between industrial and residential areas in the suburbs of south-eastern Melbourne. Its context in an urban environment and extent of modification over time mean that existing environmental and biodiversity values are limited. However, important remnant vegetation and landscape features with some fauna exist in the area because little development has occurred in this area since European settlement. The Eastern Treatment Plant, now a major waterbody complex and core area of habitat for waterbirds in the south-eastern suburbs of Melbourne, has added to the ecological value of the area and there is scope to continue improving these values.

*NaturePrint*, a mechanism developed by the Department of Environment and Primary Industries (DEPI) identifies areas that contribute most to protecting a range of biodiversity values. A number of small areas have been identified as making medium to high contributions to biodiversity within the Green Wedge. These areas include:

- The Eastern Treatment Plant;
- Major watercourses including Eumemmerring Creek, Dandenong Creek, Patterson River, Mordialloc Main Drain (Creek), and the Eastern Contour Drain;
- Remnant woodland vegetation and scattered trees;
- Wetlands (artificial and natural), particularly those which are densely vegetated or develop mud flats when drying out; and
- Low-lying swampy areas.

## 4.2 ASSETS & VALUES

### REMNANT VEGETATION

Small patches of remnant vegetation occur within the Greater Dandenong Green Wedge. Most of these areas are associated with road reserves (and in some cases extend into private properties immediately adjacent) and drains. The areas of remnant vegetation are identified primarily by the presence of the defining eucalypt species (River Red Gum *Eucalyptus camaldulensis*, Manna Gum *Eucalyptus viminalis* and Swamp Gum *Eucalyptus ovata*) or Swamp Paperbark *Melaleuca ericifolia*.



Remnant vegetation along Glasscocks Road (Plains Grassy Woodland)

The most notable remnants of native vegetation, as shown on Map 6, are:

- North of Hutton Road (Plains Grassy Woodland identified on the DEPI Biodiversity Interactive Map (BIM) associated with the Keysborough Golf Course);
- Eumemmerring Creek east and west of EastLink (Plains Grassland/Plains Grassy Woodland Mosaic);
- Glasscocks Road (Plains Grassland/Plains Grassy Woodland Mosaic);
- Bowman Redgum Reserve, corner of Hutton and Chapel Roads (Plains Grassy Woodland);
- Private properties on the corner of Keys and Perry Roads (Plains Grassy Woodland);
- Private properties between Springvale Road and Perry Road north of Mordialloc Main Drain (scattered remnant River Red Gums); and
- Private properties between EastLink and Dandenong–Hastings Road south of Glasscocks Road (scattered remnant River Red Gums).

There may be other small patches of remnant vegetation that could not be detected or confirmed through aerial photograph interpretation or by the limited access available via public roads.

### SCATTERED REMNANT TREES

Much of the River Red Gum dominated remnant vegetation now consists of scattered trees surrounded by exotic pasture, mown lawn or market garden. The most notable areas of scattered trees, as shown on Map 6, are:

- Between Springvale Road and Perry Road north of Mordialloc Main Drain; and
- Between EastLink and Dandenong – Hastings Road south of Glasscocks Road.

These trees provide a foraging and nesting resource for mobile fauna species including bats, birds and possums. While many trees are in good health, others have died or are in decline. Many contain hollows for hollow-dwelling species. Dead standing trees still provide hollows and perching resources for fauna.

# Natural Environment

## ASSETS & VALUES Cont...

### SIGNIFICANT ECOLOGICAL COMMUNITIES

Six ecological communities that are endangered in the Gippsland Plain Bioregion occur or are known to have occurred within 5km of the study area:

- Grassy Woodland (EVC 175);
- Creekline Grassy Woodland (EVC 68);
- Plains Grassy Woodland (EVC 55);
- Swampy Riparian Woodland (EVC 83);
- Swamp Scrub (EVC 53); and
- Plains Grassy Wetland (EVC 125).

Descriptions of these EVCs are provided at *Appendix I*.

In addition, there is some potential for small areas of Herb-rich Plains Grassy Wetland (West Gippsland) Community or Central Gippsland Plains Grassland Community listed under the Flora and Fauna Guarantee Act to occur within the Green Wedge.

### SIGNIFICANT FLORA & FAUNA SPECIES

Thirty-one significant flora and fauna species have been recorded or predicted to occur in the Greater Dandenong Green Wedge. A full list is provided in Appendix 1 and 2 of *Appendix D: Environmental Values & Biodiversity Technical Report (Biosis, 2013)*.

Species on the *Environment Protection and Biodiversity Conservation (EPBC) Act* list considered to have a medium or higher likelihood of occurrence include:

- River Swamp Wallaby-grass (*Amphibromus fluitans*);
- Swamp Everlasting (*Xerochrysum palustre*);
- Growling Grass Frog (*Litoria raniformis*);
- Dwarf Galaxias (*Galaxiella pusilla*);
- Yarra Pygmy Perch (*Nannoperca obscura*);
- Grey-headed Flying Fox (*Pteropus poliocephalus*);
- Australasian Bittern (*Botaurus poiciloptilus*); and
- Australian Painted Snipe (*Rostratula australis*).

Aquatic/wetland habitats are therefore the most important ecological features of the Green Wedge for those species listed in the EPBC Act.

Woodland remnants and scattered trees provide a sparse, widely dispersed overstorey linkage from north-west to south-east for highly mobile species, namely birds and bats.

- Greater Dandenong Green Wedge Management Plan:  
*Environmental Values & Biodiversity Technical Report*  
(Biosis, 2013)



## ASSETS & VALUES Cont...

### MIGRATORY SPECIES

Fifty-eight significant migratory species have been recorded or are predicted to occur within 5km of the study area.

The Greater Dandenong Green Wedge may support important habitat for Latham's Snipe *Gallinago hardwickii* as defined under the EPBC Act. Many of the other listed species have been recorded at the Eastern Treatment Plant or nearby Waterways Estate, or are expected to use the Greater Dandenong Green Wedge on occasions, and some of them may do so regularly.

The woodland remnants and scattered trees provide a sparse, widely dispersed overstorey linkage from north-west to south-east for highly mobile species, namely birds and bats.

### WATERWAYS

As discussed in the previous chapter (*Chapter 3: Drainage & Water Management*), a number of waterways traverse the Green Wedge landscape including the Eumemmerring Creek, Dandenong Creek, Patterson River, Mordialloc Main Drain (Creek) and Eastern Contour Drain.

Most of these have been created using levee banks which preclude connectivity with the surrounding landscape and therefore limit their capacity to be a source for aquatic fauna to colonise nearby farm dams or wetlands.

The waterways vary from open channels with minimal vegetative cover to tall, dense reed beds. Their levee banks support predominantly introduced vegetation dominated by grasses that are generally maintained through slashing. Eucalypts, wattles and other shrubs (including Gorse *Ulex europaeus*) are scattered along

sections of these waterways. In some areas these native species are likely to comprise patches of remnant vegetation (Swampy Riparian Woodland and Swamp Scrub).

These waterways provide habitat for frogs and facilitate their movement through the area. Waterways that support fringing vegetation, such as Eumemmerring Creek, may facilitate the movement of more elusive birds such as crakes and rails.

Significant fish species such as the Dwarf Galaxias and Yarra Pygmy Perch have been recorded in the Dandenong Creek, and have the potential to occur in all connected waterways throughout the Green Wedge.

The *Living Links – Corridors of Connectivity Master Plan Discussion Paper* (2010) aims to establish connections between waterway corridors within and beyond the



River Swamp Wallaby-grass



Swamp Everlasting



Growling Grass Frog



Dwarf Galaxias



Yarra Pygmy Perch



Latham's Snipe

# Natural Environment

## ASSETS & VALUES Cont...

study area. It documented the environmental, social, cultural and recreational values of several creeks and drains which flow through the Greater Dandenong Green Wedge as follows:

- Eumemmerring Creek: a corridor classified as a social asset;
- Dandenong Creek: a corridor classified as an environmental, social, recreational and cultural asset;
- Mordialloc Creek (Main Drain): a corridor identified as an environmental, recreational and cultural asset; and
- Patterson River: a corridor classified as an environmental, recreational and cultural asset.

For each type of asset, its potential to be enhanced is identified.

## WETLANDS

Numerous wetlands occur within the Green Wedge, particularly in association with the Eastern Treatment Plant. There are many small wetlands and farm dams throughout the study area which range in degree of vegetation cover. Larger dams and lakes tend to provide open expanses of water and may or may not be fringed with vegetation. Low-lying areas within the landscape provide additional wetland habitat when inundated. These wetlands and low-lying areas are potential habitat for significant flora and fauna species.

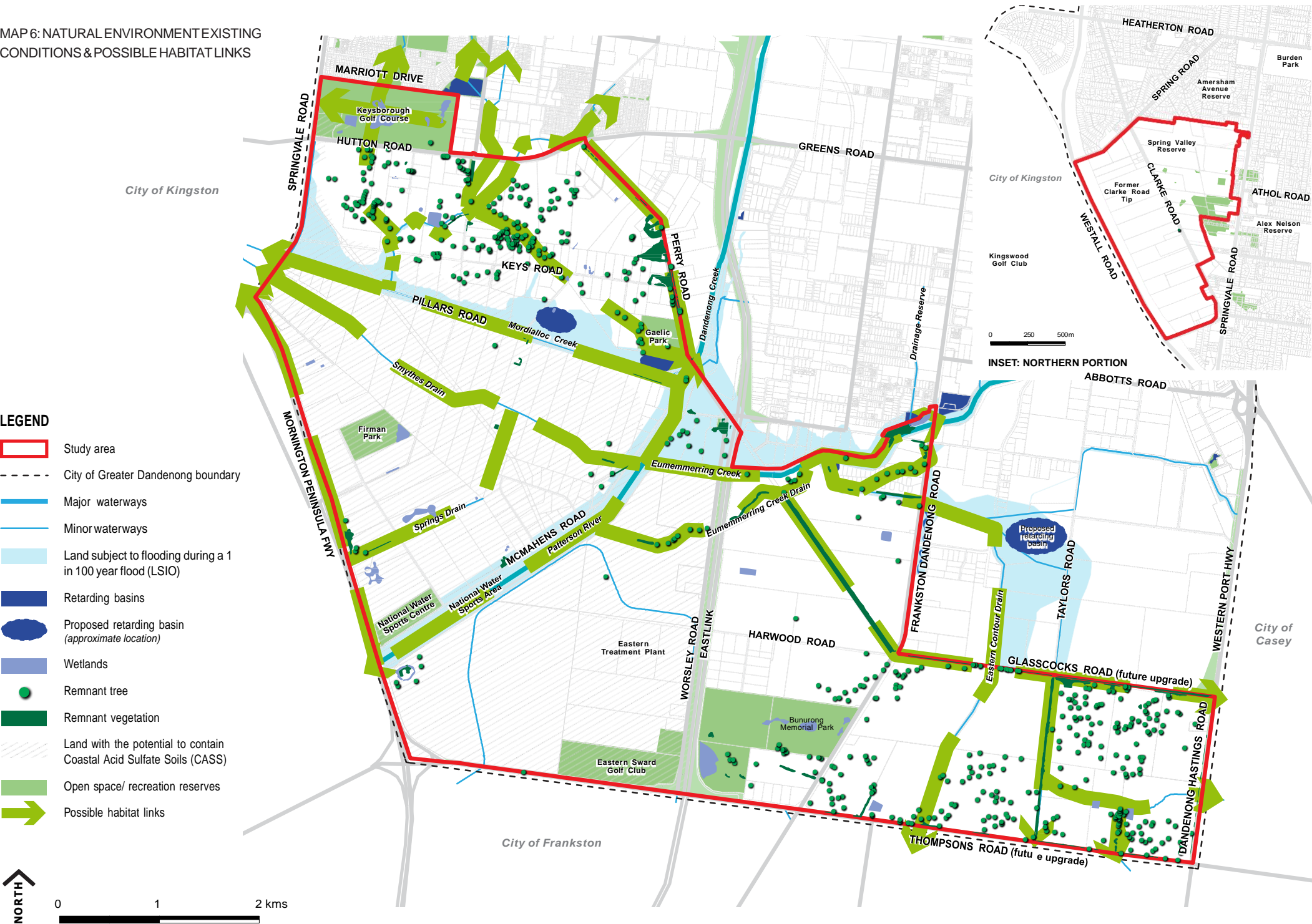
The area on which the Eastern Treatment Plant (ETP) is located has been converted into a series of treatment ponds and associated drains and infrastructure. By virtue of their purpose, these ponds are in various stages of inundation and therefore provide habitat for a diverse range of wetland-dependent birds, including species that are threatened in Victoria and Australia (See Appendix D: Environmental Values & Biodiversity Technical Report, (Biosis, 2013)).

The Edithvale-Seaford Wetlands (located close to the south-west of the Greater Dandenong Green Wedge, within Frankston City Council) is a 305 hectare reserve recognised internationally through the Ramsar convention. The wetlands provide significant habitat for a diversity of birdlife, including a number of rare and endangered migratory water birds. The Greater Dandenong Green Wedge does not drain directly into the Edithvale-Seaford Wetlands Ramsar site, but may have intermittent connection during flooding. It is important that connections between existing wetland areas within and outside the Greater Dandenong Green Wedge continue to be strengthened to support a diversity of wildlife, including endangered birds.

The Eastern Treatment Plant is a major water-body complex and core area of habitat for waterbirds in the south-eastern suburbs of Melbourne.

- *Greater Dandenong Green Wedge Management Plan: Environmental Values & Biodiversity Technical Report*  
(Biosis, 2013)

MAP 6: NATURAL ENVIRONMENT EXISTING CONDITIONS & POSSIBLE HABITAT LINKS





# Natural Environment

## 4.3 KEY ISSUES & CONSTRAINTS

Key issues and constraints identified in relation to the environmental values and biodiversity of the Green Wedge include:

- Poor water quality: Current land use practices have directly impacted upon water quality in the Dandenong Creek catchment. Water quality in the lower Dandenong Creek catchment is considered moderate to poor due to urban, industrial and agricultural land uses and consequential inputs to surface water run-off (Melbourne Water 2007). This may have ongoing implications for water quality associated within the Green Wedge. Further urban, industrial and agricultural land use and development in and near the Greater Dandenong Green Wedge is likely to impact negatively on water quality.
- Loss of natural habitat/hydrology corridors: The continuity of ecological corridors has been compromised over time due to land fragmentation. This has led to fragmented hydrology corridors and isolated patches of native vegetation which provide no distinct habitat linkages for less mobile or understorey dependent fauna or flora species with poor dispersal capabilities.
- Loss of significant vegetation, particularly remnant River Red Gums: Large numbers of dead scattered trees have been noted in the area and the cause/s for this decline should be further investigated. Hydrological changes as a result of human activity, particularly drain construction, may be affecting the health of River Red Gums within

the Greater Dandenong Green Wedge. Proposed road upgrades have the potential to impact on significant vegetation if not carefully managed. Additional urban, industrial and agricultural land use and development is also likely to reduce vegetation cover. Application of herbicides, pesticides and/or fertilisers adjacent to remnant vegetation and scattered trees has the potential to impact on species diversity and plant health. Grazing and/or slashing restrict the regeneration prospects for remnant trees, although such regimes assist in minimising biomass accumulation and may be considered as a necessary fire management tool.

- Weed species: Pockets of Gorse are notable within the Greater Dandenong Green Wedge, particularly along the unconstructed Perry Road reserve and in adjacent paddocks, and within paddocks east of the unconstructed Taylors Road reserve. Blackberry *Rubus fruticosus* thickets are apparent along many of the minor drainage lines. A more detailed assessment of the distribution of weeds is needed to more definitively characterise the threats and management constraints associated with weeds throughout the Greater Dandenong Green Wedge. The presence of Cinnamon fungus (an introduced water-borne fungus that attacks the root systems of susceptible native plants) poses a threat to some plant species, the ecosystems of which they form part of, and the animals that depend on them (DSE 2008).

- Pest animal species: Pest animals within the Green Wedge include European Rabbit *Oryctolagus cuniculus*, Red Fox *Vulpes vulpes*, and European Hare *Lepus europeaus*. These are all 'established invasive animals' defined under the *Catchment and Land Protection Act 1994* as widespread, established and beyond eradication from the whole of Victoria.
- Coastal Acid Sulfate Soils (CASS): The Greater Dandenong Green Wedge has a high presence of prospective acid sulfate soils, particularly in the western portion of the study area (in the Bangholme Lowlands and Bangholme East precincts). Potential impacts relating to the disturbance of CASS include acidification of waterways, degradation of ecology, corrosion of building foundations and infrastructure, adverse human health effects, and irreversible change to landforms and soils.



## 4.4 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. 52 submitters commented on the theme of Natural Environment, as summarised below.*

- Many submitters (19) supported the protection of environmental values of the area. Of these submitters, nine (9) specifically mentioned the protection of indigenous flora and fauna and the protection of their habitats.

*This Plan seeks to protect ecological values in the Greater Dandenong Green Wedge as a priority. A number of actions are included in the Plan to protect and enhance these values.*

- Nine (9) submitters advocated for more environmental education and eco-tourism in the Greater Dandenong Green Wedge. Some suggestions include wildlife tours and the construction of an environmental sustainability centre.

*This Plan includes an objective to increase community awareness through education and involvement in ecological improvement. These suggestions have been incorporated into actions.*

- Nine (9) submitters supported further environmental planning and research including flora and fauna studies and river red gum protection.

*This Plan recommends further flora and fauna assessments and controls to be applied to protect the significant flora and fauna that is found.*

- Two (2) submitters recommended revegetation of roadways in the Greater Dandenong Green Wedge.

*Revegetation is encouraged through the Plan. Priority areas for revegetation are along corridors where habitat links should be strengthened and established connecting through the Greater Dandenong Green Wedge and to adjoining areas. This is expected to include roadway areas.*

- Some submitters (2) requested additional testing and analysis for Coastal Acid Sulfate Soils (CASS).

*Testing for Coastal Acid Sulfate Soils (CASS) over such a wide area is costly. It is recommended that such testing take place when development proposals are prepared.*

- Other submitters suggested clearance of pest flora and fauna, better links between rehabilitated vegetation to waterways and a request to promote local flora and fauna by the horticultural industry.

*A number of actions are recommended in this Plan to address these issues including a weed eradication and management program and the identification of opportunities and methods for better habitat links.*

- Only one (1) submitter argued that there was no significant flora and fauna in the Keys Road Precinct and any scattered remnant trees are declining in health.

*Work has been undertaken by specialist consultants*

*which identified significant flora and fauna throughout the Greater Dandenong Green Wedge, including in the Keys Road Precinct. This Plan recommends the protection of remnant trees and measures to ensure their survival.*

# Natural Environment

## 4.5 VISION

Indigenous vegetation provides a rich and connected habitat for fauna, that supports the biodiversity of the broader metropolitan area with priority given to the protection and management of ecological areas of highest value.

*Plan Melbourne* sets a framework for the protection and restoration of natural habitats in non-urban areas (direction 5.2). The relevant initiatives seek to protect and restore biodiversity areas and waterways.

The Greater Dandenong Green Wedge provides a broad area of open space within the broader developed urban area of Melbourne. In that context it does not provide specific habitat corridor values as it does not directly link larger remnants of natural habitat. However it does provide a stepping stone for more mobile fauna such as migratory birds and remnant habitat for aquatic species which are more dependent on habitat structure and function rather than the occurrence of indigenous vegetation.

Enhancement of waterways and drainage corridors to provide this habitat structure (i.e. an array of permanent and seasonally flooded wetlands rather than a well drained landscape which holds water infrequently) for these species, provides a high priority for biodiversity enhancement. Establishing areas of native vegetation in association with this habitat also provides opportunities for more common indigenous species which are also

locally endangered within this degraded environment.

Priority should be given to protecting and managing highest value areas and retaining larger areas in preference to numerous smaller ones. Further surveys are recommended in order to improve understanding of the ecological values within the Green Wedge and inform future management and enhancement works. Much of the existing data has been collected over a long period of time and does not provide a current picture of the environmental values present. While the existing data does provide a useful guide to the ecological values present, any development will need to evaluate the biodiversity implications of any physical impacts.

Recent reforms to the Victorian regulations for vegetation removal and clearing now require minimal, if any, formal assessment of biodiversity values in the Greater Dandenong Green Wedge. Protection of significant vegetation and other important vegetation may require additional planning controls in the Greater Dandenong Planning Scheme in relation to any locally endangered species.

Vegetation and large areas of water can cool the lower atmosphere and have some influence on temperatures in the surrounding built up environments. Increased vegetation in the Greater Dandenong Green Wedge will also augment the cooling effect of the large volume of surface and sub-surface water in the area.

The Greater Dandenong Green Wedge could be used as native vegetation offsets or a carbon sink e.g. through

planting and 'locking' up trees for 100 years, having a carbon scheme accreditation and adding soil to the soil profile. Investigations into the feasibility of these opportunities should consider incentives, rate relief and title agreements.

## 4.6 OBJECTIVES & ACTIONS

<b>B1</b>	<b>Protect existing ecological values (Priority objective).</b>		incentives and information sheets) to encourage private land owners to protect existing significant remnant flora and fauna biodiversity, and measures to enhance what remains through natural regeneration and revegetation.	Green Wedge, particularly for aquatic species and mobile canopy-dwelling native fauna in collaboration with local land owners (refer to B2.2 for follow-up action).
B1.1	Facilitate the undertaking of further flora and fauna assessments, building on Biosis' and others' work, to enable a greater understanding of the extent of remnant flora and fauna within the Greater Dandenong Green Wedge. This should include consideration of aquatic habitats, significant species and communities, weeds (to determine their presence, distribution, threat and therefore priority for removal) and areas and reserves where biodiversity management plans should be prepared (refer to B1.2 and E2.4). It should also determine how vegetation and threatened species should be monitored and consider recommendations for protection (refer to B1.7).			B2.2 Assess and implement methods to create and/or enhance identified habitat links in the Greater Dandenong Green Wedge (e.g. land acquisition, leasing) (refer to B1.3).
		B1.5	Facilitate a weed eradication and management program for the Greater Dandenong Green Wedge including works on private land, education and advice (following B1.1; refer to B1.7).	B2.3 Identify opportunities in the Greater Dandenong Green Wedge where new and existing wetlands/ billabongs, watercourses and retarding basins could be established and improved, specifically to improve fauna habitat for native fish and amphibians) (refer to 1.4).
		B1.6	Apply an interim Vegetation Protection Overlay to protect existing native vegetation, particularly remnant River Red Gums (with an exemption for trees below 2m or single trunk circumference of less than 0.5m at 1m height above ground level) (update these controls and seek to make them permanent as part of B1.3).	B2.4 Facilitate the design, creation and management of retarding basins and wetlands in the Greater Dandenong Green Wedge (following A1.4 and B2.1).
B1.2	Facilitate where appropriate the development of biodiversity management plans in the Greater Dandenong Green Wedge for specific areas and reserves identified (following B1.1).	B1.7	Monitor vegetation and threatened species (following B1.1).	B2.5 Apply planning controls to encourage appropriate re-vegetation along areas identified to provide habitat links and connectivity in the Greater Dandenong Green Wedge (refer to B2.1 and Map 6).
B1.3	Apply planning controls (e.g. overlays, local planning policies) to areas of existing significant ecological value and associated values (including wetlands, buffer areas and strategic habitat links) in the Greater Dandenong Green Wedge (following B1.1 and B2.2 and revising controls applied in B1.6).	B1.8	Undertake other measures to protect important flora and fauna (following B1.1 and B1.7; to complement B1.3).	B2.6 Investigate the use of native vegetation offsets within the Greater Dandenong Green Wedge to establish permanently protected areas of native vegetation.
		<b>B2</b>	<b>Enhance ecological values and improve connectivity.</b>	
B1.4	Identify, assess and implement appropriate methods (for example grants, advice,	B2.1	Identify opportunities and methods to create and/or enhance habitat links that increase connectivity in the Greater Dandenong	

# Natural Environment

## OBJECTIVES & ACTIONS Cont...

B2.7	Investigate the acquisition of land to increase the extent of public open space reserves within the Greater Dandenong Green Wedge and improve habitat links as well as pedestrian, cycle and equestrian connections (refer to B1 and C6.5).	<b>B3</b>	<b>Increase community awareness through education and involvement in ecological improvements.</b>	B3.4	Prepare and distribute information (e.g. Council publications, website, interpretive signage) regarding the Greater Dandenong Green Wedge (distribute with A1.8, C5.2, D1.8, E1.3 and E2.6) that: <ul style="list-style-type: none"> <li>- Identifies its biodiversity values and the vision for the region;</li> <li>- Discusses regulatory roles and controls;</li> <li>- Includes preferred plant guidelines; and</li> <li>- Identifies ways to protect and enhance biodiversity values and to minimise the impacts of pest plants and animals on local biodiversity.</li> </ul>
B2.8	Continue to facilitate habitat connectivity improvements through the South East Green Wedge (coordinating with the City of Kingston, City of Frankston and the City of Casey) and the Living Links project by the Port Phillip and Westernport Catchment Management Authority (refer to C6).	B3.1	Continue to actively support community participation in major environmental programs (e.g. Clean up Australia Day, National Tree Day, World Environment Day, National Biodiversity Month) in the Greater Dandenong Green Wedge.		
B2.9	Investigate opportunities for carbon sinks in the Greater Dandenong Green Wedge.	B3.2	Facilitate community participation in managing environmentally significant areas in the Greater Dandenong Green Wedge, such as through the establishment of friends' groups and Landcare programs.		
B2.10	Encourage the exploration of renewable energy opportunities, particularly in association with major infrastructure, water treatment and land rehabilitation activities (refer to Clarke Road precinct on page 71).	B3.3	Encourage community activities and events based around the environment in the Greater Dandenong Green Wedge, such as Waterwatch, frog census and wildlife tours.	B3.5	Investigate the feasibility of establishing an environmental and agricultural centre in the same vein as CERES, Brunswick East. or Edendale Farm, Eltham.
B2.11	Investigate methods for funding ecological improvements in the Greater Dandenong Green Wedge.				
B2.12	Work with local indigenous nurseries to establish and source plants for revegetation of private and public land.				







The Greater Dandenong Green Wedge and wider network of connected green space provides for public utilities, recreation, and ecological outcomes that will be increasingly required and desired with a developing Greater Melbourne.

(Urban Enterprise, 2013)



## Chapter 5. Land Use



# Land Use

## 5.1 INTRODUCTION

Land use is governed by the Greater Dandenong Planning Scheme, and in particular the zones and overlays applying to the land. Existing land uses do not always comply with the existing planning scheme provisions, but are allowed to remain under specific controls. New uses, however, are required to comply with the planning scheme and most require approval from the Council.

The Greater Dandenong Green Wedge area covers 3,741.3 hectares, of which 64% is zoned Green Wedge (GWZ) as shown in the map on the page opposite. Other zones within the Green Wedge area include the Public Use Zone (PUZ) and the Urban Floodway Zone (UFZ). More details regarding the existing zones and overlays can be found in at pages 23-27 in Chapter 2.

The revised Green Wedge Zone introduced in 2013 has fewer land use restrictions (for example schools are now allowed) and it is expected that these new land use options could create sufficient value for investment in the rehabilitation or upgrading of the Green Wedge as part of redevelopment. In addition, the costs of infrastructure provision for these uses are expected to be affordable and sustainable in relation to the scale and intensity of development they represent in the Green Wedge.

There is a diverse range of economic/ business activity and land uses within and surrounding the Greater Dandenong Green Wedge as shown on Map 8 on page 63 and described in further detail throughout this chapter. Key land uses include:

- Eastern Treatment Plant
- Infrastructure networks including EastLink
- Waterways
- Agriculture (particularly grazing and small hobby farming activity)
- Cemeteries / memorial park
- Sports and recreation fields
- Animal boarding and facilities
- School and church facilities
- Residential and tourist accommodation

## POTENTIAL FUTURE LAND USE CHANGES












The table at Figure 11 provides a simplified summary of the level of entrenchment of the main business types/ industries within the Greater Dandenong Green Wedge. Land use groups have been classified as follows:

- Entrenched – those businesses that are well established in their current location, have been operating in their current location for many years, have made significant investment in the current location and expect to continue operations in the current location indefinitely;
- Stable – those businesses/land uses that have operated within the Green Wedge for some time and see no immediate need to re-locate;
- Developing – those businesses relatively new to the area but have made investments and expect to be in the current location for some time;
- Uncertain – those businesses that identified threats to their viability in the current location and anticipate relocating unless circumstances change;
- In transition – those businesses that are likely to reach the end of their operations in the current location in the short term and whose transition out of the local area will need to be addressed by the Green Wedge Management Plan; and
- In decline – those businesses which identified that their current location is no longer suitable and that their industry is no longer viable in the local area.



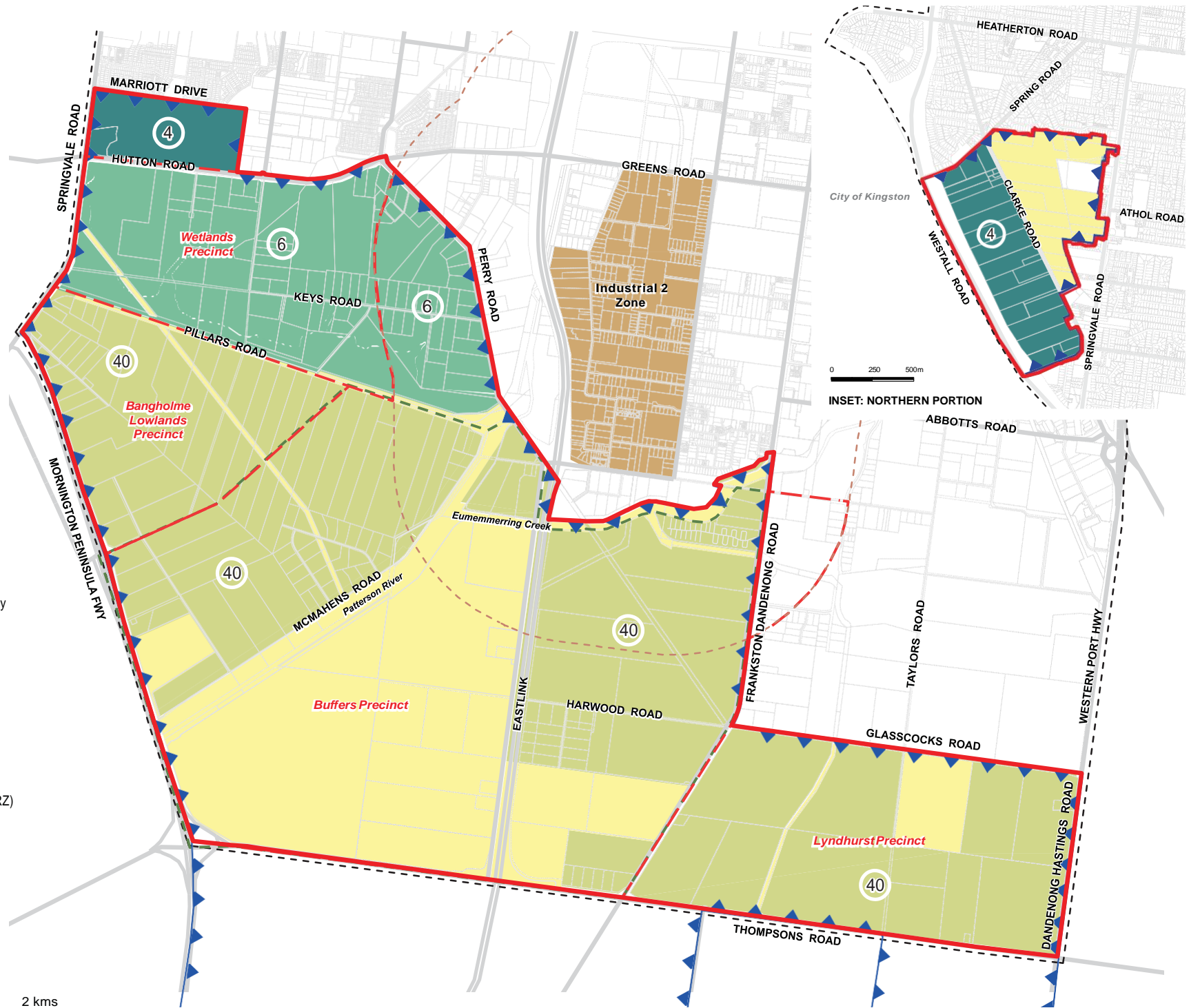
MAP 7: EXISTING LAND USE  
PRECINCTS & CONTROLS

LEGEND

-  Study area
-  Urban Growth Boundary (UGB)
-  City of Greater Dandenong boundary
-  Existing Green Wedge precincts (Clause 22.02)
-  4ha min subdivision size (GWZ)
-  6ha min subdivision size (GWZ)
-  40ha min subdivision size (GWZ)
-  Special Use Zone (SUZ)/  
Public Use Zone (PUZ)/  
Public Park & Recreation Zone (PPRZ)
-  Industrial 2 Zone (IN2Z)
-  Industrial 2 Zone Buffer (1.5km)
-  Eastern Treatment Plant  
Buffer Area (ESO3)



0 1 2 kms



# Land Use

## INTRODUCTION Cont...

Figure 11: Land Use Entrenchment in the Green Wedge

Entrenched	Public Utilities* Cemeteries Mobile Home Village
Stable	Agriculture Nurseries
Developing	Education Religious**
Uncertain	Golf Animal Boarding Facilities Cultural Institutions**
In transition	Landfill
In decline	-

\* Includes Eastern Treatment Plant

\*\* Not consulted in this study

Source: Greater Dandenong Green Wedge Management Plan: Land Use (Property Economics) Technical Report (Urban Enterprise, 2013)

## LAND USE PRECINCTS

The Local Planning Policy Framework of the Greater Dandenong Planning Scheme includes a Green Wedge Local Planning Policy at Clause 22.02. The policy divides the Greater Dandenong Green Wedge into precincts and applies particular development opportunities and requirements which respond to each precinct's character and function. There are currently four precincts as shown on Map 7 on page 59:

- Wetlands Precinct
- Bangholme Lowlands Precinct
- Buffers Precinct
- Lyndhurst Precinct

These areas have been revised to include areas of the Greater Dandenong Green Wedge not currently recognised in the existing Clause 22.02 precinct boundaries, reflect existing conditions and the vision for each area.

Two areas of the Greater Dandenong Green Wedge are not currently recognised in the existing Clause 22.02 precinct boundaries, including the northern portion of the Green Wedge in Springvale South (Clarke Road precinct), and the area north of Hutton Road (Keysborough Golf Club).

It is recommended that these two additional areas are recognised in an updated Clause 22.02 as the following precincts:

- Clarke Road Precinct
- Hutton Road North Precinct

It is recommended that the Buffers Precinct be removed as a separate entity in this Plan. It is considered that other policy and controls (the local policy and Environmental Significance Overlay Schedule 3) adequately address these issues. This former precinct has been incorporated into new precincts that reflect the existing land uses and issues.

The revised precincts, as shown on Map 8 on page 63 and discussed in further detail at 5.4 Precincts on page 71, are:

- Clarke Road Precinct
- Hutton Road North Precinct
- Keys Road Precinct (previously Wetlands)
- Bangholme Lowlands Precinct (expanded)
- Eastern Treatment Plant Precinct (new)
- Bangholme East Precinct (new)
- Lyndhurst Precinct

## 5.2 ASSETS & VALUES

### PUBLIC UTILITIES & INFRASTRUCTURE ASSETS

Major public assets within and impacting upon the Green Wedge include the Eastern Treatment Plant (ETP), EastLink, and the network of infrastructure systems. These assets provide support for economic growth in other areas of Greater Dandenong and in the region, and need to be protected from inappropriate uses nearby. At the same time these activities can impact on the potential for growth and change for uses within the Green Wedge. Understanding the future needs of these assets and their potential threats was important in the preparation of the Plan.

#### PIPELINES & ELECTRICITY SUPPLY LINES

A number of highly significant gas and water pipelines and electricity lines transect the Greater Dandenong Green Wedge.

#### EASTERN TREATMENT PLANT (ETP)

The Eastern Treatment Plant is considered a critical infrastructure resource for Metropolitan Melbourne. It is one of two major plants which treat metropolitan Melbourne's wastewater. It was opened in 1975 to serve Melbourne's growing population in the east and to support the Western Treatment Plant. It currently treats about 40% of Melbourne's total sewage. The plant is approximately 1,100ha in size and is located on the corner of Thompsons Road and EastLink.

The ETP is of state significance and it is protected by the planning scheme and EPA guidance from the

development of any inappropriate or more resident/occupier intensive uses nearby. Future expansion of the ETP should be factored into the future of the Green Wedge, particularly the buffer distances required under the EPA Guideline 1518<sup>1</sup>.

Its significance is recognised in *Plan Melbourne* under Direction 5.6 which aims to protect significant water and sewerage assets. Initiative 5.6.1 acknowledges the need to protect significant metropolitan infrastructure assets including the ETP from encroaching development. In the short term, *Plan Melbourne* aims to work with water authorities to determine appropriate buffer requirements for such development.

An Environmental Significance Overlay (Schedule 3: Eastern Treatment Plant Buffer Area) applies to land surrounding the ETP as shown on Map 7. The purpose of this overlay is to ensure the use and development of land around the Eastern Treatment Plant is compatible with the ETP's operation. Essentially, the establishment and siting of odour-sensitive uses within this buffer zone are regulated in order to minimise the impact of odour from the Eastern Treatment Plant.

There are no plans to relocate the ETP as it would be extremely costly. Therefore, the ETP is considered an 'entrenched' use in the Green Wedge.

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<sup>1</sup> EPA Guideline 1518 recommends separation distances between industrial land uses that emit odour or dust and sensitive land uses.

#### EASTLINK

EastLink was constructed in 2008 and connects Melbourne's eastern and south-eastern suburbs. It is a major commuter road and key intracity arterial route. The freeway traverses the study area for a 3.5 km stretch from Bangholme Road to Thompsons Road, effectively dissecting the main portion of the Greater Dandenong Green Wedge in two.

#### RETARDING BASINS

There are a number of existing retarding basins and two planned within the Greater Dandenong Green Wedge to support the surrounding industrial areas (Dandenong South) and residential areas in Casey (Lyndhurst). As areas directly adjoining the Green Wedge continue to urbanise and increase stormwater runoff, the drainage function of the Greater Dandenong Green Wedge will increase in importance (Refer to *Chapter 3: Drainage & Water Management* for further detail regarding water management).

### AGRICULTURE & NURSERIES

Agriculture represents an important land use in the Greater Dandenong Green Wedge, although it is a small contributor economically to Greater Dandenong as a whole. In 2011, approximately 1,037 hectares (ha) of land, or 28% of the Green Wedge, was being used for



# Land Use

## ASSETS & VALUES Cont...

agricultural purposes by approximately 32 businesses<sup>2</sup>. This mainly comprised of horticulture and livestock production, including:

- Nurseries, cut flowers and cultivated turf: 11 businesses totalling 30 ha. Four of these businesses constituted 10.1% of Melbourne's undercover cut flower area (119,889 m<sup>2</sup>).
- Market garden vegetables: 6 businesses totalling 168 ha. Four of these businesses produced 5.2% of Melbourne's herbs (101,098 kg).
- Intensive poultry (both meat and egg): 3 businesses housing 367,949 birds. Almost three quarters of these birds (74.8%) are for meat production, while the remaining 25.2% produce over 2 million dozen eggs per year.
- Extensive beef cattle grazing: 10 businesses totalling approximately 500 ha and running approximately 955 cattle.
- Horse studs, training facilities and stables: 4 businesses totalling 236 ha running approximately 98 horses.

Some agricultural land use change has occurred in the main portion of the Greater Dandenong Green Wedge more recently. This is primarily due to pressure and competition for land from residential and industrial land use. Since 2009, there has been a retraction in

<sup>2</sup> Australian Bureau of Statistics (2012) Gr. Dandenong (C) Bal SLA

land used for agriculture in the south-west area of the current Buffers Precinct, near the corner of Thompson and Frankston-Dandenong Road, while there has been an expansion in market garden vegetables in the north-east area of the Lyndhurst Precinct, near the corner of Glasscocks Road and Westernport Highway. Agricultural land use has remained relatively constant in the Bangholme Lowlands and the current wetlands precinct during this time.

Agriculture is a desirable industry for the Greater Dandenong Green Wedge, in that it generally contributes to the economic activity of the area by creating employment, and does not negatively impact on the amenity and concept of a Green Wedge. It also provides opportunities to promote food production as identified in the draft *Greater Dandenong Regional Food Strategy* (2014). The draft strategy proposes to develop a feasibility study for the launch of a peri-urban demonstration farm in the Greater Dandenong Green Wedge in 2017.

The Green Wedge provides a desirable location for the businesses interviewed throughout consultation as they require a rural setting in order to operate (given they use pesticides and insecticides which are incompatible with residential uses). For commercial agriculture, the main constraint identified was water availability. However, the ETP recycled water scheme provides an opportunity to sustain agricultural activity.

The businesses consulted as part of the Green Wedge Management Plan process have been operating in

their current location for over a decade and made significant investments to their property, therefore the level of business entrenchment is considered 'stable'. However, there are a number challenges facing the broader agricultural industry in Victoria, such as increasing imports and generational change. Therefore, the likelihood of additional agricultural businesses of a similar size setting up in the Green Wedge is generally considered low.

## RESIDENTIAL & ACCOMMODATION

There are a significant number (127) of rural lifestyle properties in the study area occupying an area of approximately 500 ha<sup>3</sup>.

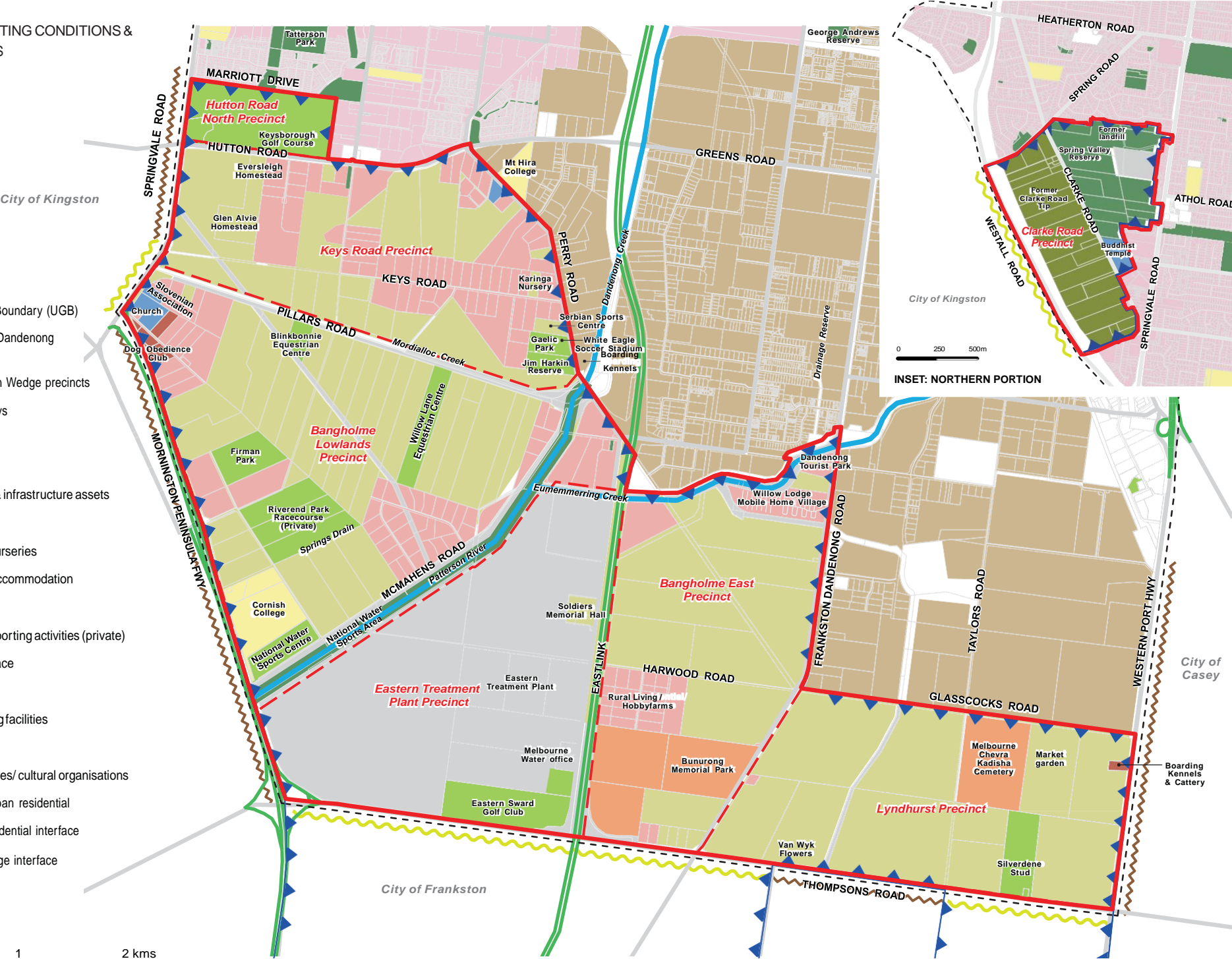
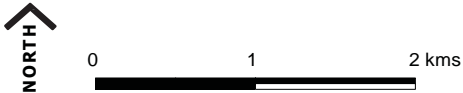
Demand for residential dwellings in the surrounding area appears to be high as a number of new residential estates have been established outside but near the Greater Dandenong Green Wedge in recent years. A number of small areas of residential subdivision have also occurred within the Greater Dandenong Green Wedge including around Keys Road, McMahon's Road, and Thompsons Road near the EastLink off ramp. The subdivisions provide for large dwellings with a rural setting, and there are a number of lots that may be developed in the future. Under the current zoning and minimum lot size requirement, an additional 43 dwellings could be provided throughout the Greater

<sup>3</sup> Appendix F: Land Use (Agricultural Feasibility) Technical Report (RMCG, 2013)

MAP 8: LAND USE EXISTING CONDITIONS & PROPOSED PRECINCTS

LEGEND

- Study area
- Urban Growth Boundary (UGB)
- City of Greater Dandenong boundary
- Proposed Green Wedge precincts
- Major waterways
- Freeways
- Existing Conditions**
  - Public utilities & infrastructure assets
  - Industrial
  - Agriculture & nurseries
  - Residential & accommodation
  - Education
  - Recreation & sporting activities (private)
  - Public open space
  - Cemeteries
  - Animal boarding facilities
  - Former landfill
  - Religious facilities/ cultural organisations
  - Surrounding urban residential
  - Hard urban residential interface
  - Soft green wedge interface



City of Kingston

0 250 500m

INSET: NORTHERN PORTION

City of Casey

# Land Use

## ASSETS & VALUES Cont...

Dandenong Green Wedge (20 of which could be located on the Keysborough Golf Course as per its current minimum subdivision size).

As previously discussed on page 27-29, the development of these additional dwellings would have an impact on the Greater Dandenong Green Wedge in terms of appearance, drainage and infrastructure needs.

In addition there are two main residential anomaly areas as follows:

### WILLOW LODGE MOBILE HOME VILLAGE

The Willow Lodge Mobile Home Village accounts for the largest concentration of residents in the Green Wedge (approximately 500) supported by a limited range of commercial and community facilities. The use of the land as a retirement village is considered a prohibited use in the Green Wedge Zone however the mobile home village continues to operate under existing use rights. The village provides low income accommodation that is highly valued by the residents and adds to the housing diversity of the region. Although the village consists of mobile homes, the operators consider their presence in the Greater Dandenong Green Wedge as permanent.

### BIG 4 TOURIST PARK

The Big 4 Tourist Park is located at 370 Frankston-Dandenong Road on approximately 1.5ha of land. It provides for a number of accommodation types including caravan, camp sites, and cabins.

## EDUCATION

There is currently one school in the Greater Dandenong Green Wedge (Cornish College), located on the banks of the Patterson River.

Cornish College has operated within the Green Wedge since 2012 after taking over from St Leonards College. The College currently has 356 students. The College recently undertook a master planning process and their land was rezoned to a Special Use Zone via a Planning Scheme amendment prepared by the Minister for Planning. The amendment facilitates the use and development of education facilities for 900 students in accordance with the master plan.

Schools, and in particular the sporting facilities associated with schools, are a potential growth area for the Greater Dandenong Green Wedge.

## RECREATION & SPORTING FACILITIES

A number of regional recreational activities, and one national facility, are located within the Greater Dandenong Green Wedge. Most, although not all, of these facilities are privately owned with restricted access. Recreation and sporting facilities within the southern portion of the Green Wedge include:

- Gaelic Park and Sports Complex (324 Perry Rd) - the Gaelic Sports Complex includes four sporting fields and a large clubhouse which is used for a variety of functions (e.g. balls, concerts etc.).
- National Water Sports Centre (Riverend Road) - the

National Water Sports Centre was developed as an international standard rowing course in preparation for Melbourne's bid for the 1988 Olympic Games. The facility is used for a diverse range of water based activities including rowing, water skiing, canoeing and kayaking. It is located on the south west corner of the Green Wedge on approximately 2ha.

- Keysborough Golf Course (55 Hutton Rd) - an eighteen hole golf course located to the north of the study site which spans approximately 80ha.
- Eastern Sward Golf Club (Corner Thompson and Worsley Roads) - A nine hole golf course is located next to the Eastern Treatment Plant on land leased from Melbourne Water.
- White Eagles Stadium;
- Springvale United Soccer Club;
- Serbian Sports Centre;
- Carrum United Soccer Club; and
- South Eastern Model Aircraft Club.

There are a number of equestrian centres located along Pillars Road, as well as a large private racecourse:

- Riverend Park Racecourse (128 Riverend Road): The Riverend Park Racecourse is a thoroughbred training facility with an area of approximately 50ha.
- Willow Lane Equestrian Centre (280-296 Pillars Road): The equestrian centre includes a large indoor arena, outdoor arena, show jumping area, and cross-



## ASSETS & VALUES Cont...

country course with an area of approximately 40ha.

- **Blinkbonnie Equestrian Centre (88 Pillars Road):** The centre was established in 1999 as a horse riding school which includes a large arena, show jumping and cross country course with an area of approximately 6ha.
- **Silverdene Stud (Thompson Road):** Silverdene Stud is an agistment facility which includes an indoor and outdoor arena. It is located in the south east corner of the Greater Dandenong Green Wedge on approximately 25ha.

The advantages to the City of Greater Dandenong of these facilities cannot be underestimated. They provide the opportunity for a variety of recreational activities for the local community, local economic activity and employment opportunities and many also provide a pleasant outlook for the area.

The National Water Sport Centre is currently zoned part Green Wedge Zone, part Urban Floodway Zone and part Public Use 1 Zone. This does not reflect the site's primary role or current usage. To recognise and strengthen the centre's recreation and sporting role this should be rezoned to Public Park and Recreation Zone as proposed by Parks Victoria, the site's land managers.

In relation to golfing facilities, many golf clubs in metropolitan Melbourne are facing a number of long-term strategic pressures. These principally include escalating running costs and a highly competitive membership market. According to the Keysborough Golf Club, there are 14 private golf clubs within a 10km

radius of the Green Wedge as well as a number of public-access courses.

The Keysborough Golf Club indicated that current operations are such that the ongoing viability of the Club is under serious threat in the short-term.

The possible merging of golf clubs would provide an opportunity for a well-designed course and club facility within the Greater Dandenong Green Wedge.

### PUBLIC OPEN SPACE

Open space within the Greater Dandenong Green Wedge is predominantly made up of reserves used for active recreation and sporting activities, as discussed above. Many of these spaces are privately owned with restricted access to the general public.

Public open space within the main portion of the Green Wedge is limited to:

- Patterson River National Water Sports Centre and shared bicycle/pedestrian path, which runs alongside the east side of the Patterson River, linking to Dandenong in the north and Patterson Lakes/Carrum to the south-west;
- Council-owned Bowmans Redgum Reserve (0.35ha) located at the corner of Hutton and Chapel Roads; and
- Council-owned open space (0.73ha) that includes a tennis court on Bangholme Road just west of EastLink.

The northern portion of the Greater Dandenong Green Wedge contains the Spring Valley Reserve—a 32 hectare area of public open space on a former landfill site.

### CEMETERIES

Cemeteries are a major land user in the Greater Dandenong Green Wedge. The Bunurong Memorial Park and Chevra Kadisha Cemetery operate on large sites (120ha and 51ha respectively) and have made significant investments and infrastructure upgrades to their sites. Chevra Kadisha are proposing to develop a portion of their land holdings in order to generate funds to reinvest in the cemetery.

Bunurong Memorial Park is currently undergoing a master planning process to guide expansion and investments over the long term, and is considered an 'entrenched' Green Wedge user. They have expressed interest in developing a function centre and food and beverage facility on their site.

### ANIMAL BOARDING FACILITIES

There are a large number of animal boarding facilities in the Greater Dandenong Green Wedge including several horse agistment businesses, dog boarding kennels and catteries. These uses are generally located in the Green Wedge due to buffer distance requirements, the need for large areas of low cost land, general amenity or access issues. There has been a high turnover of smaller businesses in recent years, with some reportedly having been bought out by land investors.

# Land Use

## ASSETS & VALUES Cont...

The two businesses consulted throughout this GWMP process have been located in the Green Wedge for over a decade and had made significant investments to establish their business. They indicated that demand for horse facilities in the area is high with a long waiting list to use facilities. However, turnover from their business was relatively low and rising costs from land tax were making horse agistment businesses in the Green Wedge unsustainable over the long-term.

### FORMER LANDFILL SITE

The former landfill on Clarke Road (in the northern portion of the Green Wedge) was historically used for natural resources extraction (sand mining) and subsequently for landfill. Filling at the landfill ceased in 2003.

The site is now in an 'aftercare period' and is managed under a Pollution Abatement Notice (PAN) issued by the EPA which outlines the site's ongoing environmental management and monitoring requirements.

The site is currently used for landfill gas extraction by the South East Regional Gas Alliance.

Spring Valley Reserve to the north – east of Clarke Road is also a former landfill site that has been converted into a reserve.

### RELIGIOUS FACILITIES

A number of religious facilities have located in the Green Wedge in recent years including:

- Sikh Temple (Perry Road)
- Khmer Buddhist Temple (Clarke Road)
- Christian Church (Soden Road)
- Samoan Seventh Day Adventist Church (Thompsons Road)

Greater Dandenong has a diverse, multi-cultural population and demand for religious facilities is expected to remain high. Real estate agents reported that there had been interest from a number of religious organisations for land currently on the market. Lower land prices in the Greater Dandenong Green Wedge are expected to continue to attract religious organisations which cannot find suitable, affordable sites in urban areas.

### CULTURAL ORGANISATIONS

There are a number of other culturally based organisations which have been established in the Greater Dandenong Green Wedge for many years including the Serbian Sports Centre and Slovenian Association. They play an important role in the multi-cultural fabric of Greater Dandenong. However, as Greater Dandenong's cultural profile continues to evolve and migrant communities undergo generational change, some cultural institutions may face issues in declining membership and funding. Further consultation will need to take place with existing cultural institutions to confirm their ongoing viability.

## 5.3 KEY ISSUES & CONSTRAINTS

Key issues and constraints identified in relation to land use within the Green Wedge include:

### URBAN GROWTH PRESSURES

There has been significant population and housing growth surrounding the Greater Dandenong Green Wedge in recent years. Over the period 2006-2011, population in the surrounding Statistical Local Area (SLA) grew at a relatively high rate of 2.1% per annum. Over the last decade, median house and unit prices in the Greater Dandenong Green Wedge and nearby suburbs increased at a higher rate than the Metropolitan Melbourne average.

These residential growth indicators point to increased development pressure in areas surrounding the Greater Dandenong Green Wedge, which will likely contribute to land speculation within the Greater Dandenong Green Wedge itself. Urban expansion and consolidation will continue beyond the Greater Dandenong Green Wedge to the south and east; however land supply is restricted by the current Urban Growth Boundary in Frankston, Casey and Cardinia.

As urban expansion continues inside the Urban Growth Boundary (UGB), the economic role of the Greater Dandenong Green Wedge will increase in importance. The area will become increasingly significant in accommodating economic activities that support urban development including open space, community facilities, large scale agri-businesses and public utilities.

Greater Dandenong plays a vital role in the State's

economy. It has the largest concentration of manufacturing jobs in the State and supports many other industries. The industries which are prominent in the Greater Dandenong area are typically land intensive, such as manufacturing and wholesale trade. To support future economic growth, new areas will be needed to increase industrial and commercial land supply. The strategic location of the Greater Dandenong Green Wedge, adjacent to the Dandenong South National Employment Cluster and EastLink, make it an attractive area for industrial expansion. It is expected that pressure for industrial expansion will continue in areas near the Green Wedge. As previously stated, this Plan does not consider revisions or changes to the UGB. It seeks to manage the existing Greater Dandenong Green Wedge.

Several land owners believe that a reduction in the minimum subdivision size in areas within the Greater Dandenong Green Wedge could facilitate development on these lots for low density residential use and fund a comprehensive drainage and open space scheme through development contributions.

It is understood that a land owners' group has undertaken a number of background studies which indicate that the land in Keys Road precinct is appropriate for low density development, subject to the improvement of drainage infrastructure. However, the lot yield generated at the current minimum subdivision size of 6ha would generate insufficient funds to support infrastructure upgrades in the area.

It has been argued that a reduction in the minimum lot sizes in the Greater Dandenong Green Wedge could:

- Provide a viable future for current land owners thus reducing land banking and stagnation of land use activity;
- Facilitate the delivery of drainage infrastructure to address existing urban run-off and flooding issues;
- Support a modest increase in low density residential lots in the precinct;
- Facilitate the improvement and formalisation of the open space network in this section of the Green Wedge and provide opportunities for an increase in public open space, both passive and active; and
- Appropriately provide for the delivery of Wetlands Sensitive Development in this precinct as envisaged in the planning scheme, which to date has not been possible under the current subdivision controls.

However, the desire of some land owners to subdivide the land, and any benefits this may bring, must be balanced with all other objectives of the Greater Dandenong Green Wedge. In particular the following issues require consideration:

- Residential development of the densities envisaged will change the appearance of the Greater Dandenong Green Wedge to a low density residential area;
- The drainage infrastructure required and the additional elevated roads and other paved surfaces



# Land Use

## KEY ISSUES & CONSTRAINTS Cont...

- will be substantial, significantly altering the topography and form of the landscape;
- The presence of Coastal Acid Sulfate Soils (CASS) may restrict any form of intensive development within this precinct and further investigation needs to be carried out to establish the location and potential risk of such soils;
  - There can be no certainty that drainage works for this part of the Green Wedge will not have further consequences for this precinct and other areas of the Greater Dandenong Green Wedge;
  - There is a precedent set for subdivision of one part that could lead to further pressure for subdivision of other parts, the cumulative effect of which would be unsustainable; and
  - Ongoing maintenance of infrastructure, such as roads and drains, will most likely fall to Council or other public bodies, and this could be a substantial burden.

### LAND BANKING & SPECULATION

Consultation with land owners and real estate agents revealed that land banking has been occurring within the Greater Dandenong Green Wedge, with some large land holdings owned by developers, as well as investors purchasing and holding land with the expectation of future rezoning. This is illustrated by the high amount of unused and rundown land and the low value uses occurring in the Greater Dandenong Green Wedge.

It is understood that land is held by a number of investors and developers in the Green Wedge with interest in future subdivision and development for both residential and industrial use. In particular, a large section of land within the 'Bangholme Precinct' was the subject of the UGB Anomalies review, which determined that the UGB should not be altered as part of that process (see page 21).

Land banking can have a negative impact on the function and amenity of the Green Wedge as owners generally choose not to invest in improvements or allow any substantial economic uses. For example, during the public consultation phase, one business owner complained that adjoining lots were not being properly maintained and managed, causing problems with weeds. Land banking can also prevent other potential land users from using the land in ways that are compatible with the Green Wedge Zone.

### EASTERN TREATMENT PLANT & BUFFER

The Eastern Treatment Plant (ETP) is both a major constraint for future development and a significant component of the current economic role of the Greater Dandenong Green Wedge.

Consultation with Melbourne Water revealed that the main issue created by increased development within the ETP Buffer Area is the inevitable increase in odour complaints which would result. Melbourne Water considers that these complaints compromise the operation of the plant, and any upgrades to reduce odour are costly and would be passed on to water

consumers.

To manage the odour issues, Melbourne Water will continue to discourage certain uses in close proximity to the ETP through the planning process (under ESO3). This includes any use which has a large number of people present for any length of time, or any use which emits odour itself (as outlined in the existing ESO3 which identifies the Buffer Area). Examples of uses which are discouraged within the Buffer Area include, but are not limited to:

- New schools/ kindergartens/ childcare centres;
- Medical centres/ hospitals/ aged care facilities;
- Function centres;
- Residential development;
- Industry that emits odour and/or has large numbers of people present on site such as offices and some light industries;
- Cinema complexes; and
- Service stations with attached playgrounds and cafes.

This is not intended as an exhaustive list of all activities but provides a general guide to the uses which Melbourne Water considers incompatible with the ETP.

For Melbourne Water, land surrounding the ETP would ideally be used for activities that require recycled water and other products produced at the ETP such as bio-solids, that do not have a high number of people

## KEY ISSUES & CONSTRAINTS Cont...

on site. On the southern boundary of the ETP, within the Frankston Green Wedge, there is a turf growing operation which utilises recycled water from the ETP. Melbourne Water views this as an example of a complimentary use within the Buffer Area.

### INDUSTRIAL LAND BUFFER

The Dandenong South Employment Cluster immediately adjoining the Greater Dandenong Green Wedge is an industrial concentration of National and State significance as recognised in *Plan Melbourne* (2014). This area consists of the only Industrial 2 Zoned land in the south east of Melbourne. This zone provides for the operation of heavy and/or offensive industries and requires significant buffer from sensitive uses.

This industrial area provides a constraint to the Greater Dandenong Green Wedge because activities in the area need to be managed so that they do not threaten the continued operation and growth of the industrial area.

The Dandenong South Industrial 2 Zone has part of its notional buffer inside the Greater Dandenong Green Wedge. A 1,500 metre buffer exists around the Industrial 2 Zone to the north of the Green Wedge study area, as shown on Map 7 on page 59.

The availability of infrastructure to support further development is a factor in driving the success of the area and ongoing demand. Land has been excised from the Greater Dandenong Green Wedge previously to provide for industrial land. Studies in 2007 and 2010 found there is an existing 20 year supply of industrial land in the municipality which is considered to be sufficient.

### EDUCATION

Education has been categorised as a 'developing use' in the Greater Dandenong Green Wedge. In general, the development of new schools is permissible since the zone reforms; however there appear to be constraints to establishing new schools in the Greater Dandenong Green Wedge, including proximity to the ETP, limited public transport and access, and conflicting uses such as rural activities which involve pesticide spraying.

### CONFLICTING LAND USES

Given the diverse nature of land uses in the Greater Dandenong Green Wedge, there was a relatively low level of land use conflict reported by businesses. The main conflicts have been between the poultry farm, Willow Lodge mobile home village, and the Industrial 2 Zone in Dandenong South. Conflicts have also been cited regarding stray domestic pets that have attacked livestock and other animals.

As industrial growth is expected to continue in the surrounding area, land use conflicts may intensify in the future. It is important that existing buffers are enforced and maintained and efforts are made to minimise odour and noise pollution in the industrial areas.

As new uses allowed by the changes to the zone controls are proposed, consideration will need to be given to potential conflicts between existing residential and other uses such as schools, community uses and agriculture.

### PUBLIC UTILITIES & INFRASTRUCTURE

The presence of transport networks such as EastLink and other large utility trunk supplies (gas and electricity) present a constraint in particular areas of the Green Wedge. These pieces of infrastructure typically have planning constraints that limit activities within nominated proximity to the subject infrastructure. Updated and accurate mapping of gas and water pipelines and electricity lines is therefore required.

The provision of public utilities such as sewer, power, telecommunications and others will be constrained by the low lying terrain and high groundwater levels. It is probable that wider raised road formations will be required to accommodate the provision of such services.

### DECLINE OF DESIRABLE USES

An economic viability analysis undertaken as part of this study shows Golf and Animal Boarding Facilities are the uses with the least certainty in terms of ongoing viability within the Greater Dandenong Green Wedge. Both of these uses would be considered as desirable Green Wedge uses as they are consistent with the protection of open rural landscapes, have a low visual impact, respect the rural character of the surroundings, and enhance the environmental and open space amenity of the Green Wedge. Methods to retain and encourage these uses need to be introduced.

In order to ensure the ongoing viability of desirable Green Wedge uses, only businesses and activities which

# Land Use

## KEY ISSUES & CONSTRAINTS Cont...

contribute positively to the Green Wedge function and align with the future directions outlined for each of the precincts should be allowed and encouraged.

### HISTORICAL & ILLEGAL LAND FILL

Historical and illegal land fill has occurred throughout the Greater Dandenong Green Wedge. Most applications for fill received by Council are retrospective. This land fill interrupts the natural flow of water in the area and can lead to possible problems such as land contamination. This can pose an issue for future land uses.

### PUBLIC OPEN SPACE

Large parts of the Greater Dandenong Green Wedge do not enable public access or use. Public open space in the area is limited to Spring Valley Reserve in the Clarke Road precinct and the Patterson River shared bicycle/ pedestrian path, which runs alongside the east side of the Patterson River, linking to Dandenong in the north and Patterson Lakes/ Carrum to the south-west. These open space areas are predominantly used for active recreation and sporting activities. The public open space network is fragmented because these facilities are isolated from each other.

### OTHER CONSTRAINTS

Other constraints to development discussed in other sections of this report are:

- Flooding and inundation, poor water quality in waterways, water logging of soils and poor surface drainage (see *Chapter 3: Drainage & Water Management*);
- Existing ecological values including remnant vegetation and scattered remnant trees (see *Chapter 4: Natural Environment*);
- Potential Coastal Acid Sulfate Soils (CASS) (see *Chapter 4: Natural Environment*); and
- Existing heritage values including aboriginal sites and other heritage sites (see *Chapter 7: Built Form & Heritage*).



## 5.4 PRECINCTS

### 1. CLARKE ROAD PRECINCT

The Clarke Road area is not currently recognised as a Green Wedge precinct in local planning policy. To provide future direction over the development in the Clarke Road Precinct, the area should be recognised within Clause 22.02, in both the general objectives and including it as a new precinct. This would include all land bounded by the UGB (including Spring Valley Reserve).

The key constraints of the land include:

- The ongoing rehabilitation of the former landfill site
- The presence of residential land to the north and south and any potential impacts on residents
- The presence of open spaces to the east and west and any potential impacts of future use on the enjoyment of the users of the park

Key opportunities of the land include:

- It is located within an established urban area of Melbourne with a wide variety of land uses on its doorstep
- It is not in a pristine environmental condition - it is a former landfill site and therefore any future uses are not likely to impinge upon any sensitive environmental characteristic or function of the land
- It is in close proximity to residential land use in the surrounding areas of Dingley Village, Springvale South and Keysborough

- It is in close proximity to light industrial uses in the Fiveways Industrial Park Precinct (located on the north – eastern corner of Cheltenham Road and Springvale Road) and within easy driving distance of the large industrial areas of Dandenong South
- It is in proximity to a number of parks and golf courses including Kingswood Golf Club, Spring Park Public Golf Club and Southern Golf Club, Braeside Park Spring Valley Reserve, Tattersson Park and Braeside Park
- It is effectively an 'island site', so any future use of the land will not have direct abuttal to a sensitive use (other than the dwellings which exist at 90 and 94 Clarke Road and 224 and 226 Clarke Road)
- It has access along the entire length of its frontage to Clarke Road, with access also potentially being available from Spring Road and Rowan Road
- It has proximity to Westall Road including the proposed Dingley Arterial and the recently opened Dandenong bypass which provide ready access to major arterials of Melbourne
- It provides an opportunity for potential linkages and synergies with the Spring Valley Reserve and any existing or proposed open space on the western side of Westall Road
- It is a large site with a depth of 400 metres and a length of approximately 1.2 kilometres.

In summary, subject to an appropriate investigation of the impacts of any proposed use on nearby residents and users of the parkland and subject to the uses(s) being consistent with the ongoing management of the former landfill, the site has attributes which lend it to a range of potential uses under the Green Wedge Zone.

Renewable energy is considered an example of an appropriate future use of the site, given the post-closure land fill monitoring requirements, ongoing gas extraction processes and requirements to maintain the landfill gap in the long term. Renewable energy generation should be supported as a desirable Green Wedge use, particularly in the case of the former Clarke Road Landfill. This supports Direction 5.7 of Plan Melbourne which aims to transition to clean energy.

It may be possible to establish interim uses prior to a long term use being established on the site. Changes in technology may open up a wider range of post landfill uses over time.

Any future proposals for this site will need to respond to the ongoing management requirements outlined in the PAN and should result in a net community benefit.

No changes are recommended to the minimum lot sizes.

## 2. HUTTON ROAD NORTH PRECINCT

Like the Clarke Road precinct, this precinct should be recognised as a Green Wedge precinct in local planning policy as currently it is not mentioned.

The Keysborough Golf Club has shown interest in developing a golf and community multi-sport precinct within the Greater Dandenong Green Wedge and that a new site will be sought in green wedge.

In the meantime, it is recommended that the area be rezoned to Green Wedge A Zone (GWAZ)<sup>1</sup> to reflect its existing urban context with residential development to its north and south west. This zoning is more compatible with the surrounding uses. In particular, it will better protect the amenity of adjacent residential uses. No changes are recommended to the minimum lot size which allows for continued operation of the golf course, as well as other forms of recreation or rural living where the landscape dominates.

## 3. KEYS ROAD PRECINCT

To create better land use outcomes and prevent further land banking in the Keys Road Precinct, it is important that certainty is given to land owners on the future role and desired land use of the precinct. Limited development activity and low value uses have predominated in the precinct due to land speculation, flooding issues and a minimum subdivision size of 6ha that is not considered viable for development.

Despite a number of parcels in the precinct being owned by developers and land owners interested in subdivision, the combination of flooding problems and a minimum subdivision size of 6ha has meant that the achievement of the land owners' preferred future for the precinct as a low density residential area is currently not viable due to the prohibitive costs of establishing major drainage infrastructure.

In recognition of the area's current role for rural living and to protect residential amenity, the area should be rezoned to Green Wedge A Zone (GWAZ). The GWAZ prevents land uses expected to have a greater impact on residential amenity such as abattoirs, intensive animal husbandry and transfer stations.

In recognition of the risks, issues and impacts associated with allowing further subdivision, the existing subdivision controls should be retained. This will also ensure that the area's spaciousness and its open, landscape- dominated vistas are retained. In these areas, rural residential, open space, recreation and less intensive agricultural uses are encouraged.

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<sup>1</sup> An analysis of the differences between Green Wedge Zone and Green Wedge A Zone is provided at *Appendix B*.

# Land Use

## PRECINCTS Cont...

### 4. BANGHOLME LOWLANDS PRECINCT

Despite the significantly larger minimum lot size of 40ha, the Bangholme Lowlands Precinct has suffered from the same land banking and inertia due to uncertainty about the future, as the Keys Road Precinct. In this precinct, there have been similar representations and proposals for subdivision to smaller lots, potentially almost to standard subdivision sizes in an environmental setting, accompanied by significant research and documentation regarding drainage, traffic and other infrastructure requirements.

The benefits of allowing further subdivision are thought to be an ability to fund drainage improvement works to allow the land to be developed, and the potential for public open space improvements.

The same issues as apply in the Keys Road Precinct are equally valid in this precinct. It is noted that while the minimum lot size is 40ha, none comply with its minimum unless lots in the same ownership are considered. Many are 2-6 ha and several are less than 2 ha (refer to Map 9 on page 73).

The presence of Coastal Acid Sulfate Soils (CASS) may restrict any form of intensive development within the Bangholme Lowlands Precinct and further investigation needs to be carried out to establish the location and potential risk of such soils. It is important that existing businesses and activities which add to the economic value of the precinct are supported and maintained, such as agistment, dog obedience, and cultural facilities.

Given the low-lying nature of the land and propensity to

flood, the use of land for open space and recreation is generally appropriate.

The precinct could support a range of agricultural and non-residential activities which require buffers for odour, pesticides or noise issues and which would not be appropriate in other precincts (e.g. poultry). For areas which are identified to have no CASS risk, more intensive agricultural activities may be appropriate. A range of agricultural activities may be assisted by access to recycled water from the Eastern Treatment Plant.

The area in the north-west of the precinct already supports some institutional uses which could be encouraged further as it is one of the few areas in the Green Wedge which has direct access from Springvale Road. The mixture of institutional use and agricultural activities will need to be managed with appropriate buffers to minimise potential land use conflict.

This precinct includes Cornish College which will need to carefully manage its planned expansion to ensure the operations of the ETP are not compromised.

The following uses are encouraged in this precinct:

- Agriculture and other rural uses
- Open space and recreation

Maintaining the 40ha minimum would continue to encourage the consolidation of lots in this area, encourage recreation and agricultural uses and protect the rural nature of the area.




### 5. EASTERN TREATMENT PLANT PRECINCT

Given the metropolitan and State significance of the Eastern Treatment Plant (ETP), land use and development in this precinct should be guided by the operational needs of the ETP. While its primary purpose is the treatment of waste water, provision of recycled water for other uses within and near the precinct are encouraged.
















MAP 9: EXISTING LOT SIZE ANALYSIS, OWNERSHIP & PROPOSED PRECINCTS

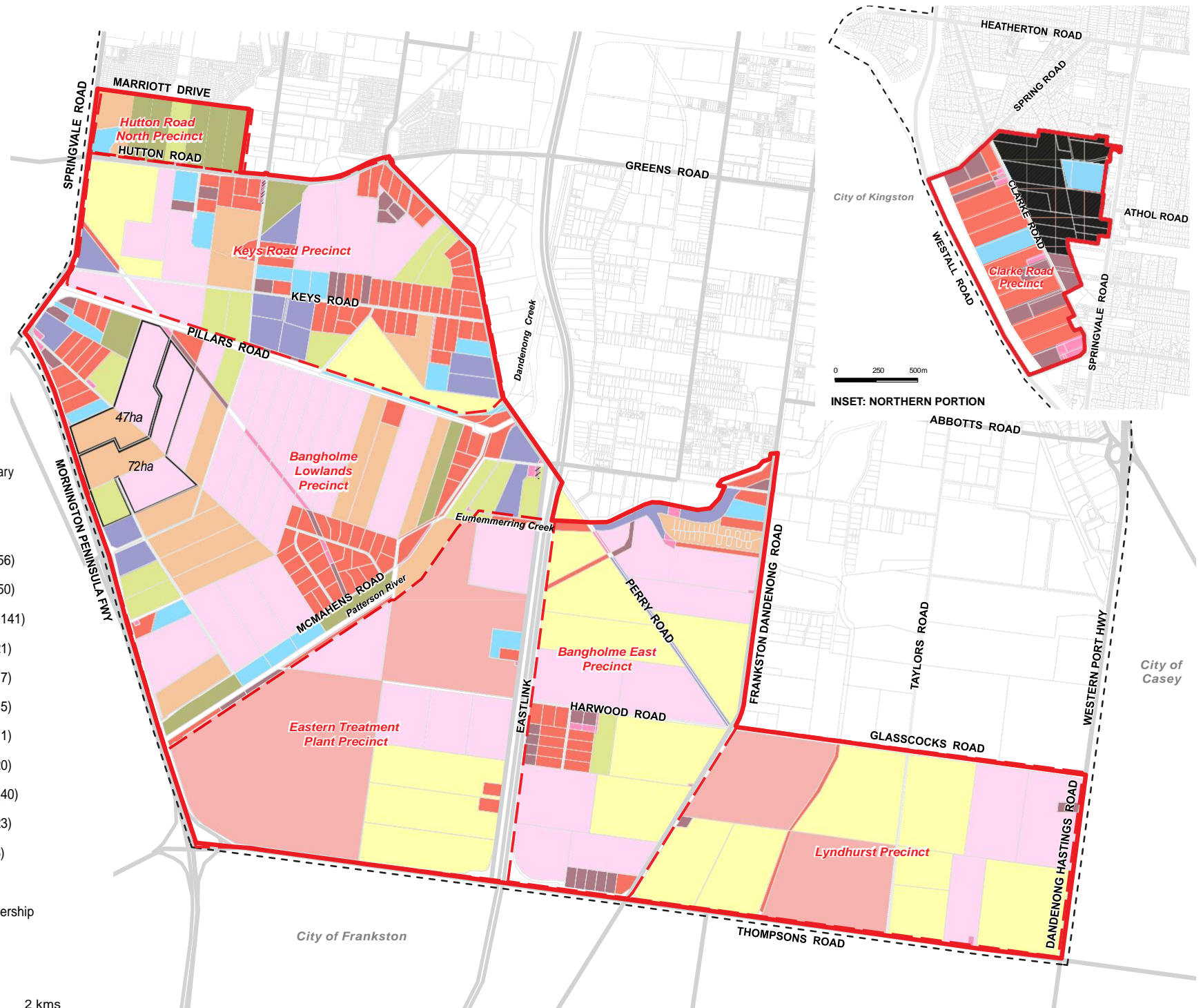
LEGEND

-  Study area
-  City of Greater Dandenong boundary
-  Proposed Green Wedge precincts

Lot Size

	Less than 1 hectare (ha)	14% (56)
	1-2 hectares	13% (50)
	2-4 hectares	35% (141)
	4-6 hectares	5% (21)
	6-8 hectares	4% (17)
	8-10 hectares	4% (15)
	10-12 hectares	3% (11)
	12-20 hectares	5% (20)
	20-40 hectares	10% (40)
	40-80 hectares	6% (23)
	80 hectares and above	2% (6)

- Ownership
-  Lot size for total lots in single ownership
  -  Council-owned properties





# Land Use

## PRECINCTS Cont...

### 6. BANGHOLME EAST PRECINCT

The Bunurong Memorial Park is currently going through a master planning process with a vision to develop the site for a range of activities beyond normal memorial services including parks and gardens, a function centre, amphitheatre, and a food and beverage facility. These upgrades provide the opportunity to improve the economic role of the Green Wedge (with expected increases in employment) as well as significantly improve the quality of open space in the area. Although the cemetery is located in a Public Use Zone and may not require planning approval to undertake upgrades to their site, it is important that Council liaise with the operators to ensure that site upgrades will not impact on the operations of the Eastern Treatment Plant.

The Willow Lodge Mobile Home Village is a sensitive land use in this precinct with existing use rights though the use is generally seen as incompatible in the Greater Dandenong Green Wedge. The majority of Greater Dandenong Green Wedge residents live at this location so any proposed use and development in the area needs to consider its impact on them. Council will continue to monitor use and development in this area.

This area is low-lying, prone to flooding and subject to buffer areas for the ETP and Industrial 2 Zone.

In light of these constraints and to encourage rural uses, such as agriculture, particularly on the larger lots in this area, the existing 40ha for the Green Wedge zoned land should be retained. Open space and recreational uses would also be appropriate in this precinct.

### 7. LYNDBURST PRECINCT

The retention of large lot sizes means the Lyndhurst Precinct has the most opportunity for broad acre agriculture in the Green Wedge. As shown on Map 9 on page 73 most lot sizes are greater than 40ha. Forms of agriculture which can benefit from the ETP recycled water scheme should be promoted.

The operators of the Chevra Kadisha Cemetery are seeking to develop other uses on their private land holdings. Although residential use and subdivision is not considered appropriate in the precinct and is largely prevented through the minimum subdivision requirements, there may be opportunity to develop community facilities which are permissible under the GWZ reforms. New opportunities may exist for the development of low density tourism, recreational, institutional, cultural and other land intensive activities, which are in keeping with the rural and environmental character of the precinct.

The industrial area to the north (which is yet to be fully developed) will need to be managed to ensure that it does not impact on the amenity and drainage function of the Lyndhurst Precinct.

Retention of the 40ha subdivision control will protect opportunities for agriculture and will also help protect the remnant vegetation and heritage places in the area. Other rural uses, open space and low-scale community, institutional, recreational and tourism-related uses would also be appropriate.



## 5.5 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. 77 submitters commented on the theme of Land Use. Summaries are broken down in categories as follows.*

### ZONING & SUBDIVISION

- Thirty (30) submissions supported the retention of the Green Wedge, including five community associations.

*This accords with the Draft GWMP and has been retained in this Plan.*

- Seventeen (17) submissions were against further development in the Green Wedge, including two community associations. Of these submissions, six (6) related to residential and industrial development and one (1) to only residential development.

*Any further restriction of subdivision is likely to provide the need for land owner compensation and/or acquisition of land by Council. This Plan proposes investigating the purchase of some land in the Greater Dandenong Green Wedge for public open space. The Plan proposes that subdivision controls are not further restricted, allowing limited development to occur in the future with the current planning provisions.*

- Thirty three (33) submissions, including a group of landowners, advocated for a review of the current

zoning regulations in relation to the development of areas inside the Green Wedge zone such as for residential or industrial uses.

- Further subdivision of land was opposed by fifteen (15) submitters, including four community groups, while nine (9) submitters wanted a review of restrictions to enable further subdivision, including a group of landowners.

*The GWMP is not considering revisions or changes to the UGB as specified in the Draft GWMP. The Plan has considered allowing further subdivision but due to the Greater Dandenong Green Wedge's constraints, the impacts of allowing additional development and the support for the proposed vision, further subdivision is not considered appropriate.*

- A concern raised by four (4) submitters was the development of a paintball centre within the Green Wedge and its impact on traffic, wildlife and noise pollution.

*This Plan includes an action to include policy so that any proposals avoid adverse impacts on (existing or future) encouraged uses in the area (e.g in relation to noise, traffic).*

### OPEN SPACE & RECREATION

- Four (4) submitters supported plans to protect the area's recreational values.

*This was included as an objective in the draft GWMP and has been retained in the final Plan.*

- Four (4) submitters supported the improvement of Spring Valley Reserve. Two (2) suggested developing it into a Multi-Cultural Recreation park, one (1) providing more trees and another to make it like Tirhatuan Park, Dandenong North.

*This Plan specifies that the Clarke Road precinct's cultural role should be strengthened. The action to strengthen the passive open space function of Spring Valley reserve has been modified to include reference to tree planting.*

- Two (2) submitters requested that public open space be increased.

*This Plan encourages options for the provision of open space to be investigated.*

### AGRICULTURE

- Eight (8) submitters supported the protection and promotion of the area's local agricultural value, with three (3) of those submitters wanting to encourage niche or organic agriculture uses.
- Three (3) submitters were concerned about the future of agriculture in the area.

*This Plan strongly supports the retention and encouragement of agricultural activities.*

### OTHER

- Some submitters (4) wanted to see some commercial development in the Green Wedge such as a shopping centre or small business. Two (2) of

# Land Use

## WHAT WE'VE HEARD Cont...

these submitters were interested in this only for their site.

*Retail activity is not considered to be appropriate in a Green Wedge.*

- Four (4) submitters suggested more community facilities overall, including the following suggestions: hall or place of assembly (2), a community centre (1) and more facilities for children (1).

*Further community facilities are supported by the Plan in appropriate locations.*

- Four (4) submissions requested tax breaks and incentives to assist landowners, two (2) of which requested this specifically for farmers.

*Issues related to assistance for land owners and farmers to maintain and improve their properties are considered in the recommendations of this Plan.*

- Land banking and speculation was highlighted as a concern by eight (8) submitters. Concerns were raised regarding the deterioration of land, artificially increased land values and its negative impacts on the management, function and amenity of the area. One (1) of these submitters was pleased to see Council taking a stand and providing a direction to reduce land banking and speculation. Another submitter (1) requested cooperation between governments to control land banking and speculation.

*This Plan is intended to provide certainty, thus reducing speculation in the Greater Dandenong Green Wedge.*

## 5.6 VISION

Land uses are carefully located and managed to complement the values and functions of the Greater Dandenong Green Wedge.

*Plan Melbourne* aims to secure the future of green wedges from urban encroachment for agriculture, biodiversity, open space and heritage-related uses. It recognises opportunities for food production. It also seeks to make Melbourne greener (direction 4.5). This includes developing a new open space strategy for metropolitan Melbourne.

This Plan will provide certainty regarding the types of activities and associated development that can occur in the Greater Dandenong Green Wedge: agriculture and other rural uses, water treatment, rural living and low-scale community, institutional, recreational and tourism-related uses.

The Greater Dandenong Green Wedge's existing values and assets, such as the regionally significant ETP, must be safeguarded into the future. Better management of existing land uses needs to occur to protect these values and assets. This also needs to be considered in the assessment of proposals. Change will also need to be managed to minimise the risks associated with former land uses, soil conditions, sensitive land uses and landscape features.

The Greater Dandenong Green Wedge provides a

unique opportunity for agricultural activities to take place with easy access to consumers and suppliers in the metropolitan region. Agriculture, a key purpose of Green Wedge Zoned land, could be expanded and diversified as well as increase food production, thus improving the region's food security. Measures should be undertaken to support existing and new agricultural uses in the area.

There is the opportunity for the educational, recreational and cultural role of the Greater Dandenong Green Wedge to be promoted and strengthened. This could be improved through upgrades to Spring Valley Reserve, increased public trails along waterways throughout the Green Wedge, new public open spaces and establishing an environmental and agricultural centre in the same vein as CERES, Brunswick East or Edendale Farm, Eltham.

The following table summarises the vision for each land use precinct: each precinct's objective and preferred land uses in response to its individual characteristics and key constraints.

## VISION Cont...

Figure 12: Objectives & Preferred Land Uses by Precinct

Precinct	Key Constraints	Precinct Objective	Preferred Land Uses
1. Clarke Road	Previous land use	<p>To encourage the use of land for activities that are of net community benefit.</p> <p>To encourage land uses which are consistent with the ongoing management and monitoring of the former landfill site and which do not unreasonably affect the amenity of adjoining residents and users of the parkland.</p>	Uses consistent with the purpose of the Green Wedge Zone and compatible with nearby public open space and residential uses and provide for a net community benefit, including but not limited to, solar farm and other infrastructure, open space and recreation.
2. Hutton Road North	Potential Coastal Acid Sulphate Soils	To allow for continued operation of the golf course and investigate whether the land should transition to an urban residential use	Recreation, or rural living in a park like environment
3. Keys Road	Potential CASS Flooding Remnant vegetation Heritage places IN2Z buffer	To recognise the ongoing role of the area as rural living living, while ensuring development is sensitive to the rural, open character of the Green Wedge and manages drainage impacts.	Open space, recreation, rural living & less intensive agricultural uses (e.g. market garden)
4. Bangholme Lowlands	Potential CASS Flooding ETP buffer IN2Z buffer	To ensure that new uses are compatible with the operations of the ETP and nearby industrial areas, recognise the constraints caused by flooding and provide for agricultural and other rural uses.	Agriculture & other rural uses, open space, recreation uses
5. Eastern Treatment Plant (ETP)	Potential CASS ETP buffer IN2Z buffer Flooding	To ensure that new uses are compatible with the operations of the ETP and nearby industrial areas, and recognise the constraints caused by flooding and encourage rural and agricultural uses.	Waste water treatment & provision of recycled water

6. Bangholme East	ETP buffer IN2Z buffer Flooding Willow Lodge	To ensure that new uses are compatible with the operations of the ETP and nearby industrial areas, and encourage agricultural and other rural uses.	Agriculture & other rural uses, open space & recreation
7. Lyndhurst	Remnant vegetation Heritage places	To encourage agricultural and other rural uses, and to allow for appropriate low-scale community, institutional, recreational and tourism-related activities.	Agriculture & other rural uses, open space & low scale community, institutional, recreational and tourism related uses



# Land Use

## 5.7 OBJECTIVES & ACTIONS

C1	Provide greater certainty to Green Wedge owners regarding the preferred land uses (Priority objective).	C2	Support the expansion and diversification of agricultural activity.	C3	Protect the ongoing viability of regionally significant assets.
C1.1	Rezone the Hutton Road North Precinct to Green Wedge A Zone, maintaining the existing 4ha minimum lot sizes. Further investigation to determine whether the land should transition to an urban residential use.	C2.1	Maintain the 40ha minimum subdivision lot size in the Bangholme Lowlands, Bangholme East and Lyndhurst Precincts.	C3.1	Continue to apply planning policies and controls to ensure that land use and development within the Greater Dandenong Green Wedge does not compromise the operation of the regionally significant Eastern Treatment Plant and Dandenong South Industrial 2 Zone.
C1.2	Rezone the Keys Road Precinct to Green Wedge A Zone maintaining the existing 6ha minimum lot size.	C2.2	Investigate specific agricultural opportunities for the Greater Dandenong Green Wedge (e.g. considering market assessment, access, soil and water quality and water availability including recycled water from the Eastern Treatment Plant).	C3.2	Advocate to the State Government to review the major pipeline infrastructure mapping and confirm the applicable measurement length/ buffer distances in the Greater Dandenong Green Wedge.
C1.3	Rezone the National Water Sports Centre to Public Park and Recreation Zone, reflecting its existing role, land use and ownership.	C2.3	Actively encourage the establishment of niche and specialised agricultural activities in the Greater Dandenong Green Wedge, particularly those supporting food security.		
C1.4	Include the vision, objectives and relevant actions for the Greater Dandenong Green Wedge in the Greater Dandenong Planning Scheme (for the vision and objectives refer to Figure 8).	C2.4	Support the Greater Dandenong Regional Food Strategy initiatives in the Greater Dandenong Green Wedge.		
C1.5	Revise the Greater Dandenong Green Wedge precincts in the Greater Dandenong Planning Scheme including a map of the precinct, the recommended precinct objectives and each precinct's preferred land uses (refer to Map 10 and Figure 12).	C2.5	Facilitate land aggregation and leasing in the Greater Dandenong Green Wedge to assist operations needing more land for agricultural viability.		
		C2.6	Investigate options for assistance and advice to agricultural operators (to work in conjunction with information pack distribution) (refer to A1.8, B3.4, C5.2, E1.3 and E2.6).		
		C2.7	Include policy statement in the Greater Dandenong Planning Scheme to discourage further subdivision of lots in areas where		

## OBJECTIVES & ACTIONS Cont...

<b>C4</b>	<b>Ensure new uses do not adversely impact on existing land uses or compromise the establishment of future preferred land uses.</b>	<b>C5</b>	<b>Facilitate better land management.</b>	<b>C6</b>	<b>Strengthen and promote the educational, recreational, sporting and cultural role of the Greater Dandenong Green Wedge.</b>
C4.1	Include policy statement in the Greater Dandenong Planning Scheme to guide appropriate land use and minimise potential for land use conflict in the Greater Dandenong Green Wedge.	C5.1	Assist with the appropriate use of unused and poorly maintained land by establishing and sustaining a database of land owners and interested agricultural, education, recreational, sporting and cultural operators (refer to C2.5 and C6.2).	C6.1	Strengthen the passive open space function and cultural role of the Spring Valley Reserve by tree planting and identifying infrastructure upgrades to improve the interface, access, amenity, safety, signage, parking, dog areas and linkages to other open space and active transport routes.
C4.2	Continue to engage with Cornish College and Southern Metropolitan Cemeteries Trust (operator of Bunurong Memorial Park) regarding expansion plans so any potential impacts on the operations of the Eastern Treatment Plant and the future of other parts of the Greater Dandenong Green Wedge are minimised.	C5.2	Provide advice and assistance to land owners (refer to B3) regarding: <ul style="list-style-type: none"> <li>- methods to maintain and improve land management practices including weed management, appropriate revegetation and options for food production and animal agistment that may compliment residential activities; and</li> <li>- regulations about land fill and the consequences of poor quality fill.</li> </ul>	C6.2	Continue to engage with existing sporting clubs and organisations within the area regarding their ongoing viability and any future plans for expansion or relocation (refer to C5.1).
C4.3	Include policy statement in the Greater Dandenong Planning Scheme to ensure that new uses are adequately protected from potential off-site impacts from the legitimate operation of the Eastern Treatment Plant and the Industrial 2 Zoned area.			C6.3	Continue to engage with Keysborough Golf Club to discuss any future land use changes and opportunities for the development of shared recreation facilities.
C4.4	Include policy statement in the Greater Dandenong Planning Scheme to ensure that new residential uses provide adequate protection from the legitimate operations of nearby and future potential activities such as agriculture, recreation, equestrian and sporting activities.			C6.4	Continue to engage with Golf Victoria regarding possible merging of golf clubs in the area and the potential for long-term, sustainable use of Green Wedge land for a stand-alone or merged golf club / course.
				C6.5	Investigate options to increase the provision of public open space (refer to B2.7 and D1.3).

agriculture is established and viable.

## OBJECTIVES & ACTIONS Cont...

### **C7     Manage risks associated with potential soil and water contamination.**

- |      |   |      |  |
|------|---|------|--|
| C7.1 | Maintain the 4ha minimum subdivision size in the Clarke Road Precinct.  | C7.6 | Establish and apply minimum distances between waterways and other land uses (refer to the information contained in Melbourne Water's <i>Waterway Corridors: Guidelines for greenfield development areas within the Port Phillip and Westernport Region</i> (2013) as a guide). |
| C7.2 | Engage with the EPA and the former Clarke Road landfill site operators regarding the ongoing management of the site and the Post Closure Pollution Abatement Notice (PC PAN) process.   |      |  |
| C7.3 | Engage with the former Clarke Road landfill site operators regarding opportunities for alternative uses such as renewable energy generation (e.g. solar) and passive open space, as compatible with EPA requirements.   |      |  |
| C7.4 | Ensure that, wherever possible, prior to any earthworks on land identified by the Department of Environment and Primary Industries or Council as having the potential to contain Coastal Acid Sulfate Soils, appropriate soil testing is undertaken.  |      |  |
| C7.5 | Engage with Southern Rural Water and Melbourne Water to further the understanding (and knowledge and evidence) of groundwater connectivity, the nature of the water table and its proximity to the land surface, and develop appropriate management actions that respect the groundwater influence on the region. |      |  |

## LEGEND

- Study area
- Urban Growth Boundary (UGB)
- City of Greater Dandenong boundary
- Green Wedge Precincts
- Public Use Zone (PUZ)
- Public Park & Recreation Zone (PPRZ)
- Green Wedge Zone (GWZ)
- Green Wedge A Zone (GWAZ)
- 40 Minimum subdivision area (hectares)
- Eastern Treatment Plant (ETP) for protection
- Industrial 2 Zone (IN2Z) for protection
- Industrial 2 Zone Buffer (1.5km)
- Waterways for protection & improvement
- Significant flora for protection
- Land with the potential to contain Coastal Acid Sulfate Soils (CASS)
- Future shared path
- Future road upgrade/extension
- ✱ Heritage places for protection



0 1 2 kms


City of Kingston



0 250 500m

INSET: NORTHERN PORTION





Opportunity should be sought to increase the use of the Green Wedge by nearby local residents and other visitors through the development of a more coherent and connected shared trail system that takes advantage of the significant natural assets of the Green Wedge.

(GTA Consultants, 2013)



## Chapter 6. Transport & Access

# Transport & Access

## 6.1 INTRODUCTION

Transport-related infrastructure within the Greater Dandenong Green Wedge is focused around serving the wider Victorian community.

EastLink runs north-south through the Greater Dandenong Green Wedge providing access to Frankston in the south, and Ringwood to the north. The Mornington Peninsula Freeway borders the south-western boundary of the Greater Dandenong Green Wedge, providing connections to Frankston and Rosebud via the recently opened Peninsula Link. These major roads are often elevated, providing open views across the Greater Dandenong Green Wedge landscape.

The Greater Dandenong Green Wedge is further dissected by a grid-like network of roads running in both north-south and east-west directions. Roads range from four lane arterial roads to unsealed local connector roads.

Major arterial roads include Springvale Road, Thompsons Road, Frankston-Dandenong Road, Western Port Highway and Westall Road. These roads experience a high volume of traffic, with some levels of congestion during peak periods. High visibility and good accessibility has led to significant pressure for commercial activities along these routes.

There are currently three road widening projects occurring within the Greater Dandenong Green Wedge, including Thompsons Road (to three lanes in each direction), Perry Road (to one lane with shared turning lane), and Glasscocks Road (to three lanes). Glasscocks Road is to be upgraded to a major arterial road. The widening of Westernport Highway is also being undertaken for future freeway and rail corridor use.

A network of major and minor local roads provide access to destinations within the Green Wedge, while providing a limited through-traffic role.

Currently, there is limited infrastructure supporting active transport and public transport services. Bicycle and pedestrian paths are generally discontinuous and/or provided along the high traffic speed and volume arterial roads. Four bus routes traverse the Greater Dandenong Green Wedge offering varying standards of service.



## 6.2 ASSETS & VALUES

### ROAD NETWORK

The road hierarchy within the Green Wedge consists of:

- Major roads and freeways, which are all VicRoads/ Linking Melbourne Authority (LMA) controlled. These are the primary means by which through-traffic and freight traverse the study area.
- Major local roads, which provide local access for freight and general traffic, and may play a limited through-traffic role.
- Minor local roads, which service end destinations, and should not be encouraged to accommodate through-traffic.

#### MAJOR ROADS & FREEWAYS

- EastLink bisects the main portion of the study area in a north-south direction, and is configured with a three-lane carriageway in each direction, separated by a central median. It is accessible via a full diamond interchange at the intersection of Thompsons Road at the southern end of the study area, and passes underneath Perry Road at the northern end of the study area.
- The Mornington Peninsula Freeway borders the study area to the southwest. It is a two-way road generally aligned in a north-south direction and configured with dual two-lane carriageways separated by a central median. Kerbside parking is not permitted.

- Springvale Road borders the study area to the north-west and functions as a primary arterial road. It is a two-way road generally aligned in a north-south direction and configured with dual two-lane carriageways separated by a central median. Kerbside parking is not permitted.
- Thompsons Road borders the study area to the south and functions as a primary arterial road. It is a two-way road aligned in an east-west direction and configured with dual two-lane carriageways separated by a central median. Kerbside parking is not permitted.
- Dandenong-Frankston Road borders the study area to the east and functions as a primary arterial road. It is a two-way road generally aligned in a north-south direction and configured with dual two-lane carriageways separated by a central median. Kerbside parking is not permitted.
- Western Port Highway borders the study area to the east and functions as a primary arterial road. It is a two-way road generally aligned in a north-south direction and configured with dual two-lane carriageways separated by a central median. Kerbside parking is not permitted.
- Westall Road borders the northern section of the study area to the southwest, and functions as a primary arterial road. It is a two-way road generally aligned in a northwest-southeast direction and configured with dual two-lane carriageways

separated by a central median. Kerbside parking is not permitted.

- Hutton Road, consisting of dual two-lane carriageways separated by a central median, forms part of the northern edge of the main portion of the study area. East of Perry Road this road becomes Greens Road and provides access to EastLink in both directions.

#### MAJOR LOCAL ROADS

There are four major local roads that either are within, or lie on the border of the study area. All of these roads are two way, two lane carriageways with all except for Clarke Road having a rural type cross section (i.e. without kerb and channel or footpaths). These include the following:

- Worsley Road - aligned in a north-south direction and accessible via Perry Rd to the north and Thompsons Road to the south, provides access to the Eastern Treatment Plant and Eastern Sward Golf Club.
- Pillars Road – aligned in a northwest-southeast direction, Pillars Road is accessible from Springvale Road to the west and Perry Road to the east, and provides access to a small number of abutting properties as well as residential properties at the northeast corner of the main portion of the study area. The pavement surface is currently in a poor state with long cracks in the seal.

# Transport & Access

## ASSETS & VALUES Cont...

- Perry Road – aligned generally in a northwest-southeast direction, Perry Road borders the northeast of the main portion of the study area and provides access to Keys Road (collector road) and the residential land uses at the northeast corner of the study area.
- Clarke Road – aligned in a northwest-southeast direction, Clarke Road runs through the northernmost study area providing access to a small number of commercial and residential properties mostly clustered about the southeast end.

### MINOR LOCAL ROADS

There are numerous minor local roads within the Greater Dandenong Green Wedge which generally do not facilitate through-traffic movements, and primarily serve to provide access to specific land parcels. These include Glasscocks Road, McMahon Road, Homestead Drive, Greenpatch Drive, Riverend Road, Thames Promenade, Keys Road, Bowman Lane, Chapel Road, Soden Road, Willow Road, and Harwood Road. Glasscocks Road is to be upgraded in the future to an arterial road with three lanes in each direction.

### PEDESTRIAN & BICYCLE INFRASTRUCTURE

Map 11 on the next page indicates that there are limited pedestrian and bicycle facilities to, from and within the Green Wedge. Furthermore, the existing facilities are generally discontinuous and/or provided along high traffic speed and volume arterial roads. As such, these

facilities generally provide a low level of service, as they do not provide access between trip generators / destinations and many do not support newer or less confident riders (i.e. the on-road bicycle lanes on Springvale Road).

While it is acknowledged that there are currently minimal land uses which would be expected to generate walking and bicycle trips within the Green Wedge, pedestrian and bicycle amenity as a whole is relatively poor. As such, it does not encourage use of the area for recreational bicycle users or pedestrians.

The exceptions to the above include the off-road shared trail that extends along the southeast side of the Patterson River. Given that the facility connects between Patterson Lakes in the southwest and Dandenong to the north, it provides access for recreational users (including horse riders). There are also numerous walking trails throughout Spring Valley Reserve to the northeast of Clarke Road.

### PUBLIC TRANSPORT

The Greater Dandenong Green Wedge is accessible and connected via road based public transport. There are currently four bus routes that travel through the study area. There is one bus route (857) that travels north-south through the Green Wedge along Worsley Road, and one bus route (824) which travels through the northern portion of the Green Wedge along Clarke Road. SmartBus routes (901 and 902) also travel in a north-south direction along Springvale Road and

Dandenong-Frankston Road, which border the study area to the east and west respectively. These SmartBus routes provide a high level of accessibility to the areas that they service, and link to nearby attractors such as shopping centres and railway stations.
















In terms of bus stop catchment areas, stops typically service users within approximately 400m walking distance, and are aligned with large developments along the route. Given the size of the properties proximate to the bus stops (especially proximate to the industrial land uses), bus stop locations can only be expected to service the one or two adjacent properties.

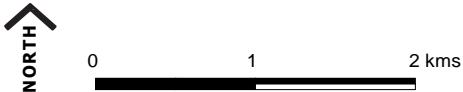
Figure 13: Existing Bus Services within the Green Wedge

Route	Description	Frequency (Peak)		
		Weekday	Saturday	Sunday
824	Moorabbin – Keysborough via Clayton and Westall	40 mins	60 mins	60 mins
857	Chelsea – Dandenong via Patterson Lakes	30 mins	60 mins	-
901	Frankston – Melbourne Airport (SMARTBUS Service)	15 mins	30 mins	30 mins
902	Chelsea – Airport West (SMARTBUS Service)	15 mins	30 mins	30 mins

MAP 11: TRANSPORT & ACCESS  
EXISTING CONDITIONS

LEGEND

-  Study area
-  Major waterways
-  Freeways
-  Principle freight network - road (Plan Melbourne)
-  Major roads
-  Minor roads
-  Major access points
-  Other access points
-  Barriers
-  Principal Public Transport Network (PPTN)
-  Existing bus routes
-  Existing bus stops
-  Bus route number
-  Existing on-road cycle lane
-  Existing off-road shared path

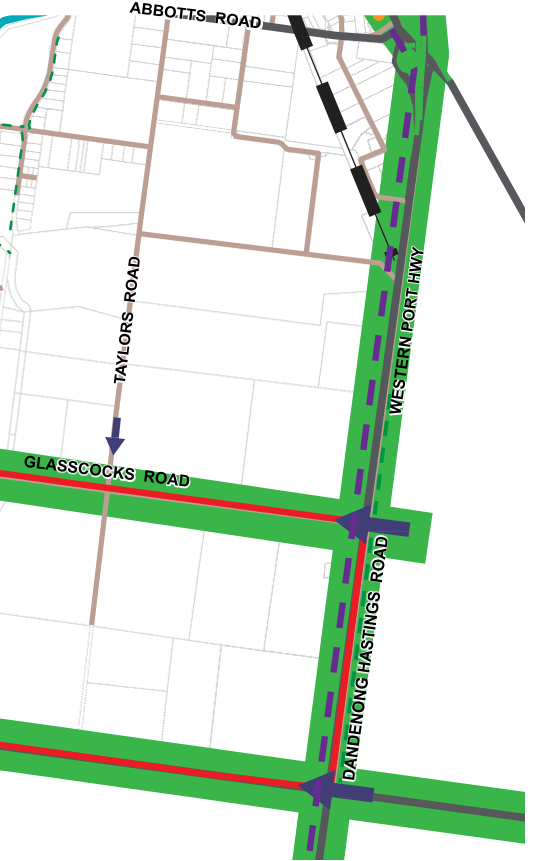


City of Kingston



0 250 500m

INSET: NORTHERN PORTION



# Transport & Access

## 6.3 KEY ISSUES & CONSTRAINTS

Key issues and constraints identified in relation to the access and movement throughout the Green Wedge include:

- Limited pedestrian and bicycle facilities: There are currently limited pedestrian and bicycle facilities within and accessing the study area, and what does exist is generally discontinuous and/or is not provided within a supportive environment. The significant physical barriers such as the waterways, major land uses and EastLink make it difficult to provide a continuous network of facilities throughout the area.
- Limited public transport services: There are currently four bus routes that travel through the Green Wedge. Routes 857 and 824 in particular provide a low level of service, and are unlikely to provide an attractive alternative form of transport for workers or visitors to the area. It is considered that the Greater Dandenong Green Wedge is unlikely to have sufficient density of land use attractors for it to justify upgrades to public transport within the study area. In this regard, it is likely that future changes to public transport will be driven by external land use changes.
- Congestion: There is currently significant congestion along Springvale Road and Thompsons Road, especially at the partially signalised roundabout between Dandenong Hastings Road and Thompsons Road. The congestion at these points in the road network has the potential to increase the incidence of 'rat running' through the study area. Upgrades to these roads should be pursued to prevent inappropriate intrusion into the study area's local road network, particularly as traffic volumes increase in future.
- Environmental and drainage constraints: These constraints may affect the feasibility of constructing, widening and maintaining roads and paths. This may ultimately impact the feasibility of undertaking improvements to access within the study area.
- Limited policy direction: There is a limited amount of transport specific guidance within the Greater Dandenong Planning Scheme though Council is currently developing its Integrated Transport Strategy.
- Roads in a poor condition: The conditions of roads vary throughout the Green Wedge, with many lacking in basic infrastructure such as footpaths, concrete kerb and channel and lighting. This can give the impression of neglect, and lead to issues of rubbish dumping and vandalism. Of particular concern is the poor condition of Pillars Road, Soden Road and Riverend Road in Bangholme, which is in part due to the low-lying nature of the roads.



## 6.4 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. 26 submitters commented on the theme of Transport and Access, as summarised below.*

- Concern over traffic management was mentioned by ten (10) submitters. Of these seven (7) supported aspects of this section of the Plan (including optimising the safety, function and efficiency of the road network of the Green Wedge) while the rest raised concerns over particular traffic experiences in the Greater Dandenong Green Wedge.

*This Plan seeks to improve the safety, function and efficiency of movement to, from and through the Greater Dandenong Green Wedge. Drainage and other environmental issues inherent to the area may however affect the potential for road improvements.*

- Nine (9) submitters supported improved walking, cycling and horse tracks in the Greater Dandenong Green Wedge.

*This Plan supports improved walking, cycling and equestrian trails including improved connections to key destinations and adjacent municipalities. It recommends that trails be considered as part of waterway improvements and any increased provision of public open space.*

- Four (4) submitters referred specifically to roads,

including a community group. The community group were against building bigger roads, citing it as a short-term solution that irreversibly takes away open space. Two (2) of the submitters suggested that a gravel road network should be used for movement in the area. The fourth submitter was concerned about the network's capacity for mass evacuation in the case of an emergency.

*This Plan aims to improve options for access to, from and through the Greater Dandenong Green Wedge, ensure future development does not increase the potential for greater traffic in local roads and improves public access to open space.*

- Suggestions about public transport in the area were raised by four (4) submitters who all agreed that public transport needed to be a higher priority than the upgrade of roads.

*The priority objective in relation to access and transport has been adjusted, however the objective regarding public transport has not been prioritised because the lack of key attractions and low numbers of people living and working in the Greater Dandenong Green Wedge do not support improved public transport services. It is likely that future changes to public transport will be driven by external land use changes.*

- Four (4) submitters argued that the area already offers transport and access opportunities, which supports expansion of residential development in the Greater Dandenong Green Wedge.

*Transport and access opportunities in the area are*

*subject to a number of constraints. Because of this and other constraints in the area, as well as consideration of the Green Wedge's purpose, this Plan does not support allowing for further residential subdivision (beyond what is currently allowed).*

- Other submitters suggested increased access and usage of cycling and walking paths and the desire to decrease the amount of trucks using the roads, which lead to noise pollution and traffic congestion.

*This Plan supports increased cycling and walking in the area.*

# Transport & Access

## 6.5 VISION

The movement network supports vehicles and active transport in a safe, efficient and legible manner.

*Plan Melbourne* seeks to provide an integrated transport system connecting people to jobs and services and goods to market. This includes improving transport access to ports, interstate rail terminals and airports (direction 3.6). By 2050, the Port of Hastings will be fully operational with good links to freight and industrial precincts in the city via the upgrade of the Western Port Highway (which forms the eastern boundary of the Greater Dandenong Green Wedge) and a rail link between the Port of Hastings and Dandenong. Roads on the Principle Freight Network that form part of the Greater Dandenong Green Wedge are:

- Mornington Peninsula Freeway
- Thompsons Road
- Dandenong-Frankston Road
- Glasscocks Road
- Western Port Highway
- EastLink
- Hutton Road/Greens Road

Transport and access in the Greater Dandenong Green Wedge is dominated by roads and freeways at present. The roles of the roads vary and several road upgrades are already underway. The impact of existing and planned future roadways on the potential future of the Green Wedge needs to be considered. Ways in which transport and access in and around the Green Wedge can be adapted and improved to provide for the future, need to be identified.

It should be noted that public transport services, the principal bicycle network and the arterial road network are the responsibility of the Victorian Government, and as such the role of Council is one of advocacy. However, Council is the lead agency responsible for the planning, design and maintenance of local road infrastructure, pedestrian infrastructure and local bicycle routes.

## ROAD NETWORK

Due to the incremental nature of change within Green Wedges, the majority of the transport pressures on the Greater Dandenong Green Wedge area come from external land use change and associated increases to traffic on arterial road networks.

The Victorian Integrated Transport Model (VITM) was used to determine future traffic growth on roads within and surrounding the Green Wedge. The model shows that:

- Roads within the area are not expected to see significant traffic growth based on current zoning and land use. In general, traffic growth on internal local roads will be incremental rather than significant.
- Some arterial (external or boundary) roads will experience more significant growth. In particular, the projected growth on Thompsons Road will exacerbate the existing congestion and may cause further pressure on internal roads (for example Glasscocks Road), in the absence of any upgrade to Thompsons Road.

Given the above, it is not considered likely that roads within the Green Wedge will require upgrading to cater for increased traffic volumes over the next ten years, if the required upgrades to the arterial road network occur.

In the longer term, changes to land use and travel patterns in the wider area may result in increased traffic

## VISION Cont...

through the local roads in the Green Wedge, as the arterial and freeway network approaches capacity. Therefore some local roads may require upgrades in the longer term (post 2021). This is likely to be partly dependent upon the level of land use change and intensification of use within the Green Wedge.

The above findings assume an incremental level of change within the study area. It is noted that any major land use changes within the Green Wedge would impact on the findings above.

### PEDESTRIAN & BICYCLE INFRASTRUCTURE

Opportunity should be sought to increase the use of the area by nearby local residents and other visitors through the development of a more coherent and connected shared trail system, that takes advantage of the significant natural assets of the Green Wedge.

Based on the VicRoads Principal Bicycle Network (PBN), there is potential to provide bicycle facilities along Dandenong Hastings Road / Western Port Highway, Dandenong – Frankston Road, Glasscocks Road, Hutton Road, Springvale Road and Thompson Road. Each of these roads (with the exception of Glasscocks Road) carry high traffic volumes and speeds, so off-road shared paths would be the most appropriate type of facility.

There may be opportunity to provide shared paths along the many levee banks within and connecting the area, such as along the Mordialloc Creek and Eumemmerring Creek. These banks potentially provide a cost effective

way of providing links throughout the Green Wedge.

In addition, the implementation of a high level wayfinding strategy would help to support walking and cycling in the area.

### PUBLIC TRANSPORT

Bus services are not likely to cater for a significant number of trips to the Green Wedge, due to the large area to be covered and the types of land uses present. However, ongoing improvements to the network should be encouraged in order to provide greater transport choice for workers / residents.

# Transport & Access

## 6.6 OBJECTIVES & ACTIONS

### D1 Optimise and improve the safety, function and efficiency movement and linkages to, from and through the Greater Dandenong Green Wedge (Priority objective).

- D1.1 Prepare a 'whole of route' way finding strategy to improve connections to key destinations such as the National Water Sports Centre, Jim Harkin Reserve, Keysborough Golf Course and Eastern Sward Golf Course.
- D1.2 Review the effectiveness of and give recommendations for the improvement of navigation signage associated with the existing trails and paths to, from and through the Greater Dandenong Green Wedge.
- D1.3 Develop recreation walking, cycling and equestrian trails through the Greater Dandenong Green Wedge, linking to the surrounding areas including Kingston and Frankston's Green Wedge areas (refer to C6.5).
- D1.4 Plan and commence implementation of an off-road network of shared paths to complete the VicRoads Principal Bicycle Network (PBN) and better connect the Greater Dandenong Green Wedge to surrounding residential areas and activity nodes such as Dandenong, Mordialloc and Carrum.

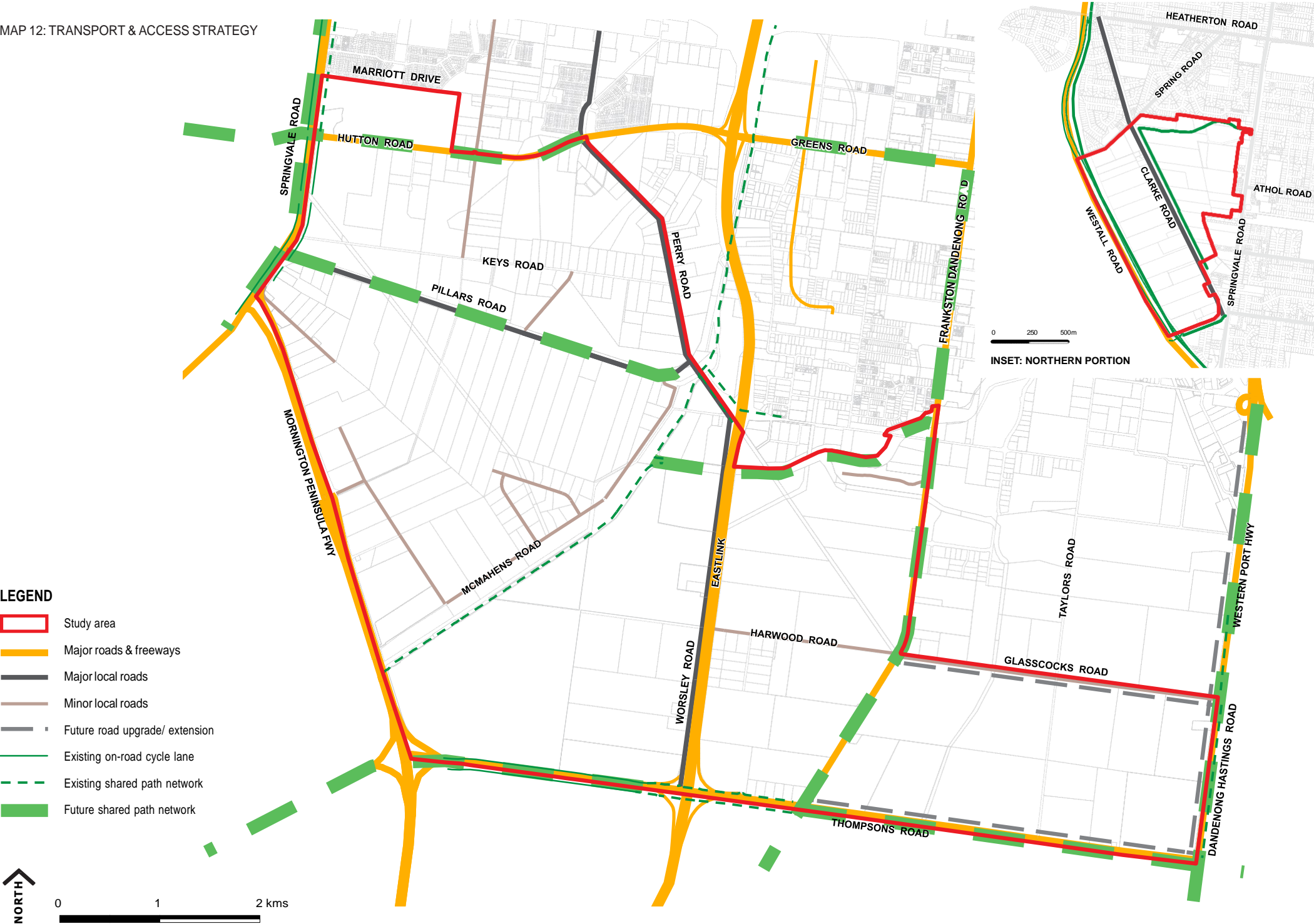
- D1.5 Investigate the feasibility of an on-road bicycle circuit utilising the Greater Dandenong, Kingston and Frankston Green Wedges, the National Water Sports Centre and Beach Road.
- D1.6 Continue to reinforce the hierarchy of the road network, in particular taking care to mitigate any intrusion of through traffic onto local roads.
- D1.7 Advocate for upgrades to the arterial road network, initially focussed on addressing capacity constraints on Thompsons Road in the eastbound direction.
- D1.8 Develop and publish maps to promote key pedestrian, bicycle and horse riding routes within the Greater Dandenong Green Wedge and wider area (distribute with A1.8, B3.4, E1.3 and E2.6).

### D2 Advocate for better public transport coverage.


- D2.1 Continue to advocate for improved public transport services (frequency and coverage) to service existing and new land uses within the Greater Dandenong Green Wedge, as part of the broader public transport advocacy being undertaken for the municipality by Council.



MAP 12: TRANSPORT & ACCESS STRATEGY







Throughout Victoria,  
even in the most  
intensively developed  
regions such as Greater  
Dandenong, the  
landscape holds the  
imprint of thousands  
of generations of  
Aboriginal people.

(Benchmark Heritage  
Management, 2013)



A large pink rectangular box with rounded corners, filled with a pattern of fine, parallel diagonal lines. The text is centered within this box.

## Chapter 7. Built Form & Heritage

# Built Form & Heritage

## 7.1 INTRODUCTION

### BUILDING SITING & DESIGN

Buildings are present and visible throughout most areas of the Greater Dandenong Green Wedge. The siting, design and height of these buildings varies with differing land uses.

The way buildings are sited and designed within a landscape is important to the appearance and image of a place. The integrity of the landscapes in the Green Wedge has the potential to be threatened by new development which does not respond positively to the local characteristics of the Green Wedge environment.

The siting and design of other elements such as vegetation, fencing, car parking, signage, lighting etc. must also be considered as they can also compromise the character of the Green Wedge landscape.

### MUNICIPAL-WIDE GATEWAY LOCATIONS

Due to the municipality's lack of prominent natural landmarks, Greater Dandenong has identified sites where landmarks should be established to act as gateways to the municipality. These gateways are intended to revitalise and improve the perceptions of Greater Dandenong and encourage wider visitation to the city.

Three of the municipality's gateway locations are found in the main portion of the Greater Dandenong Green Wedge and two are in close proximity to the Clarke Road precinct (shown on Map 13 on page 99). Implementation of policy for these areas is found at

Clause 22.05 of the Greater Dandenong Planning Scheme and the incorporated document, City of Greater Dandenong Gateways Strategy (2011) will improve the identity and amenity of these areas primarily through landscaping.

The report identifies that 'it is important that these gateways continue to provide short and long term vistas of open "green space", as viewed from main road corridors and pedestrian/cycle paths.'

It is essential that these gateways continue to assist in orientation, as well as in recognising and emphasising the landscape-dominant character of the Greater Dandenong Green Wedge.

### HERITAGE

The Greater Dandenong Green Wedge contains significant cultural heritage values, from both pre and post European settlement periods. Farm landscapes along Thompsons Road reflect the agrarian heritage of the area.

A number of Aboriginal Cultural Heritage places exist within the Greater Dandenong Green Wedge including scarred trees and artefact scatters. The most visible reminder of the Aboriginal past is a broad band of scarred trees running between Keysborough and Lyndhurst, possibly the largest concentration of such sites in Victoria (Clause 21.02-4 of the Greater Dandenong Planning Scheme). In some circumstances, Cultural Heritage Management Plans are required by the Aboriginal Heritage Act 2006 where high impact activity

is proposed in an area of cultural heritage sensitivity (as shown on Map 13 on page 99).

Sections of the Greater Dandenong Green Wedge comprise land within the northern and eastern margins of the former Carrum Carrum Swamp; the latter being one of the most sensitive archaeological areas within the Melbourne region.



## INTRODUCTION Cont...

### TRADITIONAL OWNERS OF THE LAND

Throughout Victoria, even in the most intensively developed regions such as Greater Dandenong, the landscape holds the imprint of thousands of generations of Aboriginal people. Each part of Victoria, from the coast to the high country and from the semi-arid Mallee to the rain forests of the east, has places where Aboriginal people lived; obtaining sustenance, expressing themselves artistically, passing on creation stories and cultural values, engaging in conflict, establishing alliances and social networks, trading goods, celebrating rites of passage and committing the departed to their final resting places.

The Greater Dandenong Green Wedge and surrounding lands were utilised by Aboriginal people for thousands of years. The study area is located within the groups identified as Kulin who shared a common language, social, religious and economic lifeway. Throughout the region, numerous different (yet related) 'wurrung' (or dialects) were spoken.

At the time of European contact, clans from two language groups, the Bun wurrung and the Woi wurrung (spelling according to Clark 1990, 364) are believed to have occupied land in the Keysborough and Dandenong regions. A language group consisted of independent groups of closely related kin, or 'clans', who were spiritually linked to designated areas of land through their association with topographic features connected to mythic beings or deities. Clan lands were inalienable and clan members had religious responsibilities (e.g.

conducting rituals) to ensure 'the perpetuation of species associated with the particular mythic beings associated with that territory' (Berndt 1982, 4, Long et al 2010).

Today the living descendants of the Woi wurrung and Bun wurrung are represented by the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc., the Bunurong Land Council Aboriginal Corporation and the Boonwurrung Foundation.

### EUROPEAN SETTLEMENT

A handful of buildings associated with the first European settlers in the area still exist in the Greater Dandenong Green Wedge. Three of these properties are associated with the Keys family who founded Keysborough and once owned all of Keysborough and parts of the surrounding district. These properties, located in the north-western section of the Greater Dandenong Green Wedge, are:

- Holmwood Farm Complex (310 Chapel Rd, Keysborough)
- Glen Alvie Homestead (66 Hutton Rd, Keysborough)
- Eversleigh Homestead (86 Hutton Road, Keysborough)

George Keys migrated from Northern Ireland with his wife and four youngest children in 1841. His family established prosperous vegetable farms providing stock to the Melbourne markets. They were active and respected members of the community. They

were involved with the local government, established the local agricultural society and were instrumental in establishing the local Methodist church and school.

A well-preserved farmhouse, the Sime Farmhouse (505 Thompsons Rd, Lyndhurst) is located at the southern end of the Greater Dandenong Green Wedge. This house was owned and occupied by the Oswald family when it was used as a dairy farm which supplied milk to the Dandenong Cheese factory and the Kenross Dairy (now Pura Milk).

# Built Form & Heritage

## 7.2 ASSETS & VALUES

### ABORIGINAL PLACES & OBJECTS

Aboriginal people have lived in southern Australia, including what is now Victoria, for thousands of years. Archaeological evidence suggests that Aboriginal people have occupied the Mornington Peninsula as early as 35,000 BP<sup>1</sup> (Hewitt & De Lange 2007). During that time, people left physical evidence of their activities which now survives as cultural heritage places and objects. Aboriginal places and objects can be found all over Victoria and are often near major food sources such as rivers, lakes, swamps and the coast.

Aboriginal places and objects can also be found on private property. The Office of Aboriginal Affairs Victoria (OAAV) works in partnership with land owners, land managers and Aboriginal communities to record, protect and manage these places and objects.

An *Aboriginal Heritage Assessment* (Benchmark Heritage Management) prepared as part of the Green Wedge Management Plan process identified that there are in excess of 500 registered Aboriginal sites within a 15km radius of the Greater Dandenong Green Wedge. Within the Greater Dandenong Green Wedge itself, there are a total of 92 registered sites comprising 77 scarred trees, 13 artefact scatters, a retired site and a sub-surface cultural deposit comprising an earth feature. There are no registered sites within the northern portion of the Greater Dandenong Green Wedge (Clarke Road Precinct).

The presence of several sites dating from the late Pleistocene to 5000 years ago attests to the significance of the area as a significant resource to the Bun wurrung and Woi-wurrung people for over 30,000 years.

Several large base camps with multiple occupation layers have been identified on the aeolian dune landforms that ring the former Carrum Carrum Swamp. These elevated well drained sand dunes are therefore the most sensitive landforms in the area. The density of sites demonstrates that the area was a point of central focus for the Bun wurrung and Woi-wurrung and holds great cultural values to their living descendants. Further, the sites in the area are of great scientific significance.

In light of this, any sand dunes and sand sheets within the Greater Dandenong Green Wedge should be considered to be of high cultural heritage sensitivity. Visible surface remains are considerably rare due to factors including vegetation removal, agricultural activity and the construction of modern urban infrastructure. However these dune systems are frequently over 1m in depth and therefore consideration should be given to the fact that the sites are likely to contain deeply buried and ancient subsurface components.

### POST-CONTACT HERITAGE

The following properties are protected by the Heritage Overlay (HO) under the Greater Dandenong Planning Scheme and are shown on Map 13 on page 99.

#### HO8: Holmwood Farm Complex & Trees

This property is significant to Keysborough and the City of Greater Dandenong as it is the largest and most substantial example of the Old English style in the municipality as applied to an inter-war farm house and also for its association with local identities (including the Keys family, Bowman family and Jack Ordish).

#### HO22: Glen Alvie Farm House Complex & Garden

Glen Alvie (also known as Prospect House) is significant to the West Gippsland region due to:

- its early construction date (circa 1845);
- the rarity of the wattle and daub and ironstone sections of the complex;
- its rare evocation of the pastoral and early freehold farming in the region;
- its close association with the Keys family and the architect John Beswicke; and
- for the remnant palm, mature Monterey cypress and red gums.








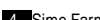
<sup>1</sup> BP: Before Present (the present is defined as 1950)

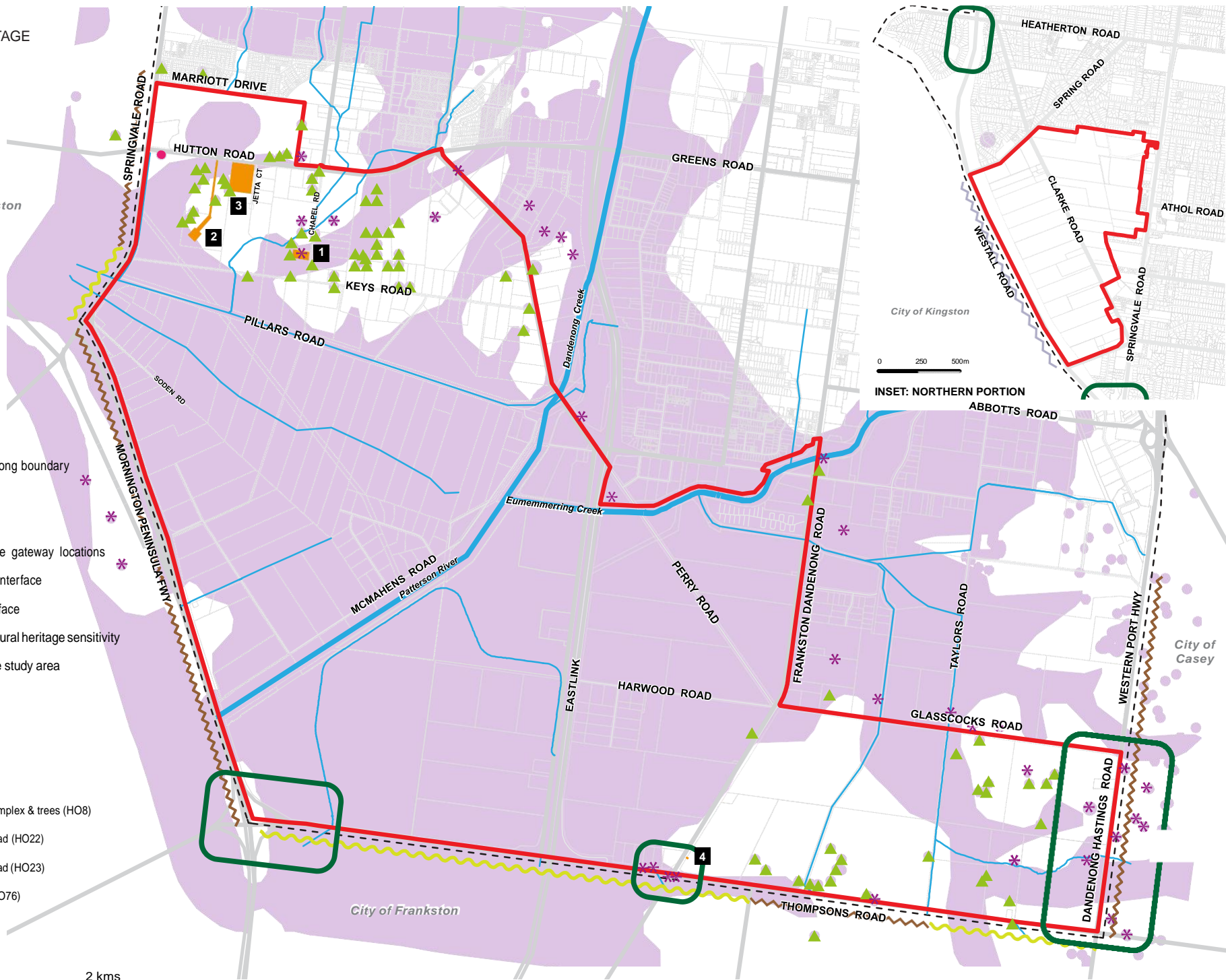
MAP 13: BUILT FORM & HERITAGE  
EXISTING CONDITIONS

LEGEND

-  Study area
-  City of Greater Dandenong boundary
-  Major waterways
-  Minor waterways
-  Strategic municipal-wide gateway locations
-  Hard urban residential interface
-  Soft green wedge interface
-  Areas of Aboriginal cultural heritage sensitivity

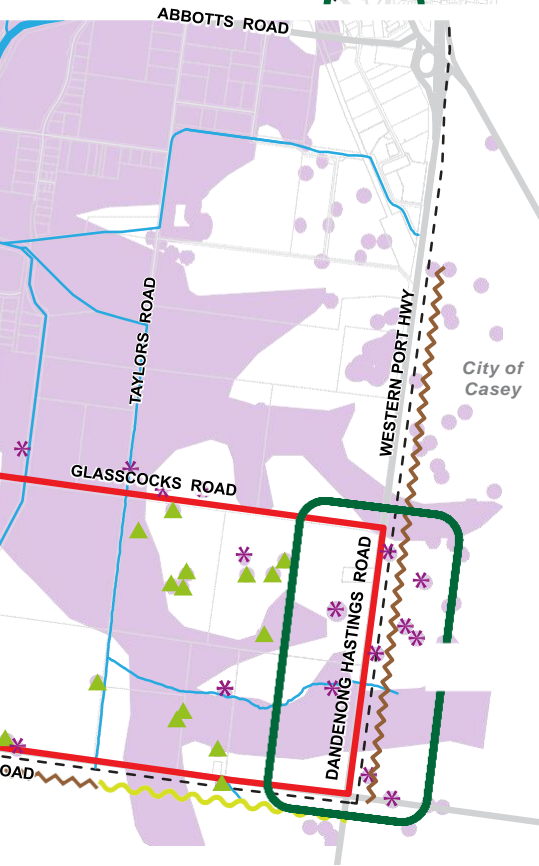
Aboriginal sites within & close to the study area

-  Artefact scatter
-  Earth feature
-  Scarred tree
-  Heritage sites
-  1 Holmwood Farm Complex & trees (HO8)
-  2 Glen Alvie Homestead (HO22)
-  3 Eversleigh Homestead (HO23)
-  4 Sime Farmhouse (HO76)



0 250 500m

INSET: NORTHERN PORTION



## ASSETS & VALUES Cont...

Structures associated with the pastoral and early freehold era are scarce in West Gippsland. The oldest section of the Glen Alvie complex is thought to be a one-storey gabled roof wattle and daub building which retains many of its original external character, including original posts and external whitewash. The main house was built in stages. Only traces of the 19th and early 20th century layout and structure of the Glen Alvie garden remain, including the Canary Island palm (*Cupressus macrocarpa*) and Monterey cypress (*Cupressus macrocarpa*). The surrounding underdeveloped land is to be retained to preserve the homestead's rural setting.

### HO23: Eversleigh Homestead

The Eversleigh Homestead is significant to the City of Greater Dandenong due to:

- its early construction date (circa 1870);
- its rare evocation of the pastoral and early freehold farming in the region; and
- for its close association with the Keys family.

The rendered early Victorian-era house has many original and early components though some of the external finishes have been altered. As with Glen Alvie, surrounding underdeveloped land is to be retained to preserve the homestead's rural setting.

### HO76: Sime Farmhouse

The Sime Farmhouse is significant to the City of Greater Dandenong because it is externally well-preserved, one of the few early farm houses to survive in its original setting in the municipality, for its association with the Oswald family and for its use as a dairy farm. The one-storey weatherboard Federation Bungalow-style house has a distinctive verandah configuration and detailing.



# Built Form & Heritage

## 7.3 KEY ISSUES & CONSTRAINTS

Key issues and constraints identified in relation to built form and heritage within the Green Wedge include:

- Loss of 'openness': across the Green Wedge landscape over time. The construction of new buildings, large sheds and high, solid fences can obstruct views of the landscape and detract from the openness of the Green Wedge.
- Increasingly 'urban' appearance of the Green Wedge: Due to large areas of hard/paved surfaces and road infrastructure, high/solid fences, exotic vegetation, small setbacks and continuance of built form along or near the front boundary.
- Built form that can be visually dominating: Especially on sites with industrial, nursery and commercial uses. This is particularly prevalent on the periphery of the Green Wedge. Buildings are visible from a distance due to the flat topography.
- Lack of public awareness and understanding relating to existing heritage values: including sites of Aboriginal cultural heritage significance throughout the Green Wedge.
- Lack of understanding of the implications of cultural heritage for land owners. Land owners have responsibilities in relation to new development, however, there is some misunderstanding of the role and function of heritage legislation.
- Decline of remnant River Red Gums in paddocks. These relics need protection against further deterioration.
- Highly archaeological sensitive sand bodies located in the northwest and east of the Greater Dandenong Green Wedge lack adequate protection. As detailed in Section 2.7 of the Regulations to the *Aboriginal Act 2006*, mandatory Cultural Heritage Management Plans are not required in these areas.

# Built Form & Heritage

## 7.4 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. 14 submitters commented on the theme of Built Form and Heritage, as summarised below.*

- Six (6) submitters valued the heritage significance of the Greater Dandenong Green Wedge with two (2) of these submitters suggesting more can be done to promote heritage values such as stronger statements of policy.
- Aboriginal heritage values were raised by four (4) submitters. These ranged from support of the Plan's statements, the recognition of the need to improve the protection of aboriginal heritage sites and the collection of information about the pre-contact history of the area to prevent the possible destruction of important sites.

*This Plan seeks to support and promote the heritage significance of the Greater Dandenong Green Wedge. Since the draft plan, an action has been included to request Cultural Heritage Management Plans in the main portion of the Greater Dandenong Green Wedge. The Plan also seeks to protect identified post-contact heritage sites. Should any further sites be identified, Council will investigate if the protection of additional post-contact places is required.*

- Six (6) submitters advocated for the cleanliness of

the Greater Dandenong Green Wedge. Complaints include the dumping of rubbish often along major roads and freeways and from farming activities. Two (2) of these submitters requested for properties to be kept tidy.

*A waste and litter strategy is currently being drafted and an action has been included in this Plan to develop educational resources for distribution regarding rubbish dumping and littering.*

- One (1) submitter advised of the need to protect any cultural heritage scar trees from removal.

*This Plan aims to protect cultural heritage, including scar trees. It includes the action to undertake a targeted survey of known Aboriginal cultural heritage sites to assess their current condition, including an audit of registered scarred trees.*

- Other submitters stated that the area has eroded over time due to development of land and the area is a valuable public asset that could provide for greater public amenity.

*This Plan aims to improve the Greater Dandenong Green Wedge. This includes encouraging land use and development that improves the amenity of the public realm.*

## 7.5 SITING & DESIGN GUIDELINES

Siting and design guidelines have been developed to improve the amenity of the Greater Dandenong Green Wedge. These are intended to guide development and assist in the determination of planning permit applications once the guidelines are integrated into the Greater Dandenong Planning Scheme.

### BUILT FORM

#### OBJECTIVES

Site and design buildings to protect and strengthen the rural character and overall sense of spaciousness of the Greater Dandenong Green Wedge.

Ensure buildings are visually subordinate and set into the spacious, rural landscape.

Maintain open views and vistas from roads and public spaces.

Minimise building footprints and the visibility of outbuildings and storage areas.

#### GUIDELINES

Require predominantly single or double storey height for buildings and structures (up to 8 metres in height).

Ensure total impervious surfaces on any site do not exceed 20%.

Ensure large buildings are screened by vegetation and articulated to minimise the appearance of bulk.

Ensure development adopts best practice

environmentally sustainable design and development principles. This includes ensuring all buildings and structures are designed and oriented to utilise natural light and ensure optimal thermal performance.

Ensure that any proposed subdivisions include building envelopes that are designed to maintain the rural character of the area.

Locate buildings and farming infrastructure such as sheds and machinery away from roads and where possible, within existing clusters of buildings/structures.

Buildings should be appropriately set back from waterways and drainage corridors to provide a positive interface with vegetation, flora and fauna habitat and access paths.

Ensure new buildings are sited at a distance from boundaries to minimise potential interface issues with adjoining recreation, residential or agricultural uses.

Set buildings and car parking areas back from front and side title boundaries a minimum of 10 metres to allow sufficient space for substantial vegetation and to retain a spacious setting.

Ensure the appropriate location, access, siting and design of existing and proposed infrastructure services and utilities such as water treatment, drainage, sewerage, gas electricity and telecommunications to reduce the impact on the existing visual and natural environment.

Ensure appropriate screening of services, utilities and waste storage is undertaken so as not to visually detract

from the sensitive amenity of the site and its surrounds.

Design buildings to follow site contours and minimise cut and fill.

### GATEWAY SITES

#### OBJECTIVE

Development on gateway sites should emphasise the importance of the gateway location and act as a visual landmark.

Present a positive landscape-dominated 'green' gateway to the municipality.

Maintain a sense of openness along the gateway corridor, afforded by publicly available views across the green wedge landscape.

#### GUIDELINES

Achieve well designed, high quality architecture that is underpinned by the principles of sustainability.

Provide robust, suitably scaled landscape treatments.

Provide substantial high quality indigenous vegetation that reduces the visual mass of new development and screens large amounts of hard surfaces.

Incorporate landmark elements such as urban art/ sculpture.

Avoid large areas of impervious surfaces (for example car parking areas) along main road corridors.

# Built Form & Heritage

## SITING & DESIGN GUIDELINES Cont...

### DESIGN DETAIL

#### OBJECTIVE

Ensure building facades are well articulated using high quality design treatments.

#### GUIDELINES

Provide variations in surface texture, colours or materials.

Avoid reflective roof materials and reflective glazing to the exterior of buildings.

Avoid bland, boxy, unarticulated building forms and large expanses of blank walls.

Use materials, colours and finishes that best immerse built form within the rural landscape (e.g. dark and natural colours, muted tones, matte finishes, non-reflective materials, timber, render, glazing, stone, brick and iron roofing) and avoid bright, bold, extravagant colour schemes.

### VEHICLE ACCESS & SURFACES

#### OBJECTIVE

Minimise the impact of vehicle access and car parking on the landscape.

#### GUIDELINES

Minimise areas of non-permeable surfacing, including driveways and vehicle standing areas, where practical.

Require that crossovers, garages and driveways are kept to a minimum width and do not dominate the street frontage.

Avoid extensive areas of paved surfaces and car parking located between buildings and the road frontage.

Ensure car parking areas and loading and unloading facilities are set back and screened by vegetation (this does not apply to car parks for dwellings) to reduce impacts from the road and adjoining properties.

### FENCING & GATES

#### OBJECTIVE

Encourage fencing and gate styles that reflect the rural, open character of the Green Wedge.

#### GUIDELINES

Ensure front boundary fencing and entry gateways are kept to a low height.

Encourage the use of transparent front fencing where front fencing is required.

Avoid high/solid fencing, particularly along the road frontage and forward of the building.

Discourage the use of cyclone wire fencing where practicable.

For residential development, encourage the use of traditional materials (e.g. timber, post and wire) or transparent materials for fencing that allow a view to the property frontage.



## VEGETATION

### OBJECTIVE

Encourage the planting of indigenous and native vegetation to complement the rural character.

Protect indigenous vegetation for its cultural and landscape value.

### GUIDELINES

Protect existing trees and indigenous vegetation.

Avoid removal of trees and shrubs where possible when constructing new built form and vehicle access.

Ensure adequate protection is provided to trees and shrubs during the construction of buildings, driveways and crossovers and earthworks.

Consider the long-term health of trees and other significant vegetation in the design and location of buildings, paving and earthworks, particularly in relation to water flow and availability changes.

Avoid formal landscape design in the private realm (e.g. geometrically aligned/spaced tree avenues or garden beds).

Encourage the removal of environmental weeds and planting of appropriate native / indigenous vegetation where possible.

Encourage the use of vegetation, rather than fencing, to create privacy wherever possible.

Encourage the use of indigenous vegetation in all new developments.

Provide vegetation buffers along waterways, drains and water areas.

Use indigenous vegetation to screen service areas, large buildings/structures and unsightly areas (e.g. service yards, industrial elements).

Development which requires vegetation removal should aim to replace or rehabilitate with an equivalent vegetation cover using locally appropriate species.

Incorporate large scale tree planting and vegetation along the front 5 metres of a major road frontage to complement the planting theme of the road.

## SIGNAGE & LIGHTING

### OBJECTIVE

Encourage low scale and low impact signage and lighting.

### GUIDELINES

Minimise the size and extent of signage and advertising, particularly internally illuminated signs.

Consolidate advertising and signage into a single location where possible.

Locate signage on the building (rather than on fencing or poles) where possible, so that it complements the architecture.

Advertising elements such as banners, flags, fence signs and inflatables should be avoided.

Restrict lighting for advertising to business operation hours, as far as reasonably possible.

Encourage interior lighting systems that emit minimal light on the outdoor environment.

# Built Form & Heritage

## 7.6 VISION

Cultural heritage and landscape values are understood and respected.

*Plan Melbourne* recognises the need to respect heritage including Melbourne's aboriginal heritage (direction 4.7) and seeks to extend vegetation cover throughout the metropolitan area (direction 4.5).

The Greater Dandenong Green Wedge has many areas of Aboriginal Cultural Heritage and a number of post-contact heritage sites. These aspects of the heritage of the area need to be respected and conserved. Additional interpretation and explanation will assist in making these aspects of the area better known and understood. This in turn will enable better management and land owner cooperation with the legislative requirements.

The landscape of the Greater Dandenong Green Wedge is generally open and green, except where development occurs. The vision for the area is one that maintains the green, open feel while allowing for well-sited and designed development to occur within it. This involves a careful appraisal of development to determine its impact on the landscape and views across the area. In addition, activities that involve large open areas of land are also to be encouraged with any buildings located and landscaped appropriately.

## 7.7 OBJECTIVES & ACTIONS

<b>E1</b>	<b>Maintain open, landscape-dominated vistas throughout the Greater Dandenong Green Wedge (Priority objective).</b>	<b>E2.2</b>	Work with traditional owners to develop a cultural heritage trail that links the different landforms inhabited and utilised by the traditional Aboriginal owners. Install interpretive signage at designated points along the trail.	Dandenong Green Wedge: Aboriginal Heritage Assessment (Benchmark Heritage Management, 2013).
E1.1	Include Siting and Design Guidelines for buildings and works in the Greater Dandenong Green Wedge as policy in the Greater Dandenong Planning Scheme (refer to Siting & Design Guidelines on page 103).	<b>E2.3</b>	Work with Office of Aboriginal Affairs Victoria to develop a database of places and sites of Aboriginal Cultural Heritage Significance which can be recognised in educational material.	- Links to online cultural heritage resources at Office of Aboriginal Affairs Victoria.
E1.2	Consider applying an overlay to the Greater Dandenong Green Wedge to require a permit for all buildings and works in order to assess the suitability of the proposal in regard to built form, water management and environmental factors (refer to A1 and B1).	<b>E2.4</b>	Undertake a targeted survey of known Aboriginal cultural heritage sites to assess their current condition, including an audit of registered scarred trees.	- Details of the local indigenous communities and organisations who may: <ul style="list-style-type: none"> <li>· Provide advice on cultural matters;</li> <li>· Provide general advice on Cultural Heritage Management Plan (CHMP) requirements including a preliminary assessment of the level of cultural heritage assessment required;</li> </ul>
E1.3	As part of information distributed regarding the Greater Dandenong Green Wedge, educate the community about rules regarding rubbish dumping and littering including likely enforcement actions in the event of non-compliance (distribute with A1.8, B3.4, C5.2, D1.8 and E2.6).	<b>E2.5</b>	Retain heritage protection for identified post-contact heritage sites, assisting in the presentation and promotion of heritage values.	· Undertake site inspections for land owners within the Greater Dandenong Green Wedge;
<b>E2</b>	<b>Identify, protect and promote existing heritage values.</b>	<b>E2.6</b>	Compile and distribute an 'Aboriginal Cultural Heritage Fact Sheet/ Booklet' to all land owners and occupiers within the Greater Dandenong Green Wedge (distribute with A1.8, B3.4, C5.2, D1.8 and E1.3), containing: <ul style="list-style-type: none"> <li>- Basic information on the 2006 Aboriginal Heritage Act and its implications for developments within the Greater Dandenong Green Wedge.</li> <li>- Information on the site types to be found within the Greater Dandenong Green Wedge using information provided in the Greater</li> </ul>	· Undertake cultural heritage inductions;
E2.1	Encourage Aboriginal Cultural Heritage Assessments to be undertaken in the highly archaeological sensitive sand bodies located in the north-west and east of the Greater Dandenong Green Wedge through the use of a local policy.			· Provide education opportunities to local schools;
				· Provide display materials to the City of Greater Dandenong for use at community/ educational events. These may include stone artefacts, wooden artefacts, old photographs of the area; information about Aboriginal life within the area and cultural practices.







## Chapter 8. Implementation

# Implementation

## 8.1 INTRODUCTION

Implementation of the Plan is critical to its success. To achieve this it is important to be clear about Council’s role and the role of other stakeholders as well as priorities for action, funding and monitoring and review of the Plan. A key method of implementing the Green Wedge Management Plan’s (GWMP) recommendations is through the Greater Dandenong Planning Scheme.

A high level Action Plan has been prepared that includes all the objectives and actions for each theme and identifies the stakeholder responsible for achieving the action (e.g. Council, Melbourne Water etc.).

The Action Plan can be found at *Appendix J: Action Plan*.

## 8.2 ANNUAL MONITORING & REPORTING

This strategy considers the long-term future of the Greater Dandenong Green Wedge. Progress on the actions in the Action Plan will be directly reported back to Council, stakeholders and owner/occupiers in the Greater Dandenong Green Wedge annually. The report will detail the achievements of the past 12 months and progress to date. The Action Plan will be incorporated into Council’s annual Council Plan reporting process to assist with the Plan’s timely implementation. Additionally, the objectives and actions of the Action Plan should be reviewed every five years to evaluate the effectiveness and relevance of the Plan’s objectives and actions.

## 8.3 ROLES & RESPONSIBILITIES

While Council is not solely responsible for the management and conservation of the Greater Dandenong Green Wedge, Green Wedge Councils have been directed to take the lead role in forming partnerships with the community, State Government Departments and other agencies to enable integrated planning across the public and private realm in these areas. However, as Council is not the primary land owner or land manager, its ability to affect change in the area is restricted to its decision-making role and other, more minor roles such as advocacy. The following figure highlights the roles and responsibilities of various stakeholders in the Greater Dandenong Green Wedge. Collaboration with other stakeholders is a priority. The relevant stakeholders are listed next to each action in the Action Plan.

Figure 14: Stakeholder Roles & Responsibilities

Stakeholder & Role	Responsibility									
	Land Ownership	Land Management	Regulation	Decision-making	Policy & Strategy	Planning	Development	Land Acquisition	Funding & Grants	Advocacy
Council (municipal role)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
OAAV (Cultural heritage advice)			✓	✓	✓				✓	✓
DTPLI (State role)				✓	✓	✓			✓	✓
EPA (Environmental regulator)			✓		✓					✓
Melbourne Water (Water management)	✓	✓	✓	✓	✓	✓	✓		✓	✓
VicRoads				✓	✓	✓				
Private land owners	✓	✓			✓		✓	✓		✓
Community groups	✓	✓			✓		✓	✓		✓
Surrounding community					✓					✓

Active roles

←

→

Passive roles

✓ = Key role

✓ = Minor role

## 8.4 FUNDING

The implementation of the GWMP will require funding from a variety of sources, including different levels of government and the private sector.

### GOVERNMENT

Different sources of government funding include federal, State and local government. This might be sought from the following organisations / programs:

- Melbourne Water programs
- Living Links
- Port Phillip and Westernport Catchment Management Authority
- Vic Health
- Office of Living Victoria

### PRIVATE SECTOR

It might be possible to attract some private sponsorship or funding to achieve key projects in the Plan, for example, in the case of an environmental and agricultural centre.

## 8.5 PLANNING SCHEME IMPLEMENTATION

The planning scheme is one of the few statutory tools available to the Council. Changes to the planning scheme require a planning scheme amendment process, with exhibition, probable independent Planning Panel process and approval by the Minister for Planning. Changes to zoning and minimum lot sizes require the approval of both houses of Parliament.

### LOCAL PLANNING POLICY FRAMEWORK

The Local Planning Policy Framework (LPPF) sets a local and regional strategic policy for a municipality. This policy guides decision making in the case of planning permit applications. The LPPF consists of two parts: the Municipal Strategic Statement (MSS) and local policies. The MSS provides the broad local policy basis for making decisions under a planning scheme. Local policies guide decision making in relation to a specific discretion in a zone or overlay.

For the implementation of this Plan, the MSS or local policy could be used. The existing local policy for green wedges should be replaced when this occurs. The Plan recommends that the revised policy will include the GWMP's (refer to C1.4 and C1.5):

- updated precincts (with map);
- vision;
- objectives (including precinct objectives); and
- relevant actions (including C2.3, C2.7, C4.1, C4.3, C4.4, C7.4, C7.6, E1.1 and E2.1).

## ZONING

This Plan has recommended the following zoning changes:

- Rezone Hutton Road North Precinct from Green Wedge Zone (GWZ) to Green Wedge A Zone (GWAZ) (C1.1);
- Rezone Keys Road Precinct from GWZ to GWAZ (C1.2); and
- Rezone the National Water Sports Centre from GWZ, Urban Floodway Zone (UFZ) and Public Use 1 Zone (PUZ1) to Public Park and Recreation Zone (PPRZ) (C1.3).

The rezoning of these areas should be undertaken at the same time as the Local Planning Policy Framework is updated.

### OVERLAYS

Following further work recommended in this Plan, revised or new overlay controls may be applied in the Greater Dandenong Green Wedge. These will need to be implemented through separate planning scheme amendment processes as the work is completed.

Recommended actions that may result in the application of planning scheme overlays are:

- Updated flooding mapping (A1.1, A1.2 and A1.7);
- Mapping of significant flora and habitat areas for significant fauna (B1.1 and B1.3);

# Implementation

- Applying an interim Vegetation Protection Overlay (B1.6);
- Identified areas for improved habitat links and connectivity (B2.1 and B2.5); and
- Land acquisition for public open space, habitat links and pedestrian, cycle and equestrian connections (B2.7 and C6.5).

## 8.6 OTHER MECHANISMS

This Plan will be implemented using a variety of other mechanisms including:

- Educating and working with land owner/occupiers and organisations in the Greater Dandenong Green Wedge;
- Working with other Green Wedge Councils;
- Working with and lobbying Melbourne Water and VicRoads; and
- Annual reporting.

## 8.7 WHAT WE'VE HEARD

*The second round of consultation with the community and other key stakeholders occurred during April-June 2014. The purpose of the consultation period was to seek community feedback on the Draft GWMP. A total of 123 submissions were received either via the feedback form, online survey, email or letter. A number of submitters commented on the implementation of the Plan, as summarised below.*

- Details on actions that Council can take were requested by ten (10) submitters. These ranged from concerns over what actions would be taken by stakeholders, informing the public of the Greater Dandenong Green Wedge and the use of Council resources.

*The actions have been reviewed and revised in response to submissions. The Action Plan outlines the relevant stakeholders and priorities for each action.*

- There were concerns by six (6) submitters over the costs of implementing this Plan. Three (3) of these submitters submitted suggestions of funding sources including contributions from development and principled cost-sharing.

*The Plan proposes that a variety of funding sources be investigated to fund the actions in the Plan.*

- A review of the Plan after a certain amount of time was suggested by four (4) submitters.

*The Plan recommends that the objectives and actions be regularly reviewed and progress monitored. Performance indicators are included in the Action Plan to assist with assessing progress.*

## PRIORITIES

Council identified five priority objectives in the Draft Plan which related to the five themes. The majority of submitters that responded to the survey question, *Do you agree with Council's top five priorities to implement the Plan?*, supported Council's top five implementation priorities as shown in Figure 15.

*Each of these objectives has been retained. The priority objective for Transport and Access was revised to reflect the importance of linkages for all modes of transport in the area. In doing so, two objectives, one about roads and the other about walking, cycling and horse riding opportunities, were combined. The priority objective for Built Form & Heritage was switched to focus on the Green Wedge's rural role. While both objectives were supported, it was considered that maintaining the open landscape-dominated vistas as a priority objective provides a clearer vision and greater certainty for the area.*

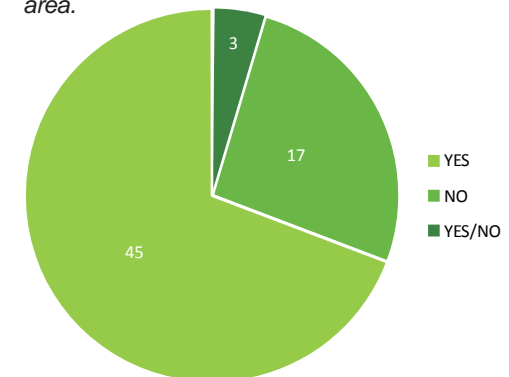


Figure 15: Responses to the question 'Do you agree with Council's top priorities to implement the Plan?'

Source: Draft Greater Dandenong Green Wedge Management Plan submissions, April-June 2014