

MARSHALL PRECINCT STRUCTURE PLAN BACKGROUND REPORT

City of Greater Geelong

August 2025

ACKNOWLEDGEMENT OF COUNTRY

The City of Greater Geelong acknowledges the Wadawurrung People as the Traditional Owners of the land, waterways and skies of the Northern and Western Geelong Growth Areas. We pay our respects to their Elders, past and present.

We acknowledge all Aboriginal and Torres Strait Islander people who are part of our Greater Geelong communities today.

1.0 Executive Summary.....	4
2.0 Introduction.....	5
Purpose.....	5
Marshall Precinct Structure Plan	6
3.0 Metropolitan and Regional Context	8
Metropolitan Context.....	8
Armstrong Creek Urban Growth Area	10
4.0 Local Context.....	12
Lots and Ownership	14
5.0 Character, Heritage and Housing	16
Settlement Strategy	16
Social and Affordable Housing	16
Social and Affordable Housing in Greater Geelong	16
Contribution Rate	17
Post-Contact Heritage.....	18
Cultural Heritage.....	19
6.0 Biodiversity	20
Native Vegetation Precinct Plan	21
Canopy Cover.....	23
Fauna Assessment	23
7.0 Environment.....	24
Land Contamination Assessment	24
Bushfire	27
8.0 Transport and Movement.....	29
Traffic Impact Assessment.....	31
9.0 Water Management.....	32
Stormwater Management Strategy.....	32
Key Considerations.....	32
Implications For Precinct Design	34
10.0 Energy and Techonology	36
Utilities	36

Environmentally Sustainable Design 39

11.0 Development Contributions 41

12.0 References..... 42

 City Strategies..... 42

 Technical Reports..... 42

Figure 1. Marshall PSP Future Urban Structure, August 20257

Figure 2. Victoria’s connected cities and regions in *Plan Melbourne 2017-2050*9

Figure 3. Armstrong Creek Urban Growth Plan - Framework Plan, February 2025 11

Figure 4. Armstrong Creek Urban Growth Area Precinct Boundaries 11

Figure 5. Local Context Plan 13

Figure 6. Property Number Plan, Marshall PSP Land Budget..... 15

Figure 7. Smith Street Road Reserve looking east from Drews Road 20

Figure 8. Native Vegetation to be Retained and Removed 22

Figure 9. Environmental Audit Overlay map 26

Figure 10. Future Urban Structure and potential BAL-12.5 setback areas..... 28

Figure 11. Access Management Strategy - Option 4 30

Figure 12. Marshall Precinct SWMS existing conditions and features 34

Figure 13. Marshall PSP SWMS Layout 35

Figure 14. Current concept for the Main Outfall Sewer Relocation 37

Figure 15. Sewer Catchment Plan 38

Figure 16. Water and Recycled Water Sketch Plan 39

1.0 EXECUTIVE SUMMARY

The City of Greater Geelong (the City) has prepared the Marshall Precinct Structure Plan, August 2025 (PSP) for the Marshall Precinct. The PSP sets the vision for developing a new community and is the primary plan for guiding urban development in the growth area.

The precinct was included within the Armstrong Creek Urban Growth Area as part of Greater Geelong Amendment C138, gazetted 4 December 2008.

The Marshall precinct will undergo a full transition of land use into a large-scale residential development, with considerable population increase. There is also provision for some commercial and retail uses.

The precinct covers 123 hectares and will accommodate approximately 1,661 dwellings and approximately 4,000-5,000 residents, with an emphasis on high quality urban design, service provision, attractive street scapes and open space, and retention and protection of native vegetation in conservation reserves.

The City commissioned several background technical studies to inform the PSP. The purpose of this document is to provide a summary of the findings of these studies and to highlight issues and opportunities that were considered in the preparation of the PSP.

To accompany the PSP, The City prepared the Marshall Native Vegetation Precinct Plan, May 2025 (NVPP) and the Marshall Development Contributions Plan, June 2025 (DCP). All three documents are proposed for implementation into the Greater Geelong Planning Scheme as Incorporated Documents.

Implementation of the PSP, DCP and NVPP into the Greater Geelong Planning Scheme will be via Amendment C278ggee.

2.0 INTRODUCTION

As part of the implementation of the *Armstrong Creek Urban Growth Area Framework Plan - Revised 2015*¹, the City has prepared the Marshall Precinct Structure Plan (PSP). A PSP is a high-level framework which establishes and guides the implementation of the vision for the development of new communities in greenfield areas.

A PSP is a long-term strategic plan to manage land supply and guide land use and development within the precinct. It will form the basis for how the land should be developed, what natural assets should be protected, and where the services are planned to cater to the vision and aspirations of the *Armstrong Creek Urban Growth Area Framework Plan Framework Plan*.

The Marshall PSP is one of eight PSPs required to implement the Armstrong Creek Urban Growth Area (ACUGA). It is the final residential PSP to be prepared within the ACUGA. Six ACUGA PSPs have already been incorporated into the Greater Geelong Planning Scheme.

The City commissioned several background technical studies to inform the Future Urban Structure (FUS – shown in Figure 1) of the Marshall PSP.

PURPOSE

The purpose of this document is to provide a summary of findings from technical studies done and documenting the opportunities and constraints considered in drafting the PSP. This report provides detailed background information that has informed preparation of the PSP and the preferred outcomes sought. These include:

- a summary of strategic, regional, and local context;
- a description of the site conditions including landforms and topography, vegetation, and other natural elements;
- a summary of background technical work relating to the precinct, including biodiversity, drainage, open space, transport infrastructure, utilities, housing and environmental sustainability; and
- a summary of how the PSP addresses the key findings of the above.

A full list of the supporting documents that have informed the preparation of this Background Report and the PSP can be found in Chapter 12.

¹ Amendment C468ggee gazetted 25 June 2025 revised the framework plan to a February 2025 version. The revision had no material or policy effect on the preparation of the Marshall PSP.

MARSHALL PRECINCT STRUCTURE PLAN

The Marshall PSP provides a broad framework that will coordinate development and assist in the transition of the area from non-urban to urban land. Future residents of the precinct will enjoy and benefit from the proposed environmental, social and economic assets proposed in the PSP.

The PSP is supported by the Marshall Development Contributions Plan (DCP) which identifies and funds the construction and provision of land for basic and essential infrastructure projects required to ensure future residents, visitors and workers in the precinct can be provided with timely access to infrastructure and services necessary to support a quality and affordable lifestyle.

The City has prepared the Marshall PSP, DCP and Native Vegetation Precinct Plan (NVPP) in collaboration with key stakeholders and will be responsible for implementing the PSP, DCP and NVPP.

The Marshall Precinct aims to be a sustainable, connected and visually interesting place set within a semi- natural environment. The PSP identifies future housing, employment, transport and public open space areas to enhance the best use and development of the precinct. The PSP supports varied housing typologies and densities, with increased densities in and around the Mixed-Use Station Precinct to maximise opportunities for residents to choose walking and cycling over driving.

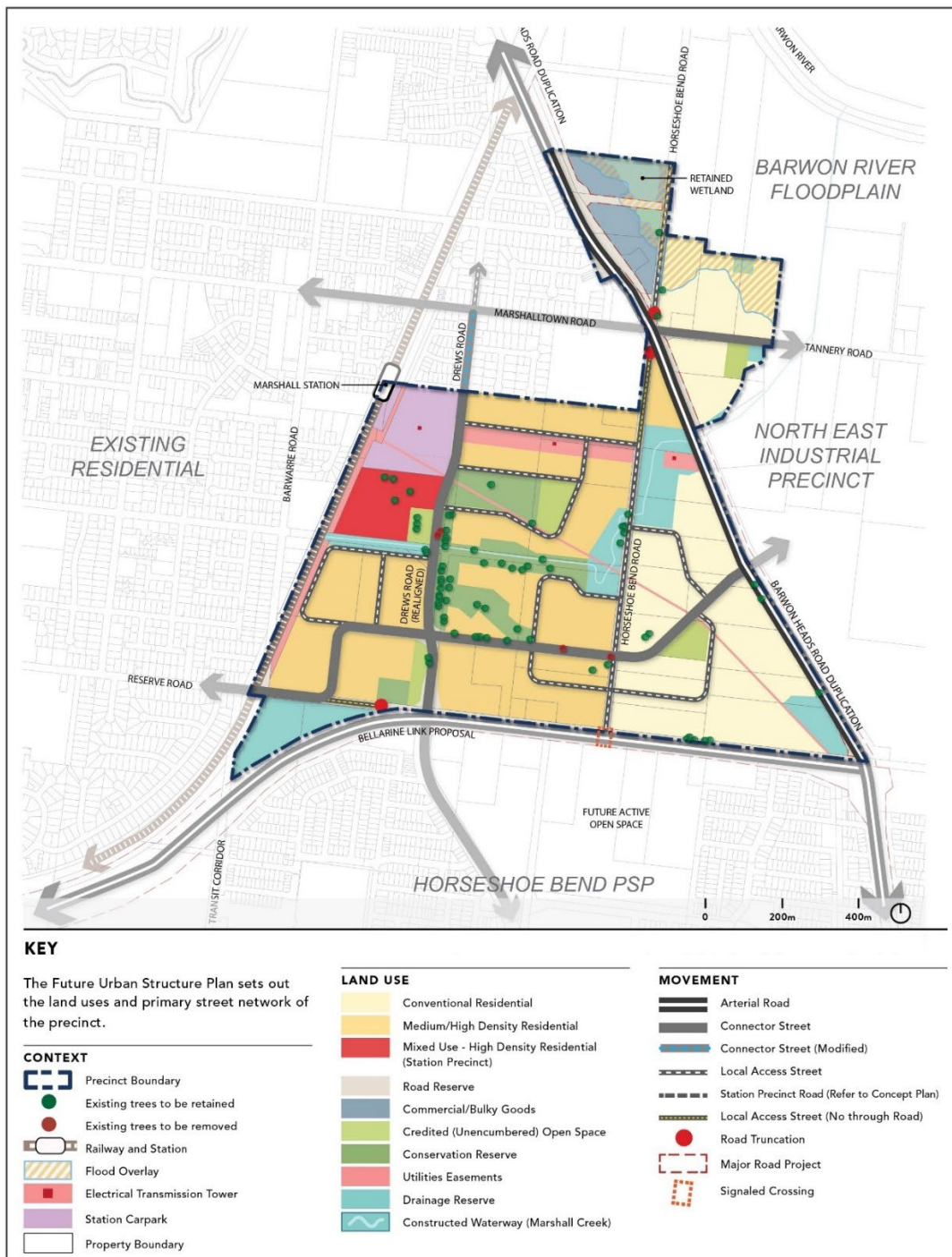
The Marshall PSP will:

- be a residential precinct with limited designated commercial land fronting Barwon Heads Road², north of Tannery Road.
- provide 69.2 hectares of net developable area (out of a total precinct area of 123 hectares), of which 66.6 hectares is available for residential development and 2.6 hectares is available for commercial development.
- create upwards of 1,661 dwellings of diverse typologies within a Mixed-Use Zone, Residential Growth Zone and General Residential Zone.
- provide a local activity centre (within the Station Precinct) including a maximum of 2,750 sqm or shop retail floor space.
- provide five local parks strategically located throughout the precinct to provide convenient access for new residents.

² Amendment C278ggee exhibited all land on the east side of Barwon Heads Road and Property #20 with a commercial designation, which was changed to a residential designation during the amendment process.

- comprise an urban structure that draws upon and integrates existing physical features including extensive waterway/ wetland assets and areas of significant biodiversity value.
- provide a safe and efficient vehicle, bicycle and pedestrian network that connects to Marshall Station and surrounding urban land.
- require the following infrastructure: road and path networks, arterial road intersections, drainage systems, local parks and utility services.

Figure 1. Marshall PSP Future Urban Structure, August 2025



3.0 METROPOLITAN AND REGIONAL CONTEXT

METROPOLITAN CONTEXT

“The Geelong region is Australia’s most desirable destination for living, working and investing; it is renowned for its vibrant cohesive community, exceptional physical environment and vigorous economy.” - G21 Regional Growth Plan Vision (G21, 2013)

Geelong is a regional city south-west of Melbourne with a metropolitan growth profile (see Figure 2).

The Armstrong Creek Urban Growth Area is the largest contiguous growth area in Victoria, consisting of 2,500 hectares of developable land, and is one of the largest growth fronts in the country. The area was originally designated as a growth corridor in the 1980s by the Geelong Regional Commission and was confirmed as Geelong’s future urban growth corridor in the City’s Urban Growth Strategy, 1996.

Plan Melbourne 2017-2050 recognised Geelong as Victoria’s second city and prioritises land use strategies that position the region as centre of employment and accelerated growth. As the largest of Victoria’s ten regional cities, Greater Geelong’s vibrant community and diverse economy will attract the primary population growth outside Melbourne and strengthen the city’s importance to our surrounding communities.

Plan Melbourne 2017-2050 highlights the importance of locally led growth that is delivered in keeping with Geelong’s character and balanced with the protection of the productive land, economic resources and biodiversity assets that are critical to the state’s economic and environmental sustainability.

Figure 2. Victoria's connected cities and regions in *Plan Melbourne 2017–2050*



Map 23

Victoria's connected cities and regions

- | | | | | | |
|---|--------------------------------------|---|-----------------------------|-----|----------------|
| ⊙ | Capital city | ✈ | Transport gateway – airport | — | Primary road |
| ★ | Regional city | ⚓ | Transport gateway – seaport | — | Secondary road |
| ● | Regional centre | | | +++ | Rail network |
| ⋯ | 100-km radius from central Melbourne | | | | |

ARMSTRONG CREEK URBAN GROWTH AREA

The Armstrong Creek Urban Growth Area (ACUGA) is located approximately 7km south of the Geelong CBD. It comprises 2,500 hectares of developable land across eight precincts with the potential to accommodate 54,000 residents.

The Framework Plan, adopted by the City in 2008, set the long-term strategic planning directions to guide the creation of sustainable greenfield urban growth to the south of the Geelong CBD. It is anticipated to provide housing for 54,000 people in 22,000 households.

The majority of the ACUGA has since been planned and incorporated. Development has substantially commenced. Completion of the Marshall Precinct Structure Plan marks the final residential growth area within the ACUGA and will facilitate integrated development with other parts of the ACUGA and urban Geelong.

The Framework Plan was updated in September 2012, 2015, and again updated in June 2025. The June 2025 plan is an incorporated document in the Greater Geelong Planning Scheme and copied in Figure 3. Figure 4 shows the ACUGA precinct boundaries.

Figure 3. Armstrong Creek Urban Growth Plan – Framework Plan, February 2025

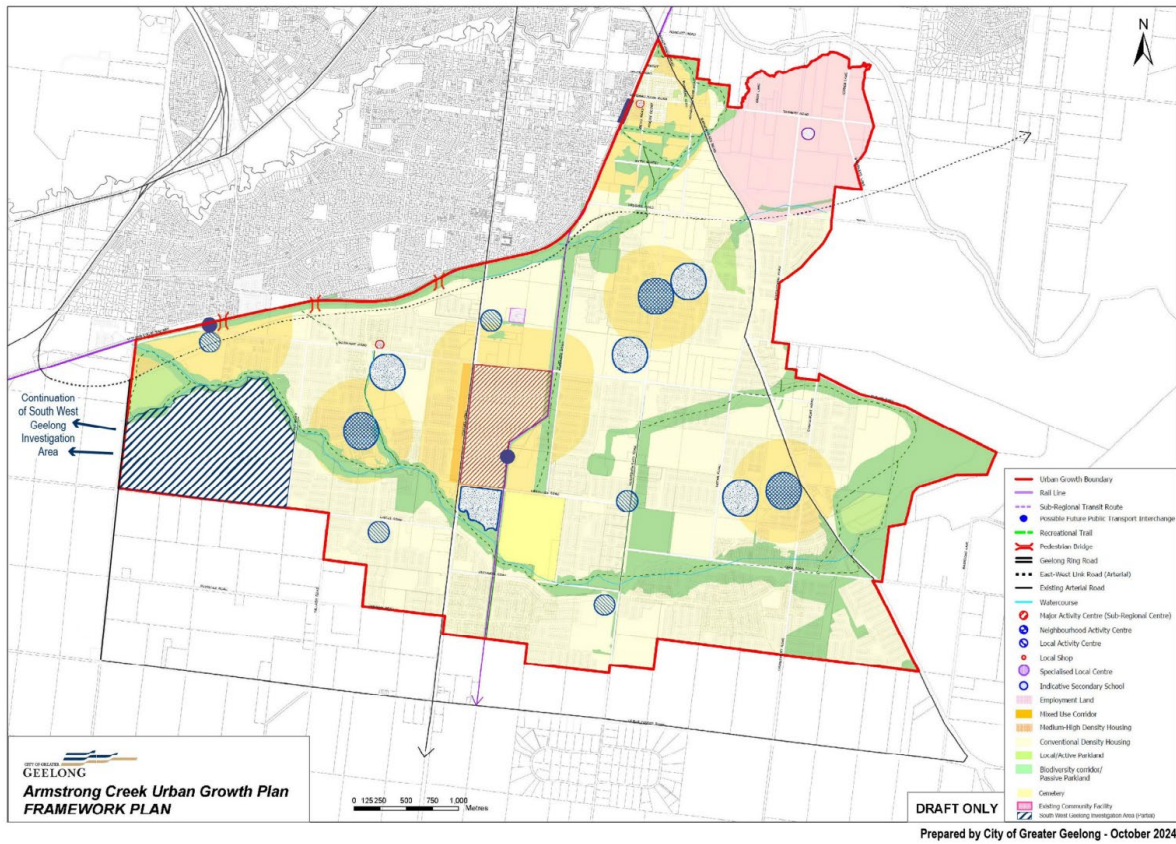
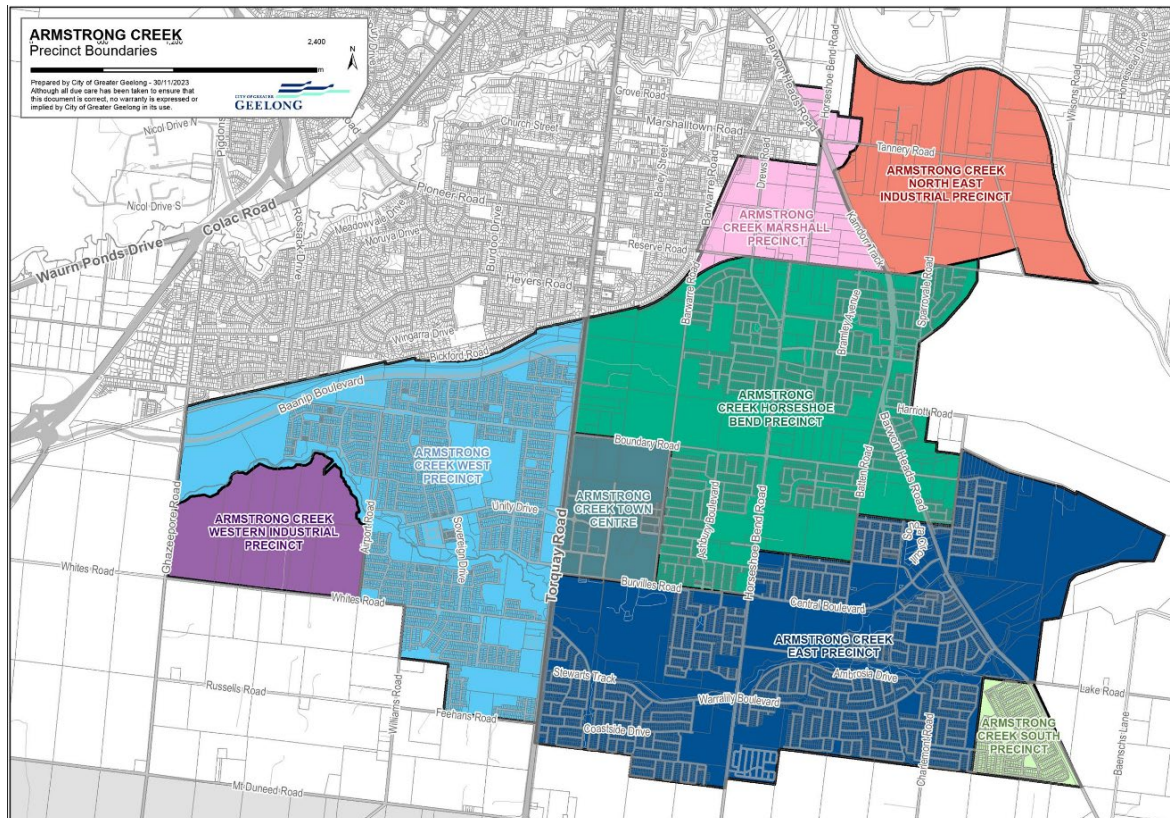


Figure 4. Armstrong Creek Urban Growth Area Precinct Boundaries



4.0 LOCAL CONTEXT

The Marshall PSP is the northern-most residential precinct within the ACUGA. Located approximately seven kilometres south of Central Geelong, the precinct is bounded on the diagonal western border by the Geelong to Waurin Ponds passenger rail line, on the diagonal eastern border by Barwon Heads Road, and to the south by the proposed Bellarine Link Road (currently Reserve Road).

The precinct includes a section to the east of Barwon Heads Road, between Barwon Heads Road and the Barwon River Floodplain, and mainly accessed from Tannery Road and Horseshoe Bend Road.

Marshall Train Station, on the Geelong to Waurin Ponds line, sits at the north-western edge of the precinct. The rail line was recently duplicated and the station redeveloped under Victoria's Big Build program:

<https://bigbuild.vic.gov.au/projects/geelong-line-upgrade/projects/marshall-station>

The Marshall precinct abuts the established suburbs of Grovedale to the east and Marshall to the north, the developing Horseshoe Bend Precinct to the south, and the undeveloped North-East Industrial Precinct PSP to the west.

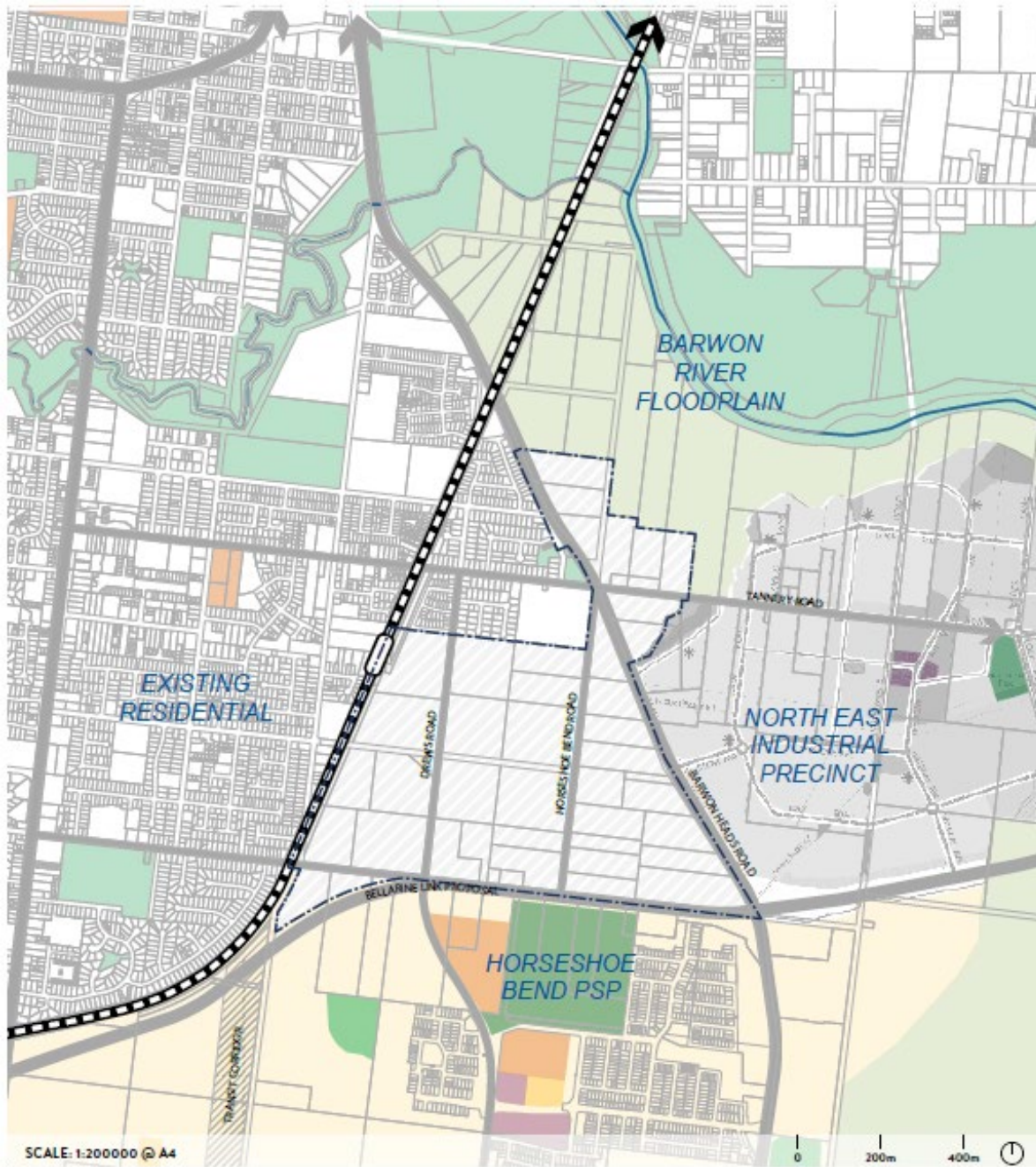
Torquay Road and Barwon Heads Road form the arterial transport network in this part of Geelong. They are both declared arterial roads managed by the Department of Transport and Planning (DTP). Other roads in the area are managed by the City. Marshalltown Road and Horseshoe Bend Road carry the highest classifications, being a main distributor (urban) and link road (rural), respectively. Reserve Road is classified as a secondary distributor between Torquay Road and Barwon Heads Road. Drews Road, Tannery Road and the northern section of Horseshoe Bend Road are classified as local access roads.

There is shallow and broad flooding across the southern and central part of the Precinct. This is to be expected through this area which is relatively flat, with the absence of any substantial waterways or open channels. Further north and downstream, beyond Horseshoe Bend Road, Marshall Creek becomes more defined and flood extents are more confined to this waterway corridor before entering the Barwon River.



Vegetation within the study area includes introduced species, pasture grasses, and remnant native vegetation, along with scattered shrubs and understory vegetation. This includes mature Bellarine Yellow Gum and River Red Gum within the Smith Street Road Reserve (closed to vehicles) and on the verges of Drews Road. Remnant

and recruitment grassy woodland is located north and south of Smith Street, as well as a smaller patch fronting Reserve Road.

Figure 5. Local Context Plan



KEY

- | | | | |
|---|-----------------------|---|----------------------------------|
|  | Marshall PSP Boundary |  | Activity Centre |
|  | Future Residential |  | Armstrong Creek Translt Corridor |
|  | Future Employment |  | Waterway |
|  | Farming Zone |  | Marshall Railway Station |
|  | Open Space |  | Arterial Road |
|  | Education |  | Connector Street |
|  | Community Facility | | |

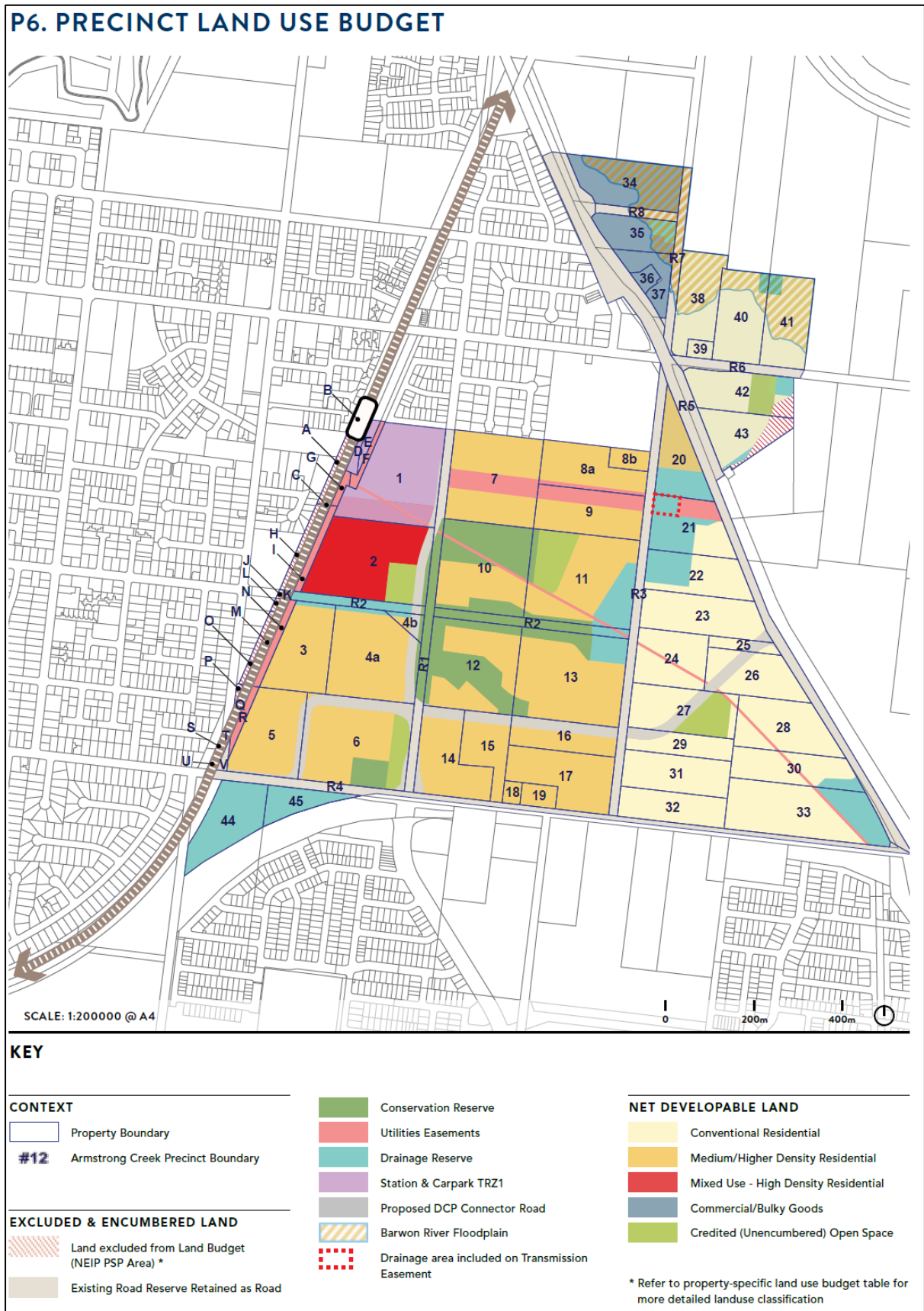
LOTS AND OWNERSHIP

The Marshall Precinct encompasses approximately 123 hectares of land. It includes a total of 45 individual land parcels, of which most are largely underdeveloped and used for farming and/or other agricultural uses as well as rural homesteads.

Several landholdings are owned by registered companies. Other land parcels are owned by individuals as sole or joint proprietors. DTP own the Marshall Station and carpark land (zoned TRZ1) identified as Property 1 in Figure 6. The PSP supports the southern portion of the DTP land to form part of mixed-use development should the land be declared as surplus to transport needs in the future and sold.

The existing landscape character within the PSP boundary is predominantly rural living lots and vacant vegetated land. Residential properties within the study area represent a diversity in style and block size. Built form is typically characterised by single storey residences, often with associated farming infrastructure. Parcels north east of Barwon Heads Road partially lie within the Barwon River floodplain.

Figure 6. Property Number Plan, Marshall PSP Land Budget



5.0 CHARACTER, HERITAGE AND HOUSING

SETTLEMENT STRATEGY

The *Greater Geelong Settlement Strategy* (August 2020) outlines the City's plan for continued land supply, taking into account the environmental constraints particularly of the Bellarine Peninsula to the east of the precinct, and Geelong's role as the second-largest Victorian city.

This strategy identified a series of principles and directions to guide settlement growth within the municipality. These principles guide the housing density targets within the Marshall PSP, focusing higher dwelling densities within walking distance of the Marshall Train Station, with highest proposed density within a 400m catchment of the station.

Development of the Marshall Precinct implements the strategic direction for the spatial distribution of residential growth in Greater Geelong, in accordance with this strategy by identifying options for housing diversity through the implementation of specific zones which identify locations appropriate for mixed use, high and medium density housing, and enable the delivery of a broad range of lot sizes, capable of accommodating a variety of different housing types.

SOCIAL AND AFFORDABLE HOUSING

An objective of the *Planning and Environment Act* is to facilitate the provision of affordable housing, which includes social housing, in Victoria. State policy in respect of housing affordability is found at clause 16.01-2S and has the objective to deliver more affordable housing closer to jobs, transport and services.

SOCIAL AND AFFORDABLE HOUSING IN GREATER GEELONG

Provision for social and affordable housing is required in the ACUGA to fulfill Council's objectives as set out in the City's *Social Housing Plan 2020-2041* (SHP).

The City engaged SGS Economics and Planning to prepare the *Providing social housing as essential infrastructure in Geelong's Key Strategic Planning Areas* (December 2021) report. This report identifies social and affordable housing as an essential part of infrastructure in the urban setting and quantifies the demand for social and affordable housing within Geelong's growing Key Strategic Planning Areas, including the Marshall Precinct. Marshall is a greenfield area and as such provides opportunity to develop social and affordable housing in co-ordination with the rest of the precinct.

The PSP has the strategic justification for introducing an affordable housing contribution that is applicable to all development applications to address the severe shortage and future need for affordable housing. This requirement would see proponents entering S173 agreements through the planning approval process.

CONTRIBUTION RATE

In calculating an appropriate contribution rate, a reasonable assumption has been made that the Commonwealth Government, the state government, and developers and the planning system will each deliver social and affordable housing through different stream of delivery mechanism in meeting existing and future need. As such, it is a reasonable assumption that one third of the total social housing infrastructure required to be delivered through the planning process and system of housing production.

In 2050, the Geelong community will require approximately 11,000 social housing dwellings which is 14% of total dwellings to be delivered in Geelong. One third of these, or 3,700 units (4.6%), could reasonably be expected to be delivered through planning and development approval process.

A requirement for affordable housing floor space, cash or dwelling contribution shall be attributed to each successive unit of development. By attributing the 1/3 of affordable housing need to the total residential floor space to be delivered, the equivalent contribution can be then negotiated through a Section 173 agreement for transfer to a Registered Housing Association or Geelong Affordable Housing Trust:

- affordable housing, including social housing floorspace or dwelling unit(s) at a rate of 0.045 sqm (or 4.5%) for each square metre of residential and commercial floorspace or leasable floorspace in the building(s)
- the provision of cash-in-lieu, land (or a combination) at a rate of \$ 117.46 per square metre of residential and commercial floorspace or leasable floor space (indexed annually in accordance with movements in unit dwelling prices in the City of Greater Geelong) or
- the provision of cash-in-lieu, land, or dwellings (or a combination) to the value of \$695,604 per net developable hectare in the Marshall Precinct.
- In addition to social housing, any other affordable housing model that are to be delivered for households within the very low, low to moderate income households (as defined under Governor in Council Order Sect 3AB for household income bands) within definition of Affordable Housing and to each matter set out by the Minister pursuant to section 3AA(2) of the Planning and Environment Act 1987, to be agreed with the Responsibility Authority.

- Any social housing contribution shall be made to a Geelong Affordable Housing Trust.

The contribution proposed in the Marshall PSP is based on inclusionary requirements. The rationale of an inclusionary requirement is to form the nexus for social housing infrastructure by establishing the social housing need for any given community to be consistent in terms of per capita ratio. The nexus between a universal need and dwelling contribution is then established by:

- Attributing the overall Victorian Social Housing average need as a percentage distributed across the precinct's dwelling and based on development yield.
- Securing social housing contributions (dwelling or cash) based on the need attribution so it becomes a function of development process within these precincts.
- Delivering social and affordable housing outcomes within the PSPs to achieve community benefit.

Where a development triggers the criteria in Clause 53.23 (Significant Residential Development with Affordable Housing) of the Greater Geelong Planning Scheme, introduced during the preparation of this PSP via Amendment VC242, any higher contributions relevant in that clause should be applied.

POST-CONTACT HERITAGE

A Post Contact Cultural Heritage Assessment was prepared for the Marshall Precinct, dated January 2014.

Four properties were identified as having local heritage significance within or directly adjacent to the PSP area, and recommended for Individual heritage overlays:

- 375 Barwon Heads Road, Charlemont (including tree controls)
- 1 Marshalltown Road, Marshall (including tree controls)
- 28 Marshalltown Road, Marshall (including tree controls)
- 19 Mornane Road, Marshall.

During the reduplication of Barwon Heads Road, the property at 375 Barwon Heads Road, Charlemont was relocated to another site. Heritage citations have been prepared for the other three properties and will be implemented via the forthcoming heritage amendment to implement the Greater Geelong Outer Areas Heritage Study.

None of these above listed properties are within the Marshall Precinct. Therefore, no heritage overlays are recommended for the Marshall Precinct.

CULTURAL HERITAGE

In 2013 TerraCulture Pty Ltd were engaged by the City of Greater Geelong to provide cultural heritage advice to assist in the preparation of the Precinct Structure Plan. The assessment did not include land on the east side of Barwon Heads Road.

The Precinct is within the Registered Aboriginal Party boundaries of the Wathaurung Aboriginal Traditional Owners Corporation. Under Part 10 of the *Aboriginal Heritage Act 2006*, this group has rights and responsibilities for Aboriginal cultural heritage in the Geelong region.

Previous assessments of Aboriginal cultural heritage within the Precinct were limited to small subdivisions in cleared paddocks and linear infrastructure developments on road reserves or within the railway easement. No Aboriginal cultural heritage was discovered during these early assessments which were mostly based on surface evidence, as this was determined during pedestrian surveys. Therefore there are no registered Aboriginal heritage places within the Precinct.

In the absence of any registered Aboriginal heritage places or named waterways there are no mapped areas of sensitivity within the Precinct. A field inspection indicated that there are no obvious Aboriginal heritage places or distinctive landforms sensitive for Aboriginal heritage. There is a probability of Aboriginal cultural heritage places in the form of low-density stone artefact in properties along Reserve Road and Barwon Heads Road where there is higher ground. At the same time, parts of the Precinct appear to have been subject to significant ground disturbance as this is defined in the Aboriginal Heritage Regulations 2007 and technically are not sensitive for Aboriginal heritage.

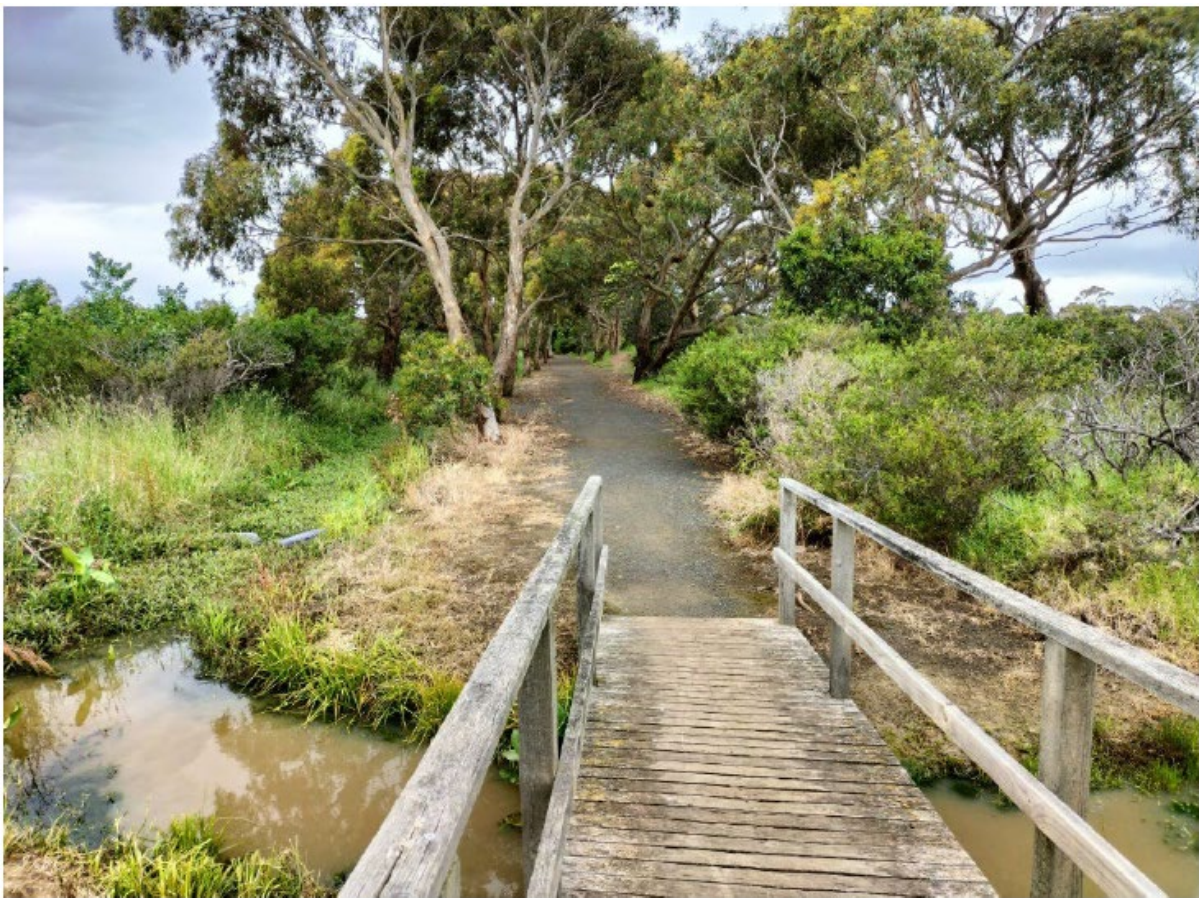
The TerraCulture report concluded that there are no recommendations for the registration of Aboriginal Heritage Places within the Precinct.

Two sites on the east side of Barwon Heads Road within the Marshall PSP boundary are mapped areas of Aboriginal cultural heritage sensitivity. The sites are located at the new intersection of Barwon Heads Road and Norcott Road. A Cultural Heritage Management Plan (CHMP) was approved in 2021 as part of the Barwon Heads Road duplication project.

6.0 BIODIVERSITY

A feature of the precinct are the patches of native vegetation woodland and scattered trees. This includes mature Bellarine Yellow Gum and River Red Gum woodland within and adjoining the Smith Street reserve (Figure 7) and on the verges of Drews Road. Remnant grassy woodland is also located on several parcels linked to these reserves and partly identified in an Environmental Significance Overlay Schedule 1 (*Areas of flora and fauna habitat and of geological and natural interest*). Most of this vegetation is proposed to be retained in conservation reserves.

Figure 7. Smith Street Road Reserve looking east from Drews Road



NATIVE VEGETATION PRECINCT PLAN

The City engaged Ecology and Heritage Partners to prepare the *Marshall Native Vegetation Precinct Plan* (NVPP), May 2025. The NVPP applies a holistic, landscape wide approach to retention and removal of native vegetation within the precinct area. It seeks to ensure there is no net loss to biodiversity as a result of the approved removal, destruction or lopping of native vegetation and that areas set aside to protect native vegetation are managed to conserve biodiversity and other values, in accordance with the plan.

The NVPP identifies:

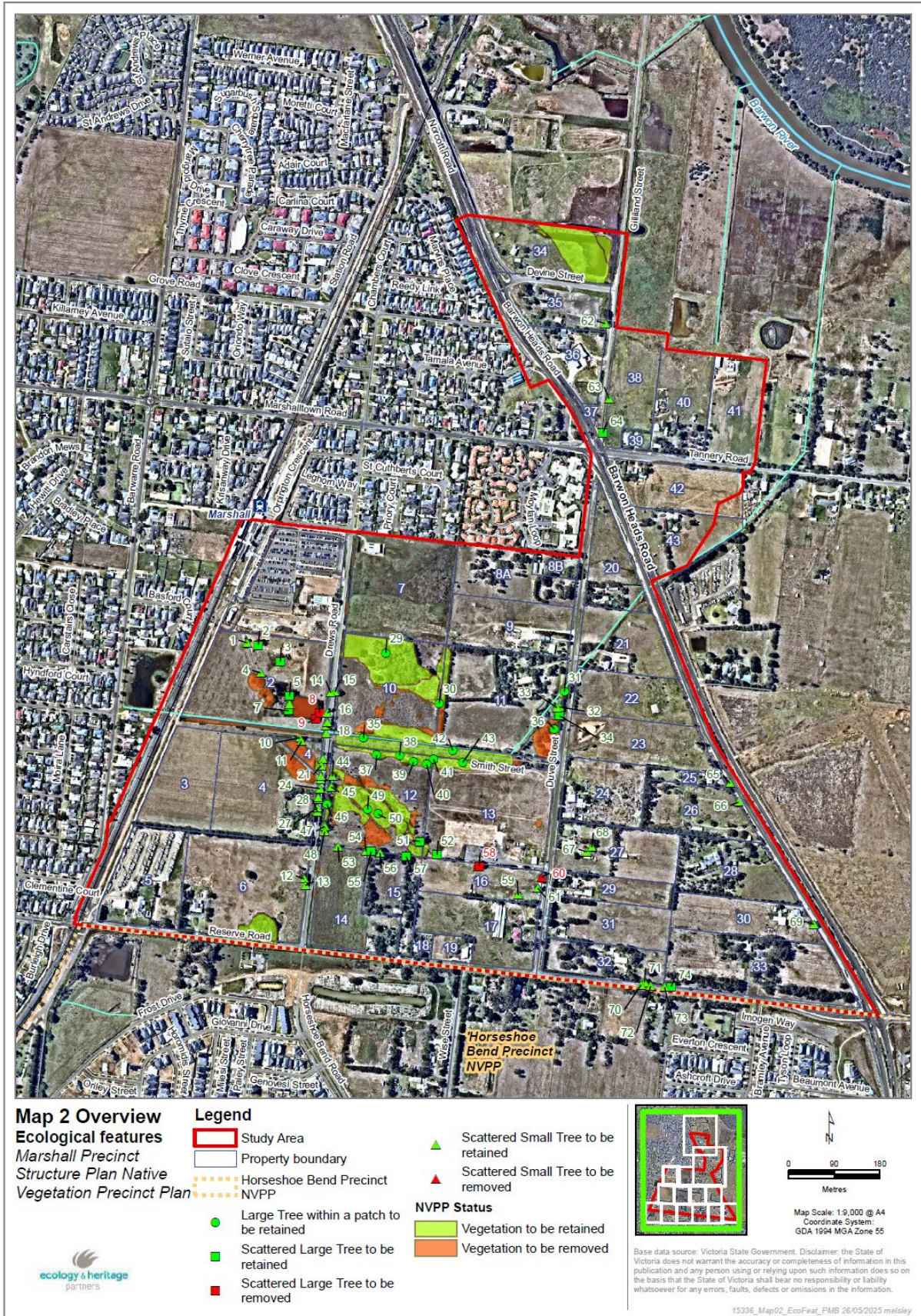
- Native vegetation to be protected and the native vegetation that can be removed, destroyed or lopped without a planning permit; and
- The offsets that must be provided by landowners wishing to commence works prior to removing the native vegetation which can be removed.

The NVPP addresses the statutory requirements of Clause 12.01 Biodiversity of the Greater Geelong Planning Scheme. The NVPP will be incorporated into Clause 72.04 Incorporated Documents of the Greater Geelong Planning Scheme and is a separate document to the Marshall PSP.

The NVPP clearly sets out the offset requirement, determined in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP, 2017), for native vegetation that can be removed, destroyed or lopped. The NVPP clearly describes the type and amount of vegetation loss that must be offset, the type and location of offsets to be provided, and the timeframe for implementing the offsets.

Figure 8 shows the Marshall NVPP vegetation to be retained and removed map.

Figure 8. Native Vegetation to be Retained and Removed



Aerial source: Nearmap 2025

CANOPY COVER

The City's *Urban Forest Strategy 2015-2025* identifies growth areas, like Marshall, as a key opportunity to significantly contribute to the municipality's overall canopy targets. The strategy sets a 25% canopy cover target and outlines areas to be prioritised for tree planting. Those areas present in the Marshall PSP include bike paths, linear open spaces, waterways, commercial and retail zones, open space and conservation reserves.

To achieve a minimum of 25% canopy coverage across the PSP in accordance with the *Urban Forest Strategy 2015-2025*, City's Urban Design and Heritage team undertook an exercise to determine achievable canopy targets for various land uses and street types proposed within the PSP. This exercise was done using comparable examples across growth areas in Victoria and other best practice outcomes.

FAUNA ASSESSMENT

Alongside preparation of the NVPP, a fauna assessment report was completed by Ecolink Consulting in May 2022. The assessment included desktop review for potential impacts to Matters of National Environmental Significance under the EPBC Act, as well as targeted surveys for Growling Grass Frog, Latham's Snipe and native fish species.

The fauna report determined that development of the Marshall PSP is unlikely to significantly impact Growling Grass Frogs, which were not recorded during the current surveys, nor within the study area during the desktop assessment or during previous surveys. Other listed species were also unlikely to be impacted. Based on these findings, the report concluded that future development is unlikely to significantly impact any EPBC Act-listed fauna species.

To avoid and mitigate impacts to the Lake Connewarre wetland system and improve onsite biodiversity, the fauna report made several recommendations which informed the Marshall Stormwater Management Strategy.

In February 2024 the City was advised by DTP that the Marshall Precinct is within the modelled distribution area of the critically endangered Victorian Grassland Earless Dragon (VGED). The City engaged Ecolink Consulting to undertake a habitat refinement exercise and assessment (5 April 2024) which found that the Precinct is unlikely to provide VGED habitat due to the lack of suitable habitat features.

In June 2024 DEECA issued and updated its habitat model for the VGED, which removed the Marshall PSP area.

7.0 ENVIRONMENT

LAND CONTAMINATION ASSESSMENT

A Preliminary Environmental Assessment was prepared for the Marshall Precinct (Golder, 2013). This report reviewed potential land contamination on the site and geotechnical risk. It concluded that there is little geotechnical risk. Following the introduction of Planning Practice Note 30 and Ministerial Direction 19, an addendum to this report was sought to clarify the potential contamination of land in accordance with current standards.

A *Marshall Precinct Preliminary Environmental Assessment Update* report (WSP, 13 September 2023) was carried out for the precinct to provide a high-level assessment of the potential for land contamination within the precinct, assessing the nature of potential contaminants to be considered during the design and construction phases. The assessment updated the land contamination risk ranking completed in 2013 by Golder, in line with the new legislation and guidelines enacted on 1 July 2021, for the properties located within the Marshall Precinct.

The assessment notes that in the Golder report properties within the precinct were reported to be predominately residential and low intensity grazing land with some various commercial/industrial uses. Since the 2013 assessment work and based on review of available aerial images, some development/redevelopment, demolition and improvements have occurred. For most part, the majority of the land parcels within the precinct have remained relatively unchanged and predominately used for residential and agricultural purposes (grazing, hobby farm). Notable changes include the development of a service station at 355 Barwon Heads Road and the Barwon Heads Road upgrade.

The assessment finds 'High' potential for contamination was identified within the Marshall Precinct by the land parcels occupied by the service station and the use/storage of hazardous chemicals at 92-108 Horseshoe Bend Road.

Most land parcels within the precinct were predominantly used for dwelling and agricultural uses (low intensity, low risk). However, due to ancillary uses and activities (e.g., automotive workshop, laydown yard, nursery, storage and/or use of imported fill, storage of inert waste etc) or located adjacent to high-risk properties/ operations, these land parcels have been determined to be "Medium" potential for contamination following the PPN30-based contamination potential assessment.

The assessment concludes that:

- to meet the requirements of MD1, further site assessment is required where the potential for contamination has been assessed as 'High' or 'Medium'; and
- in order to meet requirements of the environmental audit system, Council could require the PRSA and/or Environmental Audit requirements prior to the amendment or defer the PRSA and/or Environmental Audit requirements until after the amendment via the application of an Environmental Audit Overlay (EAO) or inclusion of a requirement for a PRSA within the schedule of the new land.

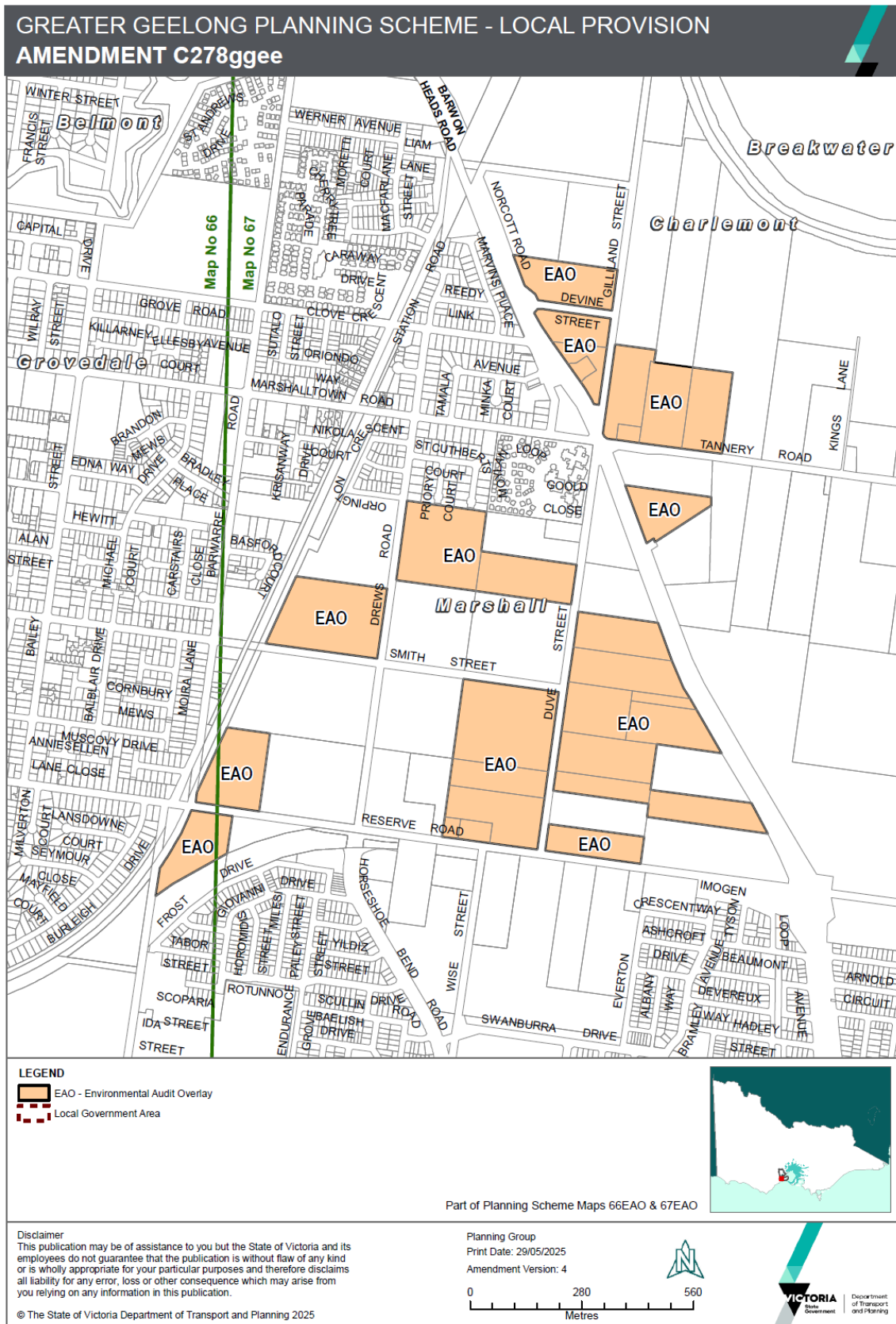
At Attachment B of the WSP report, a summary of historical and current contamination information is provided for all land parcels within the Marshall PSP boundary and accorded a PPN30 risk ranking.

The EAO includes requirements to align with the audit system under Part 8.3 the *Environment Protection Act 1987* and incorporates the PRSA tool to determine whether an environmental audit is required before sensitive uses can commence or before commencing buildings and works associated with a sensitive use. The EAO map is proposed to be applied to all land parcels identified by the WSP report to have a 'High' potential for contamination and a 'Medium' potential for contamination

The EAO map is shown in Figure 9.

Deferral of audit system requirements to the EAO is consistent with PPN30. PPN30 acknowledges that in some instances the planning authority may determine it to be difficult or inappropriate to meet audit system requirements at the time of the amendment. PPN30 provides the example of where the rezoning relates to a large strategic planning exercise or involves sites in multiple ownership - as is the case with the Marshall Precinct.

Figure 9. Environmental Audit Overlay map



BUSHFIRE

The PSP area currently is within a Bushfire Prone Area (BPA) with no Bushfire Management Overlay (BMO). Bushfire hazard assessments undertaken consider the nature, extent, and location of retained and planned vegetation within and surrounding the PSP, along with the slope on which the vegetation is situated and proximity to planned development.

Existing vegetation within the precinct is characterised by grasslands and small patches of woodland. The topography of the precinct is generally flat. Provided appropriate development occurs within and adjacent to the precinct, the bushfire risk can be expected to reduce across the precinct. As development progresses, reliably low threat or non-vegetated areas will be created, which will result in large parts of the precinct being able to be excised from the BPA.

The City engaged Terramatrix to undertake a bushfire planning assessment report to analyse the bushfire risk, provide bushfire protection measures to mitigate this risk, outline an effective response to Clause 13.02-1S, make recommendations related to bushfire protection, and assess the proposed Future Urban Structure.

Terramatrix's *Bushfire Assessment And Development Report* (May 2022) identifies two dominant hazards: grasslands outside the precinct, and woodland within the precinct. The report recommends BAL-12.5 setbacks from these threats to separate residential development from the hazard (see Figure 10).

The conservation areas in the centre of the precinct will remain predominantly as AS3959:2018 Woodland. To protect conservation values, all development setbacks required against the conservations area will be located on developable land and should not be imposed on the conservation area.

The assessment has considered critical and high retention value trees proposed to be retained in the precinct. Bushfire management plans submitted with subdivision application will address how these will be managed at an individual site level.

The report recommends several measures to reduce bushfire risk within the precinct. These include:

- Development setbacks as identified against bushfire hazards to achieve the BAL 12.5 as follows:
 - Grassland - 19m
 - Woodland - 33m

- Statutory controls should ensure any areas of hazardous vegetation are identified and commensurate development setbacks incorporated, with appropriate certainty about management of vegetation within a setback area.
- Future vegetated areas, such as proposed drainage reserves and easements, must be suitably maintained to ensure they do not pose fire risk to adjoining areas.

Figure 10. Future Urban Structure and potential BAL-12.5 setback areas



8.0 TRANSPORT AND MOVEMENT

The Marshall Precinct is a unique area with several interlinking major transport infrastructure projects that influence the design of the precinct. These projects include the Barwon Heads Road Duplication, the Geelong Ring Road Extension, South Geelong to Waurin Ponds rail duplication project and the Torquay Transit Corridor. The projects are in addition to the largely fixed planned external road infrastructure connections from the Horseshoe Bend PSP and NEIP PSP.

The compact nature and features of the Precinct, together with the attractor of an existing train station, also provide significant opportunities to deliver an integrated active transport network.

Due to these complex interfaces and opportunities, Council identified the need to prepare an Access Management Strategy for the Marshall Precinct. It is noted that Council commissioned Cardno to undertake a Preliminary Traffic Report in 2016 and this work was used to guide the Access Management Strategy, May 2019. The intention of the Access Management Strategy is to identify potential high level transport network options within the Precinct, which would then be subject to a final detailed traffic impact assessment.

The objectives of the Access Management Strategy were to:

1. Review existing planning and identify known constraints as they relate to transport;
2. Review high level transport issues;
3. Identify the expected network requirements for each mode of transport;
4. Prepare design principles for the network design for each mode of transport;
5. Identify alignment options to address the network requirements for each mode of transport; and;
6. Recommend the preferred Access Management Strategy.

To address the objectives, the Access Management Strategy was prepared under a three-stage process: (1) review of existing planning and constraints; (2) identification of high level transport issues, summary of design principles, options analysis, rapid SWOT analysis, and (3) a recommendation of the preferred Access Management strategy to inform design of the precinct.

Four potential access strategies were identified and the difference between options related primarily to the alignment of the east-west connector road. Given the overarching vision for Armstrong Creek is to encourage a high proportion of active travel, encouraging walking and cycling by maintaining high pedestrian amenity is a

priority. Based on this, Option 4 shown at Figure 11 was considered the preferred response based on competing transport objectives in the area.

Figure 11. Access Management Strategy - Option 4



The 9 July 2019 preliminary Cardno Transport Infrastructure Assessment was prepared based on Option 4.

Following completion of the Access Management Strategy and the Cardno assessment, the *Marshall Native Vegetation Precinct Plan* (NVPP) was finalised in October 2022. The NVPP identified recruitment of native vegetation within and near the alignment of the east-west connector road and at its intersection with Drews Road. Retaining the road alignment would result in levels of vegetation removal contrary to principles of 'avoid and minimise', particularly where alternatives are available. Furthermore, delivering the east-west connector road where both sides are likely to be fronted by conservation reserves would present financial challenges for developers.

In preparing the Marshall Future Urban Structure, the alignment of the east-west connector road between Drews Rd and Horseshoe Bend Rd was shifted as shown in Figure 1. This alignment is similar to the Access Management Strategy Option 2.

TRAFFIC IMPACT ASSESSMENT

Ratio Consultants were engaged by the City of Greater Geelong to prepare a Traffic Impact Assessment (TIA) for the Marshall PSP. The report describes the existing and planned future transportation and land use environments. It then describes the proposed land uses and transport networks within the Marshall Precinct and estimates likely traffic generation and distribution.

The report found that the Marshall Precinct is expected to generate approximately 19,200 vehicle movements per day, approximately 14,500 of which are external to the area. It confirms that the proposed transport network provides a well-connected and permeable road network, taking advantage of committed and planned investments in surrounding transport infrastructure such as the Marshall Station redevelopment, Barwon Heads Road duplication and proposed Bellarine Link.

The report supports the extensive and well-connected bicycle and pedestrian network which connects and integrates with adjacent pedestrian and bicycle networks such as in the Horseshoe Bend Precinct.

Key recommendations:

- Contribution to a signalised intersection at Barwon Heads Road/Connector Road/Keystone Avenue should be sought through a DCP (shared with the NEIP DCP); and
- Contribution of interim upgrade to the Drews Road/Reserve Road/Realigned Horseshoe Bend Road intersection should be sought through a DCP (shared with the Horseshoe Bend DCP).

Regarding the Barwon Heads Road intersection, the City worked with DTP and a NEIP developer to finalise DCP Project Item DI_IT_02. This has resulted in a final and accepted intersection layout, cost and apportionment as set out in the Stantec Memo 17 June 2025 (for layout and apportionment) and the SMEC Worksheet 17/06/2025 (for costings).

Intersection design plans for both intersections are provided in the Marshall DCP at Appendix C.

9.0 WATER MANAGEMENT

STORMWATER MANAGEMENT STRATEGY

Stormwater in the Precinct generally drains from the south-east corner to the north-west and the Barwon River floodplain beyond. The management of drainage and stormwater management has been thoroughly considered in the preparation of the PSP. As part of this process, the City engaged Spiire to prepare a Stormwater Management Strategy (SWMS). This strategy serves to identify a system which manages both stormwater water quality and stormwater quantity, including conveyance of flows through, and downstream of the Precinct area.

The SWMS provides for management of flood flows through retarding basins and appropriate flow conveyance using pipes, roads and waterways. No consideration of floodplain storage has been given on the basis that the SWMS ensures no detrimental impacts to downstream properties.

The strategy seeks to enact contribute to the following objectives:

- Management of flood flows using retarding basins.
- Water quality treatment using Water Sensitive Urban Design (WSUD).
- Conveyance of peak flows through the Precinct using pipes, road reserves and constructed waterways.
- Outfall drainage downstream of the Precinct through constructed waterways.

The final SWMS has been considered in some detail, due to the high number of constraints, opportunities and interfacing projects. To supplement the strategy, a preliminary design for each significant SWMS asset (e.g.: wetlands and basins) has been undertaken, to ensure the requirements for each asset is understood, and to suitably inform the DCP.

KEY CONSIDERATIONS

The report identified key elements which affect the drainage and water flows of the precinct, including environmental factors and the proximity of major infrastructure projects. The recommendations of the SWMS took into account the findings of native vegetation and biodiversity reports conducted in the process of preparing the PSP to ensure remnant vegetation is not impacted and suitable habitat is created indigenous species.

The SWMS is informed by flood mapping predicting 1% AEP existing conditions flood depths and extents across the Precinct and surrounds. There is shallow and broad flooding across the southern and central part of the Precinct. This is to be expected through this area which is relatively flat, with the absence of any substantial

waterways or open channels. Further north and downstream, Marshall Creek becomes more defined and flood extents are more confined to this waterway corridor.

In addition to being flood-prone, there are several constraints present across the Precinct which create complexities from a stormwater management perspective. Section 2 of the SWMS provides a description of these constraints; being the railway line, AusNet transmission line easement, Barwon Water main outfall sewer and informal drainage lines and outfall to the Barwon River and floodplain (Figure 12). The SWMS also assessed the implications of the North East Industrial Precinct PSP and Horseshoe Bend PSP.

The report at Sections 3 and 4 reviews background studies and current interfacing major Victorian Government infrastructure projects respectively, to inform preparation of the SWMS. The infrastructure projects are:

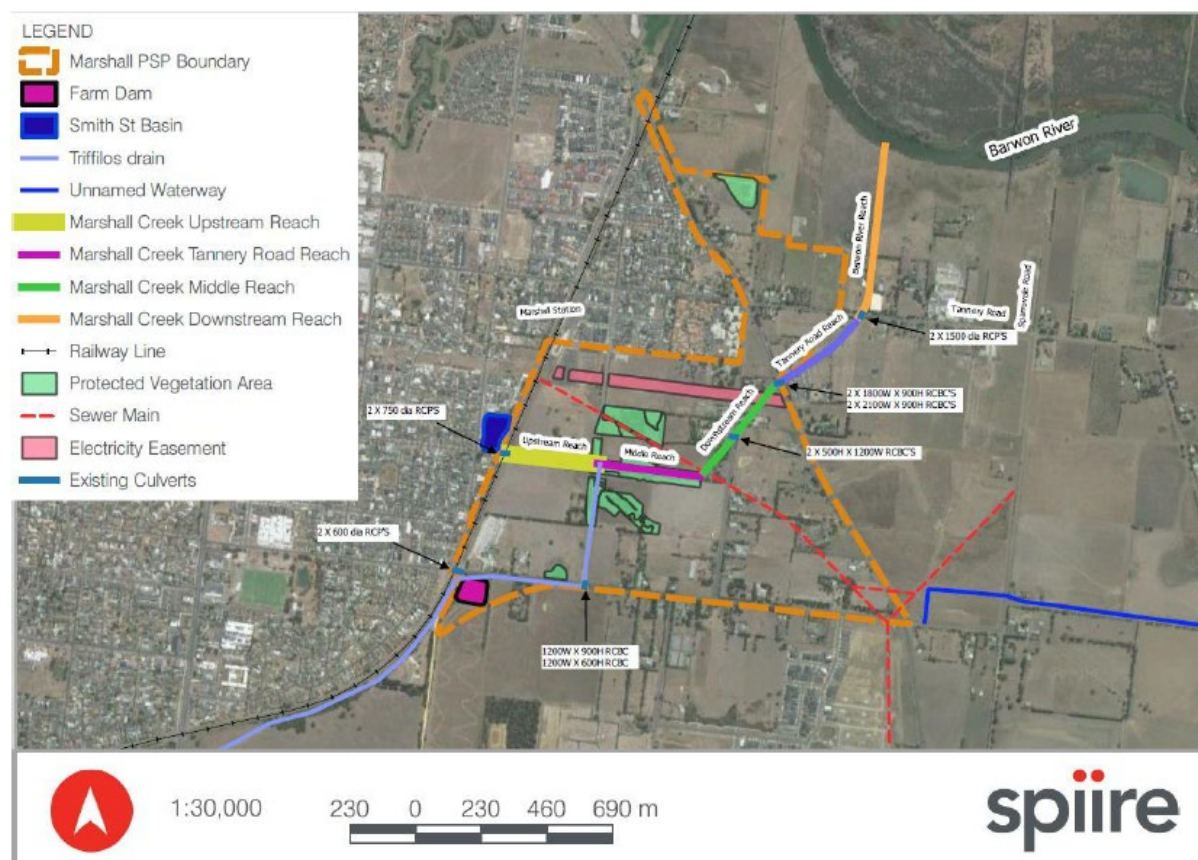
- **The Bellarine Link:** extends from Surf Coast Highway to Barwon Heads Road at the southeast corner of the Precinct and will replace Reserve Road. The project is unfunded at the time of writing this Background Report.
- **Barwon Heads Road duplication:** increase the lanes within the roadway from two to four. This project is crucial to Marshall as infrastructure upgrades on both Marshall Creek and the southeast catchment will form ultimate hydraulic controls to the Precinct. The project is completed.
- **South Geelong to Waurin Ponds rail duplication:** duplication of railway tracks to enable increased train services and redevelopment of Marshall Station. The project is under construction at the time of writing this Background Report.

A critical feature of the Marshall Precinct is the existing on-site remnant vegetation and opportunity to provide habitat for native fauna. The native vegetation forms a major consideration for the SWMS, as it is critical this vegetation is not impacted.

A fauna assessment report found that development of the Marshall PSP is unlikely to significantly impact listed species. The report made several recommendations which have informed the SWMS, including:

- That the development design retains existing native vegetation and fauna habitat.
- Improve water quality, manage flow rates and create appropriate hydrology for retaining wetlands within the landscape, and improving habitats for native wildlife such as Growling Grass Frogs and Latham's Snipe.
- Manage construction work to avoid direct and indirect impacts to waterways.

Figure 12. Marshall Precinct SWMS existing conditions and features



IMPLICATIONS FOR PRECINCT DESIGN

The Marshall SWMS (Figure 13) incorporates offline wetlands, retarding basins, sediment basins and main drainage pipes, and allows for the following environmental features:

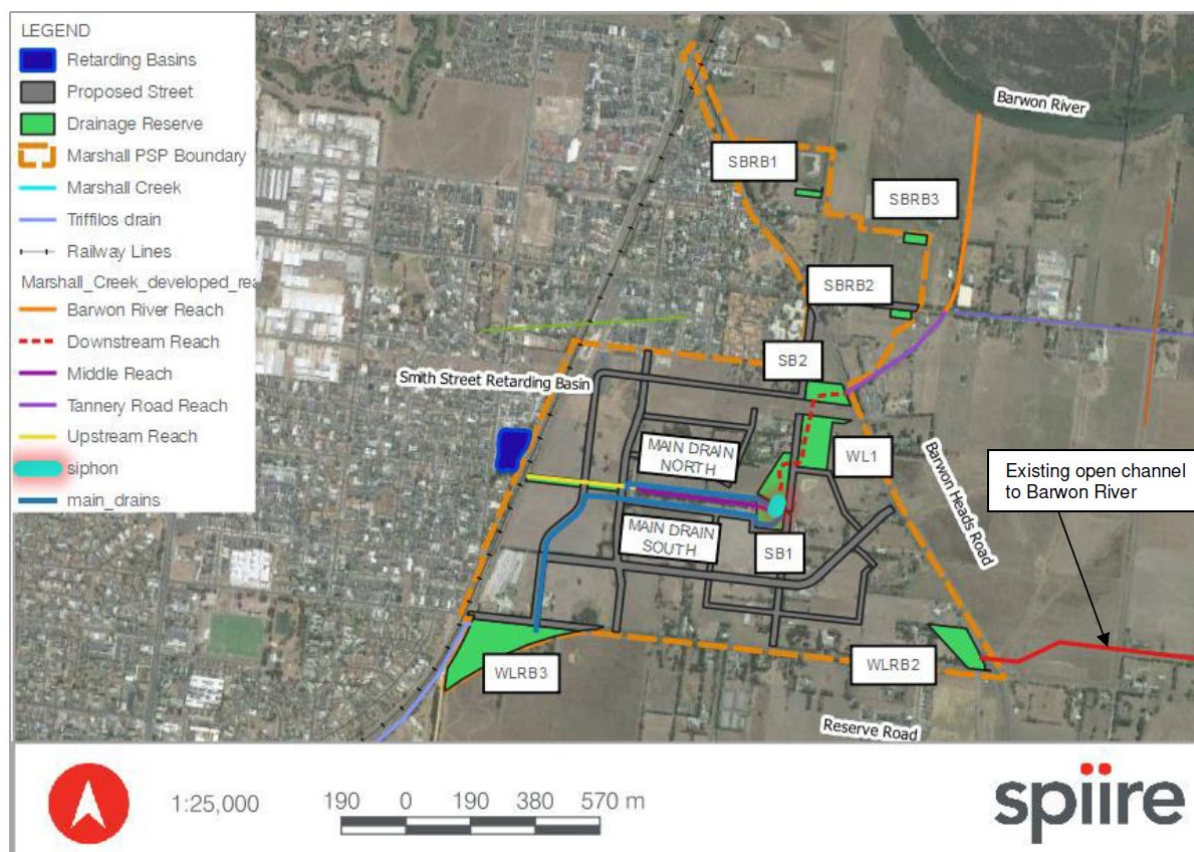
- Formalisation of Marshall Creek into a constructed waterway, from the railway line in the west of the precinct down to the confluence with the Barwon River.
- Protection of the middle reach of Marshall Creek, which is flanked by high value Native Vegetation (including Bellarine Yellow Gums) to be retained. The flow regime through this reach will be maintained to protect the long-term health of this vegetation community.
- Creation of an outfall at the southeast corner of the precinct which outlets to Sparrowvale - Nubijt yooree Wetlands, immediately downstream of Sparrowvale Linear Wetland. This comprises a piped outfall, which will serve some Barwon Heads Road catchments and the future North East Industrial Precinct (NEIP). The pipe transitions to a waterway and extends through Sparrowvale - Nubijt

yooree Wetlands area, with the ultimate design to integrate with the masterplan.

- Volumetric reduction of stormwater has not been assessed or provided for in the Marshall SWMS. Recycled Water will be provided by Barwon Water to the Precinct, and this will be mandated for toilet flushing and garden tap supply. In the absence of any other large demands, such as sporting ovals, meaningful volumetric reduction of stormwater is considered unfeasible.

Considering the implications of drainage on development potential, the findings of the SWMS, including the items identified above, have guided the final design of the PSP. The PSP Development Catchment Plan is informed by the SWMS recommended drainage infrastructure implementation asset delivery provision to determine what and when different parts of the Precinct should be developed.

Figure 13. Marshall PSP SWMS Layout



Post completion of the Marshall SWMS and in the context of safeguarding the Sparrowale Wetlands environmental values, the City and NEIP developer reviewed WW06 asset design and function. This work led to a 'Refined Concept' design plan set out in the Spiire Memo 18 June 2025 (including Appendices A-E), which is the DI_DR_14 source document referenced in the Marshall DCP.

10.0 ENERGY AND TECHNOLOGY

UTILITIES

TGM Group was engaged by the City to prepare the *Marshall Precinct Structure Plan Servicing Plan* (September 2018). This report assessed potable water, sewerage, recycled water, electricity, high voltage transmissions lines, gas and telecommunications services. The report identified that the Marshall Precinct can be readily serviced, and infrastructure provided for the above listed services. The relevant service authorities have confirmed supply capacity available from current assets or additional infrastructure requirements to service the overall development.

The precinct will be connected to a reticulated recycled water system to provide for the supply of recycled water for toilet flushing and garden watering.

The report identifies two critical infrastructure assets:

High Voltage Transmission Lines

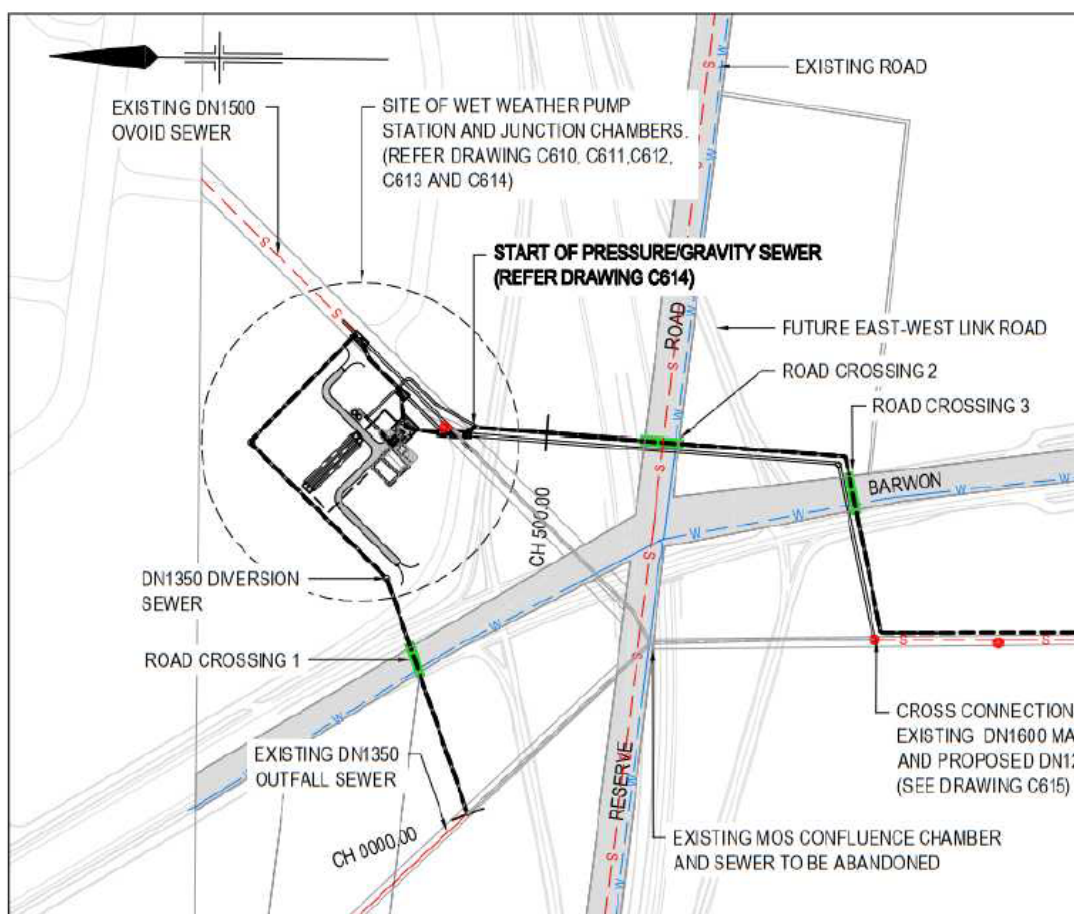
AusNet Services are the asset owner of the 220kV high voltage transmission lines running east-west through the Marshall Precinct. The transmission line formally provided electricity to the now decommissioned Alcoa Aluminium Smelter at Point Henry. Although the transmission line is currently de-energised and there are no immediate plans to re-energise the lines, there is a requirement to retain the infrastructure and associated 40m-wide easement land as they form part of a longer-term strategic transmission network design. AusNet Services have no intention of removing the transmission towers or surrendering the easement rights. AusNet require the waterway asset land to not exceed 20m wide through the easement.

Main Outfall Sewer Line

Barwon Water own and operate a main outfall sewer (MOS) *Section 6* running diagonally east-west through the precinct. It is of considerable size with a diameter of 1,350mm within a 6m-wide easement. This easement will need to be converted to a minimum 6m-wide reserve as development occurs in the Marshall Precinct. Barwon Water have advised that a shared user path should not be constructed within the easement and instead built adjacent. Barwon Water have also provided in-principal support for the siphon arrangement designed in the Marshall SWMS.

At the south east corner of the precinct the MOS joins the Ovoid Sewer. The confluence of these two major sewers is in Reserve Road. Barwon Water are proposing to realign the MOS and Ovoid Sewer confluence to make way for the future widening of Barwon Heads Road and the Geelong Ring Road Extension (Bellarine Link) - refer to Figure 14 for the 2011 Barwon Water concept plan.

Figure 14. Current concept for the Main Outfall Sewer Relocation



Since the 2018 TGM Group report, Barwon Water advised the following in preparing the Marshall SWMS:

- Confirmation that the relocation of the Main Outfall Sewer is a long-term project and is not required by Barwon Water for many years (i.e. beyond 2030). The driver for this relocation in a shorter timeframe will be works directly over our sewer confluence, just south of Boundary Road.
- Based on the designs we have currently seen for the Barwon Heads Road duplication; the confluence is not impacted and therefore the sewer does not need to be moved for this project.
- A new Bellarine Link from the Surf Coast Highway to Barwon Heads Road is also unlikely to impact the confluence. It is more likely if and when the Bellarine Link continues east towards the Bellarine Highway. i.e. if a future grade separated interchange is proposed this would impact the confluence and require the relocation.
- Given these potentially long timeframes, it is desirable for the Marshall PSP to be able to progress independently of this relocation. That is:
 - It is recommended drainage assets be redesigned to take into account the existing alignment of the sewer.
 - The current and future alignment of the sewer be shown and some protections placed on this alignment.
 - Land use be based on the existing alignment.

The TGM Group report informed a draft servicing plan however, since the changes to the Future Urban Structure in the 2023 design, further work has finalised the Marshall PSP utility service plan.

This further work included updated sewer, water and recycled water advice from Barwon Water in March 2025:

Figure 15. Sewer Catchment Plan

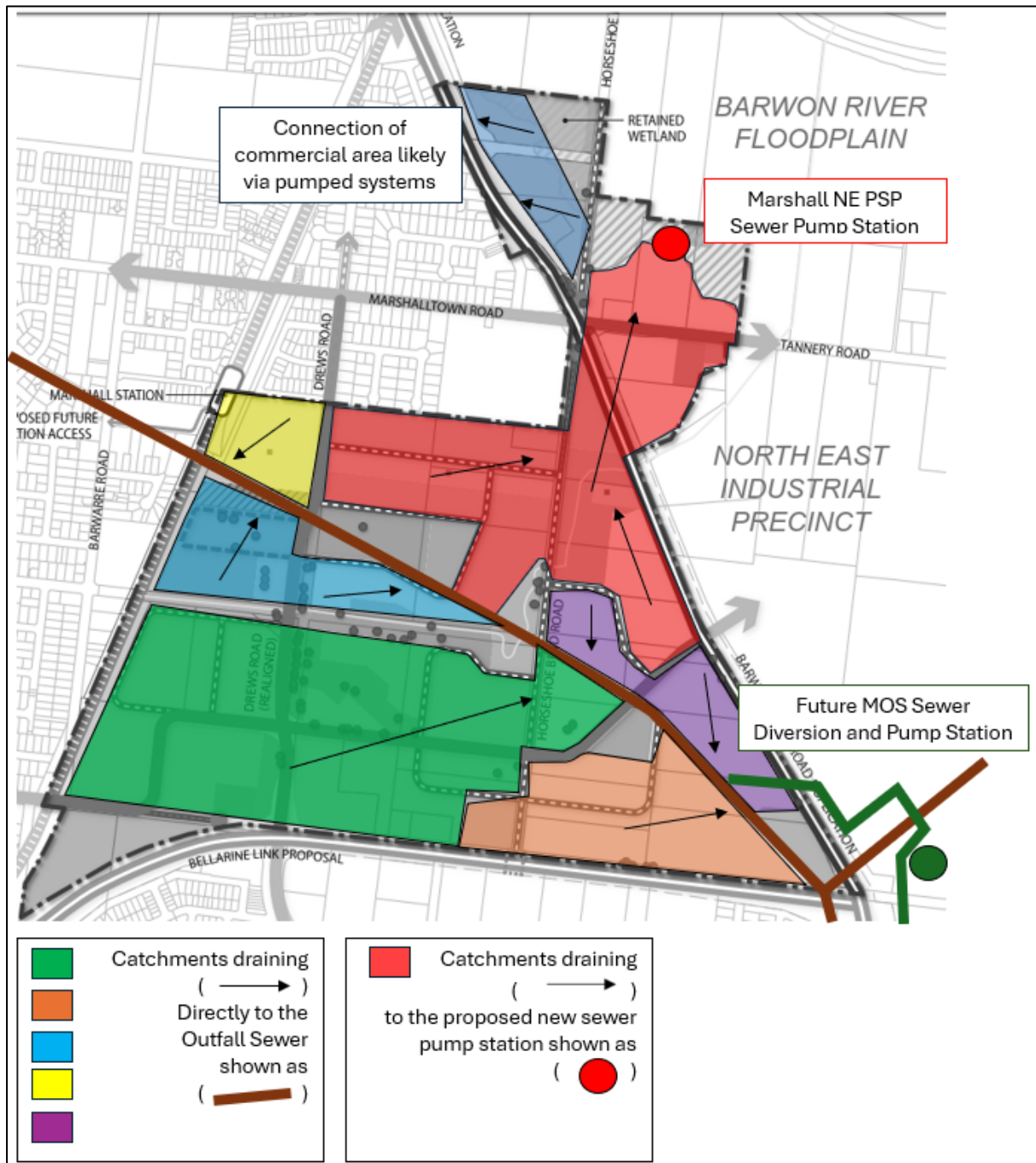
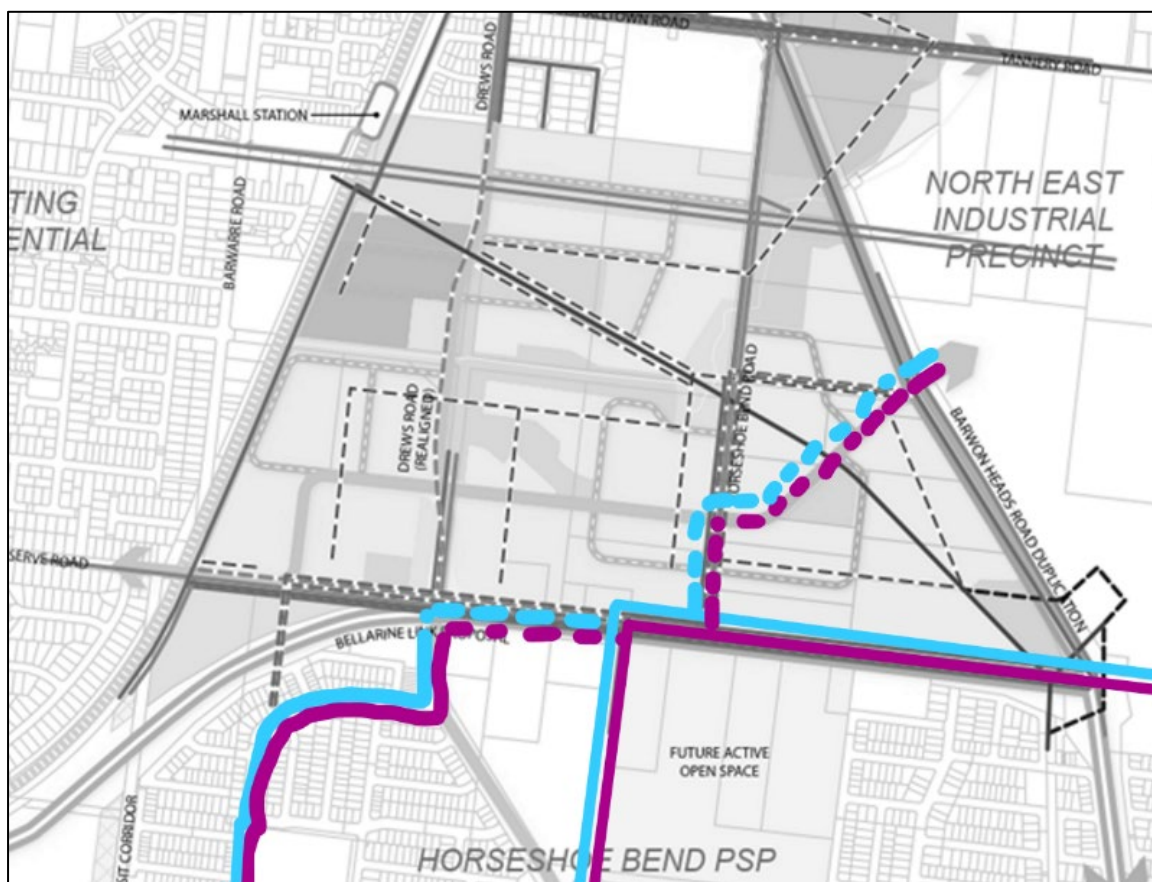


Figure 16. Water and Recycled Water Sketch Plan



Dotted lines are required DN225 (Shared) water and recycled water mains funded by Barwon Water

It is noted that since the TGM Group report was prepared, the State announced the Gas Substitution Roadmap. As a result of this policy, from January 1, 2024, new gas connections for new dwellings, apartment buildings, and residential subdivisions requiring planning permits will be phased out.

ENVIRONMENTALLY SUSTAINABLE DESIGN

The City's *Climate Change Response Plan 2021-30* establishes a target of net zero community emissions by 2035. Similarly, the plan requires PSPs to deliver zero carbon and environmentally sustainable design (ESD) through 'ESD Action Plans'.

The Marshall PSP proposes a range of requirements and performance-based targets to achieve and maintain a net zero carbon footprint by addressing emissions across the design, construction and ongoing operations of the precinct.

To facilitate the delivery of sustainable and energy efficient homes, the Marshall PSP requires the submission of Residential ESD Guidelines at subdivision to guide the performance and design of dwellings. For non-residential/ commercial buildings, the PSP prescribes the use of environmental performance rating tools to measure and demonstrate best practice in ESD from the design stage through to construction and operation.

The requirements and guidelines of the PSP also seek to ensure that ESD and zero carbon is embedded at the subdivision scale, prior to the establishment of new buildings and communities.

11.0 DEVELOPMENT CONTRIBUTIONS

A Development Contribution Plan, June 2025 (DCP) has been prepared by the City of Greater Geelong to facilitate the timely provision of planned development and community infrastructure for the Marshall Precinct.

The DCP establishes a framework for development proponents to contribute a fair proportion of the cost of works and services required to support future development. The DCP allows for the collection of monies to deliver the identified infrastructure projects within the precinct. The DCP requires annual reporting by collecting and development agencies to monitor the collection and expenditure of levies and the delivery of infrastructure.

Key pieces of infrastructure in the Marshall Precinct funded through the DCP include:

- drainage network assets;
- significant new/ upgraded transport intersections;
- land items associated with drainage network assets and connector roads;
- local park improvements; and
- shared user paths associated with other DCP infrastructure items.

A full list of DCP items is included in the Marshall DCP and Marshall PSP.

12.0 REFERENCES

CITY STRATEGIES

Armstrong Creek Urban Growth Plan, Volume 1 - Framework Plan, May 2008 (Amended May 2010 & September 2012)

Armstrong Creek Urban Growth Area Framework Plan - Framework Plan, February 2025 (Incorporated Document)

Climate Change Response Plan 2021-30

Settlement Strategy 2022

Social Housing Plan 2020-2041

Sustainable Framework and Action Plan 2020

Urban Forest Strategy 2015-2025

Waste and Resource Recovery Strategy 2020-2030

TECHNICAL REPORTS

Bushfire Assessment and Development Report for the Marshall Precinct Structure Plan, Terramatrix, May 2022.

Marshall Native Vegetation Precinct Plan, Ecology and Heritage Partners Pty Ltd, October 2022.

Fauna Surveys, Marshall Precinct Plan Area, Marshall [sic], Ecolink Consulting, May 2022.

Marshall Precinct Structure Plan, Access Management Strategy, City of Greater Geelong, May 2019.

Marshall Precinct Structure Plan, Preliminary Transport Infrastructure Assessment, Cardno, 9 July 2019.

Marshall Precinct Structure Plan Traffic Impact Assessment, Ratio Consultants Pty Ltd, 8 March 2023.

Marshall Precinct Structure Plan, Stormwater Management Strategy, Spiire, December 2022.

Marshall Precinct Preliminary Environmental Assessment (Contamination and Geotechnical), Golder Associates, 6 December 2013.

Marshall Precinct Preliminary Environmental Assessment Update, WSP, 13 September 2023.

Marshall & Western Employment Precincts Post Contact Cultural Heritage Assessments, D. Rowe & W. Jacobs, January 2014.

Marshall Employment Precinct, Aboriginal Heritage and Post Contact Archaeological Assessment, Terra Culture, 15 July 2013.

Marshall PSP Background Report - FINAL

Providing social housing as essential infrastructure in Geelong's Key Strategic Planning Areas, SGS Economics and Planning, December 2021.

Marshall Precinct Structure Plan, Servicing Plan Rev 02, TGM Group Pty Ltd, 13 September 2018.

Marshall Planning Scheme Amendment DI_DR_14 Redesign, Spiire Memo incl Appendices A-E, 18 June 2025

Intersection Analysis of Marshall DCP Item DI_IT_02, Stantec Memo, 17 June 2025