Clyde South

Due Diligence Report

September 2026

*Information within this report reflects the time of preparation in September 2024

CONTENTS

1 EXECUTIVE SUMMARY 4

2 INTRODUCTION 5

3 CONTEXT 7

4 DUE DILIGENCE METHODOLOGY 10

5 KEY FINDINGS 11

5.1 TECHNICAL BACKGROUND ANALYSIS 11

5.1.1 SUMMARY OF TECHNICAL BACKGROUND ANALYSIS 18

5.2 SUMMARY OF STAKEHOLDER POSITIONS 18

5.2.1 SUMMARY OF STATEMENT OF COMMON GROUND 25

5.3 STATE INFRASTRUCTURE ASSESSMENT 25

5.3.1 ROAD NETWORK 25

5.3.2 PUBLIC TRANSPORT 25

5.3.3 COMMUNITY INFRASTRUCTURE 26

5.4 SUMMARY: PROJECT ISSUES AND OPPORTUNITIES 26

6 PROBLEM STATEMENT 27

7 PROBLEM RESOLUTION APPROACH 28

7.1 ASSESSMENT OF OPTIONS 28

7.2 PREFERED OPTION 29

7.3 PLAN PREPARATION APPROACH 30

8 RISK ASSESMENT 31

9 APPROPRIATE ROLE OF VPA 32

10 RECOMMENDATIONS 33

TABLES

Table 1: Summary of Background Technical Analysis 12
Table 2: Summary of Key External Stakeholder Positions 20
Table 3: Key Unresolved Project Issues 29
Table 4: Problem Resolution Options Analysis 30

1 EXECUTIVE SUMMARY

The Clyde South Due Diligence work has identified the need for potential significant infrastructure within the precinct, including the potential extension of the Cranbourne line (along the Clyde-Tooradin Rail Reserve alignment) and provision of associated infrastructure including a potential stabling yard. These should be addressed prior to commencement of Plan Preparation for Clyde South (the precinct). Advice from the Head Transport for Victoria (HTfV) is required on the location and any associated land requirements for any potential rail infrastructure within the precinct.

Resolution of the potential rail infrastructure will enable determination of road infrastructure and its alignment through the Plan Preparation phase.

To action resolution of the identified issue, the following is recommended:

1. Obtain advice from HTfV on indicative locations and land requirements for the potential Cranbourne railway line extension and its associated infrastructure including railway potential stabling yard.
2. Draft scopes of works for required technical assessments and confirm with key stakeholders, including landowners.
3. Seek third-party funding from landowners for actioning due diligence recommendations (and eventually, Plan Preparation). Third-party funding agreements for further due diligence work will clearly indicate that progress to Plan Preparation is not guaranteed.
4. Review and make recommendations to the Board on progressing to Plan Preparation.

The risk of proceeding with actioning due diligence recommendations is considered acceptable and can largely be mitigated and managed. Given the risks inherent in resolution of the rail infrastructure issue, it is considered advantageous to undertake this work prior to commencement of Plan Preparation for the precinct.

The VPA is the most appropriate body to coordinate this work but will not make the ultimate decisions to resolve these project issues. The VPA is best placed to bring all parties together, to facilitate the technical work and assist parties to reach a conclusion that is in public interest. Should the VPA not coordinate this work, it is unlikely any other party will undertake the work and Plan Preparation for the precinct will remain uncertain in its timing and outcomes.

2 INTRODUCTION

Clyde South (the precinct) was identified as a project in the 2020-21 VPA Business Plan. Scoping was undertaken in 2022, producing a preliminary Scoping Report.

The Scoping Report identified rail infrastructure as a key threshold issue for the commencement of a PSP, specifically in terms of safeguarding the ability to extend the Cranbourne railway line (along the Clyde-Tooradin Rail Reserve) in the future to Clyde Major Activity Centre and safeguard any associated infrastructure requirements. It is necessary to ensure that the future transport network is integrated into the planning for the Clyde South Precinct Structure Plan (PSP) area, as well as identifying and setting aside land required.

Other issues identified in the initial Scoping Report include the required drainage services, sewer line, and pumping station, and road infrastructure, including interfaces with the surrounding area, and at-grade railway line road/rail crossings. Biodiversity Conservation Area 35, located along the Clyde-Tooradin Rail Reserve, was also noted, along with the potential for cultural values associated with Koo Wee Rup Swamp, and the required buffers to the Inghams chicken feed factory, and Growing Chickens sites within the precinct.

The following was undertaken as part of initial VPA work on the project:

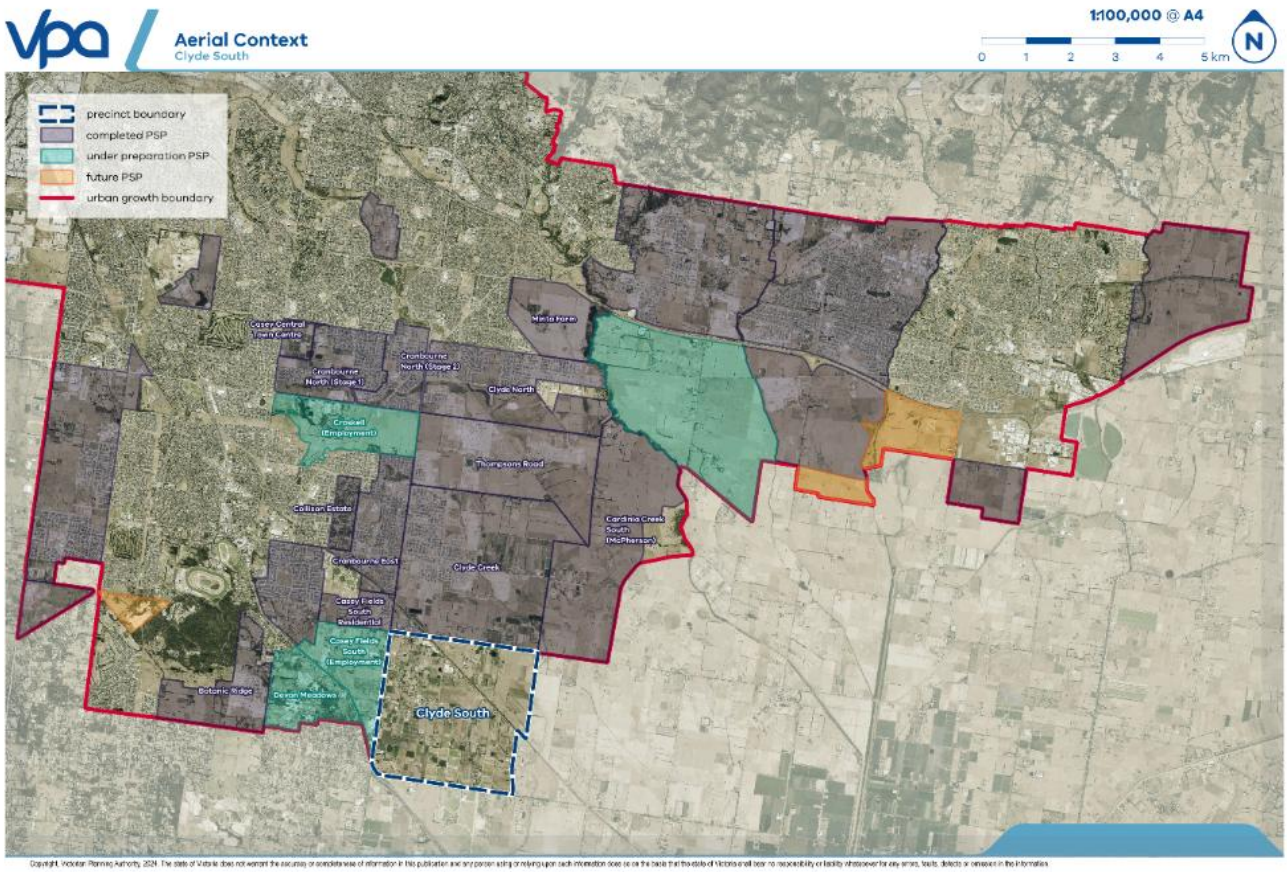
- Discussions with key external stakeholders, including the Head Transport for Victoria (HTfV), Melbourne Water, Casey City Council (Council), Parks Victoria, the Department of Energy, Environment and Climate Change Action (DEECA), Bunurong Land Council Aboriginal Corporation (BLCAC), South East Water, and the Environmental Protection Authority (EPA).
- The preparation of a flora assessment of Biodiversity Conservation Strategy (BCS) Area 35 by Biosis.

Discussions with key stakeholders, namely those listed above, have continued through late 2023 and to-date in 2024 as part of the current due diligence work.

In the VPA Business Plan 2023-2024, consistent with the VPA's responsibility to deliver the Victorian Government's ***Housing Statement***, Clyde South was designated a Tier 1 Due Diligence project. The importance of this precinct, and surrounding area, is highlighted in Section 2 of this report.

This report provides a summary of the 2024 desktop review carried out for the precinct with the aim of determining the project's suitability to progress to Plan Preparation, the identification of any issues, and the proposed approach to resolve these issues to allow Plan Preparation to proceed.

Plan 1: Aerial Context



Copyright Victorian Planning Authority, 2024. The state of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the state of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

3 CONTEXT

The precinct is 46 kilometres southeast of Melbourne within the South East Growth Corridor. It is located within the Casey City Council local government area.

The precinct has an area of approximately 1057 hectares. The Registered Aboriginal Party (RAP) for the precinct is the Bunurong people of the south-eastern Kulin Nation, represented by the Bunurong Land Council Aboriginal Corporation (BLCAC).

There are approximately 149 landowners in the precinct, and approximately 147 lots. The area is largely undeveloped with predominately agricultural and associated low-density residential uses. A disused railway line (Clyde-Tooradin Rail Reserve) runs northwest-northeast through the precinct and continues beyond the precinct to the southeast.

The precinct is bound by Ballarto Road to the north, Manks Road to the south, the South Gippsland Highway to the south-west, Clyde-Five Ways Road to the west, and surrounding property boundaries to the east as shown in Plan 1. In the area surrounding the precinct, other features of note include:

- The Clyde Major Activity Centre (MAC) to the northwest and proposed Clyde train station.
- The Clyde Creek Precinct Structure Plan (PSP) area to the north.
- Cranbourne Railway Station to the northwest.
- Clyde Creek to the north and northeast.
- The future Casey Fields and Devon Meadows PSPs to the immediate west, which are intended as primarily residential areas, with some employment uses.
- The future Clyde Regional Park to the immediate east, incorporating a portion of the Koo Wee Rup Swamp. This Park will be co-located with the future Clyde Park Sports Precinct and Melbourne Water drainage basin. Parks Victoria aims to restore land within the future Park to its natural state in the manner outlined in the Clyde Regional Park Strategic Directions Plan. Environmental and cultural heritage assessments are informing this work, with a masterplan due to be released by March 2025.
- Land to the south of the precinct used primarily for agricultural purposes and sits outside of the UGB.
- The suburbs of Clyde, Devon Meadows, Tooradin, and Cardin.

The Department of Energy, Environment and Climate Change (DEECA) has identified one biodiversity conservation area in the precinct (BCS Area 35 – Clyde-Tooradin Rail Reserve) with an area of 2 hectares approximately. Biodiversity values identified for this area include matted flax-lily, maroon leek orchid, swamp everlasting habitat, and southern brown bandicoot habitat. Other areas of native vegetation also exist along the entirety of the disused Clyde-Tooradin rail line, including protected native flora.

The site is almost entirely within the Urban Growth Zone (UGZ), except for two bands of Urban Floodways Zone (UFZ) affect land running along the Bunyip River and Clyde Creek, and a Transport Zone 1 (TRZ1) over the disused Clyde-Tooradin rail corridor.

A Land Subject to Inundation Overlay (LSIO) affects three areas of the precinct, at the west side and northeast corner. An Environmental Significance Overlay – Schedule 8 (ESO8) applies to a single property at 148 Ballarto Road and relates to a Willow Mrytle tree.

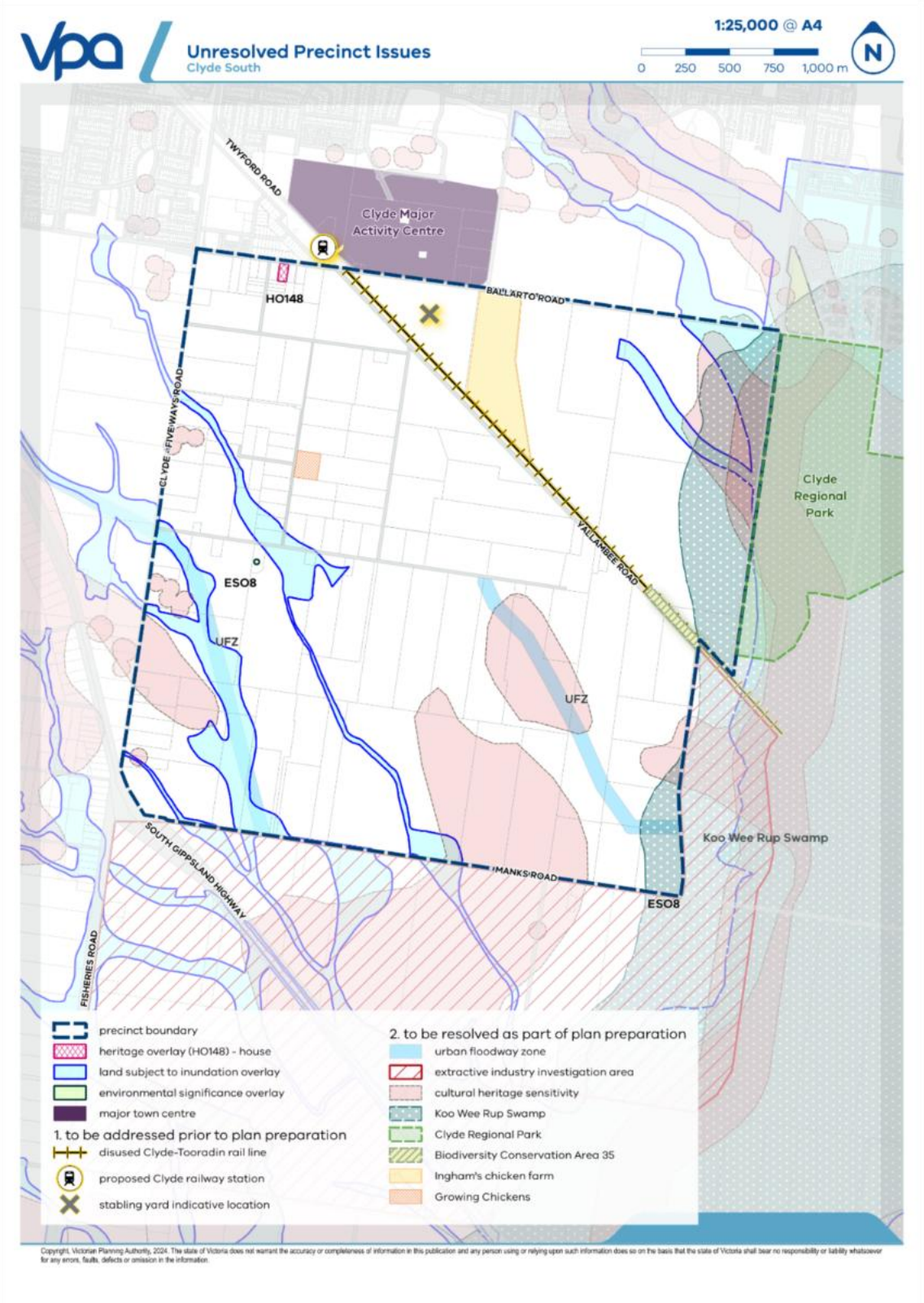
Land within Clyde South has historically been used predominately for agriculture. This use persists, with many farms and other agricultural land uses located in the precinct as well as in the surrounding areas. Aboriginal Cultural Heritage Register and Information System (ACHRIS) mapping has identified some areas of Aboriginal cultural sensitivity, particularly along Clyde Creek.

The City of Casey (Casey) is one of Australia's fastest growing areas in terms of housing, industry, commercial and retail growth. Draft housing targets released by the Victorian Government in 2024 identify an uplift of housing supply in Casey of 104,000 by 2051. The population of Casey is forecast to grow to 514,800 by 2041. Residential land supply in greenfield precincts within this corridor is exhausted. Draft VPA working yields indicate the precinct has a potential to unlock approximately 13,170 homes and 1,460 jobs.

The importance of the precinct and the surrounding area is detailed in both State and Council Policy:

- ***Plan Melbourne 2017-2050*** identifies Clyde South as a southern growth area within the UGC, supported by the Clyde and Clyde North Major Activity Centres (MAC).
- The State Government ***South East Growth Corridor Plan*** (2012) (SEGCP) identifies Clyde South as a residential precinct (or 'local neighbourhood'), to be serviced by the Clyde and Clyde North MACs, with some local employment uses.
- ***The VPA Business Plan 2023/2024*** reflects the ***Housing Statement: The Decade Ahead 2024-2034****,* which designated Clyde South as a 'Tier 1 Due Diligence' project.
- ***The City of Casey Housing Strategy*** *(2019)* focuses on providing a variety of housing types to meet the needs of Casey's growing communities into the future. The plan aims for a rolling 15-year supply of housing, encouraged to be built within proximity to key transport networks, shops, services and open spaces to build a self-sufficient city.
- ***Victoria's Housing Statement – The Decade Ahead, 2024 – 2034*** (2024) lists the precinct as a priority planning project.
- The State Government ***South East Growth Corridor Plan*** (2012) (SEGCP) indicates future development of the precinct for residential land use. (Based on the SEGCP, Clyde South is the final major residential area for development within Melbourne's southeast corridor inside the UGB).
- The Casey ***Vision for Remaining Growth Areas*** (VRGA) notes the anticipated growth of the municipality's population to approximately 550,000 by 2041 and highlights opportunities for the precinct to meet diverse housing and infrastructure needs.

Plan 2: Unresolved Precinct Issues



Copyright, Victorian Planning Authority, 2024. The state of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the state of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omission in the information.

**Information is current as of September 2024 and does not include all precinct issues that will be resolved during plan preparation.*

4 DUE DILIGENCE METHODOLOGY

The purpose of due diligence is to identify issues that could prevent or impact Plan Preparation and to make recommendations on how these issues can be managed. Due diligence and the resolution of issues will expedite Plan Preparation.

The Due Diligence Report consolidates precinct information in a single, accessible report highlighting implications for Plan Preparation, however it does not include all information necessary for the Plan Preparation Stage. The report includes:

1. Technical Background Analysis - a multi-faceted, layered analysis utilising an extensive list of precinct considerations to minimise the risk of critical issues being missed. Information is drawn from existing sources and presented in a tabular format.
2. Statement of Common Ground - a summary of external stakeholder positions.
3. State Infrastructure Assessment - a summary of project implications for key state infrastructure.
4. Problem Statement - a summary of key issues, their implications for Plan Preparation and what is required to proceed to Plan Preparation.
5. Problem Resolution Approach - an assessment of options for resolving the key issues and identification of a preferred option.
6. Risk Assessment - high level risk assessment for preferred issues resolution option
7. Role of the VPA - in issues resolution.
8. Recommendations - summarises the approach to proceeding to Plan Preparation.

5 KEY FINDINGS

The following sections of this report present the background analysis undertaken through the Clyde South Due Diligence process, including:

- 5.1 Technical Background Analysis.
- 5.2 Summary of Stakeholder Positions.
- 5.3 State Infrastructure Assessment.

The key findings of the above work are summarised in the sections below.

5.1 TECHNICAL BACKGROUND ANALYSIS

Table 1 presents an overview of the layered analysis of the precinct. Focus of the table is identification of issues that could impact Plan Preparation. The Table has been compiled using an extensive list of elements that have been identified in previous projects as issues that can potentially impact Plan Preparation.

Table 1: Summary of Background Technical Analysis

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
Geomorphology and Soils • Sodic soils • Erosion	• GIS Layer for Geology + Soils • Visual assessment of creeks, waterways etc for erosion	Victorian Soils Map (2014) shows possible vertosols (cracking clay soils) and kandosols (weakly structured gradational soils) at the site. No noted presence of acid sulphate soils.	Manage through Plan Preparation - a land capability assessment with reference to soil capability will need to be produced during Plan Preparation.
Topography and natural features • Slope greater than 10% • Scenic views • Prominent hilltops	• Contour and slope map – GIS • DEECA Mapping • Visual assessment of site using aerial photography and site visits	The precinct is a low lying, flat area with its contour gradient declining from the north of the site and transitioning to flatter land towards the east and south of the precinct. As a result of these characteristics, shallow groundwater and stormwater management will require assessment during Plan Preparation.	Manage through Plan Preparation - Implications relating to drainage and shallow groundwater will be managed accordingly with stakeholders.
Bushfire Risk	• Bushfire Overlays • Identification of natural vegetation to be retained within the precinct	Precinct is entirely within a Bushfire Prone Area. These areas are subject, or likely to be subject, to bushfires.	Manage through Plan Preparation.
Drainage • Waterways • Wetlands • Flooding • Status of DSS	• DEECA mapping • 2013/2021 Victorian Wetlands Inventory • City of Casey Planning Scheme • VPA analysis	Four DSSs within the precinct- Clyde Creek (north), Clyde Township (north, centre), Clyde-Five Ways Road (west), and Moores Road (south). Details of these drainage schemes, associated infrastructure, catchments and delivery timing are yet to be confirmed by Melbourne Water outside of preliminary investigations in the south-west corner of the precinct. Two UFZ bands flow through the precinct. Three separate bands of LSIO signify areas prone to AEP 1% flood risk. Presence of additional wetlands according to 2021 Victorian Wetlands inventory within precinct.	Managed through Plan Preparation - Melbourne Water has not commenced DSS planning for the area beyond preliminary investigations in the southwest of the precinct. Melbourne Water have advised that no DSSs will be started until resources are available after their work on the adjacent Casey Fields South and Devon Meadows PSP is completed. Without Melbourne Water's input and confirmation regarding DSS plans, the available information remains at a high-level with knowledge gaps concerning drainage, flows, and flood paths. This work will be resolved during Plan Preparation.

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
		Koo Wee Rup (KWR) Flood Protection District at the eastern interface of the site (including future Clyde Regional Park) is the largest wetland in Victoria and a major drainage asset for Melbourne Water. It is unclear at present what additional drainage infrastructure is being provided at KWR into the future. KWR pre-European wetland (PEW) mapping from the 2021 Victorian Wetlands Inventory shows the PEW extending into the eastern portion of the precinct.	Shallow groundwater and drainage are likely to be significant issues in the precinct. This can be managed through Plan Preparation as has been the case in other PSPs in the corridor. Management of KWRS and other flood ways and wetlands within the precinct and at its interface. The presence of these flood ways could pose a significant risk to planning for the precinct and will be manage through Plan Preparation.
• BiodiversityMSA • Fauna • Flora • Significant trees	• MSA Act (2020) • Biodiversity Conservation Strategy, Department of Environment and Primary Industries (June 2013) • Growth Areas Authority biodiversity assessment report, SMEC (April 2011) • City of Casey Revegetation Strategy (2009) • Biodiversity Targeted Survey (Flora), Biosis (2023) • Casey Significant Tree Register • Clyde Regional Park Strategic Directions Plan	Site contains BCS area 35, a 2.19 hectare area to the south of the Clyde-Tooradin rail line as part of the Melbourne Strategic Assessment (MSA). The BCS identifies habitat for the Matted flax lily, Southern Brown Bandicoot, Swamp everlasting, and Maroon leek-orchid. However, the 2023 Biosis targeted flora and fauna survey found no evidence of, or suitable habitat for, any of these species. Internal DEECA reports have found the same. Native vegetation is identified along the larger 15.16Ha of the Clyde-Tooradin disused rail line. There are no statutory protections for this vegetation beyond the BCS area. The future Clyde Regional Park is being delivered at the eastern interface of the site by Parks Victoria. As part of this, the adjacent Clyde Creek will be rehabilitated along the same interface. The Clyde Regional Park vision document suggests that the new park will serve as habitat for multiple protected species, including the protected Southern Brown Bandicoot. Significant tree recorded at 60 Moores Road – 1459 Willow Mrytle on the Casey Significant Tree Register. Tree is subject to an ESO (schedule 8) in the Casey Planning Scheme.	Managed through Plan Preparation - the BCS control may affect rail planning, including impacting the location of a potential stabling yard within the precinct. Management of interfaces and any effects on biodiversity will need to be considered during Plan Preparation, in collaboration with external partners.

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
Utilities • Gas • Electricity • Potable Water • Waste Water • Telecommunications	• Utilities mapping • Council mapping • VPA data	Electricity and gas are provided to the precinct by Ausnet. Potable and wastewater are both managed by South East Water. There are some additional easements within the precinct, and a single drainage legal discharge point. South East Water have noted that land towards the south east of the precinct will need to be set aside for provision of a pumping station.	Managed during Plan Preparation through a utilities services assessment to provide greater clarity on services capability and capacity.

Land use
• Zoning
• Overlays
• Existing land uses (internal and external)
  ○ Extractive industry
  ○ Noxious industries
  ○ Hazardous facilities
  ○ Buffers
  ○ Sensitive uses
	• Casey Planning Scheme - Ordinance
	• Planning our city | City of Casey
	• Vicplan (mapshare.vic.gov.au)
	• VPA analysis
	• Vision for Remaining Growth Areas (Casey City Council, July 2019).
	• City of Casey Southern Urban Rural Interface Design Guide (November 2020).
		The precinct is almost entirely zoned Urban Growth Zone (UGZ). Two strips of land are zoned Urban Floodway Zone (UFZ). Transport Zone 1 (TRZ1) over the disused rail corridor.
		
		Three portions of the precinct are affected by a Land Subject to Inundation Overlay (LSIO), including the PEW in the northeast of the precinct. A Heritage Overlay (HO148) applies to 148 Ballarto Road. An Environmental Significance Overlay (ESO) applies to a tree at 60 Moores Road.
		
		Ingham's chicken feed lot is located in the north of the precinct at 1680 Ballarto Road. A minimum buffer of 250 metres would be needed over this property (if its use is retained) under EPA Guideline 1518 for a grain, stockfeed mill and handling facility. If the feed lot utilises meat or meat by-products a buffer of 500 metres applies. It is unclear at present which of these applies to the site.
		
		'Growing Chickens' chicken hatchery is located at 115 Campbells Road. Buffers for hatcheries and egg producing farms are currently applied on a case-by-case basis, depending on the number of chickens present at a site.
		
		An Extractive Industries Investigation Area (EIIA) applies to the immediate southern interface and part of the eastern interface of the precinct. Buffers are dependent on what materials are being extracted. No permit applications have been submitted for this area.
			Managed during Plan Preparation - Planning will be sensitive to existing overlays within the precinct.

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
		The Urban Growth Zone applies to land to the immediate south and east of the precinct. The Casey Southern Urban Rural Interface Design Guide provides guidelines for management of this interface, though this is not a statutory document.	
Land ownership • Fragmentation • Institutional owners • State / Commonwealth	• Council records	Land ownership is highly fragmented across the precinct, with 153 landowners in total. Split between land users (predominantly farming) and landowners, with a notable presence of developers. The prospect of future development will likely instigate further consolidation of ownership by developers within the precinct. Some expressions of interest for third party funding have been made.	Managed through Plan Preparation - Early engagement with landowners by Council and the VPA.
Contamination • Evidenced by existing or historical land uses • Input from Council and other authorities	• Home | Department of Jobs, Skills, Industry and Regions (djsir.vic.gov.au)) • VPA analysis	Predominant farming uses both historically and at present. Uncertainty regarding implications for contamination. Noted presence of Ingham's Chicken Feed Lot at 1680 Ballarto Road. A minimum buffer of 250 metres would be needed over this property (if its use is retained) under EPA Guideline 1518 for a grain, stockfeed mill and handling facility. If the feed lot utilises meat or meat by-products a buffer of 500 metres applies. Presence of 'Growing Chickens' chicken hatchery at 115 Campbells Road. At present buffers for hatcheries and egg producing farms are done on a case-by-case basis, depending on the number of chickens present. 225 Manks Road listed on the EPA Priority Register in 2021 due to presence of industrial waste. Unclear if this is still present at the site.	Managed through Plan Preparation - Present and historic land contamination will need to be examined through a land capability assessment. Work with the EPA to attain information regarding the use and status of Ingham's Chicken Feed Lot, Growing Chickens, and any other existing contamination within the precinct which may require a buffer or other assessments.

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
Amenity risks (i.e. noise, vibration, light, odour, air quality) • Rail • Major roads • Industrial operations • Freight terminals • Ports • Airports	• VPA officer maps assessment	The SEGCP nominates sets out two arterial roads to cross through the precinct- North-south: Extension of proposed intersection at Tuckers Road and Ballarto Road to connect Clyde Creek PSP to Clyde South, and Manks Road to the south. East-west: Extension of Moores Road from South Gippsland Highway and Clyde-Five Ways Road. These may contribute amenity risks such as noise. Notably, the SEGCP does not detail the design details of these roads, nor the number of lanes required. Existing roads immediately entering the precinct are unmade and/or are unsignalized. Currently, cars must cross over 2 lanes of traffic without signals to access South Gippsland Highway from Clyde-Five Ways. Odour risks from Ingham's Chicken Feed Lot at 1680 Ballarto Road to be assessed and managed through application of a buffer (either 250m or 500m).	Managed through Plan Preparation - needs for buffers through consultation with the EPA and Earth Resources Victoria.
Cultural Heritage • Aboriginal cultural heritage register and information system (ACHRIS) • Wetlands • Creeks – named and unnamed	• RAP • DEECA • AHCHRIS	BLCAC is the RAP for the precinct. ACHRIS mapping identifies nine sites of Aboriginal significance- artifact scatter- along the western border of the precinct. These are based on site records completed in 2002. Presence of significant waterways including the Bunyip River and Clyde Creek, as well as the Koo Wee Rup wetland suggest areas of the precinct are of high cultural sensitivity. Likewise, the presence of sandy rises and sand sheets likewise indicate an area of sensitivity based on past landform and land use. There is no study undertaken on the Clyde Creek terrace and the KWR plain to the north east within the project area. This corresponds to the identified extent of the PEW. Area analysis does not identify modification by agricultural activities. Current interest from an ethno-historical perspective in the area is low, though it is noted that in surrounding areas cultural heritage has mostly related to presence at the sub surface.	Work during Plan Preparation. A cultural heritage report will be required to fully assess the challenges noted, alongside a potential CHMP. The VPA will also appoint a Heritage Advisor to provide guidance on management of areas of high cultural sensitivity and value within the precinct.

Element addressed	Source of Information	Details *[Information that has **implications** for Plan Preparation]*	Implications for Plan Preparation
Post Contact Heritage HO148	• Victorian Heritage Database • City of Casey Planning Scheme	A Heritage Overlay, (HO148) applies to a house at 10 Ballarto Road. The Victorian Heritage Database Report lists the property as a substantial example of an Edwardian villa in Casey.	No implication

5.1.1 SUMMARY OF TECHNICAL BACKGROUND ANALYSIS

The technical background analysis outlined above determined that the key threshold issue requiring resolution prior to commencement of Plan Preparation is the rail infrastructure issues to safeguard the potential extension of the Cranbourne line, including the location and configuration of the potential stabling yard. Determination of resolution pathways for the road network will be partially dependent on resolution of the precinct rail infrastructure.

Other matters, such as drainage and sewer planning for the precinct, along with cultural heritage and interface planning considerations, can be addressed through the Plan Preparation phase.

5.2 SUMMARY OF STAKEHOLDER POSITIONS

Table 2 summarises the key external stakeholder feedback provided as part of Due Diligence as part of the Statement of Common Ground. For each stakeholder, a summary is provided of the nature and level of interest, comments and recommendations regarding key issues in the precinct and implications for Plan Preparation.

Table 2: Summary of Key External Stakeholder Positions

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
Bunurong Land Council Aboriginal Corporation	Potential areas of Aboriginal cultural heritage interest (both tangible and intangible) within the precinct and outside, particularly along Clyde Creek and within other water bodies. Potential for management of Koo Wee Rup Swamp, which extends into the precinct.	Local water sources, proximity to the Koo Wee Rup Swamp and elevated landforms in the form of sand sheets represent a high likelihood of Aboriginal Cultural Heritage throughout the area. Due to this high likelihood of cultural sensitivity in the precinct, a CHMP may be required. for the precinct. The BLCAC do not separate tangible and intangible heritage, viewing both as equally important cultural values. Bunurong peoples maintain that all Bunurong country is significant. Therefore, consideration of one element of the landscape cannot be separated from the rest. It is noted that the plains within the precinct are also important as evidence suggested these were actively managed through cultural burning. Although there has been low ethno-historic interest in the precinct, records available to the BLCAC highlight that the precinct is part of a highly significant and visited part of Bunurong country for the purposes of camping, hunting grounds and routes of movements. The BLCAC highly recommends that the VPA speak with a Heritage Advisor during the planning for the precinct.	The VPA will consult a Heritage Advisor on whether any further investigations are required during Plan Preparation for the precinct. This will include cultural heritage noted already by the VPA. through ACHRIS mapping. Management of the Koo Wee Rup Swamp, both at the interface of the site within the future Clyde Regional Park and within the precinct will need to be considered throughout the project, in consultation with the BLCAC. Water ways and any additional wetlands within the precinct will likewise need to be sensitively managed and indigenous knowledge respected. This work will take place during the Plan Preparation Stage.

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
Head Transport for Victoria (HTfV)	Precinct connection to surrounding and proposed road network within Casey Fields South and Clyde South, including apportionment of ICP items to the precinct. Internal road network within the precinct, including the provision of an at-grade separation over the Clyde-Tooradin rail line. The potential railway line extension and associated infrastructure including potential stabling yard within the precinct.	Head Transport for Victoria (HTfV) highlights the primacy of the Bells Road alignment in relation to developing the proposed road network within the precinct. Interface issues relate to agreement on the pathway for resolving the South Gippsland Highway / Clyde Fiveways Road intersection, the role of Bells Road within the precinct, the grade separation of Ballarto Road over the railway corridor, and the interface between Melbourne Water's drainage strategy and the proposed road network. HTfV suggest that these matters should be addressed as part of due diligence so that the related issues, and options for their resolution are clear from the outset. There is no Government commitment at the time of preparing this report for the funding and delivery of the Cranbourne railway line to the Clyde Major Activity Centre (MAC). Future planning for a railway station at the Clyde MAC will necessitate the provision of a potential rail stabling yard within the precinct. A potential location has been identified however no agreement has been made in this regard. Any future precinct will therefore need to assume a potential stabling yard will be in the precinct and protect land accordingly, however the specific requirements for the area required are to be determined.	While the precinct internal and surrounding arterial road network is unresolved, there are no significant or extraordinary issues. The ultimate transport network is expected to be resolved through Plan Preparation in collaboration with HTfV. Interface issues with adjoining PSPs will be addressed through precinct Plan Preparation.
The Department of Energy, Environment and Climate Action (DEECA)	Interface with Clyde Regional Park and Melbourne Water Retarding Basin along eastern boundary.	DEECA will work with VicTrack to manage any impacts on either the BCS area or on the native vegetation which is found all the way along the Clyde-Tooradin railway corridor.	Any development affecting the BCS area 35 will be subject to an MSA levy. The VPA will need to work with DEECA and VicTrack on any issues relating to the length of the Clyde-Tooradin rail line through the precinct, given the native vegetation recorded in this area.

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
	Location of BCS 35 (2.19Ha) along southern section of disused Clyde-Tooradin railway line. Management of other protected native vegetation along entirety of remaining extent of railway line (outside BCS 35 area). Provision of active transport connections to/from Clyde Regional Park on eastern interface of site.	DEECA are currently in the process of updating the wetlands inventory. DEECA noted the 2023 Biosis report prepared on BCS 35 for the VPA. There is potential scope to edit reference in the MSA website to the Southern Brown Bandicoot being within BCS 35 given the Biodiversity Strategy itself lists the habitat of the species being present only. An internal DEECA report failed to find evidence of the Southern Brown Bandicoot within BCS 35.	
Melbourne Water	Mapping of the four DSSs that apply to the precinct, being Clyde Creek, Clyde Township, Clyde-Five Ways, and Moores Road. Management of flooding and stormwater risk within precinct through drainage management. Management and protection of Koo Wee Rup Swamp and other areas of ecological and cultural sensitivity within the precinct. Potential for groundwater issues. Location of future assets in precinct.	There are four catchment boundaries within the precinct, but no confirmed timelines for completion of the DSSs. Any DSS work will commence from February 2025 at the earliest, or once Melbourne Water has completed the Casey Fields South and Devon Meadows PSPs public exhibition process. Preliminary drainage investigations have begun in the southwest corner of the precinct. Drainage infrastructure, including waterway outfalls, within Clyde South PSP are required to service Devon Meadows and Casey Fields South PSPs. Fragmented land ownership may complicate securing of land for DSS asset delivery. Drainage, and particularly the effects of shallow groundwater, are likely to be challenges. The precinct is characterised by shallow groundwater with a depth of approximately 2-5 metres. To ensure compliance with the Groundwater Management Plan for the Koo Wee Rup Water Supply Protection Area, all proposed DSSs will need to be assessed for groundwater impacts due to their complexity. These assessments may take between 12 and 24 months to complete. Melbourne Water advised that Southern Rural Water are responsible for groundwater management and will need to be consulted. Downstream drainage will be factored into the drainage strategy. The precinct is generally flat and characterised by shallow groundwater tables and water-logged soils. There is potential for areas downstream of the precinct to experience additional waterlogging and drainage issues. Works may be required downstream of the PSP area to manage this stormwater volume	The VPA acknowledges the time constraints the Melbourne Water is currently experiencing in relation to other PSPs in the area and will support its DSS work up to and through the precinct during Plan Preparation. The VPA recognises that the Melbourne Water DSS work may be delayed due to required groundwater management plans. The VPA will adopt a whole-of-government approach to the management of shallow groundwater within the precinct to help minimise delays and provide certainty across the wider corridor. Drainage and groundwater will be key considerations for the precinct, but do not at present appear to be showstoppers to Plan Preparation. Downstream drainage impacts on land use activities outside of the PSP (e.g. farming) will need to be managed. As the adjacent Casey Fields South and Devon Meadows PSP has shown, these issues can be worked through during Plan Preparation. The VPA notes Melbourne Water's suggestion that information on cultural heritage and biodiversity issues be shared as early as possible in planning for the precinct to assist with its work. The VPA will work with other stakeholders to facilitate this collaborative approach but also recognises the sensitivity of some of these issues, which may impact its ability to share materials. Some land may need to be set aside for a retarding basin at Manks Road with implications for net developable area. The VPA will work with Melbourne Water on the location of this, and any other required assets.

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
		issue arising because of urban development of the precinct. This may include potential downstream land acquisition to allow for drainage outfalls and potential application of a Public Acquisition Overlay (PAO). Melbourne Water will advise further as the drainage design is prepared. Melbourne Water recommend that information on cultural heritage and biodiversity is shared as soon as practicable to speed up hydrological management within the precinct. The location of DSS assets may affect areas of cultural sensitivity, running along waterways and natural low points in the landscape. This includes Koo Wee Rup Swamp. Completion of the DSS work will benefit from knowledge of what sensitive areas need to be preserved or have impact minimised. Melbourne Water requests that VPA lead on engaging with BLCAC on cultural heritage studies for the entirety of the precinct. Most waterways through the precinct are noted as having low ecological value, but habitat values could be reconstructed. Waterway corridors through the precinct could incorporate additional wildlife corridors. There is potential for a retarding basin to be located on either the north – within the precinct – or the south side of Manks Road, but a final decision in this regard is pending.	
South East Water	Blind Bight Effluent pipeline location is unclear within precinct. Requirement of easements or additional road reserve widening within the site to support assets. Need to work with Melbourne Water to ensure alignment of projects.	South East Water has shared the draft Blind Bight Effluent pipeline alignment. South East Water confirms that some land in the south east of the precinct will need to be set aside for a pumping station and potentially for provision of recycled water tanks. Any odour buffers required in this regard will be dependent on the size of the assets. South East Water will share draft location maps for these assets with the VPA. South East Water will also assess the potential for these assets to be co-located with Melbourne Water assets to reduce land take requirements. Clyde South sits within a South East Water-mandated area for recycled water management.	The VPA understands that the precinct sits within an area of mandated recycled water, but that this does not trigger a need for an IWM plan. The VPA prepares IWM plans in accordance with state government policies and the PSP Guidelines, which will be determined during Plan Preparation. The VPA is unsure of the size of the Blind Bight Effluent pipeline which will run through the precinct. The VPA will work with South East Water to discuss any land required for water assets to support the sustainable development of the precinct utilising the location mapping provided by South East Water. Collaboration with Melbourne Water will also be required to manage this process holistically.

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
Casey City Council	Staging and timing of development. Success of TPF process. Achievement of strategic policy outcomes through PSP process. Focus on UGB interface and housing strategy. Eventual creation and management of Planning Scheme Amendment.	Clyde South is considered integral to beneficial development outcomes within the wider corridor. Multiple infrastructure issues, including upgrades to Clyde Five Ways and Ballarto Roads, are reliant on the provision of ICP items that are partially apportioned to Clyde South at present. These are also required to enable the successful completion of the Clyde Major Activity Centre (MAC). and provide safe access to the residential estates now abutting Ballarto Road. The development of the Clyde MAC cannot proceed without necessary enabling intersections funded by any future Clyde South ICP. Casey is experiencing significant demand on residential land supply and there is a need for Clyde South to relieve this pressure. The precinct is the final residential precinct of scale within the UGB within Casey and so needs to be innovative and promote a legacy. Council have been strong advocates for rail extending into the precinct to unlock its opportunities through their Connecting Casey advocacy. The VPA also note the need for sensitive planning around the precinct's urban-rural interfaces, preferably in line with Casey's Southern Urban Rural Interface Design Guide, which will need to be considered. Council noted VPA's identification of issues regarding wetlands both extant and pre-European in the precinct and will investigate any information on these. Council will also provide the VPA an up-to-date list of landowners within the precinct, noting the likelihood of consolidation in recent times.	VPA cannot at present confirm the timeline for commencement of Plan Preparation, or the status of the precinct in any future VPA Business Plan. The VPA will work with Council through Plan Preparation to explore innovative development outcomes for the precinct. Plan Preparation will need to factor in the apportionment of ICP items already assigned to Clyde South and the potential constraints these places on infrastructure funding elsewhere. It will also be important to manage community expectations regarding infrastructure provision until decisions are reached on intended outcomes.
Parks Victoria	Development of Clyde Regional Park to the immediate east of the precinct. Response to interface issues and opportunities.	No funding is currently in place for the construction of the Clyde Regional Park. However, master planning is currently underway with a final plan expected in May 2025. A Cultural Values Assessment has been prepared for the park boundary (not including the precinct), and Parks Victoria will share with the VPA if agreed by the BLCAC. No noted Aboriginal artifacts or sites at ground level, but potential for cultural heritage to be evident at sub-surface level.	The Clyde Regional Park will be a major asset along the eastern interface of the precinct subject to its completion. The VPA will work closely with Parks Victoria to manage any interface issues through Plan Preparation for the mutual benefit of both the precinct and the park.

Stakeholder & Key Contact	Nature & Level of Interest (Correct as of August 2024)	Comments / Recommendations from stakeholders	Implications for Plan Preparation
	Protection of biodiversity and rehabilitation of Clyde Creek as a biodiversity hotspot and potential links between this habitat and the precinct.	The Southern Brown Bandicoot, a listed threatened species under the EBPC Act 1999, has been identified at the park site. Development will therefore need to be sensitive to this protected species. Parks Victoria also noted potential plans to provide a habitat corridor for the Bandicoot either through the precinct or along its eastern interface. Any corridor within the precinct will need to be managed noting the protected characteristics of the species. Parks Victoria are advocating for active and road transport links to link the park with the precinct. The VPA also note the need for stormwater management infrastructure and other potential ancillary issues to be avoided at the park site.	The VPA will need to consider the South Brown Bandicoot as part of any fauna assessment for the precinct, and the implications of any blue-green infrastructure provided at the precinct's interface. As planning for the internal transport infrastructure within the precinct is unclear at this stage, the VPA is unable to provide assurances on provision of transport into the park at this stage.

5.2.1 SUMMARY OF STATEMENT OF COMMON GROUND

The Statement of Common Ground includes the above summary of stakeholder positions and an analysis of these positions to clarify areas of disagreement, or divergent views on issues, and areas of agreement, or common ground.

In summary, all key external stakeholders are committed to Plan Preparation proceeding for Clyde South upon resolution of the key unresolved issue of rail infrastructure required for the potential extension of the Cranbourne line.

5.3 STATE INFRASTRUCTURE ASSESSMENT

5.3.1 ROAD NETWORK

Arterial roads

The Clyde South precinct will be planned with grid layout with two arterial roads planned for the following precinct boundaries:

- At the north boundary, along the existing Ballarto Road alignment, a (generally) primary arterial.
- At the west boundary of the precinct, along the existing Clyde Five Ways Road alignment, a primary arterial.

In addition, the following is under consideration for the precinct road network.

- A new arterial is planned to run in an east-west direction through the precinct from Clyde Five Ways Road towards the railway corridor before heading northeast towards the southern extreme of Bells Road (where it meets Ballarto Road). This road generally aligns with Moores Road and is flagged to interchange with Clyde–Five Ways Road and South Gippsland Highway. The Moores Road extension is a draft ICP item in the Devon Meadows and Casey Fields South PSP, with the intersection with Clyde–Five Ways Road apportioned to Clyde South at 50 percent.
- A north-south secondary arterial to extend through the centre of the precinct from the intersection of Tuckers and Ballarto Roads at the northern boundary of the precinct.
- Potential alignment upgrades to Manks Road at the south boundary of the precinct, particularly at the intersection of South Gippsland Highway.

Freight

There precinct adjoins the South Gippsland Highway, which is identified as a freight route under the Department of Transport and Planning's Movement and Place classifications. The site does not adjoin the Principal Freight Transport Network.

5.3.2 PUBLIC TRANSPORT

The SEGCP includes the potential Cranbourne Rail Extension up to Clyde Station, to the north of the precinct. This reflects the Network Development Plan – Metropolitan

Rail 2012 and the long term network plan. There is a rail reservation that follows this alignment and extends beyond the precinct. At present, Council is advocating to State and Federal governments for funding of this rail line extension.

This potential rail extension will be an important consideration during any potential future planning for the precinct.

Development of the precinct will not have any undue negative impact on public transport operations and will support further operations through the development of the north-south and east-west arterial networks.

5.3.3 COMMUNITY INFRASTRUCTURE

Health

There are no State health demands from Clyde South that cannot be met through future precinct planning. The VPA project team will consult with the Department of Health for updates in this regard during future project stages.

Education

There are no State education demands for Clyde South that cannot be met through future precinct planning. The VPA project team will consult with the Department of Education during future project stages for updates in this regard.

5.4 SUMMARY: PROJECT ISSUES AND OPPORTUNITIES

In summary, the key unresolved issue for Clyde South that will affect the commencement of Plan Preparation is the rail infrastructure, including potential the extension of the Cranbourne railway line, the location and configuration of potential stabling yard.

The precinct road network, including interfaces with the surrounding area, and at-grade railway line road/rail crossings will be impacted by the precinct rail infrastructure. This can be managed through Plan Preparation via continued cooperation with HTfV.

Identified precinct planning opportunities include the following:

- Road network – opportunities to improve the local road network, including links between areas north and northeast of the precinct with the South Gippsland Highway and the precincts of Casey Fields and Devon Meadows.

Other noted unresolved precinct issues (e.g., drainage and sewer infrastructure and required buffers to chicken-related uses), are not ‘showstoppers’ to Plan Preparation. That is, resolution of these, and other identified issues, can occur through future Plan Preparation with minimal risk to the project.

6 PROBLEM STATEMENT

Table 3 details the core unresolved project issue that will impact the Plan Preparation phase of the project. It utilises information from the Background Technical Analysis, Statement of Common Ground, and State Infrastructure Assessment. It details the issue, why it will impact Plan Preparation and what is required for Plan Preparation to proceed. This table describes the core problem, or issue, in terms of progressing to Plan Preparation.

Table 3: Key Unresolved Project Issue

Issue	Details	Impact on Plan Preparation	Outcome Sought
Potential Railway line extension, potential stabling yard	The disused railway line located within the precinct has potential to be reinstated with potential stabling yards provided.	Confirmation required regarding the location and configuration of the rail infrastructure including stabling yards and any grade separations over the corridor.	Certainty on the location and configuration of the potential stabling yards in collaboration with HTfV.

7 PROBLEM RESOLUTION APPROACH

7.1 ASSESSMENT OF OPTIONS

Table 4 provides an analysis of options for resolution of the key rail infrastructure issue preventing progression to Plan Preparation.

Table 4: Problem Resolution Options Analysis

Option	Description	Positives	Negatives	Preference
1. Proceed to Plan Preparation	Acknowledge core issue in project planning. Allow additional time and resources for resolution.	Strong support from landowners.	Uncertainties will not be resolved. Risk of wasteful expenditure during resolution of issue. Project timelines will be extended. Stakeholder expectations will be raised without certainty.	Medium
2. Government decision	Seek resolution of issue from necessary government departments	No cost or resource implications for VPA	Department or agency decision making will not be based on holistic place-making. Unlikely that any department will make a decision without technical information Unlikely that any department will undertake technical work due to resource, including funding, constraints. Significantly delay Plan Preparation expected – fails to deliver on Housing Statement target. Fails to meet stakeholder expectations of VPA as trusted problem solver.	Low

3. Undertake further work to resolve threshold issue	Targeted further work to: - Resolve matter of indicative location of potential railway line extension, potential rail stabling yard location and configuration, and Technical assessments will be required.	Efficient resolution of issues through focused action. Greater certainty and predictability for Plan Preparation. Cost effective.	Perceived delay to commencement of Plan Preparation but with more eventual rigor.	High
		Third party funded – no state government budget implication. Effective risk management. Collaboration with stakeholders. Robust due diligence process and application of progressive certainty.		

7.2 PREFERED OPTION

In Table 4 above, Option 3 is the preferred problem resolution option and will involve the following work:

- Collaboration with HTfV to resolve the potential railway line extension and associate infrastructure including the potential rail stabling yard location and configuration.
- Draft scopes of work for required technical assessments and confirm with key stakeholders (including landowners).
- See third-party funding from landowners for actioning the due diligence recommendations and, eventually, Plan Preparation. Third party funding agreements will clearly indicate that progress to Plan Preparation is not guaranteed as an outcome of further due diligence work.

7.3 PLAN PREPARATION APPROACH

It is recommended that the precinct commence PSP planning following identification of the potential railway line extension and associated infrastructure.

8 RISK ASSESMENT

The following risk assessment considers the preferred problem resolution option only (see *Table 4*). While there are some risks associated with actioning the following recommendations (see *Section 10* of this report), measures can be taken to mitigate these risks. Therefore, the risks are manageable and preferable to the project being paused or progressed to Plan Preparation prior to resolution of the key project threshold issue, being the precinct rail infrastructure.

The key risks and associated mitigation measures are as follows and will be managed by the principle of Progressive Certainty:

- The risk that a relevant authority does not make a required determination.
    - Development of resolution pathways at commencement of actioning due diligence recommendations will mitigate the risk.
- The risk of Melbourne Water experiencing significant delays in progressing its drainage work for other adjoining PSPs impacting the VPA's ability to commence plan preparation and proceed with Progressive Certainty.
    - This risk will mitigated by the VPA helping to facilitate progression of this work at plan preparation stage.
- The risk of the required work being hampered by lack of third-party funding.

9 APPROPRIATE ROLE OF VPA

The role of the VPA in carrying out the Clyde South Due Diligence has been as facilitator leading collaboration with, and amongst, key external stakeholders to identify project issues and potential resolution pathways. The VPA is best placed to continue coordinating and guiding issues resolution to allow the project to proceed to Plan Preparation for the following reasons:

- The VPA has led and coordinated the initial project phase and is well-placed to continue doing so.
- The VPA has the appropriate capacity, skills, experience, and relationships to lead the work, particularly with HTfV. Collaboration will be required with HTfV to resolve matters relating to the potential railway line extension and associated infrastructure.
- The VPA will not be the decision maker for the future development of the precinct and is therefore an appropriate neutral agency to undertake resolution of project threshold issues.
- If the VPA does not take the lead on this work, it is unlikely that another agency will undertake the required work, and the precinct is likely to remain undeveloped.

While the VPA should continue to lead the Clyde South work, it will not make the ultimate decision on the development and timelines of the provision of potential rail infrastructure in the precinct. The VPA will continue in its facilitator capacity through the further due diligence process to help resolve the threshold issue for the precinct, being the precinct rail infrastructure.

10 RECOMMENDATIONS

The key issue to be resolved for Clyde South prior to commencement of Plan Preparation is the planning and safeguarding to allow for the delivery of the future potential extension of the rail corridor from Cranbourne to Clyde Major Activity Centre. It is recommended that resolution of the indicative precinct rail infrastructure be determined prior to Plan Preparation through further due diligence work for the reasons outlined in the body of this report.

Other precinct issues, including the road network, drainage and sewer planning, and cultural values considerations will be addressed through the Plan Preparation phase.

To reach resolution on the precinct rail infrastructure issue, it is recommended that the VPA:

- Determine resolution pathways with relevant decision makers.
- Draft scopes of work for required technical assessments and confirm with key stakeholders (including landowners).
- Seeking third party funding from landowners for actioning due diligence recommendations and Plan Preparation (third-party funding agreements will clearly indicate that progress to Plan Preparation is not guaranteed).
- Review viability of progressing to Plan Preparation.

The VPA is the most appropriate body to coordinate this work but will not make the ultimate decisions to resolve these project issues. The VPA is best placed to bring all parties together, facilitate the technical work and assist parties to reach a conclusion that is in the public interest. Should the VPA not coordinate this work, it is unlikely any other party will undertake the work, and the precinct will not be able to progress to Plan Preparation.