GEELONG PORT STRUCTURE PLAN

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CITY OF GREATER GEELONG

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PART A STRUCTURE PLAN

1. Introduction

1.1 Purpose of the Structure Plan

The Geelong Port Structure Plan is a strategic framework for the future development of the Geelong Port and its surrounding port related land uses including freight logistics and movement as well as port related industries such as warehousing, distribution and processing of goods entering and leaving the port.

The purpose of the Structure Plan is to identify the key strategic planning issues facing the port, including industry needs, community aspirations and to articulate the preferred future directions, including the location of current and future development opportunities and infrastructure investment for the Port.

The plan identifies potential planning controls that can implement the findings of the Structure Plan and provides a guide as to potential changes to policy and planning controls that affect the area.

The key aims for this Structure Plan are listed below (in no particular order):

- To provide for the future viability of the Port of Geelong
- To safeguard the residential amenity of the local community
- To provide greater certainty for investors and customers of the Port of Geelong and residents within the Port of Geelong area.
- To provide guidance to other units within Council about the preferred vision for the future development of the port area.
- To provide guidance to the Statutory Planning unit within Council to assist in making decisions on planning permit applications and potential changes to the planning scheme within the port area.

1.2 How will this plan be used?

The Structure Plan is primarily a tool to be used by the City of Greater Geelong to determine the application of local planning policy, planning zones and overlays and the consideration of applications for planning permits and rezoning. Council will also reference the document when considering the future roll out of infrastructure and services.

Through its implementation, the Plan will create greater certainty for the residents and landowners regarding the future directions of the port over the next ten years.

1.3 Plan Components

The Structure Plan contains three parts, Part A “Structure Plan”, Part B “Implementation & Review” and Part C “Background Report”.

Part A contains the Structure Plan, which includes principles and directions in response to the key influences identified in the background report, for each of the following key themes:

- Economic Development and Role of the Port
- Health and Safety

- Environment and Recreation
- Amenity buffers
- Transport
- Physical Infrastructure

Specific land uses objectives and implementation actions are provided in precinct plans according the core functions of the port.

- Refinery Pier
- Lascelles Wharf
- Corio Quay
- Grain Piers

Part B contains a program for implementing the Structure Plan including details relating to subdivision, land use and development principles, the application of statutory planning controls and the undertaking of other strategic work, including review of this Structure Plan.

Part C provides the foundation and contextual information for the Structure Plan and identifies the issues, opportunities and constraints facing the Geelong Port area, under the following headings:

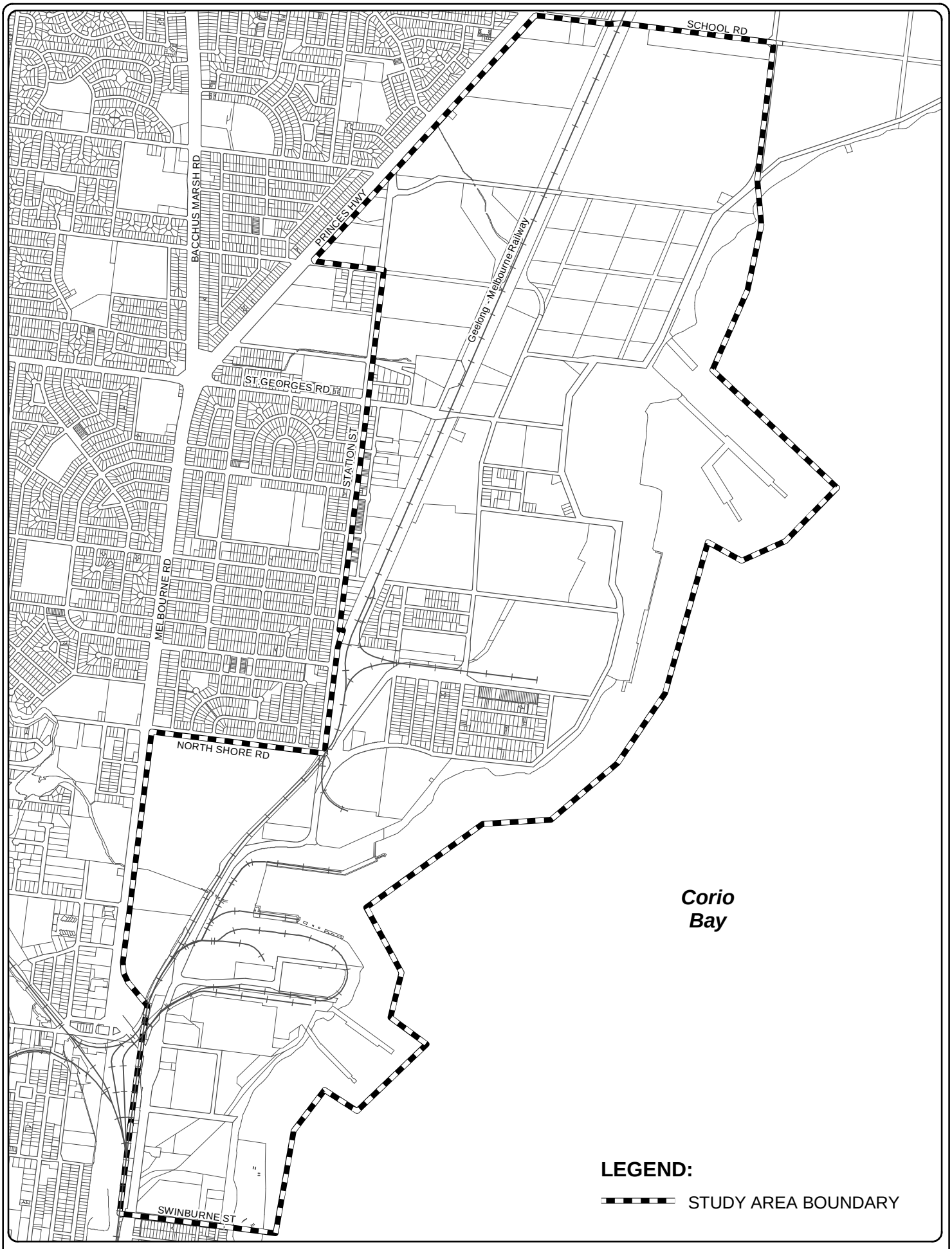
- Policy Context
- Port Economic Role and Function
- Health and Safety
- Environment and Recreation
- Amenity Buffers
- Transport
- Physical Infrastructure

1.4 The Study Area

The study area for the Geelong Port Structure Plan is shown on Map 1. It extends from the northern side of Swinburne Street to the southern side of School Road and from the boundary of the planning scheme zones applicable to the water, westwards to the Geelong-Melbourne Road, Station Street and North Shore Road.

The study area includes the residential area of North Shore which contains approximately 200 houses and 480 residents. It also includes significant industries in Shell, Midway, Graincorp, Incitec-Pivot, Orica, ADM Malting, Barrett Burston, Bassell, One Steel, Terminals and Volclay etc.

The study area does not include the port activities and facilities at Point Henry. Point Henry's primary land use activity is the Alcoa operations which are significant to the operations of the Port but are geographically isolated from the rest of the port and largely contained and buffered by the Cheetham saltworks and conservation areas. The next review of the Structure Plan will include an examination and establishment of directions for Point Henry.



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STUDY AREA

PORT OF GEELONG STRUCTURE PLAN

Map No.1

2. Key Influences

The background report (Part C) identifies and discusses in detail key issues, opportunities and constraints under the following headings which assist in determining the key directions of the Structure Plan.

- Policy Context
- Port Economic Role and Function
- Health and Safety
- Environment and Recreation
- Amenity Buffers
- Transport
- Physical Infrastructure

The findings of this background report are summarised into the following key influences:

2.1 Policy Context

- Geelong Port is identified as a key resource to the economy of Victoria and the Geelong Region.
- Preservation of Port assets and available industrial land close to the Port for Port related industries and appropriate buffer industries to the Port is critical to the ongoing use and development of the Port as an economic resource.
- The management of the Port within the context of state and local environmental and urban planning policies is critical to ensuring the community of Geelong can co-exist with the port operations.
- The Port of Geelong needs to acknowledge that it sits within an urban context in which interface issues with adjoining urban uses and environmental assets (notably Corio Bay) must be addressed and managed.
- Some Council policy, notably the Environmental Management Strategy seeks to restrict the expansion or growth of hazardous chemical storage around Corio Bay.

2.2 Port Economic Role and Function

- The policy provisions detailed in “Policy Context” are underpinned by the existing role and projected trade forecasts for the Port as a regional asset to Geelong and a key resource for Victoria.
- The continued use of land in and around the Port through appropriate provision of industrial land is supported by state and local policy and reinforced through recent planning decisions to maintain appropriate buffers between the port and non industrial uses.
- Provision of suitably zoned land with adequate transport links to the Port is one of the most important issues to enabling future growth of the Port.
- The port can be identified into precincts of specific function, according to the core assets from which the Port operates, notably Refinery Pier, Lascelles Wharf, Corio Quay and the Grain Piers.
- The Port will continue to develop according to these specific functions, notably liquid

bulk, dry bulk and break bulk handling. Expansion into container handling is unlikely due to limitations of Port facilities and land availability.

- Proposed expansion of Port facilities at Corio Quay and Lascelles Wharf will place increased pressure on surrounding land areas to service the port with storage and associated processing industries.

2.3 Health and Safety

- There is a need to continually assess current and future port uses in context of the health and safety of the broader community of Geelong, within the context of Council's Strategic Health Plan and the provisions of the Health Act 1958.
- Planning for the Port needs to acknowledge the role of other state agencies who are key agencies for assessing the use, manufacture and storage of Dangerous Goods as defined by the Dangerous Goods Act 1985.
- Council continues seek to work in a collaborative approach between the community, operators of the Port, DHS, EPA and Worksafe to ensure the health and safety of the community of greater Geelong.
- Port security legislative requirements will have some impact on access to public land between port facilities and Corio Bay.

2.4 Environment and Recreation

- There are a number of sites of environmental significance both on land and sea adjoining and near core Port facilities that can be better managed and enhanced as public assets.
- Pollution of Corio Bay from industry operations in the Port area has caused problems in the past. Potential current and potential sources of pollution and significant risks of pollution from the industrial uses of the area to the marine environment need to be identified, assessed and managed according to planning approvals either existing or proposed.
- Whilst the Port is a core industrial area, there is a recognition by both Council and Port operators that the Port sits in a modified natural environment with areas of public foreshore reserve that must be managed for continued public use.
- Corio Bay, including the intertidal area to the foreshore of the Port Structure Plan area includes sections of sea grass and sensitive marine ecosystems that need to be considered and assessed in any future land use and development proposed in the structure plan area.
- There are opportunities to improve landscape amenity of public areas near the Port.
- There are a number of heritage sites, both formally identified and not. These need to be considered in assessing new development.
- Improvements to Stead Park, Cowies Creek and the foreshore reserve can have positive benefits for both the residential community of Geelong and Port industries.
- The Geelong Port area has interface to the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site to the north east of the study area with specific protocols and environmental policy that affects development in and around this site.

- The need for foreshore managers to be aware of future impacts of rising sea levels.

2.5 Amenity Buffers

- New industry and port related uses need to be assessed against relevant criteria of both the Planning and Environment Act 1987 and the Environment Protection Act 1970. Individual development proposals need to be assessed on the relative merits of the proposal, its location and potential impact on surrounding uses and the environment.
- Ongoing management of existing buffer conflicts will require consultation with relevant resident and industry groups. Current redevelopment projects including the Osborne House management plan of Council and the Norlane redevelopment project of the Office of Major Projects may provide further opportunity to address existing buffer conflicts.

2.6 Transport

- Current roads to and through the port area are generally within capacity. Expansion of Port operations, in particular increased use of Heales Road as a supporting industrial area may see the need for improved truck links.
- There are existing rail / road crossing conflict points that are likely to be exacerbated if port operations increase. These need to be further addressed as long term safety and efficiency issues for the community and port users.
- There are a number of opportunities to improve cycle links through the port study area to link to broader cycle links around the foreshore and Limeburners bay.
- Provision of safe, accessible and frequent public transport for workers and residents in the area should be considered in further detail as part of on going Council transport planning and as part of the Norlane Renewal project.

2.7 Physical Infrastructure

- There is adequate provision of physical services to the Port.
- Greater efficiencies in port related use of Geelong's potable water supply is required. Opportunities exist for some Port related industries to utilise recycled water and contribute to the supply of recycled water to adjacent residential areas.
- Discharge of wastewater and stormwater from industrial sites needs to be carefully managed and monitored to ensure it meets the appropriate EPA and State Environment Protection Policy requirements. The pre-treatment of all stormwater discharges from new industrial developments in order to meet the best practice guidelines is a requirement of the City.

3. The Plan

3.1 Vision

Geelong Port is an important economic precinct to Geelong and the Geelong region. The Port area (both land and sea) is well supported through effective provision of transport and land-use facilities to service the Port in a safe, healthy and amenable environment.

3.2 Role of the Port

Geelong Port provides a key resource in the regional economy of Geelong and its hinterland, servicing primary and secondary producers in and around Geelong as well as parts of western Metropolitan Melbourne.

The Port provides discreet functions according to the facilities provided including berthing of vessels for:

- liquid bulk at Refinery Pier;
- dry bulk focus at Lascelles Wharf (with some liquid dangerous goods piped to Incitec-Pivot site);
- dry bulk and break bulk at Corio Quay; and
- grain and other dry bulk at Graincorp Pier

(Note: further details of products and definitions of port uses are detailed in Section 1 of the background report.)

In addition the Port provides a number of ancillary functions and facilities including facilities for the Australian Quarantine Inspection Service (AQIS), the Australian Marine Oil Spill Centre (AMOSC), both located at Corio Quay and tug boat mooring at Graincorp Pier 1.

To enable effective growth and development of the Port as an active economic resource for the community of Geelong, appropriate land and transport facilities need to be accommodated in and around the mooring locations.

3.3 Principles and Directions

The structure plan identifies principles (objectives) and directions (strategies) relating to the key planning themes:

- Port Economic Role and Function
- Land use needs
- Health and Safety
- Environment and Recreation
- Amenity Buffers
- Transport, and
- Physical Infrastructure

3.3.1 Port Economic Role and Function

The Port of Geelong is the second largest port in Victoria had a throughput of approximately 12 million tonnes in 2004/2005 with an estimated cargo trade value of $5.6 billion. Crude oil and petroleum products are the key products traded in volume terms with grain, woodchips and fertiliser also significant components.

In 2004/2005 there were 543 ship visits to the Port of Geelong by commercial cargo vessels. On average each ship resulted in an output of $543,000 in the Barwon region. It was estimated that in 2004/5, 609 direct (full-time equivalent) jobs were supported by the port with a flow on of 579 jobs. This represents 1.7 per cent of total employment in the Barwon region.

Trade forecasts for the Port predict that by 2020 trade in dry bulk and break bulk (i.e. non liquid bulk) may increase up to 59 per cent from current trade figures. This assumes increase in volume handling with proposed increased berthing facilities.

Liquid bulk is expected to continue to be a strong role with the Shell refinery remaining a key industry to the Port and Geelong region, moderate growth at the Terminals site anticipated and a number of biodiesel operations proposed.

There are a number of significant industrial operations within the port area that have an association with the Port related to timber (Midway, SPE and AMS), grain (GrainCorp, ADM, Barrett Burston) and fertiliser/industrial chemicals (Incitec-Pivot) and with plans for further investment and development of their operations.

Key limiting factors identified by GeelongPort for the growth of the Port include the lack of suitable available land within the Port area to support Port operations and complementary industry, lead time for new infrastructure and the provision of efficient transport links to the Port.

There is strong local community concern about the continued use of the Port for hazardous liquid and dry bulk storage and handling, (notably chemical storage). Whilst it is acknowledged that these uses exist within the Port and is an important part of its economic function, Council's preference is to support growth of the Port for non hazardous bulk and break bulk goods.

The Port will continue to be encircled by existing urban development of Geelong, including areas of existing residential and non industrial use. This will continue to limit some aspects of development of the Port. In turn it is important that inappropriate encroachments of sensitive or non compatible uses into the core port and industrial areas are not encouraged.

The Structure Plan provides for areas of industrial zoned land at the periphery of the port area to act as a buffer between core port uses and service the port with industrial zoned land that can be utilised for port purposes as market demand dictates.

Principles

- To promote the growth and development of Geelong Port as an important economic resource to the state of Victoria and the Geelong community for dry bulk, break bulk goods and liquid bulk storage and handling.
- To provide a focus of bulk liquid chemical storage adjacent to Refinery Pier.
- To provide land and servicing resources to support the future growth of the Port.

Directions

- Ensure core port facilities are appropriately zoned to enable core port functions to operate and further develop.

- To apply a local policy which facilitates development of the Port consistent with the key objectives and strategies of the Structure Plan including containing the development of operations primarily involving the bulk liquid storage of dangerous goods as defined by the Dangerous Goods Act to a defined area adjacent to Refinery Pier.
- Maintain appropriately zoned industrial land around the core Port facilities to service the Port and port related industry and provide a buffer to port activities.
- Ensure that non-port related industry or other complementary industrial zone activities do not compromise Port operations, port and port related industry buffers and opportunities for port development.
- Ensure that industrial or other uses at the interface of industrial and residential or commercial zones minimise amenity impacts on sensitive uses, have appropriate built form treatments and do not compromise Port activities and development.
- Acknowledge the multiple roles of interface land abutting the Princes Highway to provide employment opportunities for a range of industrial (including Port related uses) and other uses complementary to the setting and relationship to the Port and which contribute to an attractive and well landscaped gateway entry to urban Geelong.
- Support expansion of Port facilities (eg. additional berthing facilities) in a manner that ensures the protection of the environmental and cultural values of Corio Bay.
- Discourage the fragmentation of larger industrial sites in and around the Port Structure Plan area, acknowledging that large parcels of land are an important long term resource for the core Port uses and complementary industrial uses of the area.
- Discourage the conversion of the port related industrial area in and around the Port Structure Plan area for non compatible uses that may result in future amenity conflicts with core port uses.

3.3.2 Health and Safety

Part of the long term operation of Geelong Port and its adjoining industries has included the use and manufacture of products that have health and safety impacts on the community of Geelong. This includes risks associated with the storage and manufacture of liquid chemicals associated with Terminals and Shell refinery and to a lesser extent the health impacts of fertiliser production associated with Incitec Pivot as well as dust, noise and other amenity impacts of these and other similar industries.

It is important to recognise that there are both health and safety issues as well as amenity impacts of industrial uses associated with the Port. In developing programs and assessing development within the municipality, Council relies on evidence based data to indicate health impacts to minimise detrimental effects on public health. Council relies on best industry practice in determining effective environmental health prevention and control measures including incorporating emergency response criteria.

Assessment by Council includes consideration of its Strategic Health Plan: 2006 – 2008. This includes provision of:

- a clean, safe physical environment of high quality development
- an eco-system that is stable now and sustainable in the long term.
- a high degree of participation and control by the public over the decisions affecting their lives, health and well being.
- a diverse, vital and innovative city economy.

- High health status, (high levels of positive health and low levels of disease).

Decisions regarding new industry in the municipality should have regard to the Health Plan and the consequences of new development to the provision of a healthy community.

Council seeks to work with the community to continue to monitor and address issues of community health and safety.

Whilst Council will continue to maintain its role its assessment of such uses in the interests of community health and safety, often the final approving body is not Council.

Principles

- To promote the growth and development of Geelong Port that supports the health and wellbeing of the Geelong community, consistent with the principles of Council's Strategic Health Plan.
- To ensure future use and development within core Port industry and Port use areas require the preparation and maintenance of plans to appropriately manage risks from off site impacts to the local community and environment.

Directions

- Assess new applications for uses at the Port against Council's Strategic Health Plan to ensure the future health and safety of the community of Geelong.
- Planning applications for the development or expansions to dangerous goods storage facilities and other new industry and Port development outside the 'Core port uses – liquid' area which are likely to have potential off site emission impacts (particularly those not requiring EPA works approval) should meet required buffer distances and other environmental requirements and provide a Health and Safety Management Plan consistent with the principles of the Strategic Health Plan: 2006 – 2008 including identification of hazard risks, site emissions monitoring and management including emergency response.
- Continue to facilitate consultation with local stakeholders local resident groups, as required, to monitor and address issues of amenity and health concerns.
- Advocate for state agencies, such as the EPA, WorkCover and the Dept. of Human Services, to provide greater monitoring of port industry and port operations and enforcement of relevant legislation as necessary to maintain community health and safety.
- Encourage EPA to develop management plans with industry for known contaminated sites.

3.3.3 Environment and Recreation

The study area for the Structure Plan is a highly developed urban/industrial area with (other than the Bay itself) limited remaining environmental features.

Corio Bay is a key environmental asset for the community of Geelong. It has a diverse range of environmental features and offers a range of social and economic opportunities. The community enjoys the use of the Bay and foreshore for both formal and informal recreation pursuits including boating and fishing as well as passive recreation activities such as walking and cycling. The landscape setting that the Bay provides to Geelong is highly valued by the community.

Whilst Council has broader policy directions to support public access to the foreshore and promote improved recreation and environmental rehabilitation along the foreshore areas, this is somewhat limited in the Port area due to physical safety and logistical problems.

There is however, opportunity to encourage industry and port users to work with the local community to improve the public assets that do exist so as to provide improved landscape, recreational and environmental features where possible.

Corio Bay and much of the inter-tidal area has sites of biodiversity significance, with parts of the bay to the north and east identified within international agreements as significant wildlife habitat. Consideration of Port activities needs to address the impacts of and on the waters of Corio Bay as part of the eco-system in which the Port facilities sit.

Principles

- To ensure new development in the port has regard to state and local environmental policies.
- To encourage the enhancement of and minimise the impacts of use and development on sites of environmental significance along the bay foreshore and other sites identified in the Structure Plan and marine environments adjacent to Port facilities.
- To acknowledge that public access to parts of the foreshore adjacent to the port security area will be limited due to safety, security and logistical issues.
- To support the establishment of pedestrian and cycle linkages to existing open space and recreation assets.
- To ensure use and development has appropriate regard to sites of cultural and historic significance within the structure plan area.

Directions

- Encourage industry to undertake landscape and environmental improvements on site as well as restoration and revegetation works on adjacent public or foreshore areas. This may include requirements for new development to contribute to off site revegetation or infrastructure works, where opportunities for on site landscaping is limited or off site revegetation may assist in off setting on site amenity impacts of the new development.
- Support programs to encourage industry to work with local communities to revegetate local public foreshore areas with indigenous native species.
- Provide linear links for pedestrian and cycle use through the Port area (ideally as off road paths) to connect to the broader pedestrian and cycle links of Geelong as shown in the Structure Plan and consistent with the Cycle Strategy. Linkages are to be developed so to minimise impact on Port operations and potential for traffic or safety conflicts.
- Planning applications for significant industrial extensions or new use and development should be accompanied by Environmental Management Plans to identify on or off site environmental planting and works, site construction environmental management measures, trade waste and stormwater management consistent with best environmental management practices as appropriate.
- Undertake liaison with industry, managers and users of piers and berthing facilities regarding Council's Stormwater Management Plan and Environmental Management Strategy 2006-2011and the potential risks to marine biodiversity and environment generally identified in these Plans.

- New development should have regard to sites identified as having state or local cultural and heritage significance.
- Require the preparation of Cultural Heritage Management Plans for a range of activities within registered places of cultural heritage sensitivity under the provisions of the Aboriginal Heritage Act 2007.

3.3.4 Amenity Buffers

Amenity concerns are found in areas where existing conflicts exist, or where proposed development presents a potential conflict between sensitive land uses (notably residential land uses) and industry. Amenity concerns may increased noise, dust, odour, traffic and other off site impacts from industry that potentially conflict with amenable residential use.

The amenity impacts of the Port need to be appropriately managed however it is also necessary to develop mechanisms to address inappropriate development proposals which may adversely impact on, or unreasonably constrain the operations of the commercial port. Surrounding land uses should have regard to the history of the Port and its economic contributions to the local and State economies. In some locations the necessary separation distances required to adequately buffer the Port are not available due to the historical patterns of land use development. There is little scope for internal port area buffering strategies, thus consideration should be given to placing the onus of responsibility upon the "*agent of change*" in the port environs, a principle that would protect the port from encroaching and adjoining incompatible land use.

Areas of particular existing amenity conflict / concern are North Shore, Corio, Norlane, North Geelong and Geelong Grammar. These areas are specifically addressed in the Precinct Plans detailed in Section 3.4 of this report.

Principles

- To balance the needs to the working port with the amenity entitlements of existing sensitive uses at the Port interface, notably residential areas adjacent to the Port.
- To minimise future amenity conflict in the Port and interface area.
- Apply the 'agent of change' principle to new land use activities establishing within the Port area.

Directions

- Discourage the intrusion of sensitive land uses and developments into core port and peripheral industrial areas (e.g. office, retail or residential based uses where not associated with the Port, industry or marine industry activity and other activities) which may adversely impact on, or unreasonably constrain the operations and future development of the Port and related industry
- Encourage the use of effective on site management practices and application of related planning permit conditions to control and manage off site amenity impacts;
- Apply the 'agent of change' principle and discourage use and development that may result in significant amenity impacts to existing residential areas within and adjacent to the Port study area.
- Applications with the potential to impact on port operations and port related industry or existing sensitive uses are to be accompanied by a Reverse Amenity Impact report.
- Improve the visual and landscape qualities of the Port area, both viewed internally and as viewed from surrounding areas including high quality landscaping treatments where practical (using local indigenous native species) around the Port, frontages to main transport corridors and areas of potential high amenity conflict.

3.3.5 Transport

The Port of Geelong functions as a transport land/sea interface for the movement of products, generating a substantial amount of truck and rail movement. The port area features a mix of land uses including industrial and residential. The mix of industrial/trade operations results in conflict, primarily created by the parking and movement of trucks along roads abutting residential properties and recreational facilities and rail crossing points.

While a range of rail and road connections exist to the Port they require upgrading, improvement and in the case of road linkages significantly improved links to Melbourne Road, the freeway and Ring Road as well as the Heales Road Industrial Estate as a matter of urgency.

It is necessary to find a balance between the port access needs of industry and the general amenity in this area. Short term traffic management is required for some areas to minimise amenity impacts such as truck speed and truck, parking/littering issues near Geelong Grammar School.

A number of road and rail improvements have been proposed in recent years, including the current construction of the Geelong Ring Road. Such improvements will impact on the capacity and use of the Port. The provision of improved road linkages to Heales Road industrial estate and Ring Road, Freeway and Melbourne Road will improve functionality of port, provide for growth opportunities and ease traffic and amenity conflicts, while the improvement and upgrading of freight rail networks will greatly assist in reducing reliance on road freight movements.

Council is currently reviewing its Cycle strategy to provide for improvement of the existing cycle network through the study area and improve the connections and linkages with other trails. Future improvements and extension of pedestrian and cycle networks will need to be mindful of safety, industry and port operations and vehicle movements, restricted access areas and future Port growth.

Principles

- To maintain and enhance the efficiency and effectiveness of the Geelong Port as a multi modal transport interchange.
- To ensure efficient and safe movement of road and rail freight through, to and from the Port with connections to the rail network, Geelong Ring Road, Princes Freeway and Heales Road Industrial Estate.
- To ensure transport routes are managed to minimise amenity intrusion to nearby sensitive land uses.
- To maintain the functionality of key freight Port access routes.
- To provide cycle and pedestrian routes through the Port area that can link to broader, linear links around Corio Bay and other recreational trails which are safe and amenable.

Directions

- Advocate with Vic Roads and DOI the development of a Road Transport Plan to provide for road system upgrades, traffic conflict area improvements, freight transport linkages and consideration of residential amenity; and with other relevant agencies to upgrade rail linkages and facilities within the Port area and secure rail linkages to Lascelles Wharf.
- Continue to liaise with Vic Roads to facilitate the completion of the Freight Linkages Study and its implementation to improve links from the port to the Princes Freeway, Ring Road and rail lines and Heales Road industrial estate;
- Support development and changes to transport routes in the structure plan and surrounding area that seek to minimise conflict points (e.g. car and pedestrian level rail crossing points) and maintain the functionality of those routes so as to improve commuter safety and reduce freight movement times.
- Protect rail linkage opportunities as identified in the Structure Plan map.
- Where road or rail improvements are proposed as part of Port expansion and development, assessment of these improvements should include consideration to minimise noise and improve landscape amenity to nearby sensitive uses.
- Where road or rail improvements are required near sensitive uses, ensure that sufficient landscape and noise attenuation is provided to adjoining sensitive uses, particularly if these transport routes are identified for significant increased use with port expansion.
- Support the development of new cycle linkages to existing cycle/pedestrian networks within the Port area and improvement of the safety of the network consistent with the Structure Plan and Council's Cycle Strategy. Future improvements and extension of pedestrian and cycle networks will need to be mindful of safety, industry and port operations and vehicle movements, restricted access areas and future Port growth. New development in the Port should have regard to maintaining and enhancing these links.
- Support the improvement of public transport services including improvement of pedestrian linkages and bus connections to stations and improvement of passenger facilities local at stations.

3.3.6 Physical Infrastructure

Generally speaking, physical infrastructure to the Port is adequate to meet the future needs of the Port. This includes provision of adequate water, sewerage and stormwater.

There are a number of opportunities, however, to better utilise the existing infrastructure available to the Port to promote more ecologically sustainable development of the Port and adjoining industrial uses including reuse of wastewater and reclamation of stormwater for industrial and Port uses.

Principles

- To promote the principles of Ecologically Sustainable development in the future servicing of the Port and surrounding industrial areas.

Directions

- Support and facilitate where possible, programs which encourage industry to minimise the use of potable water and introduce wastewater and stormwater reuse projects.
- Promote programs that minimise non renewable energy consumption of Port and industry uses.

The above principles and directions for each of the key themes are summarised on the Structure Plan Map 2.

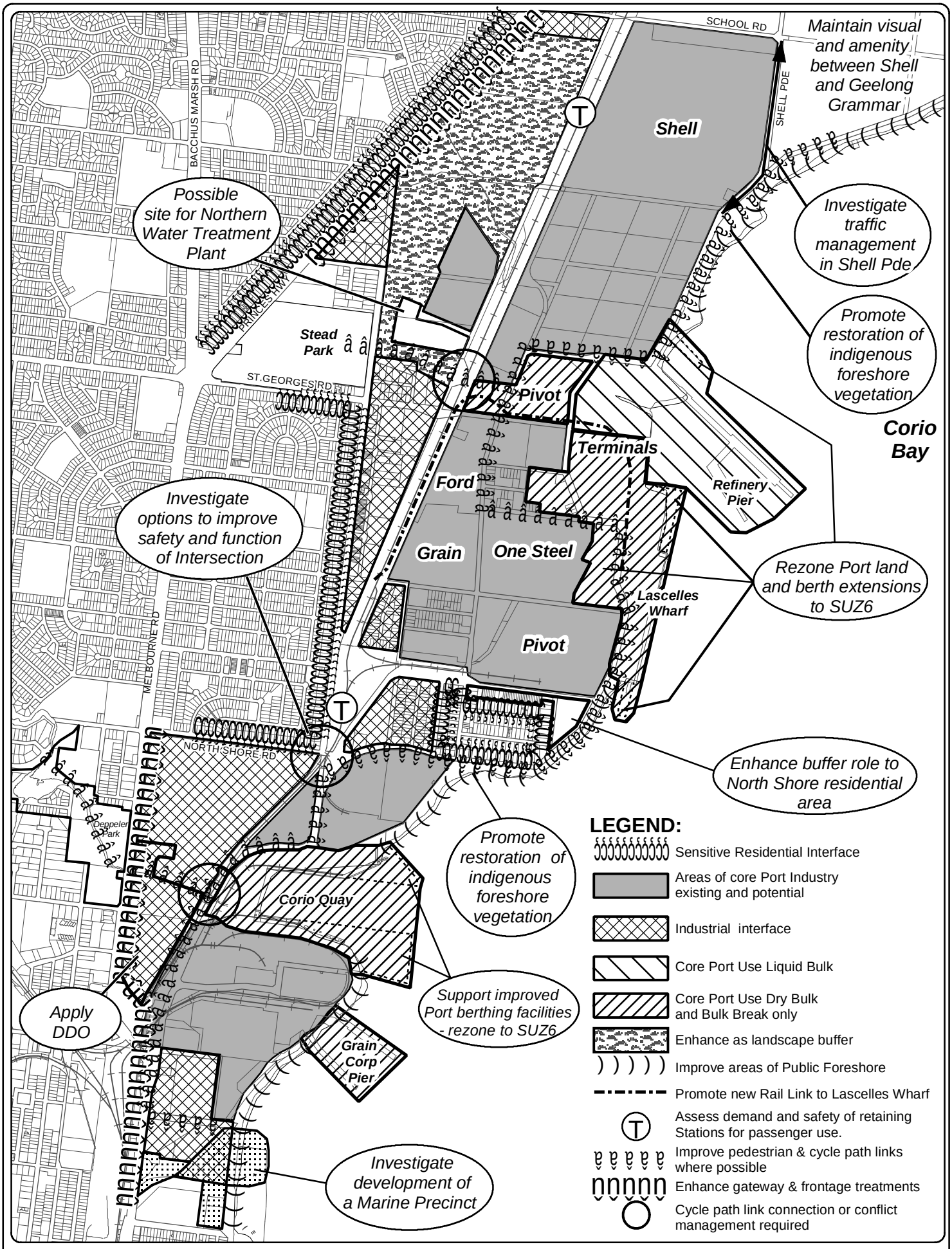
3.4 Precinct Plans

To address specific actions and directions for the Geelong Port Structure Plan area, specific Precinct Plans have been identified. These are based on the core use areas of the Port and the peripheral areas adjoining core Port facilities.

The objectives and implementation actions identified in these precinct plans are derived from the detailed discussion of issues in Part C of this structure plan and consultation with relevant stakeholders undertaken in the preparation of the structure plan.

These plans must be read in conjunction with the overall principles and directions detailed in section 3.3 of this Structure Plan.

Map 3 identifies the location of the Precincts.



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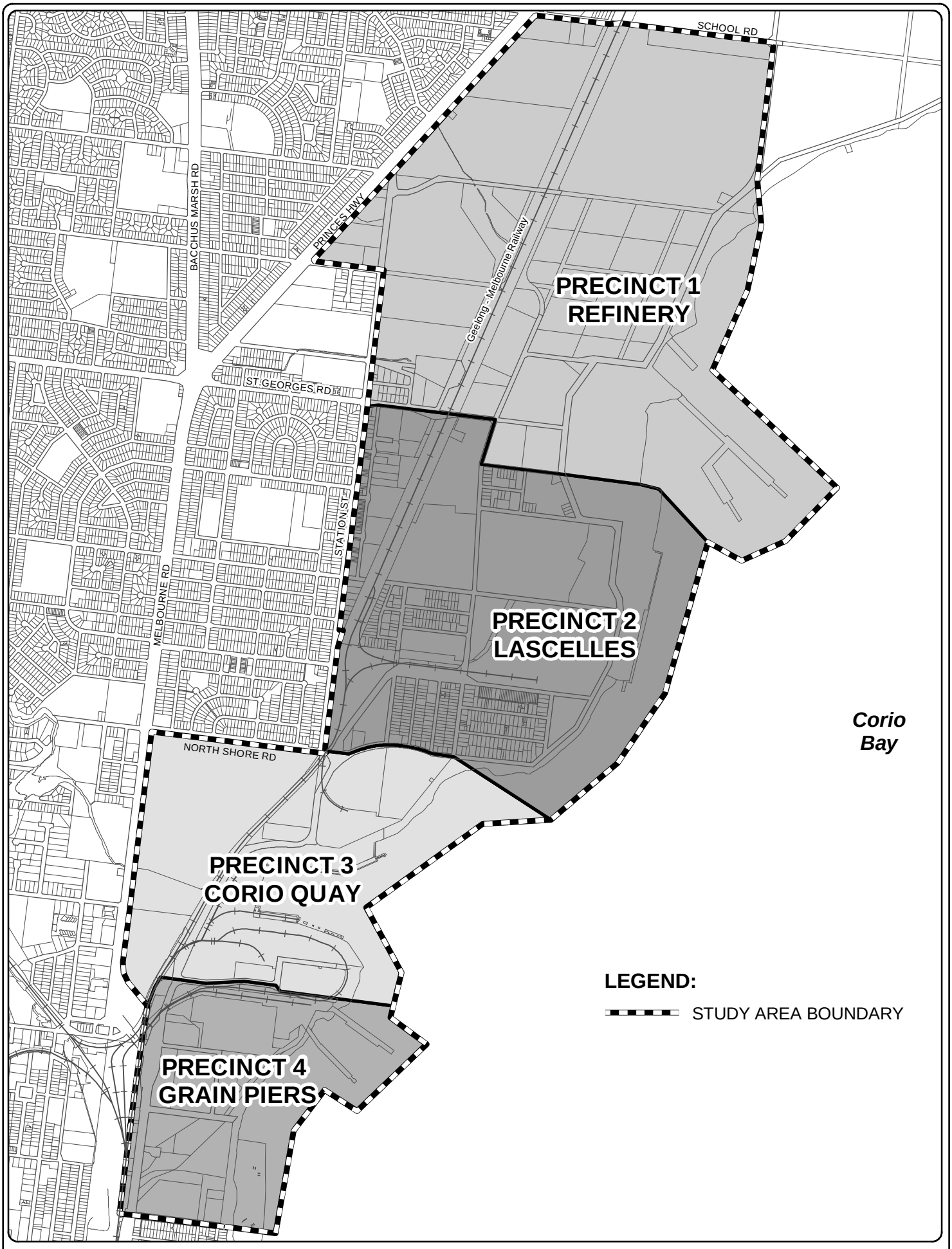
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STRUCTURE PLAN

PORT OF GEELONG STRUCTURE PLAN

Map No. 2



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PRECINCT PLAN IDENTIFICATION

PORT OF GEELONG STRUCTURE PLAN

Map No. 3

3.4.1 Refinery Pier

This precinct focuses around Refinery Pier which provides for liquid bulk handling. This includes "controlled port activities" which are defined by the Dangerous Goods Act as being potentially hazardous. Whilst Council has an overall objective within its Environmental Management Strategy to restrict the expansion and growth of toxic chemical storage around Corio Bay, it is acknowledged that the continued role of liquid bulk storage in this precinct is important to the economic function of the Port and industries in the Port area (e.g. Shell Refinery, Terminals).

Terminals Pty Ltd operates a bulk liquid storage facility adjacent to the pier on land leased from GeelongPort. This facility includes the storage of chemicals and hazardous goods. The site adjoins an undeveloped parcel to the south referred to as Oyster Cove which contains fill material to some depth and is potentially contaminated.

Surrounding industrial development is primarily Shell petroleum refinery and its associated land buffer areas held by Shell. Two sites between St Georges Road and Great Street have been identified as potential biodiesel operations.

The precinct abuts the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site and Geelong Grammar to the north east. The precinct also includes an area of land nominated by Barwon Water in conjunction with Shell for reclaimed water to be recycled for industrial and other uses.

The precinct objectives and implementation actions reflect the structure plan principles to restrict liquid bulk storage to the area on and immediately around Refinery Pier where existing infrastructure and industry depend upon the continued operation of liquid bulk storage.

Opportunity exists to better utilise Cuthbertson's Creek where it runs from Stead Park across private land to Corio Bay. This includes water retention for use at Stead Park and rehabilitating the creek environs north of St Georges Road. Where the creek bisects port land between St Georges Road and Greta Street an appropriate treatment of the waterway would provide for greater land utilisation.

The implementation actions detailed below provides for the establishment of local policy relating to the development and expansion of bulk liquid storage of dangerous goods (as defined under the Dangerous Good Act). The general principles for this policy include:

- Containing operations involved primarily in the bulk liquid storage of dangerous goods (liquids or gasses) to the designated 'Core port uses – liquid' area adjacent to Refinery Pier as identified in map 4;
- Require applications to be accompanied by a Health and Safety Management Plan (as identified at 3.3.2);
- Support proposals where consistent with an approved Master Plan developed through a community consultation process;
- Where a Master Plan has not been developed require applications to be supported by a detailed site and risk analysis including:
- Site 'dangerous goods class' zoning approach to identify areas for different classes of dangerous goods based on a population risk/hazard assessment and profile;
- Emergency Management Plan;
- Environmental Management Plans to identify on areas of ecological risk, site environmental planting (including identification and protection of significant vegetation)



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PRECINCT 1 - REFINERY

PORT OF GEELONG STRUCTURE PLAN

and works, contamination site management, site construction environmental management measures, trade waste and stormwater management consistent with best environmental management practices as appropriate.

- Land capability assessment including geological and hydrological reports identifying site stability, fill, impacts from rising sea levels, impacts on ground water, flooding and drainage and associated management measures.
- This policy does not apply to operations involved primarily in manufacturing or production activities that may involve the storage of dangerous goods in dry form or liquids/gasses such as Shell (petroleum based product) or Incitec-Pivot etc however the expansion of dangerous goods storage facilities at sites outside the identified the chemical precinct must meet required buffer distances and other environmental requirements including provision of a Health and Safety Management Plan.
- In general new operations involving the substantial on site storage and production of dangerous goods should be encouraged to locate within the Refinery Precinct.

Objectives

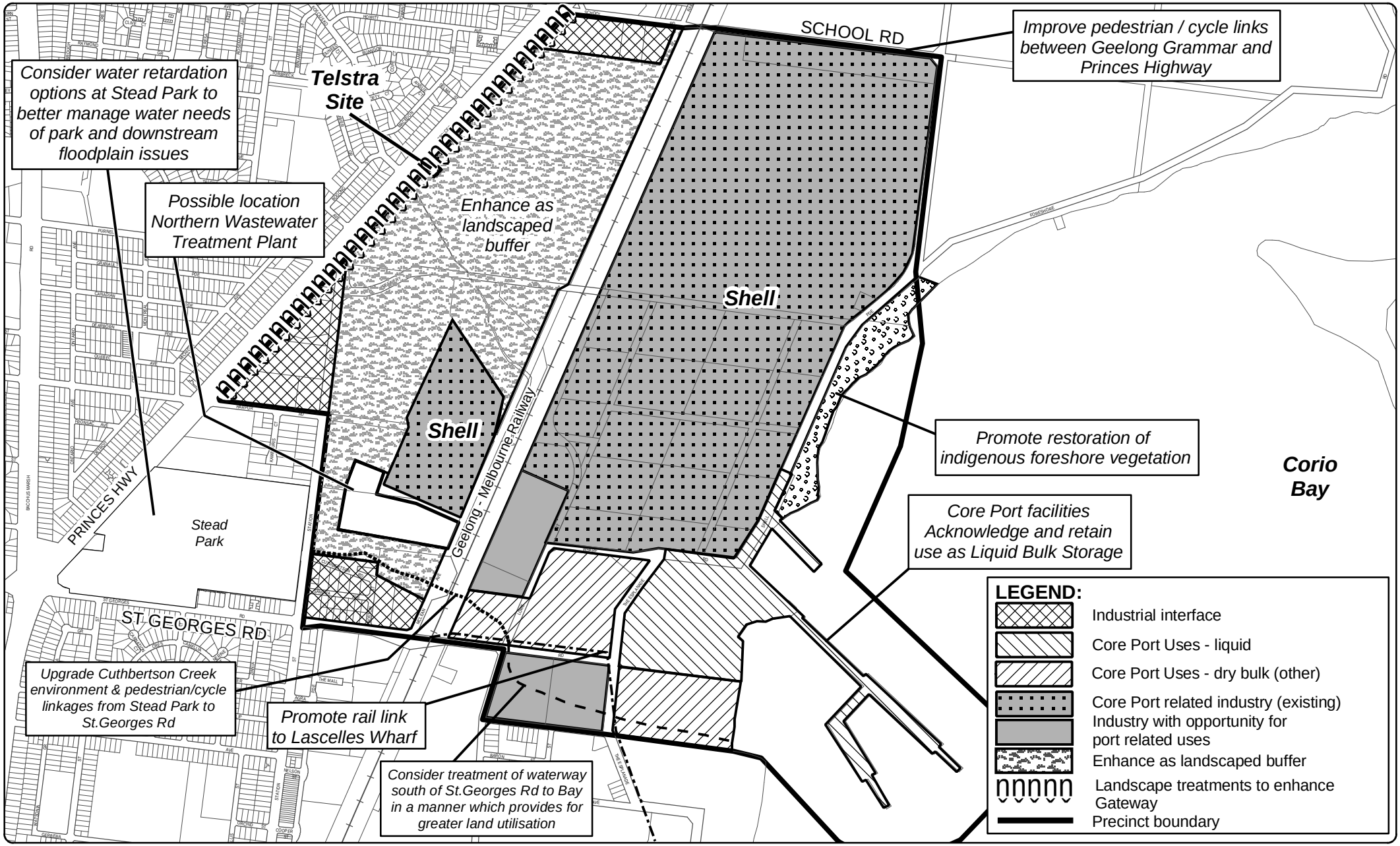
- To retain the use of Refinery Pier and the core of the port facility in this Precinct for Liquid Bulk Storage, acknowledging that it its Council's preferred position to restrict the expansion and growth of toxic chemical storage in Geelong.
- To ensure that new use and development in this precinct considers the impacts on the health, environment and safety of the community of Geelong.
- To improve the environment and landscape that surrounds the core port facility, notably along the Corio Bay foreshore to the north of Refinery Pier and along the Princes Highway gateway.

Implementation Actions

- Develop and apply a local policy limiting the development and expansion of bulk liquid storage of dangerous goods (primarily liquids and gasses as defined under the Dangerous Good Act) to the designated 'Core port uses – liquid' area adjacent to Refinery Pier as identified in Structure Plan map 4 and based on the general principles identified in the Structure Plan.
- In general new operations involving the substantial on site storage and production of dangerous goods (as defined under the Dangerous Good Act) are encouraged to locate within the Refinery Precinct.
- Refinery Pier is to remain the primary wharf facility for the handling of liquid dangerous goods and chemicals.
- Require applications for new use and development in this precinct to have particular regard to Council's Strategic Health Plan and Environment Management Strategy.
- Ensure land forming part of the Shell refinery, west of the rail line, as detailed on the Precinct Plan is maintained as a landscaped buffer area having regard to the sensitive residential land uses west of the Princes Highway and the role of the highway as the main gateway to Geelong.
- Any development along the Princes Highway should have specific regard to maintaining a high amenity landscape as a gateway to Geelong.
- Assess applications for new development and works associated with this precinct with particular regard to nearby sensitive land uses including the Norlane and Corio residential

areas and Geelong Grammar School, noting that it has a significant residential population.

- Where appropriate, ensure new use and development proposals include ecological risk assessments and management programs to address potential impacts on the foreshore and marine environment.
- Investigate options to work with local industry to restore sites of biological significance along the public foreshore areas and other sites as identified on Map 10.
- Investigate the appropriate treatment of the Cuthbertson's Creek waterway north of St Georges Road to include environmental rehabilitation and revegetation and potential water reuse at Stead Park; and south of St Georges Road to allow for greater land utilisation for Port activities.
- Support the Barwon Water Northern Water Plant project to provide reclaimed water for industrial and other uses where any off site impacts can be managed to meet EPA requirements and the facility does not detrimentally impact community health and amenity. Ensure the siting and development of the project makes a positive contribution to the landscape and environmental setting of the Shell buffer area.
- Capitalise on opportunities to better link the recreation path along the foreshore areas and Port area with Stead Park to the west.
- Instigate changes to the Greater Geelong Planning Scheme to identify Geelong Grammar School in a Special Use zone so as to better identify and clarify the sensitive use of this land.
- Provide safer and more amenable pedestrian and cycle links between Geelong Grammar and the broader Geelong Community, notably through better cycle and pedestrian paths along School Road.
- Pending development of a Road Transport Plan and implementation of linkages study investigate opportunities to work with VicRoads to implement short term traffic solutions to truck speeds, parking/littering along Shell Parade adjacent to Geelong Grammar.



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PRECINCT 1 - REFINERY

PORT OF GEELONG STRUCTURE PLAN

Map No. 4

3.4.2 Lascelles Wharf

This Precinct includes the core port facility, Lascelles Wharf, which is used primarily for dry bulk handling, including fertiliser and proposed soy protein. Incitec-Pivot pump large quantities of sulphuric acid from the wharf to their Seabreeze Parade site. Future expansion of this wharf is proposed to increase the handling capacity of the Wharf. Extension of the wharf to the south has the potential to impact upon the amenity of North Shore residents and GeelongPort and Department of Infrastructure are encouraged to undertake effective community consultation to manage potential amenity impacts.

The precinct also includes a number of industrial areas that complement the Port activities, including Incitec Pivot, One Steel, Ford and grain storage facilities. Other peripheral industrial activities exist including smaller service industrial areas to the south west, adjoining the Norlane and North Shore residential areas.

The precinct includes the residential area of North Shore and abuts the Norlane residential area which sits outside the structure plan study boundary.

The strip of land on the south side of Seabreeze Parade between Seabeach Parade and Phosphate Road owned predominantly by Incitec Pivot should be maintained and enhanced by Incitec Pivot as a landscaped buffer between Incitec Pivot operations and the North Shore residential area. The further development of privately owned residential sites in this area is not encouraged. Over time Incitec Pivot is encouraged to purchase the remaining dwellings to augment the role of the buffer. The Incitec Pivot office site bounded by Phosphate Road, Seebreeze Parade and The Esplanade should be maintained as a focus for office/staff and administrative activities associated with the Incitec Pivot operations rather than for industrial activities and the area south of the carpark maintained as a landscape buffer.

Objectives

- To support the future expansion of Lascelles Wharf for dry bulk handling, particularly for non hazardous goods.
- To reduce the amenity conflicts between existing industrial and port uses with nearby residential areas, acknowledging that both uses have rights to co-exist into the future.

Implementation Actions

- Support expansion of Lascelles wharf facilities including application of Special Use zone 6. GeelongPort and DOI to ensure appropriate consultation with the North Shore community to ensure any amenity impacts associated with a southern extension are properly managed.
- Instigate changes to the Greater Geelong Planning Scheme to recognise the areas of smaller, service industrial development with sensitive interface to residential areas as potential areas of Industrial 3 zoning.
- Support the long term development of a new rail spur to connect the main Melbourne – Geelong Rail line with Lascelles Wharf and upgrading of rail connection standards generally.
- IThe Incitec-Pivot buffer on the south side of Seabreeze Parade should be maintained and enhanced as a landscaped buffer. The further development of privately owned residential sites in this area is not encouraged. Over time Incitec Pivot is encouraged to



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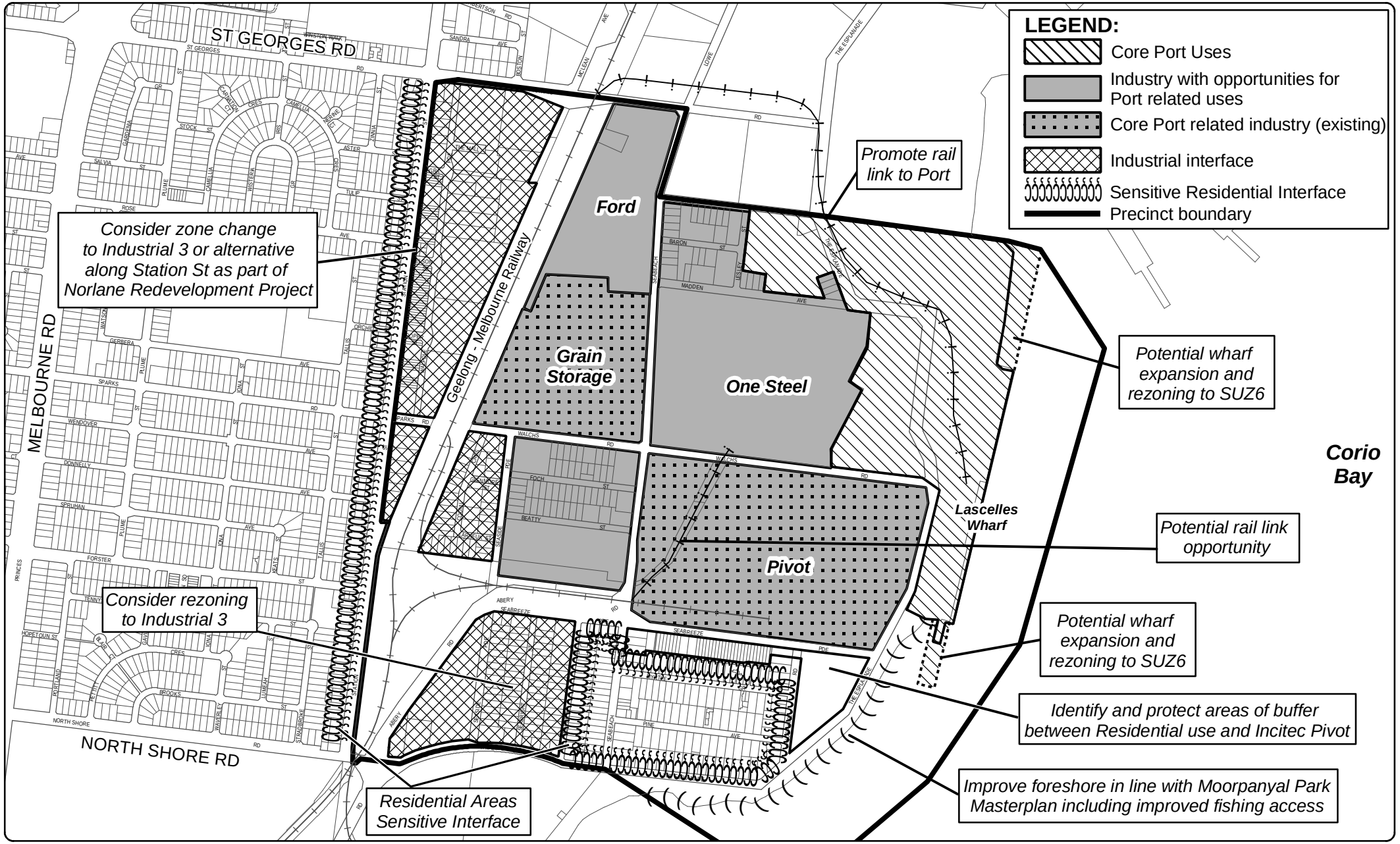
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PRECINCT 2 - LASCELLES

PORT OF GEELONG STRUCTURE PLAN

purchase the remaining dwellings to augment the role of the buffer.

- The Incitec-Pivot office site should be maintained as an administrative focus associated with the Incitec-Pivot operations rather than for industrial activities and the area south of the carpark maintained as a landscape buffer.
- Continue to undertake improvements to the public foreshore areas, notably those that accord with the Moorpanyal Park Masterplan.
- Maintain a low intensity housing development in the north shore area acknowledging the on going conflict between industrial and residential uses.
- Investigate traffic management treatments to discourage heavy vehicle movements along The Esplanade and through the residential area of North Shore.
- Work with the North Shore community in partnership with DOI and Geelong Port to develop a Comprehensive Buffer Strategy and Community Development Plan for the North Shore residential area.



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PRECINCT 2 - LASCELLES

PORT OF GEELONG STRUCTURE PLAN

Map No. 5

3.4.3 Corio Quay

This precinct includes the core port facility of Corio Quay north and south berths. It also includes log storage operations of AMS and SPE which operate on port held land and chipping operations of Midway that operate on adjoining industrial land and feed directly to and from the port by conveyor.

The precinct objectives and actions have regard to adjoining sensitive and industrial uses acknowledging the use of these areas as buffers to the core port facilities.

The precinct acknowledges that there are a number of significant industries in the area that do not have direct link to the Port but provide complementary activity. This includes the existing Ford assembly plant west of the rail line.

The interface area to Melbourne Road in this precinct is to be retained within an Industrial 2 zoning primarily to retain the buffer role of this site to other Port activity and Port related industry. This area provides important economic activity to Geelong through industrial activity that is currently not related to the Port, notably Ford motor plant which should be retained within the Industrial 2 zoning. Areas south of Cowies Creek have the opportunity to be used for a variety of employment generating industrial activities rather than just for Port or port related industry and which can add to the vitality of the gateway. The retention and use of larger holdings of this land is important to retaining a valuable land use resource to the economy of Geelong.

This interface area also has significant exposure to the Geelong – Melbourne Road. Development in this area needs to have careful consideration to both the need to protect the role and function of the port as a significant economic resource and the desire of Council to provide an attractive gateway frontage to North Geelong from the Princes Highway/Melbourne Road and provide for major employment generating activities and opportunities for residents of northern Geelong. Development along this gateway frontage needs to ensure that it provides a high amenity - active frontage treatment through high quality landscaping and built form treatments rather than large, bulky industrial buildings or extensive open storage of raw product that can have amenity impacts in terms of visual amenity, dust, odour and grit. A Design and Development Overlay is recommended to encourage active frontage building design and high quality built form and landscape outcomes. It is also important to ensure that site development include maintenance of a strategic cycle link opportunity along Cowies creek and the environmental rehabilitation of Cowies Creek.

Objectives

- To support the future expansion of Corio Quay for dry bulk and break bulk handling in a manner which acknowledges the proximity of nearby residential areas of North Shore and Norlane.
- To support the expansion of industrial uses on existing industrial zoned land that do not conflict with the current and identified future development of the Port.
- To encourage activities which provide major employment opportunities.
- To support industrial and other permitted land use activities along Princes Highway/Melbourne Road which provide visual interest and activity but do not conflict with Port operations.
- To improve the environment and landscape interface of the Port area with the Princes Highway/Melbourne Road gateway.
- To reduce the amenity conflicts between existing industrial and port uses with nearby



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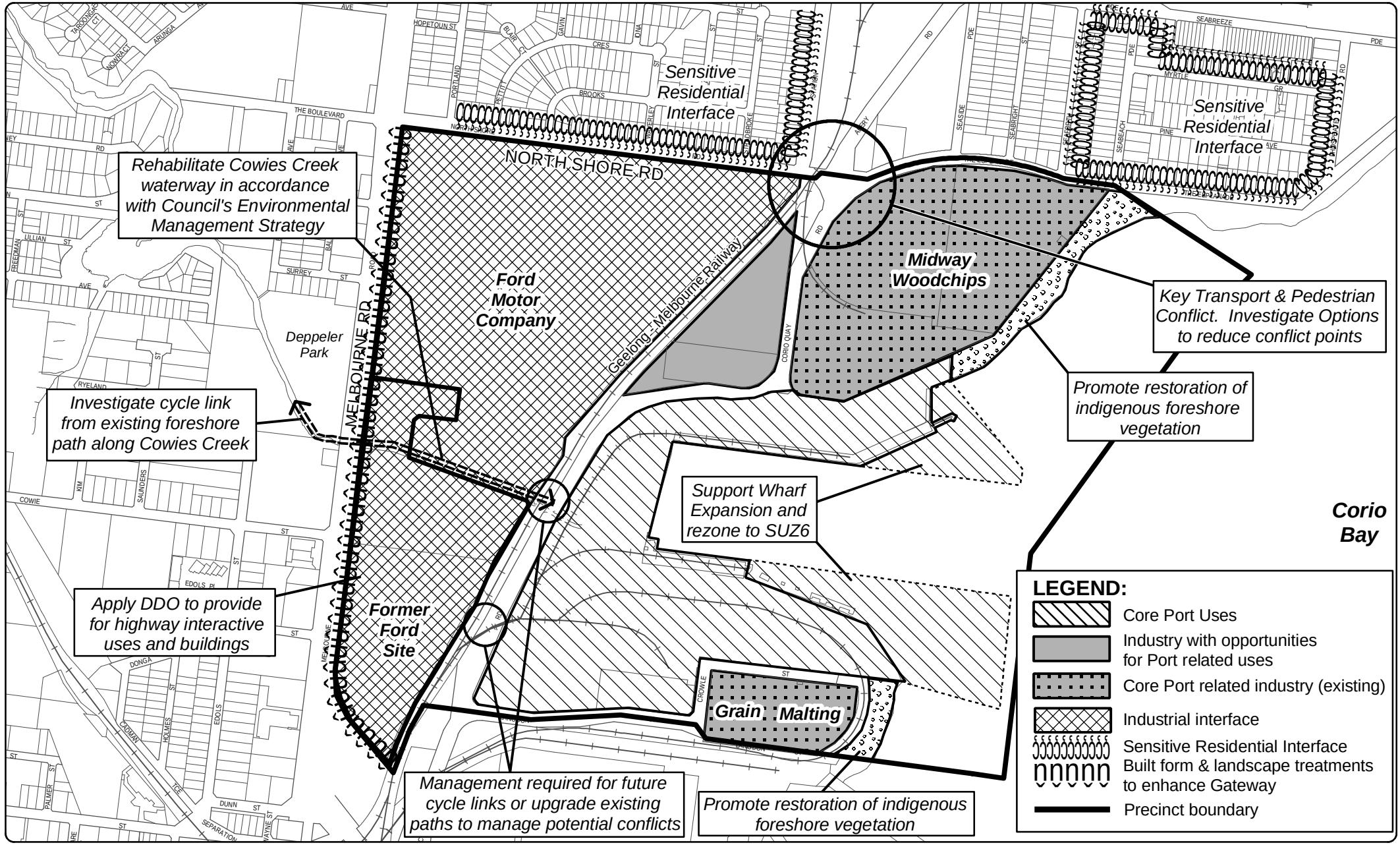
PRECINCT 3 - CORIO QUAY

PORT OF GEELONG STRUCTURE PLAN

residential areas, acknowledging that both uses have rights to co-exist into the future.

Implementation Actions

- Support the expansion of core port facilities including extension of Corio Quay north and South berths for break bulk and dry bulk handling.
- Ensure port related land and interface areas that have potential for port related industry are retained in larger holdings so as not to conflict with the potential future use of the land for port related industry. Buildings developed in this area should have the capacity to be adapted over time for use by the Port.
- Retain the existing Industrial 2 zone core port industry areas and port buffer areas.
- Develop the interface area along Melbourne Road having specific regard to maintaining an active built form frontage and high amenity landscape as a gateway to northern Geelong and as an interface to the Port with potential for a range of high employment industrial and other zone permitted uses which do not impact upon Port operations.
- Introduce a Design and Development Overlay to encourage a vibrant and active built form and landscaping treatments to Melbourne Road.
- Ensure development of the former Ford site south of Cowies Creek provides for the environmental enhancement of Cowies Creek and a strategic cycle path linkage along Cowies Creek from Melbourne Road.
- Support retention and enhancement of landscaping and earth bunding treatments on the Midway site and development of other site treatments that assist in the mitigation of dust and wind blown material from the Midway site.
- Ensure issues of potential conflict with the Port and the associated transport facilities (notably the intersection or rail and road routes at North Shore Road and Station Street) are further addressed in future projects such as the Norlane Renewal Project and Road Transport Plan.
- Continue to undertake improvements to the public foreshore areas, notably those that accord with the Moorpanyal Park Masterplan.
- Identify and implement opportunities to better link the recreation paths along the foreshore and port areas with Cowies Creek and recreation areas to the west (where physically possible).
- Investigate opportunities with adjoining industrial land uses to improve the quality of stormwater run-off entering Cowies Creek and seek industry involvement in the rehabilitation of this waterway.



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PRECINCT 3 - CORIO QUAY

PORT OF GEELONG STRUCTURE PLAN

Map No. 6

3.4.4 Grain Piers

The two piers in this precinct of Geelong Port provide separate, specific uses. The northern pier is a grain handling facility leased to Graincorp for export of primary produce.

The southern pier, was previously used for grain handling but is currently being refurbished for handling of general goods and mooring of tug boats, previously moored at Rippleside Pier.

A circular rail spur connects the Port to the main rail line enabling efficient transfer of goods to the Port.

A number of associated industrial uses are located within this precinct, notably grain storage and handling as well as a malting plant utilising the local produce brought into the port area. These activities are adjacent to Industrial 2 zoned land accommodating non-Port related activities in Mackey Street including the Classweave site, Pilkington factory buildings and the former power station site. These areas form an important buffer to Port industry.

To the south of these sites sits Osborne House. The Osborne House Master Plan identifies the opportunity for the establishment of a major marine precinct providing for a long term use of the site and strong employment opportunities and an appropriate interface between industry and residential areas south of Swinburne Street. The industrial areas identified above in Mackey Street also have the opportunity to be used for marine related activity where this does not interfere with Port related activities without requiring rezoning. The Shell service station site also has the potential to be included into the marine precinct complex. The following guiding principles are identified as a basis for progressing this opportunity:

- Applying a purpose built zone such as the Special Use Zone to the existing Osborne House site and associated depot and Council land (and potentially Shell service station site) which can be structured to not detrimentally impact on port and related industry activities and ensure a 'step down' approach and appropriate interface with industry to the north and residential activities to the south. This zone would extend to any reclaimed land and adjacent water as required to facilitate marine industry and associated berthing facilities;
- Retention of existing industrial zones on properties along Mackey Street;
- Using industrial zoned land in Mackey Street and reclaimed areas for marine industry, storage and handling activities;
- Ensuring the entire 300m Barrett Burston buffer is within an industrial zone (involves extending Industrial 1 zoning south by approximately 12m);
- Limiting residential/accommodation use to the proposed Osborne House rezoning area (excluding reclaimed areas) for hotel/short term accommodation and/or a caretakers residence only;
- Any tourist based retailing to be limited to a small area linked to the proposed hotel operations and located within the Osborne House rezoning area (excluding reclaimed area);
- Ensuring design process requires Mackey Street to be used to access industrial and storage marine based activities only. Access to tourist and marine related retail and commercial activities and public areas including the Osborne House rezoning area to be via appropriate access treatments off Melbourne Road or Swinburne Street only;
- Ensuring design of accommodation components on the Osborne House rezoning area considers potential for noise, odour and dust from nearby industry and maximise separation from industry. Consideration should be given to application of S173 agreement or similar acknowledging adjoining industrial and port activities and potential for nuisance from odour, dust and noise;
- Require preparation of an Environmental Management Plan and a Reverse Amenity Impact Report.



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PRECINCT 4 - GRAIN PIERS

PORT OF GEELONG STRUCTURE PLAN

- Ensuring that the design, size and location of reclaimed area and berthing facilities do not impact upon shipping operations;
- Provision of public access to public foreshore areas of Osborne House zoning area (excluding reclaimed area);
- Any rezoning including any related policy development to be undertaken in conjunction with a planning permit pursuant to S96A of the Planning and Environment Act 1987 and any EES process.

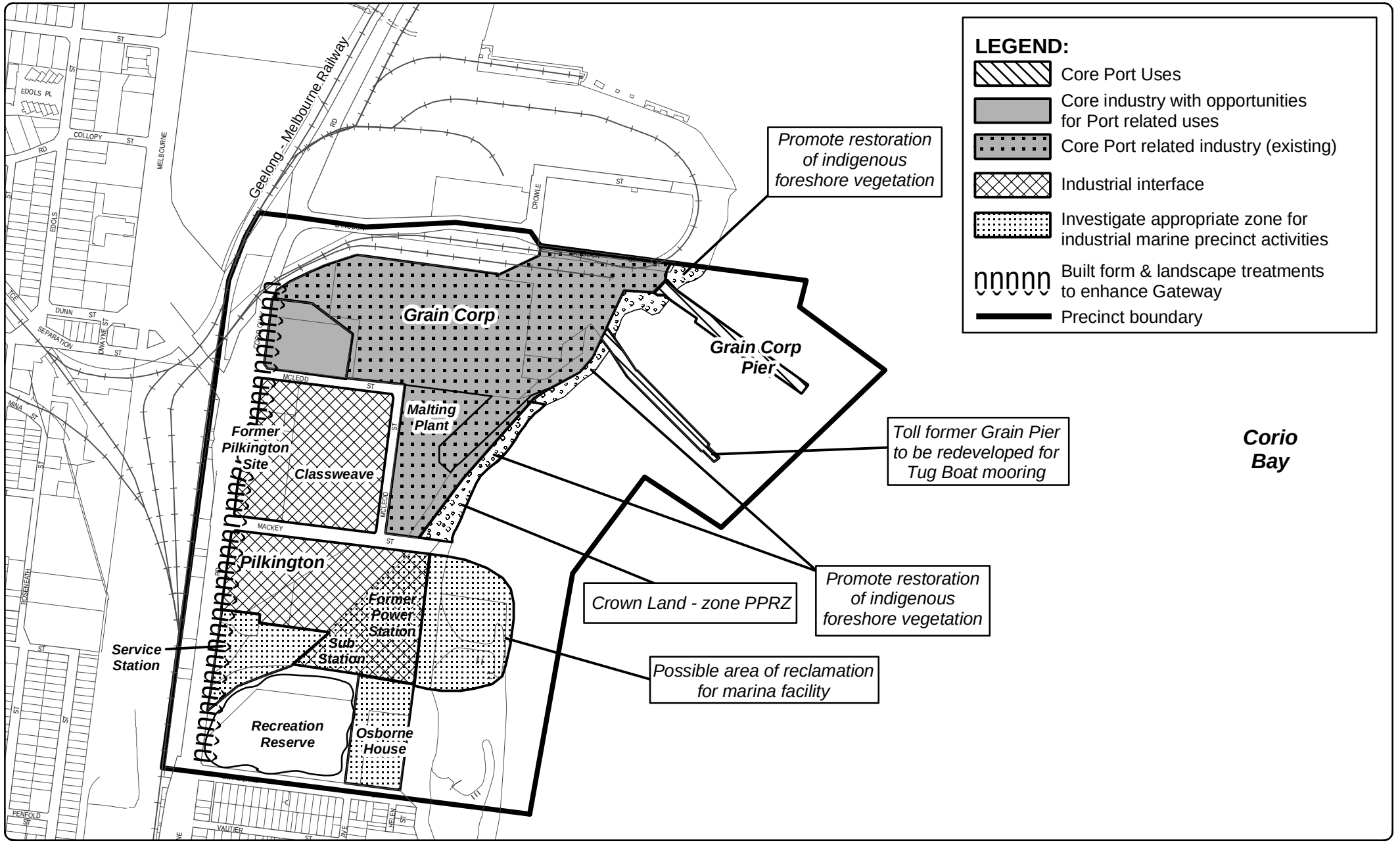
The area of crown land reserve to the east of the Graincorp access road (CA 58A) should be zoned PPRZ consistent with other crown land foreshore reserves within the Port area. It is acknowledged that this area does not provide any strategic pedestrian linkages and should continue to be managed and rehabilitated by the state government as an area of restricted access.

Objectives

- To support the redevelopment of the south grain pier for tug boat and general use of Port needs.
- To support the expansion of complementary industrial uses on existing industrial zoned land that do not compromise the future development of the Port.
- To improve the environment and landscape interface of the port area with the Princes Highway gateway.
- To reduce the amenity conflicts between existing industrial and port uses with nearby residential areas, acknowledging that both uses have rights to co-exist into the future.
- To support the development of interface activities to the south of the precinct that can provide suitable buffer between North Geelong and the Port area.
- To ensure that public foreshore areas are appropriately managed, vegetated and rehabilitated.

Implementation Actions

- Support the development of a marine precinct around Osborne House consistent with the Osborne House Master Plan in a manner which can ensure a 'stepped down' approach, do not impact upon Port development and provide an appropriate interface with industry to the north and residential activities to the south and principles identified in the Structure Plan.
- Ensure issues of potential conflict with the Port and the associated transport facilities (notably road and rail crossing points) are further addressed in future projects and infrastructure strategic plans.
- Development along the Princes Highway should have specific regard to maintaining a high amenity landscape as a gateway to Geelong.
- Continue to undertake improvements to the public foreshore areas in conjunction with port operators and adjoining industrial land users.
- Rezone the area of crown land reserve to the east of the Graincorp access road (CA 58A) from Industrial 2 to Public Park and Recreation Zone recognising that the area be rehabilitated and managed as an area of restricted access.



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PRECINCT 4 - GRAIN PIERS

PORT OF GEELONG STRUCTURE PLAN

Map No. 7

PART B IMPLEMENTATION AND REVIEW

1. Implementation of the Geelong Port Structure Plan

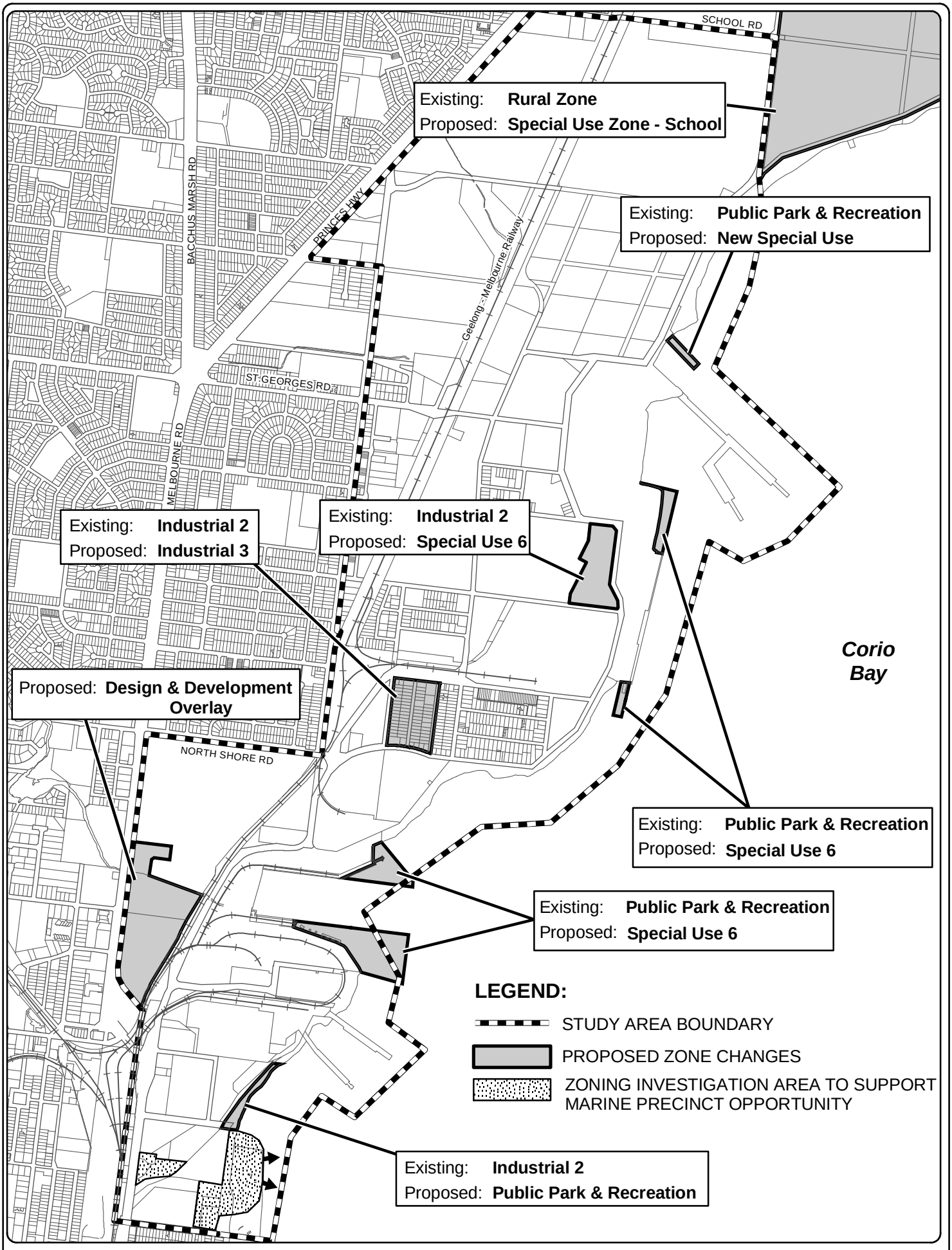
This Structure Plan provides a framework for development in the Geelong Port area over the next ten years with identified policies and strategies to provide a basis for future decision-making.

The Implementation and Review Section identifies Review provisions and key Planning Scheme alterations, or supporting strategic work, necessary to attain the principles and directions identified in the Structure Plan including:

- Introduction of Planning Policy:
- Application of Zones and Overlays;
- Further strategic work required to support additional planning controls;
- Other Actions critical to attaining key principles directions.

Implementation and Review Plan	
Using policy and the exercise of discretion	**Stage 1 implementation (12-18 months):** ▪ Apply planning principles of the Municipal Strategic Statement which reflects the directions and principles of Part A of the Geelong Port Structure Plan, including the Structure Plan as a reference document, in the Greater Geelong Planning Scheme. ▪ Develop and apply a local policy limiting the development and expansion of bulk liquid storage of dangerous goods (as defined under the Dangerous Good Act) to the identified area adjacent to Refinery Pier and based on the general principles identified in the Structure Plan.
Applying Zones and Overlays Refer Map 8	**Stage 1 implementation (12-18 months):** ▪ Apply SUZ6 to land owned by GeelongPort used for port related activity. ▪ Apply SUZ6 to identified wharf expansions. ▪ Apply SUZ6 to the existing jetty north of Refinery Pier to identify it as an asset of the Port and part of the Refinery Pier precinct. ▪ Apply Industrial 2 zone to core industrial uses close to port activities. ▪ Apply Industrial 3 zone to identified peripheral industrial areas adjacent to residential areas which comprise smaller holdings and are not generally used for port related industry. ▪ Apply PPRZ to land crown land along the foreshore not currently designated as such.

Applying Zones and Overlays **Cont'd**	▪ Apply a Design and Development Overlay on the former Ford site to encourage a vibrant and active built form and landscaping treatments to Melbourne Road. **<u>Stage 2 Implementation Plan (1 - 3 years):</u>** ▪ Provide support for the development of a marine precinct consistent with the Osborne House Master Plan via a S96A amendment/permit process and EES process which involves the creation of a purpose structured zone consistent with the Structure Plan and identified principles including maintaining industrial zonings along Mackey Street. ▪ Apply a new SUZ to Geelong Grammar School to better identify this as a sensitive land use close to the port activities and to better enable the functions of the school to develop within the provisions of the planning scheme. Consideration to be given to retaining a Farming Zone or provide for buffer treatments within SUZ adjacent industrial zones. zones.
Undertaking further strategic work	▪ Liaise with the Department of Infrastructure and GeelongPort to finalise the Port of Geelong: Port Land Use Strategy (PLUS) by the end of 2007. ▪ Within the next 2 years work with GeelongPort and DOI and local community to develop a Comprehensive Buffer Strategy and Community Development Plan for the North Shore residential area. ▪ Over the next 12 months continue to implement the Osborne House Master Plan including facilitating implementation and continuing to liase with key stakeholders.
Other Actions	▪ Continue assistance from Council's Economic Development Unit to industry seeking to establish import/export reliant businesses in the vicinity of the Port. ▪ Within the next 12 months continue to liaise with Vic Roads to facilitate the completion of the Freight Linkages Study and its implementation; ▪ Within the next 12 months liaise with Vic Roads, Victrack and DOI to investigate options to develop a Road Transport Plan to provide for road system upgrades, traffic conflict area improvements, freight transport linkages and consideration of residential amenity; and with other relevant agencies to upgrade rail linkages and facilities within the Port area and secure rail linkages to Lascelles Wharf.



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PROPOSED ZONE & OVERLAY CHANGES

PORT OF GEELONG STRUCTURE PLAN

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Other Actions (Cont'd)	▪ Advocate for state agencies, such as the EPA, WorkCover and the Dept. of Human Services, to provide greater license monitoring of port industry and port operations and enforcement of relevant legislation as necessary to maintain community health and safety. ▪ Liaise with industry, managers and users of piers and berthing facilities regarding Council's Stormwater Management Plan and Environmental Management Strategy 2006-2011and the potential risks to marine biodiversity and environment generally identified in these Plans. ▪ Encourage EPA to develop management plans with industry for known contaminated sites. ▪ Investigate opportunities to work with VicRoads to implement short term traffic solutions to truck speeds, parking/littering along Shell Parade adjacent to Geelong Grammar.

2. Review of Structure Plan

The Structure Plan is to be reviewed initially in 3 years time to include examination of the Point Henry area in cooperation with DOI and GeelongPort and then 5 years thereafter to examine trends in industrial land take up and development, projected port growth, industry needs and opportunities, continuing land use conflicts and changes in legislation and land management practices etc that may require examination of specific directions and recommendations.

PART C BACKGROUND REPORT

1. Introduction

1.1 The Port of Geelong and Study area

The Port of Geelong is located on the shores of Corio Bay and centres on the industrial and residential suburb of North Shore. It is situated to the east of the Princes Highway and approximately 3km to the north of the centre of Geelong Map 1 illustrates the location of the study area.

Geelong Port's major facilities are owned by Ports Proprietary Ltd and managed by GeelongPort. In addition, Graincorp owns and operates a specialist grain pier. The Victorian Regional Channel Authority (VRCA) is the port manager for the port waters of Geelong. Parks Victoria manages the waters outside the defined VRCA channel port waters. The sea bed, up to the high water mark, remains the property of the Department of Sustainability and Environment. Most foreshore areas are also retained as Crown Land, with some land, including Lascelles Wharf and Corio Quay being privately held up to the high watermark.

The assets of the Port stretch from Point Wilson in the north to Point Henry in the east. This structure plan addresses all Port facilities in the North Geelong / North Shore area but does not address Point Henry. Point Henry's primary land use activity is the Alcoa operations which are significant to the operations of the port but are geographically isolated from the rest of the port and largely contained and buffered by the Cheetham saltworks and conservation areas.

There are 14 berths available including specialist and general cargo berths which cater for ships with a draught of up to 12.3 metres.

There are four main facilities addressed by this structure plan:

- Refinery Pier (4 berths; liquid bulk),
- Lascelles Wharf (3 berths; break and dry bulk),
- Corio Quay: North and South (4 berths existing, additional 2 currently proposed; break and dry bulk),
- Grain Piers: Geelong Port Grain Pier (2 berths; dry bulk) and Graincorp Grain Pier (1 berth dry bulk). It is noted that the new pier was originally designed and constructed for loading woodchips.

There are numerous general purpose as well as specialist storage and processing facilities located on and adjacent to land owned and managed by Toll GeelongPort. Transport of commodities to or from the port is generally by road or rail depending on the type of goods being transported. Some goods, notably timber and grain are carried directly to the Port by rail. Oil is processed at the Shell refinery located at the port.

Significant industries are located in the study area including Shell oil refinery, Midway hard wood-chipping plant, SPE (Management Pty Ltd) Softwood wood chips and associated products, Graincorp grain handling, Incitec Pivot fertiliser manufacturer, ADM and Barrett Burston Malting companies, Orica chemical and fertiliser manufacturer, Bassell plastics manufacture, Terminals bulk chemical storage and Volclay clay and mineral products.

Other significant, but non port related industries in the immediate vicinity include Ford Motor Company, Pilkington Glass manufacturer and One Steel wire products. There are also a number of smaller, service industrial businesses located in the study area, generally around the North Shore residential area.

In addition the Port provides a number of ancillary functions and facilities including facilities for the Australian Quarantine Inspection Service (AQIS), the Australian Marine Oil Spill Centre (AMOSC), both located at Corio Quay and tug boat mooring at Graincorp Pier 1.

There are other land uses in the study area that have significant impact on the function of the area, notably the North Shore residential precinct, Moorpanyal Park and foreshore areas.

1.2 Port Use Definitions

Geelong Port provides transport and cargo handling facilities for three main forms of cargo, Break Bulk, Dry Bulk and Liquid Bulk. These forms of cargo can be generally be defined as follows[1]:

1. Break Bulk Goods

This is generally non bulk cargo which is not in containers. This may include timber (logs and woodchips), steel, components and vehicles. Geelong Port has break bulk handling primarily based at Corio Quay where a variety of break bulk goods are transported depending upon current demand. Current trading includes timber (logs, cut timber and woodchips), steel and steel products. Goods are usually transported on and off ships through fork lift and crane facilities.

2. Dry Bulk Cargo

This is non liquid cargo transported and handled in bulk. Goods relevant to Geelong Port include grain, cement and fertiliser. These goods are usually loaded through conveyor belt direct to and from the ship or crane bucket scoop as located at Lascelles Wharf.

3. Liquid Bulk Cargo

This includes any liquid carried and handled in bulk form. Typically this includes crude oil, refined petroleum products and chemicals. Generally such products can be classed as dangerous or hazardous goods, but may include non – hazardous liquids such as bitumen and palm oil. Refinery Pier provides the main location at Geelong Port for the handling of such goods although Incitec-Pivot pump large volumes of sulphuric acid from Lascelles Wharf to their Seabreeze Parade plant.

The Port study area can be generally defined into three economic areas of use:

- core port land,
- port related industrial land (existing and potential), and
- interface areas.

Core port land is that owned by Toll Holdings and intended to be used for core Port uses including the handling and storage of cargo entering and leaving the Port. Core Port land is also used for a number of Port management uses including Toll management offices and staff facilities, offices of AQIS and the Australian Maritime Oil Spill Centre.

Some sections of Core port land are leased to other cargo handling bodies such as SPE (Softwood Plantation Exporter) and the International Malting Company.

Core Port land is currently zoned Special Use 6 under the provisions of the Greater Geelong Planning Scheme, corresponding to land that was sold to Toll by the State Government in the late 1990s.

[1] Source: Victorian Ports Strategic Study: Final Report January 2000 – Dept. of Infrastructure and Dept. Treasury and Finance.

Port related Industrial Land (existing and potential) is a term used to define the industrial area that surrounds and supports the function of the core port facilities. Not all industrial land in the study area is directly related to the use the port, or is it specifically required to by the current provisions of the Greater Geelong Planning Scheme. Industrial land around the core port facilities is generally zoned Industrial 2 under the provisions of the planning scheme. This land is generally held in large private ownerships such as Ford Motor company, Midway timber products, Grain Corp, Incitec – Pivot fertilisers and OneSteel. Not all of the industrial uses have a direct relationship to the Port, but all provide effective cohabitation as industries and uses requiring appropriate buffers to residential areas or other sensitive uses due to amenity or health and safety protection.

As such Port related industrial land is land that provides opportunity to link directly to the Port and support the port functions either directly or provides appropriate buffer between the core port functions and sensitive land uses (e.g. residential uses) of Geelong.

It is not possible to zone land as port or non port related industrial land within the provisions of the planning scheme as market forces will direct what land is used for port related industry as opposed to non port related industry. Identification of port related industry and non port industrial land within the structure plans maps is to identify current land use patterns around the port only.

Interface areas are areas that provide interface to residential areas of Norlane, North Shore or North Geelong, or an amenity interface to the Princes Highway. These areas may also be defined as port related industrial land, either existing or potential but have a primary role in acting as a buffer to port activities and interface to sensitive uses and the Princes Highway.

1.3 Purpose of the Port of Geelong Structure Plan

The purpose of the Geelong Port Structure Plan is to encapsulate the Council's vision for the future development of the Port of Geelong and the surrounding land uses in context of Council's Local Planning Policy Framework and the broader State Planning Policy Framework.

The Port currently handles 25 per cent of Victoria's overseas exports, most of which are raw materials like petroleum products, bulk and bagged grain and woodchips. Imported products include crude oil, petroleum products and fertiliser raw materials. Trade growth through the port has grown by ten per cent a year in the past five years. (Source: Dept. Infrastructure Website).

The economic importance of the port is well documented. The current trends in the Australian economy are of a declining manufacturing industry, a thriving raw material export market and a significant trade deficit as a result of our increasing dependence on foreign imported consumer goods. Thus the economic significance of the port is likely to increase.

1.4 History

In 1892, the North Shore area was subdivided to create a residential area and a bayside retreat. An esplanade and a linear park were laid out and planted with trees. A fragment of this park remains today as Moorpanyal Park. A small jetty was constructed and 10 years later North Shore was a small holiday resort. The area's resort history was short-lived, however, and in 1925, the Ford Motor Company plant and a phosphate works were opened next to Corio Quay. The Corio distillery and a Shell oil depot opened three years later and the mouth of Cowies Creek was excavated to become Corio Quay. In 1946, International Harvester opened its plant and further north, the Shell Oil Refinery was completed in 1954. Later factories included Coca Cola Bottlers, Pilkington Glass and BHP Steel processing mills. Lower cost port facilities and access to the Melbourne-Geelong railway line attracted industries to North Shore throughout the 20th century. Small residential areas grew up

around the major factories and to the east of Station Street. Some of these areas remain including North Shore and Norlane.

In July 1996 the then State Government sold the assets of the Port to Ports Proprietary Limited. The use of the Port remains governed by the provisions of the Port Services Act (1995), (Amended 1997). This Act requires the Port operator to prepare a strategic plan and environmental management plan for its assets.

1.5 Recent developments

The provisions of the Port Services Act led to the preparation of the draft Port of Geelong Strategic Land Use Plan (SLUP) in 2004. This plan raised considerable concerns in the community about the conflict between residential and industrial land uses in the vicinity of the Geelong Port. The draft SLUP was commissioned by Toll Geelong Port and the Department of Infrastructure to provide a coordinated, integrated and sustainable basis for the Port's future management, development and coexistence with its neighbouring community. The key concerns of Council and the community in relation to this plan was the lack of proper consideration of social and environmental issues associated with the Port activities and the surrounding residential areas. Residents of the area raised particular concern regarding development opportunities on their land and amenity concerns regarding public health, noise and traffic. In response to these concerns DOI/Toll GeelongPort prepared a revised Port Land Use Strategy (PLUS). This strategy was released for community comment in mid 2007 and provides direction for the Port as an economic entity.

During the exhibition phase of the draft SLUP the City of Greater Geelong established the Port of Geelong Consultative Committee (PoGCC) to provide advice in relation to permit applications and broader strategic planning issues associated with the Port of Geelong.

Whilst the SLUP/PLUS represents the views of DOI and GeelongPort with regard to the future development and management of the Port, there is a demonstrated need for Council to formulate a strategy for its vision of the Port to assist in decision making on planning matters in this area. The structure plan has been developed to consider the competing needs of industry to simplify the approvals process at the Port and the need to provide assurances to the residential community that their amenity will be safeguarded.

In addition to this, a number of significant development proposals over the past 3 years have attracted considerable community interest in the activities of the Port of Geelong. These proposals include:

- the storage of chemicals at the Terminals site in Corio (beside Shell);
- Mill Markets proposal at Classweave, for antique sales and paintball games with most proposals being refused on the basis of conflict with surrounding industrial and port uses;
- Unsuccesful proposal to redevelop the former electricity power-station in Mackey Street, North Geelong for residential accommodation;
- a proposed rezoning and development of a homemaker centre and office development (HomeTown) on the former Ford owned land on the Princes Highway which was not supported by an independent Panel on the basis that it conflicted with the role of the port and port related industry and has since been formally abandoned by the City of Greater Geelong.

These proposals have focussed considerable attention on the planning policies that are in place at the Port of Geelong. The Geelong Port Structure Plan seeks to establish a clear and consistent policy framework for directing future development in and around the Port area. This includes consideration of the GeelongPort/DOI strategies detailed in the PLUS and the broader needs and consideration of the community in which the Port is located.

2. Policy Context

The Port of Geelong as part of the City of Greater Geelong is subject to a number of planning policies set out in the Greater Geelong Planning Scheme. A number of polices prepared by State Government, the City of Greater Geelong and other agencies, which support the Planning Scheme are also relevant to the Port of Geelong Structure Plan, these are detailed below under the following broad headings; port related, economic development, urban growth and land use planning, coastal, transport and environmental.

2.1 Port Related Policy

2.1.1 Victorian Ports Strategic Framework

The Victorian Ports Strategic Framework was published by the Department of Infrastructure in November 2004. It acknowledges the crucial role that Victoria's ports play in the economy of the State. It identifies the Victorian government's strategies and policies to assist commercial trading ports, port service providers and freight operators to meet the challenges of growing trades and managing the potential risks that may emerge through urban encroachment, safety and security pressures. The four major commercial trading ports are identified and the Strategic Framework is applicable to them, these are Melbourne, Hastings, Portland and Geelong.

The Government has three core directions for commercial trading ports:

- Building on existing capabilities and competitive strengths
- Anticipating and planning for future land, access and infrastructure needs
- Providing the right regulatory and institutional settings for a sustainable port system.

Almost 85% of Victoria's traded goods are exported from one of Victoria's commercial trading ports and almost 80% are imported through them. The operation of the Ports generates employment and income for local communities and well as flow on effect for other local businesses.

The Strategy identifies key challenges facing the ports as:

Trade growth: Increase in trade places pressure on port infrastructure capacity and the impacts on neighbouring communities need to be managed.

Competition between ports: Trades can be moved from port to port based on issues such as transport costs and service levels. It is important that the regulatory arrangements at different ports are scrutinized to ensure conditions for fair competition exist.

New technology: The evolution of port operation is driven by changes in freight technology and shipping patterns which are in turn driven by the need to reduce costs. Larger ships for example are being used to provide economies of scale. Port operators, planners and regulators must ensure ports have the capacity and flexibility to adopt new technologies to improve the productivity of their port.

Intermodalism: Trend to improve the interfaces between transport modes to provide door to door and just in time logistics. This reduces handling costs incurred at wharfs and makes ports more competitive in terms of cost.

Urban environments: In parts of Australia and overseas, areas of redundant Port land are becoming increasingly popular location for residential developments as a view of ships and the water is considered attractive. However the issues of pollution through noise, air and light soon impact. Objections and complaints may lead to the imposition of curfews on port operations which can constrain industry and may negatively impact on future investment in the ports. Melbourne 2030 recognises the importance of the ports of Melbourne and

Hastings and identifies them as special activity centres with transport links to designated industrial areas and freight terminals. Planning for the long term future of ports must include the planning and implementation of effective buffers. This should involve effective consultation and the outcomes and implications must be clearly communicated to neighbouring communities. This can only be achieved "through the ports ongoing participation in and engagement with their surrounding communities". An example of amenity management is the "east wind" protocol which operates between Incitec Pivot and the North Shore residents. This protocol requires Pivot to shut down specified operations during northeast winds due to the potential for air transmitted emissions to cause nuisance to residents.

Environmental, safety and security pressures: Ports are becoming subject to increased regulation due to heightened awareness of environmental issues and concern about international security. This has impacts upon the costs of operating the Port and may restrict their operations.

The Strategy also documents the Port trade mix for the year 2002/03. Melbourne dominates in containers (with Hastings designated as the preferred alternate location for containers) and Geelong handles the greatest amount of liquid bulk. Geelong and Melbourne handle similar levels of dry bulk.

Based on existing trends the Department of Transport and Regional Services forecasts that urban road freight tonnages are expected to increase by more than 70% between 2000 and 2020[2]. In Growing Victoria Together the Government stated that better linking of Melbourne and regional ports to industry and agricultural centres across Victoria is a priority issue. The Government has set a target to move 30% of port-related freight from road to rail by 2010 and is facilitating extensions and upgrades of the intrastate and interstate rail network which enhance the competitiveness of rail transport to and from ports.

With specific reference to Geelong the Strategy notes that the absence of a dual gauge rail access to Lascelles Wharf and Corio Quay is a constraint on Geelong's ability to compete for some bulk cargoes. The Governments Port of Geelong Rail projects will connect port facilities to standard and broad-gauge networks via:

- The north Geelong track modification
- The Corio independent goods line
- Lascelles Wharf rail connection.

The Victorian Government has allocated $18.6 million to commence these works. Other proposed rail improvements also include the proposed upgrade of the Geelong to Mildura railway line. Road connections to the port have been improved by the completion of the Princes Highway upgrade between Geelong and Melbourne. The Geelong Bypass will also improve the efficiency of local road freight transport which will benefit of the port.

In the long term planning for the development of new facilities in existing ports and new port areas is vital to ensure infrastructure development to maintain an effective freight logistics chain.

The Strategy acknowledges that ports are under increasing pressure as urban communities expect that governments will resolve the amenity impacts at the port land and water interfaces. It puts forward a general land use principle, that users particularly industry should provide their own buffers to ensure they minimise possible negative impacts or costs on the broader community. Buffers are described as the means through which risk, residual emissions to land, air and water from port operations and amenity can be managed and

[2] Department of Transport and Regional Services (2004) Auslink White Paper, Commonwealth of Australia

protected[3]. Maintaining physical buffers can minimise impacts, the necessary separation distance may not always be available. Port buffer strategies are becoming important tools to address interface issues, but to be most effective they rely on an understanding of the port's development potential.

Buffer strategies should address issues affecting land nearby and adjacent to its operational areas and should balance the needs of the working port with the expectations of the community in terms of amenity, environment, recreation and open space and port heritage.

The Strategy advocates for better communication and understanding between Victoria's commercial trading ports, their communities and industry stakeholders by amongst other things encouraging ports to adopt a range of community engagement mechanisms and ensuring that effective consultation is undertaken in the preparation of the Port Strategic Land Use Plans and Environmental Management Plans.

2.1.2 Victorian Ports Strategic Study 2001

This is an assessment of the future land use and infrastructure requirements of the five major commercial ports in Victoria. A consultation summary was subsequently produced. A summary for the Port of Geelong was also produced following a community forum in July 2000. The key issues that emerged are listed below;

- *A need to develop the port's ability to handle niche bulk trades such as grain and timber products*
- *A lack of availability of current and potential port land, which will impact future expansion opportunities in the port*
- *The future of transport to and from the Port of Geelong, with an increased emphasis on rail and a consideration of the need to limit the amount of freight traffic in local areas*
- *Environmental considerations such as dust, noise and odours, and their impacts on the relationship between the port and nearby residents.*

Other themes emerged which were common to other ports:

- *The economic and employment benefits that ports bring to the regional and State economies*
- *The need to balance the social and environmental impacts that port development has on residential neighbours with the benefits that ports bring to local communities*
- *The emerging need to plan for the use of land in and around ports, while considering the competing interests of residential and port development*
- *The benefit of maximising the use of existing port infrastructure and facilities*
- *The growing interest in port communities in the development of intermodal transport networks*
- *A desire to see greater integration in government studies and projects*

2.1.3 Geelong Port- Strategic Land Use Plan 2003 (SKM): An Overview of the Draft Geelong Port Strategic Land Use Plan 2004 (DSE)

The Strategic Land Use Plan was developed by consultants SKM on behalf of Toll Geelong Port and DOI. It was prepared following a direction from DOI to prepare a whole of port land

[3] POMC (2004) Buffer Strategy: Final, prepared by Maunsell McIntyre Pty Ltd.

use strategy to "provide a coordinated approach to future development of the Port of Geelong". The draft SLUP included a number of key themes:

1. Port Facilities- To provide adequate berthing facilities for future trade growth to 2020 and provide flexibility to accommodate changing cargo types.
2. Land use supporting the Port- To ensure the continuing availability of appropriately located sites for future port-reliant industries.
3. Port transport infrastructure- To provide a transport network (road and rail) which links the port and port-related industries as well as other destinations within the State.
4. Providing buffers to port and port-related activities- To define and establish a buffer area around the port to ensure that existing and future development of sensitive land uses does not constrain the port's operation and that the impacts of the port operations on neighbouring communities are minimised. The draft SLUP included a proposal to introduce an overlay to limit future intensification of the residential propertied in North Shore, on the south side of Swinburne Street and in parts of Norlane.

The draft SLUP was released for public consultation in 2004 but never finalised or adopted.

2.1.4 Geelong Port Land Use Strategy (PLUS)

The Geelong Port PLUS was prepared by consultants Maunsell on behalf of Toll Geelong Port and DOI. The PLUS builds on the work done for the draft SLUP and the community feedback received on that document. Its aim is "To accommodate for growth of the Port over the coming two decades based on a high growth case scenario, with a focus on its existing role in bulk and dry-bulk cargo. The draft PLUS seeks to maintain the Port's economic sustainability while also identifying and maintaining opportunities for the long term growth beyond the existing forecast. The vision for the Port also directs that further port development and management should avoid unreasonable social or environmental costs. (Source: PLUS Vision Statement)

The PLUS includes a definition of port related industry as one which covers industrial *activities, including value adding or transformation processes associated with cargo immediately prior or subsequent to shipment, as well as dry, liquid and cold storage that may be required close to wharves.*

Both studies identify the key constraints to the growth of the port are a lack of suitable zoned back up land and the planning permit process which can result in time delays. The PLUS adopts the high case growth scenario that was used in the draft SLUP. The draft SLUP includes forecast modelling for potential trade up to 2020 and assumes a high growth scenario can be achieved by the port (approximately 5 million tonnes additional volume). A high growth scenario was adopted by the draft SLUP and PLUS and as a precautionary measure for the port manager to cater for potential infrastructure and land needs. The trade analysis also provides a "realistic" growth scenario that is somewhat lower approximately 3 million tonnes overall increase. The draft SLUP details the infrastructure requirements needed to accommodate including new berths and back up land at Corio Quay (north and south) and Lascelles Wharf and rail links to Lascelles Wharf. The need for additional land for GeelongPort is also estimated at 89 hectares to accommodate new customers to the Port including the potential to export mineral sands through the Port and the potential to accommodate motor vehicle imports. The PLUS notes the need for the industrial precinct at Heales Road to be retained in large allotments (particularly around the rail spur) as this will be the location for port reliant industries which are unable to locate at the Port because of the lack of suitable land. In the longer term, industrial land at Avalon is regarded as potential location for port related industry.

Seven strategic directions for the development of the Port are identified these are listed below:

- *Provide adequate port infrastructure to meet forecast trade growth until at least 2020.*
- *Ensure that an adequate supply of appropriately located and zoned land is available to support the growth of the port and port-related industries.*
- *Provide effective transport linkages within the Port area and between the Port and the broader freight transport network to service the port's trade needs, with minimum adverse impact on surrounding communities.*
- *Define and implement effective land use buffers around the Port to protect both the economic and future of the Port and existing sensitive land uses nearby.*
- *Adopt effective safety, security and environmental management practices so that the port and port related activity does not unreasonably impact on surrounding areas.*
- *Enhance the social capital of the Port by identifying and utilising opportunities to contribute to community resources and values.*
- *Implement effective land use planning and approval framework that provides reasonable certainty for port and port related businesses and transparency and predictability for the community.*

The PLUS divides the Port area into four precincts and recommends that a precinct plan be prepared for each and then the detailed work transferred to the Greater Geelong Planning Scheme. The three relevant precincts to the Geelong Port Structure Plan are discussed below (precinct 4 Point Henry is outside the Structure Plan study area):

1. Liquid Bulk Precinct

It is bounded by School Road, Shell Parade, Greta Street, Seabeach Parade, St Georges Road and the Princes Highway. It includes chemical based industries Shell and Terminals. This is the only precinct designated for chemical storage which is termed a "Controlled Port Activity" and defined as port activity that includes Class II gases as per the Australian Dangerous Goods Code (ADGC), associated with a Major Hazard Facility. The land available in this precinct and the capacity of Refinery Pier is sufficient to the year 2020.

2. Bulk and Break Bulk Precinct

It is bound by St Georges Road, the coastline to the east, Langdon Street to the south and the Princes Highway to the west; it excludes the Norlane residential area. This area includes Corio Quay and Lascelles Wharf and the need for expansion of these facilities is stated. The need for a rail connection to Lascelles Wharf is also highlighted. The lack of available zoned back up land is noted as a constraint. An opportunity for the provision of a buffer, potentially in the form of open space to the south of the Pivot Facility on Seabreeze Parade is also identified. The former Ford owned land (which was the subject of amendment C98 which proposed the development of a homemaker centre) is noted as land that is well located in proximity to the Port and the surrounding transport network and as such could be used by GeelongPort for industry.

3. Bulk Precinct

It is bound by Langdon Street, the foreshore to the east, Swinburne Street and the Princes Highway. This area includes Classweave, Graincorp and Osborne House. The lack of available zoned back up land is noted as a constraint as is the potential loss of industrial land which acts as a buffer to sensitive land uses. The encroachment of non-Port related facilities is also of concern. It notes the need to retain the industrial zone to the south as a buffer between the operational port and sensitive uses.

The directions for the Point Henry precinct associated with opportunities for new industrial activities on undeveloped land via a Master Plan process and implementing the Point Henry Foreshore Management Plan are broadly supported.

The release of the draft was accompanied by a response from the Minister which also noted further key government actions within the Port area and surrounds including:

- Completing a Freight Linkages Study by end of 2007;
- Establishing dedicated freight routes;
- Upgrading the Geelong-Mildura rail freight corridor;
- Finalising the Geelong Intermodal Freight Terminal Study;
- Invest in the Geelong Rail Access Improvement project to improve rail access to the Corio Independent Goods Line.

2.2 Economic Policy

2.2.1 Geelong Economic Development Strategy 2005-2010

The Strategy is prepared by the City of Greater Geelong to drive growth in Geelong. It focuses on the role of local government in economic development and the areas it can influence to achieve a strong economic future for the city. It provides a framework for Council's activities in economic development by identifying priority action for the next five years. It identifies five key growth sectors for Geelong; knowledge, innovation and research, advanced manufacturing, health, tourism, small, micro and home based business and food and horticulture. An overview and objectives and actions are detailed for each sector.

In the overview of the advanced manufacturing sector it is noted that a number of port users including Alcoa and Shell are described as high profile major international firms. The Port of Geelong is also listed as a key feature as Australia's sixth largest port.

Under the heading of infrastructure, the importance of transport networks to the economy is emphasised. Of relevance to the Port are the following actions:

- Lobby the State Government for seamless access to the Port of Geelong district from West Connect (Geelong Bypass).
- Advocate for and support the introduction of a dual gauge rail connection to Lascelles Wharf.
- Continue to work with Toll to grow infrastructure assets at the Port of Geelong.

2.2.2 Geelong Industrial Land Study 2001

This comprised three reports; the first was an audit of industrial land and demand for industrial land, the second was a consideration of greenfield sites and the third was the Strategic Action Plan.

Project One: Industrial Land Audit

This identified that whilst there were considerable tracts of vacant industrial land available in Geelong, little land remained available to accommodate large scale industries that required a buffer of 1 kilometre or more from residential or other sensitive uses.

The Study divided the industrial zoned land into a number of precincts and identified issues and opportunities for each. The relevant precincts for the Geelong Port Structure Plan are listed below with an account of their opportunities and constraints;

Heales Road Industrial Area

There is good development potential as land is held in large parcels with approximately 60% of the estate having a 1 kilometre buffer from sensitive land uses. It emphasises the need to locate heavy industries in the core of the estate and lighter industry near residential and rural residential areas. The potential for warehouse and distribution companies to set up is mooted given the access to the Princes Highway.

Corio Industrial Area

This area generally extends from Cheetham Salt Ltd in the south to Bell Road in the north and from the Princes Highway in the west to Shell Parade in the east. The area is well served by transport with its proximity to the port, the Princes Highway and the existing freight lines. The area is reported as being generally good in appearance with good amenity. There is little development to the west with much of the land being retained for grazing purposes as a buffer to Shell. Large areas of vacant land abutting the Princes Highway provide opportunities for future development however this would need to protect the visual amenity of the Princes Highway given that it is a major gateway to Geelong and should be compatible with the residential uses on the opposite side of the Highway. Constraints identified included the proximity to residential areas, Geelong Grammar and the sensitive habitat environments along the shoreline.

North Shore Industrial Area

This area includes land east of the railway line, from Wharf Road in the north to Corio Quay in the south. This established industrial area is well served by transport but has little opportunity for expansion as much of the land is developed. However the potential to intensify industrial land uses was noted. The North Shore residential area and the residential areas to the west are noted as constraints for expansion of industry. The use of land adjacent to the Port for wood chipping is described as "*an under utilisation of this prime land close to the centre of Geelong and the port*" it goes on to state that more valuable land uses should be encouraged in this area. Land in this area should be used for port related storage and distribution activities.

The amenity and appearance of the area is described as poor due to "*the ad hoc siting, building styles and external storage of materials. Whilst most sites have some vegetation screening on the road frontages of properties, landscaping is not a strong characteristic of the area."*

North Geelong Industrial Area

This area includes land on the east side of the Highway (owned by Ford in addition to the proposed Hometown site) and extends south to Mackey Street. This area also includes land west of the Princes Highway which is not in the area of interest for the Port of Geelong Structure Plan.

Access to this industrial area is generally good with its proximity to the port, railway line and the Princes Highway. The lack of large industrial land parcels and existing urban development surrounding the site is a significant constraint to future expansion

Peripheral sales/commercial uses are encouraged on land fronting the Princes Highway. It notes that "*should redevelopment opportunities become available on the east side of the Princes Highway more intensive, heavy industry would be appropriate*".

It concluded that "*future industrial development can not be accommodated by the current supply of industrial zoned land and new industrial areas or expansion of existing industrial areas must be investigated to ensure Geelong will have industrial land for future development*

in the short to long term". Areas identified for future possible expansion include Avalon and Moolap/Point Henry.

Project Two: Greenfield Sites

This project investigated possible locations for new large scale industrial areas with the aim of identifying sites which have a 1 kilometre buffer to sensitive land uses. It used a "*sieve mapping*" technique whereby key determinants in the location decisions of industry were determined and applied progressively to identify locations suitable for major industries. A number of "investigation areas" were examined in detail; however the preferred area was the Avalon investigation area. A number of issues which required resolution were also identified.

Project Three: Strategic Action Plan

This report provides a review of the first two projects. It examined key implementation issues to facilitate development in the Avalon investigation area. This included the preferred short term development areas for current proposals, prioritising development of the existing industrially zoned land and the Avalon investigation area.

It also considered opportunities for progressing development to meet gaps in the industrial land market, including the lack of a major industrial land developer and the lack of a quality industrial park.

2.2.3 Osborne House Precinct Master Plan Nov. 2006

The City of Greater Geelong commissioned the preparation of a Masterplan to address assets owned by the Council including Osborne House, former depot areas, Osborne Park, St Helens Boat Ramp, Geelong Trailable Yacht Club and the adjoining industrial areas north and south of Mackey Street. This includes sites that have been subject of redevelopment proposals in recent years such as the North Geelong Power Station (now disused). The former Classweave site and Pilkington sites in Mackey Street have the potential for use activities consistent with an industrial marine facility precinct.

The Masterplan explores opportunities to establish a viable and desirable use of Osborne House and its surrounds that reflects its location on Corio Bay and that provides sustainable economic, employment and tourism benefits.

The Masterplan has been divided into 4 sectors as part of the Feasibility Study as follows:

Sector 1 - Marina / reclamation

Northern Land – Lower level comprising: reclaimed land of approximately 6 hectares, light-medium industrial uses with hardstand, enclosed workshops for short-term maintenance and repair of aluminium and fibreglass hulled craft dry stack, Marina including 200 short-term and permanent berths, travel lift with a maximum 400 tonne limit and controlled vehicle and public access.

Sector 2 - Industrial

Northern Land – Upper level comprising: light-medium industrial, enclosed workshops for the manufacture, maintenance and repair of aluminium and fibreglass hulled craft, chandlery/marine retail and showroom adjacent to the new east-west road, limited access from the new east-west road to the industrial area to the north, common car parking facilities adjacent to the new east-west road.

Sector 3 - Osborne House

Southern Land – Osborne House, stables, former depot, park interface and immediate foreshore area comprising re-use of existing heritage buildings, food and drink premises,

including restaurants and cafes, small scale marine retail, tourist based and speciality retail, public access, Hotel of 80 rooms (with potentially another 40)., function and / or business centre for up to 200 people, clubhouse facilities, maritime artefacts and memorabilia retained if feasible.

Sector 4 – Public marine facilities

Southern Land – Lower Level – Public comprising: Upgrading of existing facilities, including upgraded multi-purpose marine-community building, provision of more berths (maybe also swing moorings), upgrading slipway facilities, shower and toilet facilities, café /kiosk.

2.3 Urban Growth and Land Use Planning

2.3.1 G21 Geelong Region Plan 2003

G21 was created by Local and State Governments to facilitate a collaborative approach to challenges and opportunities that require multi agency support to manage "whole of region" issues. It comprises the five municipalities of Borough of Queenscliffe, Surf Coast Shire, Colac Otway Shire, City of Greater Geelong and Golden Plains Shire.

The Plan is a long term plan which aims to look at the growth of the region over the next 30 to 50 years. It is a "project driven" plan and includes a range of flagship initiatives which are termed "lighthouse projects". The stated purpose of the plan is to:

- *Provide a long term land use strategy for sustainable development in the region to 2051*;
- *Identify regional infrastructure requirements;*
- *Provide a framework for the management of population growth and related economic, social and environmental change; and*
- *Develop implementation strategies and monitoring programs*.

Key themes are included following a number of community forums. One of these is economic development which makes specific reference to issues in the Port of Geelong. The Port of Geelong is recognised as a significant asset to the region. The need to upgrade the infrastructure which services the Port and the need to protect it from encroaching land uses were noted.

Other issues of relevance include:

- *Major industrial development at the northern entrance to Geelong is a sign of the past, not the future.*
- *There is a lack of attractive and serviced industrial land.*
- *Need to upgrade the appearance of and need to service the Heales Road area.*
- *The provision of transport infrastructure can be a major stimulus to development.*
- *Need to establish processes to enable proper decision making to include environmental impacts and considerations.*

One of the lighthouse projects is the development of an intermodal interchange in North Geelong to facilitate the movement of freight between road, rail and sea. The work to develop this initiative is largely being undertaken by the Department of Infrastructure with a potential location in Heales Road industrial estate.

2.3.2 Melbourne 2030

Melbourne 2030 is the Victorian government's strategic vision for the future development of Melbourne. It contains broad strategies on activity centres, management of designated growth areas and transport and access.

The regional transport network, including the ports, is acknowledged as being crucial to the economy of Victoria. One of the policy initiatives for the transport network is to "*protect options for access to, and future development at, the ports of Melbourne, Geelong and Hastings, and ensure all port areas are protected by adequate buffer areas to prevent land-use conflicts at the perimeter*".

2.3.3 Heales Road Industrial Estate Framework Plan

In June 2006 the City of Greater Geelong commenced the preparation of a new Framework Plan for the Heales Road Industrial Estate (HRIE). The HRIE Framework Plan aims to:

- Provide Council, land owners and future investors with increased certainty regarding long term development outcomes on the HRIE;
- Maximise the economic potential of the HRIE, by providing for the needs of heavy and port related industries whilst also providing for the development of other industry types;
- Provide for the development of a high amenity industrial setting, in particular the development of an attractive frontage to the Geelong Ring Road and the 'gateway' to urban Geelong; and
- Facilitate increased investment and industrial activity on the HRIE.

The HRIEFP notes that Geelong is unlikely to draw industries away from Melbourne's eastern suburbs but it may attract businesses operating in the western region of Melbourne which seek to provide services or products to the growing Geelong market and potentially use Geelong to pursue business in the west of Victoria with its proximity to ports, the national rail network and competitively priced industrial land. There has been a growth in activity in the industrial land market since 2002 and this was strongest in North Geelong.

The supply of industrial land in Geelong in 2005 is estimated by DSE's Urban Development Program to be in the order of 230 hectares. The Study notes that the actual total available to be developed is much lower given servicing and amenity constraints in some areas, the inclusion of vacant land which is part of a larger land holding as at Shell and the inclusion of land at Herne Hill which is proposed to be rezoned to allow for residential development. The demand for subdivision to create lots smaller than the currently permitted minimum lot size of 5 hectares is significant.

The Framework Plan notes that the HRIE offers a number of very significant strategic attributes in terms of it's suitability for high value industrial development. These include:

- Southern and eastern frontages and accessibility to the Geelong Ring Road and Princess Freeway respectively;
- Strategic proximity to Metropolitan Melbourne, urban Geelong and Victoria's western districts;
- Excellent accessibility to the Geelong Port, Avalon Airport and regional rail infrastructure;
- Excellent highway visibility and 'gateway' location to Geelong and Victoria's western districts;
- Relatively un-fragmented land ownership; and
- Relatively few development constraints.

Building on these attributes, the Framework Plan proposes that the HRIE accommodate three key industry groups:

1. Heavy manufacturing industries, including industries associated with the Geelong Port;
2. Advanced manufacturing industries, including major national and state level tenants;

3. Regional production support industries, including assembly, packaging, warehousing and distribution industries.

To achieve this mix of industry types, the plan proposes a number of changes to the planning controls applying to the estate:

- Retention of 417 ha of IN2 land generally in the northern part of the estate, of which approximately 246 ha is currently vacant, to accommodate the longer term needs of heavy and port related industries;
- Re-zoning of 84 ha of land fronting the Geelong Bypass to IN1Z, of which approximately 81ha is currently vacant, to accommodate industries seeking medium to large sized high amenity, high exposure sites;
- Reduction in the minimum allowable lot size from 5ha to 4000 sq.m on land zoned IN1;
- Reduction in the minimum allowable lot size from 5ha to 1ha on land zoned IN2 that is south of Heales Road and not within the risk contours of the Shell LPG Storage Facility;
- Retention of minimum lot sizes of 5ha in all other areas.

The Framework Plan also provides for significantly improved amenity on the estate via appropriate infrastructure upgrades, landscaping, open space provision, new subdivision layout requirements and complementary urban design initiatives. In particular, the proposed new subdivision layout requirements are designed to ensure that the southern part of the estate presents a highly attractive frontage to the Geelong Ring Road.

Road access between Heales Road, the Geelong Bypass and the Port of Geelong is discussed elsewhere in this Structure Plan.

2.4 Coastal Policy

2.4.1 Victorian Coastal Strategy 2002

The Victorian Coastal Strategy is the key policy to guide all decision making by the community and governments that affect the coast. The Strategy provides for long term planning for the Victorian coast to:

- Ensure protection of significant environmental features
- Provide clear direction for the future use of the coast, including the marine environment;
- Identify suitable development areas and opportunities on the coast; and
- Ensure the sustainable use of natural resources.

Climate change is noted as one of the principal issues to be managed in coastal planning.

The economic value of the Victorian coast is described in terms of tourism and hospitality, fishing and the impact of the ports.

A number of challenges, outcomes and actions are identified under the general themes of marine and estuarine environments, natural onshore environments, people on the coast, access, built environment and coastal infrastructure and coastal dependent industry.

Of particular relevance to the Geelong Port Structure Plan are the built environment objectives which include the provisions of guidance on the location and scale of development and use on the coast and to improve design outcomes for buildings/structures in foreshore and coastal areas.

The strategy highlights the need to maintain coastal land with deep water access to support port related development at the four key ports.

The coastal dependent industry theme acknowledges the importance of Victoria's ports. It identifies the ports of Melbourne, Hastings, Geelong and Portland as areas to be promoted

and maintained for appropriate port and industrial development. It also notes that one of the key challenges is the scarcity of sites which have suitable deep water, safe access with large adjoining areas of industrial land.

2.4.2 Landscape Setting Types for the Victorian Coast, 1998 and Siting and Design Guidelines for the Structures on the Victorian Coast 1998

The Landscape Setting Types for the Victorian Coast together with the Siting and Design Guidelines for Structures on the Victorian Coast have been developed to assist the Victorian Coastal Council, coastal managers, local government and other stakeholders to implement the Victorian Coastal Strategy by encouraging sympathetic coastal development and promoting excellence in coastal design.

The Landscape Setting Types for the Victorian Coast aim to provide a better understanding of the landscape character of the coast by identifying significant features and characteristics of various sections of the coast.

The Port area is within the broader setting of Geelong which includes land from Point Henry to Limeburners Bay. It states that "*this setting type is characterised by the contrasting flat landscapes of the salt works, the industrial structures of Point Henry and the Geelong port area and city skyline*". It notes that Cultural influences are significant where the construction of a multitude of structures has resulted in changes such as the extensive removal of natural vegetation, predominantly modified drainage patterns and major modifications to sediment movement through sea walls and groynes and that industrial development in North Geelong has had a significant impact on the landscape.

Matters to be considered for the future development of this area include the need for developments to relate to the scale and character of existing structures and for developments to establish visual harmony with existing structures where historic buildings exist. The need for re-vegetation to address erosion is also noted in some areas.

2.4.5 Corio Bay Coastal Action Plan (CAP) 2005

Coastal Action Plans are developed in accordance with the Coastal Management Act 1995 and provide a mechanism for the implementation of the Victorian Council Coastal Strategy at a sub regional level. The CAP applies to Corio Bay and its outer area from Little River in the north-east and concludes at Edwards Point State Faunal Reserve south of St Leonard's. It includes the urban areas of Geelong including the Port and the Bellarine Peninsula.

The CAP addresses issues and strategies for the whole coast and precincts along the coast. The most relevant precinct to this Geelong Port Strategy is the North Shore Precinct. This precinct contains the areas between Osborne House in the South to Shell Refinery to the North, including the Port assets and the North Shore residential area. The vision for this area is defined below

"*North Shore is of national significance and an important economic resource for the Geelong community for its Port operations. Heavy industrial land uses occupy much of the Precinct. Land holders, government agencies and the community have worked together to ensure the long term security and environmental sustainability of the Port's operations. The North Shore residential community enjoys a high level of amenity with proximity to Moorpanyal Park. The Park is an important open space resource for local residents and provides a scenic outlook to the Bay".*

The issues for this precinct are listed as follows:

- *Areas within Precinct are identified for their flora and fauna values.*

- *Volumes of industrial waste discharged into Corio Bay.*
- *Water pollution resulting from the urban catchments of Cowies Creek and Cuthbertson Drain.*
- *The potential for industry and shipping to impact on the qualities of nearby intertidal areas listed under the Ramsar convention.*
- *The coastal erosion occurring at Moorpanyal Park and the new landscape plan to be implemented following current asbestos removal operations.*
- *Release of exotic marine pests into the bay via ballast water.*
- *The need by Toll Geelong Port to have an efficient network of road and rail links to the Port.*
- *The scarcity of land for port related developments.*
- *Amenity conflicts between residential, industrial uses and other non-residential uses (eg landfill site).*
- *Air and water pollution from industrial uses.*

The objectives for this precinct are listed as follows:

- *To protect and support the existing port operations as a vibrant and commercially viable working port.*
- *To maintain the security and safety of port infrastructure and staff*
- *To ensure public health is not endangered by contaminants at Moorpanyal Park.*
- *To maintain the quality and visibility of the cliff outcrops.*
- *To maintain residential amenity to North Shore residential area.*
- *To protect land and water environments in the precinct.*

The strategic directions listed for this precinct include:

- Upgrade Moorpanyal Park to provide a community focus to the North Shore residential area and the northern suburbs.
- Develop vacant or under utilised land in and around the Port area. Future developments, particularly intensification of industrial and port functions that could impact on environmental or maritime processes, should be subject to environmental investigation.
- Promote best practice in stormwater management for stormwater entering the Bay.
- Access to the port facilities for recreational purposes including fishing will remain restricted for security and safety reasons.
- In the future residential development will be restricted to existing areas or where EPA buffers distances to industry can be maintained.

The design guidelines note that the character of the area is formed by the large scale industrial buildings at the water's edge. With reference to residential development, new proposals should be consistent with the existing built form of the residential areas.

2.4.6 Geelong City Foreshore: Boating Needs Strategy and Master Plan 2004

This Strategy was co-ordinated by the City of Greater Geelong and Parks Victoria with the aim of identifying current and future boating infrastructure needs of the Geelong foreshore, to

consider the facility requirements to meet these needs and to determine a blueprint for the provision of boating infrastructure along the Waterfront.

The study area for this project extends from St Helens Boat Harbour directly south of the Geelong Port area.

The Master Plan promotes the retention of the City Waterfront as the focus for future boating activities and the continued use of St Helens Boat Harbour. The masterplan also identifies the lack of adequate slip way facilities. This was noted as an issue to be addressed at a Port Philip level not just in Geelong. Osborne House is identified as a possible location for youth training related to boating/boat building activities.

2.5 Environmental Policy

2.5.1 Port Philip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Strategic Management Plan (SMP) 2003

This was developed by Parks Victoria in conjunction with DSE and key stakeholders. The purpose of the management plan is to facilitate conservation and wise use of the site to maintain and restore the ecological values for which it is recognised as a Ramsar wetland.

The SMP describes the wetland in detail, it examines the legislation, policy and management instruments which influence management of the site, the roles and responsibilities of management agencies, identifies why the site is a Ramsar site, assesses threats to these values by identifying current and potential risks and lists and gives priority to site management strategies that minimise and eliminate identified risks to values.

The Port Philip Bay Ramsar site consists of a number of component areas; the shoreline area from Point Wilson to Limeburners Bay is the segment of the Ramsar site located closest to the Port of Geelong.

The Port Philip Bay Ramsar site is of special value for maintaining the genetic and ecological diversity of the flora and fauna of the region. The significance of this area is described in terms of the flora and fauna waterbirds, cultural heritage, scenic values, economic values, education and interpretation, recreation and tourism and scientific values.

A number of risks to the Ramsar site were identified; those of particular concern to the Point Wilson-Limeburners Bay area are pollution, pest plant and animals, resource utilisation (fishing/farming), recreation and erosion. Site management strategies were devised in response to the risks and include the need for water sensitive urban design in new development and precautionary measures to prevent chemical/oil spills.

2.5.2 Biodiversity Strategy 2003

An outcome of Council's adoption of the Environmental Management Strategy in 1999 was the development of a Biodiversity Strategy. An inventory of biodiversity was undertaken throughout the municipality and significant sites were recorded and illustrated on maps, it is noted that this inventory is not exhaustive. A number of commitments and targets to achieve biodiversity objectives were also included in the Strategy. The vision for the Biodiversity Strategy is" *A natural environment that is rich in biodiversity and is managed and maintained to protect, both now and in the future, the ecological systems upon which life depends*".

The Strategy notes that vegetation clearance has resulted in altered landscapes with limited refuges containing natural habitats for vertebrate fauna. One of the refuges is the area around Limeburners Bay which is north east of Shell.

2.5.3 City of Greater Geelong Stormwater Management Plan 2003

The SWMP was commissioned to guide the City in improving the environmental management of stormwater throughout the municipality. It provides a basis for the City to manage stormwater using best practice and protect the community's enjoyment of the region's natural and man made waterways. It provides a framework for integrating stormwater management as part of its existing management and planning activities and as such is intended to provide an ongoing process aimed at protecting and enhancing receiving environmental values and beneficial uses that are currently threatened by stormwater runoff.

One of the key stormwater threats is industrial land runoff, this was noted as a very high stormwater threat in the North Geelong catchment. Runoff from industrial areas generate an array of stormwater pollutants ranging from elevated sediment loads to hydrocarbons that can originate from poor waste management practices (eg tipping oil into the stormwater system). The North Geelong catchment is also subject to the threat of substantial sediment, litter, and hydrocarbon loads generated on major road and transport corridors such as the Princes Highway. These are classified as moderate to high threats. Another threat specific to the port is at major docks and wharf facilities including Refinery Pier, Lascelles Wharf, the bulk grain piers and Corio Quay. The Plan notes that spillage can occur during the use of these facilities, which can result in pollutants contaminating the marine environment. These are classified as high, and moderate to high threats.

The demand pressures on the water supply in Geelong are detailed in the Plan and opportunities for stormwater reuse are investigated. Of relevance to the Port is the opportunity for the reuse of stormwater in industrial processes. Options include the collection of roof water to be stored in wetlands or urban lakes and then used by industries which can use non-potable water but which presently use large amounts of potable reticulated water. The structural treatment recommended includes two gross pollutant traps at Cowies Creek and at Moorpanyal Park. The Cowies Creek gross pollutant trap has been installed and is fully operational.

The risk management strategy for the North Geelong sub catchment focuses mainly on industry awareness of the stormwater issue in combination with site specific environmental management plans, audits and inspections and enforcement infringement measures (in conjunction with the EPA) if required. The structural treatment recommended (and in the process of implementation) include two gross pollutant traps with oil and grease interceptors at Cowies Creek and at Moorpanyal Park beach.

The risk management strategy for the docks and wharfs (which is part of the Corio sub catchment) includes actions that will help the City mitigate threats before they emerge through long-term individual and organisation consultation, audit and inspection and enforcement measures (in conjunction with the EPA) if required.

2.5.4 Environment Management Strategy 2006-2011 Geelong's Pathway to a Sustainable Future Local Agenda 21

The City's Environment Management Strategy was adopted in 2006 following an extensive consultation process. It includes the Geelong Sustainability Framework which provides sustainability principles to be incorporated into Council's operations and decision making. An action plan which comprises an assessment of key issues affecting key themes is also included and a process for implementing actions and reviewing progress is identified. Three key themes are particularly relevant to the Structure Plan for the Port of Geelong; *Coastal and Marine*, *Waterways and Wetlands* and *Air Quality*.

Coastal and Marine- objectives include:

- *To reduce stormwater quality impacts on City beaches, intertidal zones and marine species.*

- *To investigate the use of land adjacent to the port areas for port-related land use activities subject to its ability to comply with all environmental requirements.*
- *To restrict the expansion and growth of toxic chemical storage around Corio Bay.*

Waterways and Wetlands- objectives include:

- *To ensure the long-term protection and rehabilitation of the City's waterways and wetlands.*
- *To improve water quality and water flow in the City's waterways and wetlands.*
- *Air Quality- objectives include:*
- *Council take a leadership role in achieving an overall reduction in greenhouse gas emissions.*
- *Work closely with industry, business and the EPA to improve the quality of air emissions.*
- *Reduce the incidence of visual air pollution.*

The implementation actions to deliver these objectives are detailed in the Strategy. Of note to the Port is the proposal to establish an on-going drainage investigation and improvement program to minimise erosion and sedimentation on waterways draining to the Bay. Another action is to liaise with GeelongPort and the Victorian Regional Channels Authority to develop and implement Environmental Management Plans for the Port. There is a stated need to change the Planning Scheme to outline Council's position in relation to industrial development on the Bay and along the coast and to establish a protocol for Council for oil spills and distribute to all stakeholders. It is intended that by 2010 Cowies and Hovells Creeks will be free of environmental and noxious weeds with improved riparian habitats. A waterway management plan is required for Hovells Creek. In relation to air quality, in an effort to increase awareness it is proposed to liaise with the Geelong Advertiser to seek its support for the publication of daily EPA air quality reports. It is also proposed to liaise with the EPA towards establishing community air-monitoring at the neighbourhood level.

2.5.5 Study of Open Space Networks

This was undertaken by Tract consultants on behalf of the City of Greater Geelong. One of the key objectives of this study was "*to provide a strategic overview of the existing open spaces in the City and identify possible future uses, provision opportunities and linkages so as to maximise the relevance and effectiveness of open space to the community*".

Northern Geelong is noted as being dominated by industrial and residential uses with a lack of quality open spaces for foreshore, recreation, linkage and informal activities. The linear link along Cowies Creek is noted as inadequate as it doesn't link major features to the foreshore. A series of actions for the Corio/Norlane/North Shore sub zones. This includes the investigation of establishing a link between the cycle path along the Port and Foreshore area to the Cowies Creek path through the existing / former Ford site along Cowies Creek.

The study also recommends the on going pursuit of a continuous linear link and reserve along Corio Bay, acknowledging that access is limited through the port area due to safety and security reasons.

2.5.6 Moorpanyal Park Master Plan

Moorpanyal Park and the North Shore community are geographically isolated from the remainder of the open space network by major roads and industrial buildings and wharfs. Thus residents and workers in local industries look to the park for many of their recreational needs. There is considerable demand for the park to be self-contained in terms of facilities

and to serve a variety of needs for a range of users including young families, children, and the elderly.

A program of works was devised as an output of the Masterplan. Park improvement works have commenced including revegetation, construction of fishing jetties, improved pedestrian links, redesigned carpark areas and realignment of stormwater outfalls to reduce impacts on the Moorpanyal Park beach.

2.6 Transport Policy

2.6.1 Geelong Transport Strategy 2003

The Geelong Transport Strategy was initiated to provide a framework for the future development of the transportation network for the entire municipality over the next decade. The Strategy provides direction for Geelong to remain an efficient and sustainable national and international regional passenger and freight hub.

The strategy identifies factors which influence travel demand in the region and this includes;

- *industrial employment growth focused in the North Geelong industrial area*
- *improved accessibility between Melbourne and the Geelong region as a result of improvements to the princes Freeway and the inter-city rail link*
- *continuing growth in freight movements as the role of the port and consumption of goods and services increases.*

The Transport Strategy includes a discussion on freight which is particularly relevant to the Port of Geelong Structure Plan. The vision for the port is quoted below:

"*Geelong Port continues to enhance its status as Victoria's premier bulk port and accommodates a variety of large and small scale industries. Increasing trade through the Port and the further acquisition of land in the northern area, is supported by rail, road and sea infrastructure improvements. Concentrated inter-modal operations in the Port strengthen its role and enhance the efficiency of the land and sea transport interface. An extended standard gauge rail network facilitates further efficiency gains, and provides an attractive option for moving freight*."

Three key strategic directions were defined; reducing conflict between freight movement and "people" spaces, consolidating Geelong's role as a regional inter-modal freight hub, serving regional, interstate and international markets and improving freight efficiency and safety. A series of actions are recommended to achieve these directions. Relevant directions include:

- *implement road access improvements in North Shore to address residential area conflicts*
- *investigate standard gauge rail links to north Geelong and the Port*
- *develop and inter-modal terminal at the Geelong Port*
- *investigate the feasibility of an improved rail link to the Heales Road industrial estate*
- *Protect development options for Avalon Airport*
- *Designate the port area a "port/inter-modal hub precinct"*
- *Establish and foster a Geelong Freight Taskforce*

Five key issues were identified as affecting the Geelong Port Hub Zone; these are discussed in more detail below:

1. **Need for standard-gauge access to the Port of Geelong to link regional markets-** the most significant freight issue was the absence of standard-gauge access to the Geelong

Port and industries in North Geelong. The conversion of the existing broad gauge rail access to standard and/or dual gauge, and the provision of new dual gauge connections to port facilities and industries will enable competition between rail operators and reduce the cost of railway operations. This is expected to transfer a proportion of freight from road to rail thus reducing the environmental, social and infrastructure cost associated with current volumes of road traffic.

2. **Need to concentrate inter-modal operations-** there is considerable support for the development of an inter-modal terminal close to the Port, and support for the Port's regional freight hub status to be consolidated through regulatory and infrastructure initiatives. The Strategy recommends that the opportunity to develop an intermodal facility on land around Lascelles Wharf be investigated.
3. **Lack of a coordinated approach to freight issues-** The freight transport system in Geelong falls under the management and control of different agencies and operators thus it is important that stakeholders collaborate in the planning of Geelong's freight hub future.
4. **Local traffic and safety problems-** Freight routes in the port area and North Geelong require review in terms of improving freight efficiency as well as the amenity of the residential areas because of cartage particularly as peak time of the year (during the grain harvest). Some representatives of the freight industry believe that traffic management devices along freight routes are inappropriately positioned, making negotiation difficult and unsafe at times.
5. **Lack of container-handling facilities-** Some stakeholders argued that the lack of container handling infrastructure in Geelong is an impediment to attracting further sea borne trade. Inter modal improvements would improve throughput. DoI representatives advise that there is insufficient room for container loading, maneuvering and storage at any of the Geelong Port facilities and does not form part of state policy to consider containers at Geelong. Toll GeelongPort has also not indicated that container handling will form part of current future plans for the Port.

The future development of the Heales Road Industrial Estate will necessitate improvements to rail and road access to the estate. There is currently provision for limited rail access from the broad gauge rail line into the estate and with the future development the transport system may benefit from an extension or complete upgrade of this siding to encourage freight movement onto rail. The Strategy notes that careful consideration should be given to locating suitable industries so that land abutting the line is developed by those who will use rail to transport products. The viability of any rail improvement requires further investigation. Road access between the Heales Road industrial area and Melbourne has been improved with the construction of a direct connection from Broderick Road to the Corio Overpass and the Princes Freeway; this was competed as part of the Princes Freeway upgrade between Melbourne and Geelong. The Strategy notes that in the future as additional industries establish in Heales Road resulting in increased freight movements, an improved connection to the Port of Geelong may be required.

Other actions included in the Strategy which relate to land within the Structure Plan study area include the identification of the North Shore railway station as a potential location for an integrated bus/rail service. With reference to bicycle connections the Strategy notes the location for future bike paths throughout the study area; these are illustrated on Map No. 11 (Transport Network – Section 6 of Part C).

2.7 Planning Scheme Provisions

Many of the strategies and guidelines detailed above form part of the Greater Geelong Planning Scheme, and are included as reference documents to guide the exercise of discretion when considering applications for uses and/or development within the Geelong Port.

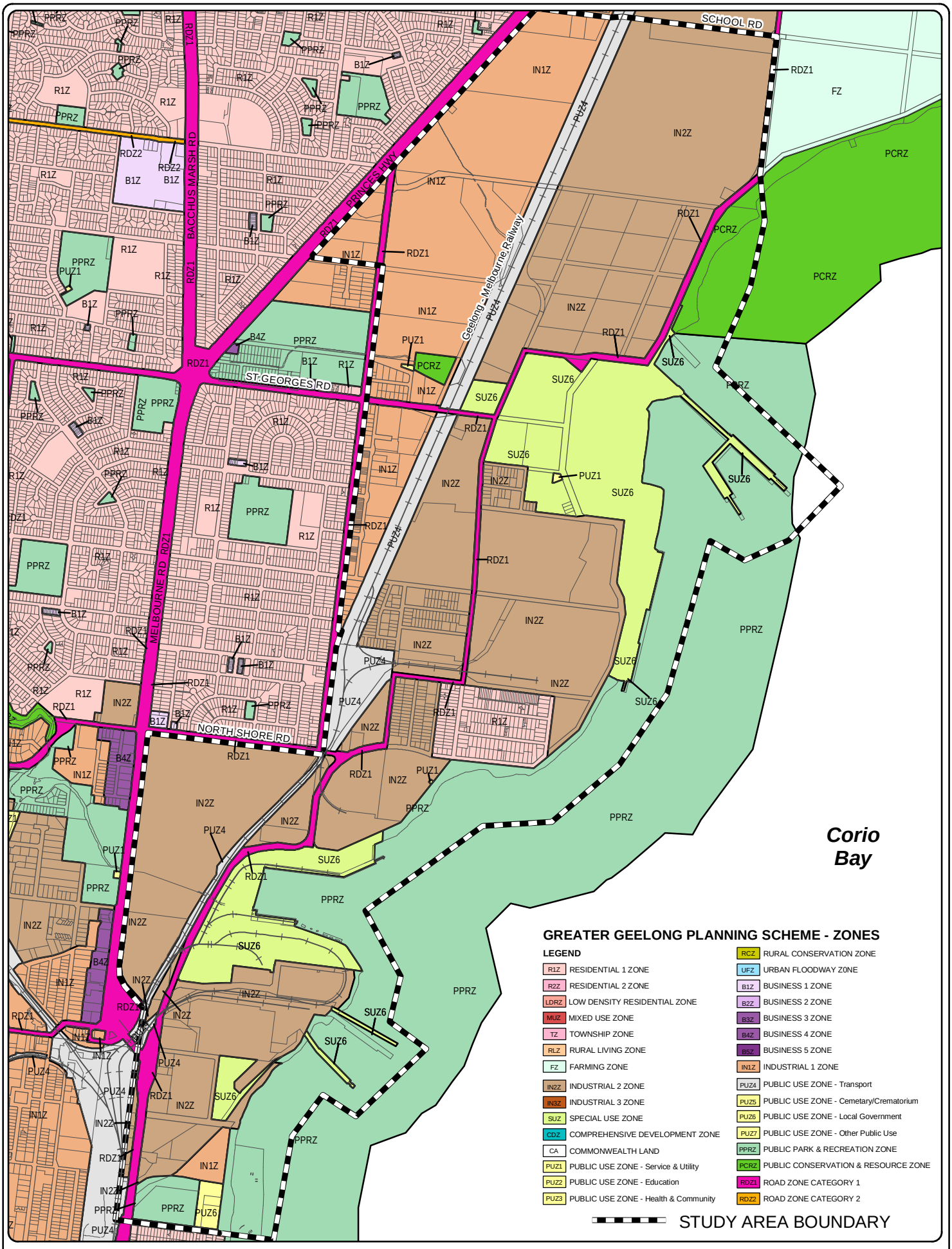
The key State and Local Planning Policies, together with the zone/overlay provisions are summarised in Tables 1, 2 and 3.

Map 9 illustrates the current zoning provisions of land in the study area. The majority of Port infrastructure and land owned Geelong Port is zoned Special Use Zone 6. The majority of industrial land adjoining the Port is zoned Industrial 2. The foreshore areas (including Corio Bay for a distance of 600m from the foreshore) are zoned Public Park and recreation Zone. An exception is a small fenced off parcel of crown land reserved for public purposes along the foreshore between the extension of Mackey and McLeod Streets (adjacent to GrainCorp entrance of Mackey Street) containing an eroding bank which is zoned Industrial 2 which appears to be a zoning anomaly.

2.8 Key Influences

Key influences identified from discussion above for the structure plan development include:

- Geelong Port is identified as a key resource to the economy of Victoria and the Geelong Region.
- Preservation of Port assets and available industrial land close to the Port for Port related industries and appropriate buffer industries to the Port is critical to the ongoing use and development of the Port as an economic resource.
- The management of the Port within the context of state and local environmental and urban planning policies is critical to ensuring the community of Geelong can co-exist with the port operations.
- The Port of Geelong needs to acknowledge that it sits within an urban context in which interface issues with adjoining urban uses and environmental assets (notably Corio Bay) must be addressed and managed.



CITY OF GREATER GEELONG

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Prepared by City of Greater Geelong - 24 September 2007
Although all due care has been taken to ensure that this document is correct, no warranty is expressed or implied by the City of Greater Geelong or Barwon Water in its use.
This map contains all Amendments to the G.G.P.S gazetted prior to the date shown above, however, for certainty, a Planning Certificate should be obtained.
This map should be read in conjunction with additional Planning Overlay maps (if applicable).

EXISTING ZONE PLAN
PORT OF GEELONG STRUCTURE PLAN

Map No. 9

Table 1 - State and Local Planning Policies

State Planning Policy Framework

Clause	Key objectives and provisions	Implications for study area
12.03: Melbourne 2030 – Networks with regional centres.	To ensure availability of land for industry and to facilitate the sustainable development of industry.	This Clause is specific to the Melbourne Metropolitan area; however it also includes reference to regional Victoria as it relates to Melbourne. The need to further develop the transport network and freight links to maintain Victoria's position as the foremost logistics centre in the country. The strategies to achieve this include: • *Identifying and protecting options for access to, and future development at, the ports of Melbourne, Geelong and Hastings.* • *Ensuring port areas are protected by adequate buffers to minimize land-use conflict.* • *Improving rail freight access to ports.* *Retaining the Port of Hastings as a long-term option for future port development should the ports of Melbourne and Geelong no longer meet the State's needs.*
14.01: Settlement	Establishes general principles and objectives for urban settlement including provision of urban land supply and using Structure Plans for the orderly development of urban areas.	Development of Structure Plan must be consistent with State Environment Protection policies, the strategic and physical context of the location, respond to neighbourhood character and encourage consolidation of existing urban areas, provide for liveable and sustainable communities and efficient provision of infrastructure.
15: Environment	Seeks to respect and respond to catchments and waterways, flooding, air and soil conditions, flora and fauna and coastal locations.	Requires development of coastal areas to be consistent with the principles of the Victorian Coastal Strategy and Coastal Management Act and the Catchment and Land Protection Act 1994. This Clause deals with the natural environment and seeks to ensure that decision making is consistent with State environment

		protections policies. It emphasizes the need to manage land use activities to minimize contaminated runoff and protect the quality of marine environments. In reference to air quality the policy advocates that use of the EPA publication Recommended Buffer Distances for industrial Residual Air Emissions (1990) in decision making to ensure that development is not prejudiced and community amenity is not compromised. To manage noise emissions consideration should be given to the relevant state noise protection policies. In relation to soil contamination it states that planning authorities should have regard to the Minister's Direction on contaminated land before considering a rezoning of land or permit application on land which has been used for industry, mining or the storage of chemicals which would allow for the commencement of a sensitive use. It highlights the need to consider the Victorian Coastal Strategy to ensure new developments do not impact the on the environmental and cultural values of the receiving environments.
16: Housing	Establishes objectives for subdivision and residential development including the application of ResCode via Clauses 54 - 56. Development of rural living and rural residential areas restricted by application of Ministerial Direction No 6.	Any residential standards should not replicate ResCode provisions. Recommendations relating to future residential and rural residential development must be consistent with state policy.

State Planning Policy Framework Continued…

Clause	Key objectives and provisions	Implications for study area
17: Economic Development	Establishes a framework for the development of activity centres, protection of productive agricultural land and to ensure availability of land for industry and to facilitate the sustainable development and operation of industry and research and development activity. .	With specific reference to industry the objective is to ensure the availability of land for industry and to facilitate the sustainable development and operation of industry. Implementation strategies to achieve include protecting industrial land from the encroachment of unplanned commercial or residential uses. It requires planning authorities to provide industrial land at locations which are well served by transport, to encourage heavy industries to locate in the core of industrial zones, to promote the clustering of like industries to avoid intra-industry conflict and to facilitate industrial expansion and to protect industrial land which is of state significance for major industries and for industries and storage facilities which require significant threshold distance from sensitive uses. It states that applications for non-industrial uses should not be approved in cases where they would prejudice the availability of land for industrial requirements in industrial zones.
18: Infrastructure	Establishes objectives for the provision of physical and community infrastructure.	This Clause recognises the importance to Victoria of economically sustainable major ports (Melbourne, Geelong, Hastings and Portland). It seeks to promote strategic planning for appropriate access, terminal areas and depot areas, for the land resources adjacent to ports to facilitate the efficient operation of the port and port related uses and to minimise adverse impacts on surrounding urban development and the natural environment. Planning for land around the ports should aim to achieve a high standard of environmental quality and be integrated with strategies for the protection of the marine environment.
19.03 Design and built form	Establishes a framework for ensuring high quality urban design and architecture.	Urban design and architecture must reflect the characteristics, aspirations and cultural identity. Provides opportunity to investigate and strengthen local policy and controls as appropriate – any policy provisions should avoid repetition of existing policy framework.

Local Planning Policy Framework

Clause	Key objectives and provisions	Implications for study area
21.02: Geelong in Perspective	Provides overview and context of Geelong and its environs.	This section of the MSS acknowledges the significance of the Port of Geelong to the economy of Geelong and Victoria. It is one of Victoria's ten busiest ports and the main grain-handling terminal for Victoria.
21.05: Planning Principles	Establishes a number of land use and development principles which underpin Council's strategic directions, arising from Council's vision and City Plan 2001.	Key implications for the study area include directions to maintain a non-urban breaks between settlements, encourage urban consolidation with defined urban forms; direct rural residential development to preferred nodes; population growth to be accommodated in existing zones and designated growth locations; protect environmental features including catchments and preserve landscape values; protect rural land; provide for efficient and sustainable infrastructure; provide for commercial and retail facilities appropriate to the needs of local populations; foster a sense of identity and community in built form and design.
21.07: Strategic Directions	This section contains a framework plan for the municipality which identifies growth areas, existing and preferred conditions.	
21.10: Environmental Management	Establishes principles for effective management of the environment to assist in its protection.	Provides a commitment to develop townships and the City as a whole in accordance with Environmental Sustainable Development principles.
21.11: Protection of Catchments, Waterways and Groundwater	Establishes a number of principles relating to land and waterway management to ensure adequate protection.	Requires development and planning assessments to take into consideration impacts of uses and development on catchments and waterways.

Local Planning Policy Framework Continued…

Clause	Key objectives and provisions	Implications for study area
21.13: Coastal Areas	Builds upon the State policy relating to the Environment and establishes broad principles relating to urban development and forms on the coast.	The various land use functions that the coast fulfils in Geelong are detailed; these include recreational, flora and fauna habitat, residential and industrial and port related uses. One of the objectives of this policy is to improve the water quality in Corio Bay by improving land management practices in proximity to the coast. One of the strategies to achieve this is to encourage industries that rely on the Bay and ocean as part of their operations to prepare environmental management plans, as well as contingency plans to address possible environmental hazards.
21.14: Conservation of Native Flora and Fauna	Establishes principles for effective protection of flora and fauna.	Encourages revegetation of land within townships, both on private and public land. Requires new development to minimise vegetation removal.
21.15: Open Space	Establishes directions for the efficient and effective provision of open space areas.	Promotes a linked open space network, which meets the community's needs and enhances the amenity of the municipality.
21.16: Cultural Heritage	Seeks the retention and protection of places of identified heritage and cultural significance.	Promotes conservation and enhancement of identified places which does not undermine their significance but which contributes to it.
21.17: Energy Efficiency	Establishes principles for energy conservation.	Promotes dwelling and subdivision design that incorporates energy efficient design principles, encourages efficient infrastructure use and urban form.
21.18: Housing	Builds upon State Planning policy relating to Housing	Promotes the protection and improvement of the urban character of townships and the provision of housing stock which caters for the range of housing needs in the community. Includes reference to the Residential Character Study.

Local Planning Policy Framework Continued…

Clause	Key objectives and provisions	Implications for study area
21.19: Economic Development	Builds upon the State Planning Policy relating to Economic Development.	Promotes a diverse range of economic opportunities
21.20: Commercial and Retail Centres	Establishes a range of principles which support the existing retail hierarchy	Encourages retail proposals which embody the concept of net community benefit and population influences. Promotes high standards or urban design in retail centres.
21.22: Industry	Establishes directions to build on the existing industrial base and which consolidates and promotes existing industry.	The importance of industry to the economy of Geelong is recognised and an analysis of the existing supply and location of industrial land (in 1995) concluded that Geelong was well positioned to cater for future industrial growth. The objectives of this policy include providing an adequate supply of land for industrial development, to maintain Heales Road for larger industries, to attract new industries to Geelong and to achieve high design standards in amenity and environmental quality in industrial locations.
21.23: Tourism	Establishes principles relating to Geelong's tourism opportunities.	Promote tourism opportunities which build on existing assets and protects sensitive environments, such as the coast and beaches. Promotes tourism features which integrate with other activity centres and facilities, through urban design and linkages.

Local Planning Policy Framework Continued…

Clause	Key objectives and provisions	Implications for study area
21.29: Ports	The objectives of this policy are to maintain and enhance the integrity of the Port and its existing infrastructure; and To maintain and enhance the efficiency of the Port of Geelong, and its importance as a focal point for infrastructure development and economic prosperity within south-west Victoria. Strategies to implement these objectives include: • Protect the area from encroachment by non-compatible land uses or developments. • Ensure that sufficient land is available for future port-related developments. • Support Geelong Port operations and ensure that strategic opportunities for the growth and development of the Port and linked activities are maintained. • Discourage further fragmentation of land holdings in the area of the port where this threatens to close off strategic development options. • Facilitate and advocate for development within the Port. • Facilitate strategic planning for the Port and encourage the Port to be viewed within the context of the development of the Geelong region and south-western Victoria. • Secure a standard gauge rail linkage into the Port.	· The Port of Geelong and Corio Bay are recognised as being of vital importance to the regional economy. Freight movements within and between industrial areas are acknowledged as being critical to industry growth and efficiency. Upgraded rail links to the Port will have significant amenity benefits to the wider community through the reduction in road haulage. Ensuring that future use and development of industrial land around the Port is linked to the Port is imperative to maintain the port's competitive advantage. · The implementation section of this policy includes a direction to critically assess subdivision, use and development applications in the Special Use Zone-Schedule 6 to ensure that proposals are port related and port dependent.

Local Planning Policy Framework Continued…

Clause	Key objectives and provisions	Implications for study area
21.26: Integrated Transport	Establishes directions relating to provision of a range of transport modes.	Promotes a linked, efficient transport system which is sustainable and meets the community's needs.
21.30: Design and Built Form	Builds upon State Planning Policy relating to Design and Built Form and further promotes urban design and architecture which reflects the community characteristics, aspirations and cultural identity	Provides opportunity to develop siting and design guidelines for a variety of land use types. Encourages incorporation of urban design principles and actions in the review of Township Structure Plans.
22.14: Corio Bay Foreshore	This policy identifies six distinct precincts along the coast between Avalon Road and Point Henry broadly based upon their land use.	The precincts relevant to the Geelong Port Structure Plan are detailed below: *Conservation: Limeburners Lagoon- containing significant mangroves, sub-tidal seagrass beds, indigenous vegetation of regional and local significance, historic buildings, international migratory waders and seabirds, threatened species and species classified as being of State significance.* *Industrial: Port Area – containing heavy industrial uses and port facilities. This area has very significant heritage links with the maritime development of Geelong and its ongoing importance as a major shipping facility and source of employment opportunities.* The objectives of this policy include protecting the natural values of Corio Bay encouraging appropriate and commercially viable recreational and tourist opportunities and protecting and enhancing port related development opportunities in the vicinity of Geelong Port. The relation to the Limeburners Lagoon Precinct, the

environmental sensitivity of the area is recognised and the need for this to be considered in determining development proposals is emphasised.

The Port Area Precinct includes the following directions in considering development proposals:

- *Ensure that port related industrial use and development is protected from encroachment by non-port reliant activities.*
- *Encourage use and development to support the activities at Geelong Port.*
- *Encourage existing remnant vegetation along the foreshore and connecting watercourses to be maintained and protected.*
- *Encourage proposals for industrial development to make provision for landscape screening and façade treatments.*

Table 2 - Zones

Zones	
Schedule 6 to the Special Use Zone (SUZ6)	Most land held by Toll GeelongPort is zoned SUZ 6. The zone is to provide for the development of the Geelong Port as a key area of the State for the interchange, storage and distribution of goods, and to provide for uses which derive direct benefit from co-establishing with a port.
Industrial 1 Zone (IN1Z)	This zone provides for general industrial development. Areas around the periphery of the Port area, including areas adjacent to the study area are zoned Industrial 1. Industrial 1 zone provides for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities. It is the zone used for general industrial areas of the state.
Industrial 2 Zone (IN2Z)	Much of the study area, and surrounds is zoned Industrial 2. The zone provides for manufacturing industry, the storage and distribution of goods and associated facilities in a manner which does not affect the safety and amenity of local communities. The objectives of the zone include to promote manufacturing industries and storage facilities that require a substantial threshold distance within the core of the zone and to keep the core of the zone free of uses which are suitable for location elsewhere so as to be available for manufacturing industries and storage facilities that require a substantial threshold distance as the need for these arises. In other locations around the state, Industrial 2 is used in specific locations at the core of major industrial estate acknowledging that this core area is the area to locate more hazardous or amenity impacting industries. In the Geelong area, Industrial 2 has been more widely applied and is in locations where it is inappropriate to promote core industries.
Industrial 3 Zone (IN3Z)	The purpose of the Industrial 3 zone is to provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict and to provide a buffer between the Industrial 1 Zone or Industrial 2 Zone and local communities, which allows for industries and associated uses compatible with the nearby community. The industrial 3 zone is currently not used in the study area, however, has been considered in the study process as an alternative zone for locations directly abutting sensitive residential areas. The industrial 3 requires more uses to obtain a planning permit so as to have regard to amenity impacts to nearby residential areas.
Rural Zone (RUZ)	The majority of the land beyond the north eastern edge of Shell development is zoned RUZ. The purpose of this zone is to provide for the sustainable use of land for extensive animal husbandry and crop raising. Much of this land, however, is

	held by Geelong Grammar and Council as buffer areas to the Geelong Port.
Public Conservation and Resource Zone (PCRZ)	Limeburners Bay and coastal foreshore areas to the north east of the study area are identified as Public Conservation and Resource. Limeburners Bay has been identified in various studies as having particular environmental qualities.
Public Park and Recreation Zone (PPRZ)	Areas along the foreshore, including the seabed 600m out to sea along the Corio Bay foreshore within the study area is identified as Public Park and Recreation, acknowledging the sea bed ownership by the Department of Sustainability and Environment. Some of these seabeds are leased for Port operations.

Table 3 - Overlays

Overlays	
Schedule 14 to the Design and Development Overlay (DDO14) – Dwellings Over 7.5 metres	This overlay applies to all residential areas within the City of Greater Geelong. This overlay aims to ensure new dwellings and extensions are compatible with the existing scale and character of adjoining dwellings and aims to ensure that the height and visual bulk of dwellings are acceptable in the neighbourhood setting. A planning permit is required to construct or extend a dwelling over 7.5 metres.
Heritage Overlay (HO)	There are no identified heritage precincts within the core Port, however a Heritage Overlay applies to several sites (in part or full) in and around the study area. The purpose of this overlay is to conserve and enhance heritage places or places of natural or cultural significance. Sites identified of relevance to the study area are (note: all the following sites on private land have the capacity, subject to a permit, to be used for a prohibited use – it is not proposed to alter this adaptive opportunity so as to provide for appropriate activities consistent with policy objectives and ensure the ongoing maintenance and sustainable use of heritage buildings): ▪ Osborne House (HO207) ▪ Classweave Site, Mackay Street (HO1648) ▪ Pilkington Australia Factory and No 1 Furnace (HO1722) ▪ Ford Motor Company (HO1717) ▪ Former Corio Distillery complex , (Cheetham Pty Ltd) including former workers houses (HO1728) ▪ Geelong Grammar School – Part (HO 142) ▪ Railway Culvert Cowies Creek (HO197).

3. Port Economic Role and Function

3.1 The Economic Impact of the Port of Geelong

As part of the preparation of the PLUS, an assessment of the economic impact of the Port area was prepared by consultants EconSearch for Victorian Regional Channels Authority, Toll Geelong Port, Graincorp and DOI.

The main purpose of the study was to provide an analysis of port-related activity at the Port of Geelong; the economic activity involved in the movement of ships in and out of the Port, the movement of cargo to and from the Port and on and off ships, and the ancillary services that support this movement of ships and cargo. These activities define the operation of the Port and, collectively, they generate, directly and indirectly, an impact on the Barwon and Victorian economies. It notes that the operation of a port generates employment and income for the local community as well as flow on effects to local industries and that in recent times ports face increasing pressure because of changing perceptions about the pollution generated by ports and their contribution to traffic congestion on main roads.

The Port of Geelong is the second largest port in Victoria had a throughput of approximately 12 million tonnes in 2004/2005 with an estimated cargo trade value of $5.6 billion. Crude oil and petroleum products are the key products traded in volume terms with grain, woodchips and fertiliser also significant components.

Four factors were used to measure the economic impact; output, value added, household income and employment. Impacts were measured in the Barwon region and compared to Victoria as a whole.

Output was measured by adding firms gross revenues to expenditure by port-related government, semi-government and non-profit organisations agencies. Output was calculated directly at $170 million with a flow on effect of $120.1 million.

In the Barwon region it was estimated that 609 direct (full-time equivalent) jobs were supported by the port with a flow on of 579 jobs. This represents 1.7 per cent of total employment in the Barwon region. This in turn generated a household income of $34.2 million or flow on of $28.9 million.

In 2004/2005 there were 543 ship visits to the Port of Geelong by commercial cargo vessels. On average each ship resulted in an output of $543,000 in the Barwon region and supported 2.2 full-time (equivalent) jobs.

The most significant cargo types in terms of the total volume of trade through the port of Geelong in 2004/2005 were crude oil and petroleum products, woodchips, fertiliser and grain. Together these commodity groups accounted for over 80 per cent of total port economic impact.

The volume of trade through the Port of Geelong from 2000/01 to 2004/05 is detailed in the Study. The amount of cargo (on a tonnage basis) moving through the Port remained relatively steady through this period with fluctuations being attributable to grain production and wood chip production. Projections for the major companies using the Port do not predict a substantial change in their operations in the next five years.

3.2 Trade Forecasts for the Port of Geelong

As part of the preparation of the draft SLUP and subsequent PLUS, trade forecasts to the year 2020 were prepared by consultants Meyrick and Associates for Toll Geelong Port, DOI and SKM (the authors of the draft SLUP) in 2002. A high case growth forecast was assumed for the purposes of strategic planning for the port. This predicted that by 2020 trade through

the Port would increase by 35 per cent. If bulk liquids are excluded from the projections, it is anticipated that the figure will rise to 59 per cent over the same period of time.

A growth scenario is included for each of the main commodity groups through the port; grain, forestry products, bulk liquids, smelter (mainly alumina), and fertiliser. Potential new business opportunities are also identified and these include the export of cement products, quartz and mineral sands from mines in New South Wales.

Soy protein import for feed stock through Lascelles Wharf is currently being established.

Recent reports (statements made in the draft PLUS and expert witness statements to Amendment C98 – hometown) indicate that Toll GeelongPort is also exploring opportunities to trade bio-diesel through refinery pier as well as motor vehicles, livestock and mineral sands through Corio Quay.

3.3 Growth of the Port of Geelong

The Geelong Port PLUS notes that one of the key constraints to the growth of the port is the lack of suitable zoned Port and industrial land to support and complement the core Port operations.

The need for additional land for GeelongPort is also estimated at 89 hectares to accommodate new customers to the Port including the potential to export mineral sands through the Port and the potential to accommodate motor vehicle imports. The PLUS notes the need for the industrial precinct at Heales Road to be retained in large allotments (particularly around the rail spur) as this will be the location for port reliant industries which are unable to locate at the Port because of the lack of suitable land. In the longer term, industrial land at Avalon is regarded as potential location for port related industry.

As detailed in section 2 above, the PLUS identifies three core functional areas of the port being:

1. Liquid Bulk Precinct (refinery Pier) – this area includes the key port related industries of Terminals, Incitec-Pivot (dry fertiliser storage and distribution which is not reliant on refinery pier), Basell (polypropylene) and Shell. Terminals P/L operates as a commercial bulk liquid storage facility with tanks storing liquids and chemicals including Dangerous Goods Act classes 2 (liquid gases i.e VCM's, butadiene), 3 (flammables/solvents), 6 (poisonous/toxic), 8 (corrosives). Terminals have plans for future expansion but chemical type is unknown but unlikely to include Class 1 (ammonia/chlorine etc), classes 4, 5 and 7 (biological) and respond to market demands.

2. Bulk and Break Bulk Precinct (Lascelles and Corio Quay) – the Lascelles precinct includes the operations of Orica, Incitec-Pivot, Ford and One Steel and includes sites identified for biodiesel operations. The Corio Quay precinct include the operations of Midway, AMS and SPE logging operations, Volclay and AMS malting etc.

Incitec-Pivot is a major port facility user dispatching 1M tonnes of fertiliser product from its Geelong operations (600,000 tonnes arriving as finished product for distribution and 400,000 tonnes arriving as raw material for production). The operation includes import of phosphate rock (270,000 tonnes via conveyor) and sulphuric acid (130,000 tonnes via pipe) direct from Lascelles wharf. Liquid fertiliser is piped to Terminals site. The Seabreeze site includes fertiliser and chemical production, storage, blending and road/rail distribution. Incitec-Pivot have identified opportunity to consolidate site operations including future additional chemical manufacture (i.e class 8 corrosives).

Midway has recently invested $18M into upgrades at its site and significant investment in new ship loading infrastructure at Corio Quay. SPE has exported in excess of 3.5M tonnes of wood chip product over the last 10 years utilising GrainCorp pier facilities. ADM Malting

Australia manufactures malted barley from its Crowle Street operations (supported by road and port access – including use of GrainCorp facilities) and anticipates the potential for significant site development and investment in the order of $30M. This site is vulnerable to sensitive uses given odour and noise emissions.

3. Bulk Precinct (Grain Piers) – this area includes the operations of GrainCorp and Barrett Burston. Both these operations are vulnerable to sensitive uses given dust, odour and noise emissions and extended hours operations. GrainCorps pier facilities enable handling of grain, seeds and woodchips by enclosed conveyor and train/truck loading facilities (receiving over 300 truck movements/day during peak periods). The GrainCorp operation handles 500,000 tonnes product/year and anticipates substantial opportunity for growth (up to 4M tonnes/year) and in container packing, pallet coal or other major commodity with opportunities for on site value adding. The operation has the ability to make effective use of rail services including dual gauge lines to reduce reliance on truck movements however is vulnerable to service reductions or increase in user fees which would have significantly increase truck movements. Barrett Burston malting operations have been located in Mackey Street since 1985. product is handled via truck movements and via GrainCorp pier facilities. The company has identified site growth opportunities.

The retention and protection of these facilities as economic assets of the community of Geelong is critical to the ongoing viability of the Port as a key economic role of Geelong. The provision of adequate and suitably zoned industrial land around these core areas is also critical to ensuring there is available supply land for of storage and manufacturing of goods associated with port uses as well as providing suitable buffers to residential, recreational and general resident uses of Geelong and Corio Bay.

Toll GeelongPort has a current proposal to expand Corio Quay with an extended berthing facility on its northern side. There are longer term plans to also expand Lascelles Wharf and Corio Quay south. Should these proposals all be implemented the capacity of the Port handling will be expanded. This will intensify the demand for supporting industrial land to provide storage and port related industry to accommodate the increased port facilities.

The use of available industrial land for port and complementary uses will be important to developing this area as a consolidated industrial area. The expanded port operations may also see further development of the Heales Road estate as supporting land for storage and associated industry.

3.4 Non industrial uses in the Port area

The continued use of the industrial areas around the Port for port related and general industrial purposes has been reinforced in the recent decision of Planning Panels Victoria in relation to Amendment C98 to the Greater Geelong Planning Scheme. This amendment sought the development of restricted retail activities and office development on former Ford land, directly west of the rail line adjacent to Corio Quay.

The Panel concluded that the industrial land between the Princes Highway and the Port should be considered as strategically significant to the continued successful operation of the Port as an asset of state significance. The Panel was *"of the opinion that future options for industrial or port uses should be retained for the further development of this site."* (Pg. 41 Panel report to C98).

It is noted that there are a number of existing non industrial uses in the Port environs (notably the North Shore residential area) that provide a source of environmental and amenity conflict. These are further addressed elsewhere in this report.

The use of non port industry in the core port area and port related industrial area needs to ensure that the use does not conflict with the operation of core port facilities and provides the opportunity for land to be used for port related industry either now or in the future.

The purpose of retaining land in around the core port facilities in industrial zoning is to recognise the potential use of industrial land for port related activities or activities that do not conflict or impede the future effective operation of the port.

3.5 Key Influences

Key influences identified from discussion above for the structure plan development include:

- The policy provisions detailed in "Policy Context" are underpinned by the existing role and projected trade forecasts for the Port as a regional asset to Geelong.
- The continued use of land in and around the Port through appropriate provision of industrial land is supported by state and local policy and reinforced through recent planning decisions to maintain appropriate buffers between the port and non industrial uses.
- Provision of suitably zoned land with adequate transport links to the Port is one of the most important issues to enabling future growth of the Port.
- The port can be identified into precincts of specific function, according the core assets from which the Port operates, notably Refinery Pier, Lascelles Wharf, Corio Quay and the Grain Piers.
- The Port will continue to develop according to specific functions, notably liquid bulk, dry bulk and break bulk handling. Expansion into container handling is unlikely due to limitations of Port facilities and land availability.
- Proposed expansion of Port facilities at Corio Quay and Lascelles Wharf will place increased pressure on surrounding land areas to service the port with storage and associated processing industries.

4. Health and Safety

Part of the long term operation of Geelong Port and its adjoining industries has included the use and manufacture of products that have health and safety impacts on the community of Geelong. This includes risks associated with the storage and manufacture of liquid chemicals associated with Terminals and Shell refinery and to a lesser extent the health impacts of fertiliser production associated with Incitec Pivot and other similar industries.

It is important to recognise that there are both health and safety issues as well as amenity impacts of industrial uses associated with the Port. This section seeks to address the manner in which issues associated with community health and safety is addressed within the context of the Port uses.

Further consideration of amenity issues (including noise, odour and traffic) are addressed in Section 5 below. It should be noted that there is a "grey area" within which amenity issues become health issues and vice versa. The assessment of industrial uses is provided for under various state government acts including:

- Health Act 1958, for which Council is the administering body (refer details below)
- Planning and Environment Act 1987, for which Council is the responsible authority for assessing planning permit applications, within the Victorian Planning Provisions.
- Environment Protection Act 1970, with works licenses required from the Environment Protection Authority for uses emitting significant air or noise emissions.
- Dangerous Goods Act 1985, with license approval required from WorkCover for uses presenting a defined risk to the community.

In preparing this structure plan, council officers undertook a number of consultations with interested community groups with specific concerns about health and safety of the port uses with the broader Geelong community. This included discussions with Geelong Community for Good Life, the North Shore residents group and the Northern Community Consultative Group. Discussion of issues of amenity and health and safety have taken into account the discussions with these groups.

4.1 Council's role in the provision of a Healthy Community

Section 29A of the Health Act 1958 directs that it is the function of Council to promote public health through organised programs including the prevention and control of environmental health dangers. This includes:

- developing and enforcing up to date public health standards and intervening if the health of people within the municipal district is affected.

- monitoring the activities of and assisting other agencies whose work has an impact on public health and, if necessary, advocating on behalf of the people within the municipal district for adoption and enforcement by those agencies of appropriate standards.

In developing programs and assessing development within the municipality, Council relies on evidence based data to indicate health impacts to minimise detrimental effects on public health. Council relies on best industry practice in determining effective environmental health prevention and control measures including incorporating emergency response criteria.

This acknowledges that Council is often not the approving agency for works approvals associated with potentially offensive or dangerous industries. Whilst Council may be responsible for issuing a use or development planning permit under the provisions of the Planning and Environment Act 1987 other agencies approve the works to be undertaken on site.

Council recently released its Strategic Health Plan: 2006 – 2008. This plan identifies 11 qualities of a health city to which Council seeks to strive. This includes provision of:

- a clean, safe physical environment of high quality development
- an eco-system that is stable now and sustainable in the long term.
- a high degree of participation and control by the public over the decisions affecting their lives, health and well being.
- a diverse, vital and innovative city economy.
- High health status, (high levels of positive health and low levels of disease).

Decisions regarding new industry in the municipality have regard to this health plan and the consequences of new development to the provision of a healthy community.

Council seeks to work with the community through consultative groups to continue to monitor and address issues of community health and safety.

Council also seek to use its powers under the Health Act 1958 to lobby state government for policy and decisions that promote positive health outcomes for its residents. In recent times this has included detailed assessment of chemical storage facilities at Terminals Pty Ltd.

Whilst Council will continue to maintain its role its assessment of such uses in the interests of community health and safety, often the final approving body is not Council.

During the preparation of the structure plan, Council consulted with the Geelong Community for Good Life group. This group has particular concern over the continuation of chemical storage in Geelong. Particular concerns raised by this group, relevant to the structure plan, include:

- A concern that a greater level of information should be supplied by applicants for new development in the port including risk assessment reports for proposals.
- How Council seeks to manage conflicting policies to promote economic development whilst restricting expansion and growth of toxic chemical storage in Geelong.
- Assessment of new development and monitoring of existing development should have particular regard to the health and safety of the Geelong community. This includes the environmental and emergency management procedures for operations in the port area.
- Maintaining access to public areas through the port for walking and cycling as part of the broader recreation network of Geelong.
- There is a need for Council to act on behalf of the community of Geelong to advocate state agencies such as the EPA to ensure that adequate monitoring and management of the health, environment and safety of the community is maintained.
- It is the view of the group that chemical storage should not be undertaken at the Port and in the long term moved elsewhere, such as Point Wilson.
- Council should consider planning controls similar to the Altona petrochemical plant, land use density provisions to restrict the number of people near dangerous uses.

4.2 Dangerous Goods

The use, production and storage of dangerous goods is directed by the Dangerous Goods Act 1985 and enforced by WorkCover via a licensing process.

Some industries and uses within the Port structure plan area are affected by the Dangerous Goods Act, notably chemical storage at Terminals Pty Ltd, petroleum production at Shell refinery and the handling of bulk liquids at Refinery Pier.

Council has a limited role and authority to influence decisions of WorkCover in relation to the issue of licenses for dangerous goods, other than to lobby on behalf of its community under its role of the Health Act to act in the health interests of its community.

There are various option to restrict chemical storage including:

- Placing the port area into a Special Use zone that would prohibit further use or development of land for liquid bulk storage.
- Placing the port area into a Special Use zone that would prohibit specific forms of liquid bulk storage based on the types of chemicals to be stored.
- Identifying the Refinery Pier and adjoining port facilities (including Terminals Pty Ltd) as a site specific Special Use zone to enable further liquid bulk storage within this location, but restrict its use and development at other port locations.
- Retaining the current special use zone provisions that enable the potential for all forms of bulk handling, including liquid bulk storage to be established at each of the port facilities or contain bulk liquid storage via a local policy.
- Applying a Development Plan Overlay requiring a master plan approach to future development of an identified bulk liquid storage facility. This tool removes third party appeal rights so would need to ensure a rigourous community-industry process input into the development of a master plan.

Investigation of the options above indicates that to restrict use of port areas to specific chemical types is potentially unnecessarily limiting, as chemical classifications as defined by the EPA and Port (major hazard facility under Occupational Health and Safety -Major Hazard Facilities Regulations 2000, 'Controlled Port Activities' such as Class 2 gasses under Australian Dangerous Goods Code) vary and may not rule out some chemicals considered to be of concern by the community, whilst it may unnecessarily restrict safe storage of chemicals in an area that has sufficient buffer to sensitive land uses.

Likewise to seek to prohibit the use of all further bulk liquid storage within the Port may be unnecessarily limiting to the future of the Port as a significant economic function of Geelong and is unlikely to be supported by the state Government as a planning control due to the significance of the port to the state economy. It is also apparent that other sites, not on Port land, are used or proposed to be used store significant volumes of liquid chemicals (such as Incitec-Pivot and proposed bio-diesel operations) and would not be affected by a SUZ change.

Consultation with the community through the development of the structure plan indicates that the key concerns are that liquid bulk storage be:

- retained to the existing refinery pier infrastructure only;
- located centrally at the terminals site, with more transparency over how decisions are made to locate new storage facilities within this refinery pier precinct;
- Managed so that the on going health impacts from such storage to the wider community are monitored with remediation to protect community health undertaken as needed.

Industry however has indicated that a specific SUZ and DPO and high level of environmental assessment is contrary to the purpose of the zone, unnecessarily complex and a duplication of other environmental regulations and requirements.

The option of restricting liquid bulk storage to a specific area via a policy direction that also seeks a level of environmental performance and risk assessment/management has the ability to provide certainty over the future development of the precinct for both the port operators and the community.

Given community concern relating to the standard of industry monitoring, enforcement and contamination it is appropriate that Council acts on behalf of the community to advocate state

agencies, such as the EPA, WorkCover and the Dept. of Human Services, to provide adequate monitoring of health and safety, environmental performance and, where necessary, enforcement of the provisions of relevant legislation to maintain health and safety of the community.

4.3 Emergency Services

The Port of Geelong Emergency Management Plan 2005 was produced by Toll Geelong Port and the Victorian Regional Channels Authority. The stated aim of the Plan is to identify arrangements to mitigate, prepare for and manage the response to and recovery from emergencies which may impact upon the Port.

The Plan is consistent with the State's approach to emergency management as it adopts "an all hazards, all agencies approach". A management committee which included representatives from GeelongPort, Toll's tenants, CFA, Rural Ambulance Victoria, Victoria Police and the City of Greater Geelong is charged with regularly reviewing and updating the Plan.

Tenants of GeelongPort are also required to undertake emergency planning for their sites. Other industrial sites such as Shell and Terminals are classified as Major Hazard Facilities and are required to comply with the Occupational Health and Safety (MHF) Regulations 2000.

Consultation with the CFA, Victoria Police and the Rural Ambulance Victoria has revealed that they are well prepared to deal with an emergency at the Port and have allocated their resources accordingly.

4.4 Port security

The federal Maritime Transport and Offshore Facilities Security Act requires the development of security plans for Ports and Port facilities which can have the affect of restricting public access to wharf and foreshore areas. There are multiple plans within the Port of Geelong covering all port facilities including Refinery Pier, Grain Piers, Lascelles Wharf and Corio Quay. These Security Plans restrict access to these facilities within the Port of Geelong and may include some adjacent foreshore crown land areas.

The Department of Transport and Regional Services have advised of a review of the maritime security regime to ensure a more integrated approach to security planning within port communities.

4.5 Key Influences

Key influences identified from discussion above for the structure plan development include:

- There is a need to continually assess current and future port uses in context of the health and safety of the broader community of Geelong, within the context of Council's Draft Strategic Health Plan and the provisions of the Health Act 1958.
- Planning for the Port needs to acknowledge the role of other state agencies who are key agencies for assessing the use, manufacture and storage of Dangerous Goods as defined by the Dangerous Goods Act 1985.
- Council continues to work in a collaborative approach between the community, operators of the Port, DHS, EPA and Worksafe to ensure the health and safety of the community of greater Geelong
- Port security legislative requirements will have some impact on access to public land between port facilities and Corio Bay.

5. Environment and Recreation

5.1 Natural Environment

The study area for the Structure Plan is a highly developed urban/industrial area with (other than the Bay itself) limited remaining environmental features.

Corio Bay is a key environmental asset for the community of Geelong. It has a diverse range of environmental features and offers a range of social and economic opportunities. The community enjoys the use of the Bay and foreshore for both formal and informal recreation pursuits including boating and fishing as well as passive recreation activities such as walking and cycling. The landscape setting that the Bay provides to Geelong is highly valued by the community.

The Bay also supports a wide range of terrestrial and marine habitats and sections of it are of national and international environmental significance including the area between Point Wilson and Limeburners Bay which is part of the Port Philip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site.

The Corio Bay CAP divided the Bay into precincts. The Port is situated in the North Shore Precinct. The issues affecting this precinct are identified elsewhere in this report and the CAP provides directions on how these will be managed in the future.

The ecologically significant features and economic and recreational opportunities around the Bay combine to create a complex environment that inevitably results in competing interests which requires careful management.

Cowies Creek extends from its headwaters at Lovely Banks to Corio Bay where its estuary was excavated to create Corio Quay (see Map 10). The Creek has a length of approximately 13 km and travels through rural, residential and industrial landscapes which expose it to a range of external influences. It has been subject to cycles of erosion and sediment deposition at various points. The Cowies Creek Restoration Program (March 2004) is a comprehensive management plan for Cowies Creek prepared by the City of Greater Geelong. It notes that there are a range of restoration strategies required to protect the stream and these are grouped under the headings of waterway stability, water quality, floodplain and drainage management and vegetation management and miscellaneous works.

Hovells Creek extends from the hinterland around Anakie to Limeburners Bay where it meets Corio Bay. It is a complex waterway that has been altered as a result of past flooding events. There is a significant rare mangrove community present to the south of the Princes Highway which is under pressure from up-stream activities which have resulted in increased freshwater run-off and nutrient and sediment deposits in the creek. The estuary of Hovells Creek is a designated area of aboriginal archaeological sensitivity. Limeburners Bay is an area that consists of a number of small wetlands around Geelong Grammar School and Limeburners Yacht Club, heading north towards Lara.

5.2 Cultural Heritage

5.2.1 Aboriginal Cultural Heritage

Aboriginal Affairs Victoria has advised that there are 12 records of Aboriginal archaeological sites or places within the study area and that there is potential for other places to be identified. All aboriginal cultural heritage, that is, Aboriginal places, Aboriginal objects and Aboriginal human remains, are protected under the State Aboriginal Heritage Act 2006. It is an offence to do an act that will harm or is likely to harm Aboriginal cultural heritage.

Under the provisions of the Aboriginal Heritage Act and associated Regulations activities are identified with the potential to have high impact on registered places or be undertaken in

areas of cultural heritage sensitivity. Within the study areas of cultural heritage sensitivity include (200m from coast, prior and named waterways i.e Cowies Creek, much of the Shell refinery site and buffer as well as the Terminals site, a number of industrial operations and Osborne House). Identified activities such as boat facilities, industry, railway and road construction, significant ground disturbance etc within areas of cultural heritage sensitivity require the preparation of Cultural Heritage Management Plan.

5.2.2 Post–contact Heritage including maritime heritage

The Outer Areas Heritage Study 2000 identifies a number of existing buildings, sites and relics that have local and/or state heritage significance. These include existing Heritage Overlay designated sites such as Osborne House, Classweave mills, Pilkington Australia Factory and No 1 Furnace, Ford Motor Company, Former Corio Distillery complex including former workers houses, Geelong Grammar School and Railway Culvert over Cowies Creek as well as sites recently identified as potentially warranting protection including the old bulk wheat pier and associated silo's the Osborne House jetty, boatshed and baths.

Work by Heritage Victoria in 2003 has identified a number of maritime infrastructure sites of heritage significance along the Victorian Coastline including Corio Bay between Pt Henry and Pt Lillias. Identified infrastructure includes: wharves (i.e Kings Wharf-Lascelles Wharf, Fords wharf, remains of Corio Freezing works and abattoir wharf); Piers (Refinery Pier, Bulk Wheat Pier, remains of Fletchers and Cresco fertiliser and Power Station Piers); overhead conveyors (Phosphate conveyor Lascelles wharf, Corio Quay crane and conveyor, grain elevator dischargers); structures (Landboom Jetty pier piles and seawall, bluestone drain outlets, North Shore baths foundations, International Harvester Intake pier and outlet pipe, Shell refinery stormwater outlet and coolant water intake/outtake training walls, remains St Helens baths); recreational (rock fishing platforms).

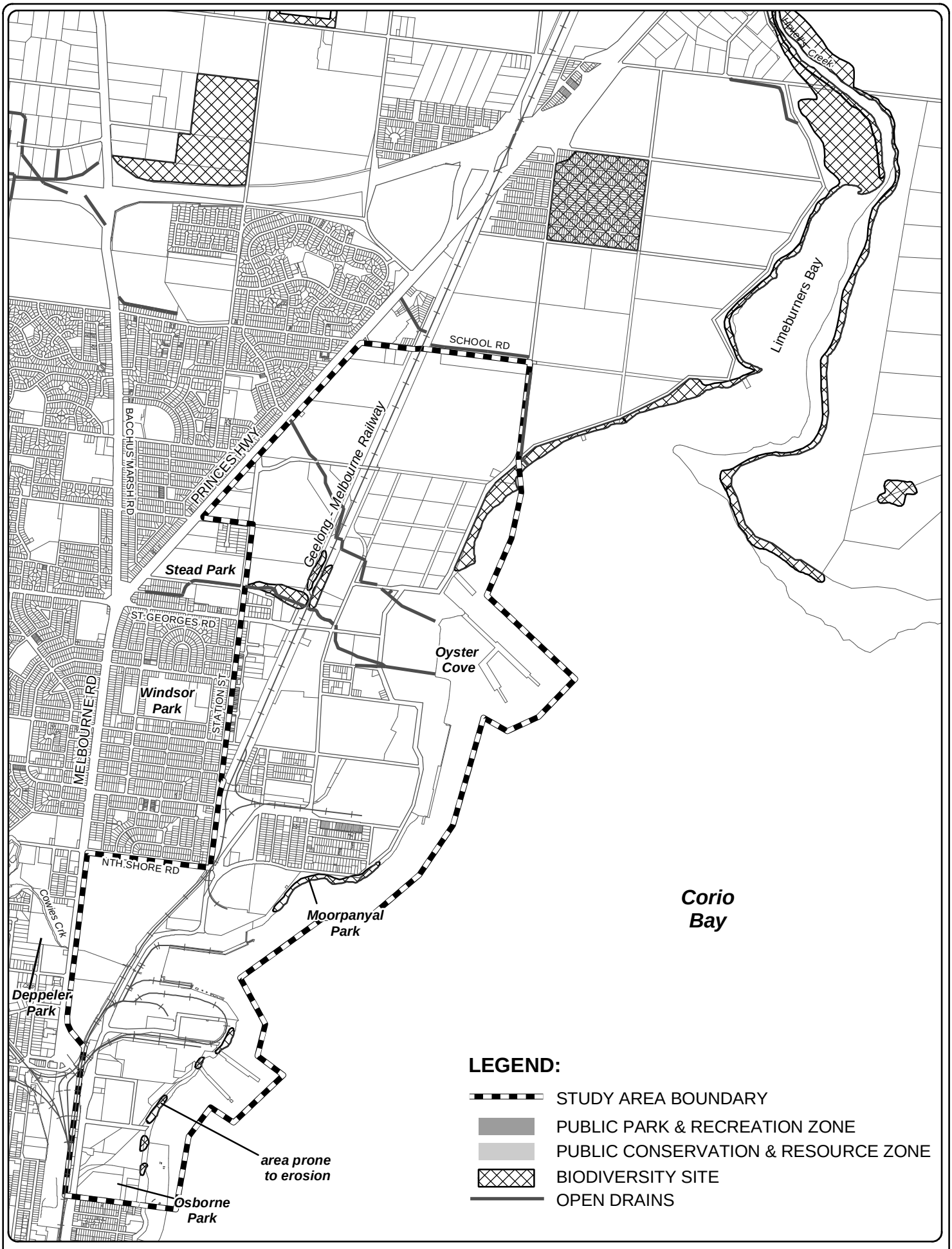
New development will need to consider any impacts on these sites and yet to be classified sites both on land and in water.

5.3 Coastal Vegetation and sites of biological significance

There are a number of sites of biodiversity significance identified in Council's Biodiversity Strategy 2003. The relevant sites have been identified on Map 10. These sites include land from the end of Langdon Street to Mackey Street, the Moorpanyal Park foreshore and the foreshore near Shell refinery. The study areas is also near Limeburners Bay and the intertidal areas to the north east which have been identified as having national and international significance for biological and habitat significance.

5.4 Open space and Foreshore Reserves

Moorpanyal Park (see Map 10) is the principal open space resource for the North Shore area. The park provides beach access and includes a playground, BBQ and toilet facilities, car parking and shaded lawn areas that support a variety of local leisure uses. The park is also popular as a fishing location and has expansive views of Geelong and the Bay with passing ships. Moorpanyal Park was created as part of the residential subdivision of the North Shore area in circa 1892. It included land from Lascelles Wharf in the north to a location adjacent to the intersection of The Esplanade and Seabeach Parade. In 1999 two additional sections of land abutting the southern edge of the park which had been used for industrial purposes and were managed by the Port of Geelong and the Department of Natural Resources and Environment (DNRE) were made available to the City of Greater Geelong to develop and manage as parkland. The expanded park now extends from Lascelles Wharf to Corio Quay. A Master Plan for the Park was prepared in consultation with industry, the Port manager and the local residential community in 2002. It includes a series of recommendation to improve the amenity, safety and usability of the park.



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LANDSCAPE FEATURES

PORT OF GEELONG STRUCTURE PLAN

Map No. 10

Osborne Park is located on the north side of Swinburne Street (see Map 10) which is in the southern section of the study area. It is a well developed reserve adjacent to the historic Osborne House. The reserve has two ovals, one with a turf wicket and also accommodates a fire brigade running track and netball court. The resident sporting clubs enjoy good social facilities. The clubs include the North Geelong Football and Netball Club, the North Geelong Cricket Club and the Osborne Park Fire Brigade Track Committee.

Pedestrian access along the coast is available in the southern section of the study area from Rippleside to Osborne House. Pedestrian access terminates at the Graincorp site on Mackey Street.

Opportunities for the community's recreational use of some parts of Corio Bay are limited by the operations of the Port. Whilst every effort should be made to ensure access to the foreshore, it is acknowledged and accepted that for reasons of public safety and security some areas will remain off limits for the wider community.

Stead Park currently provides active open space for the Norlane area. This area provides limited stormwater retention with overflow running into Cuthbertson's Creek through the Shell Buffer area where it has a more natural form and south of St Georges Road where the waterway has been significantly altered as a result of land fill and ultimately flows into the Bay at a point south of Terminals Pty Ltd facility.

Discussions through the development of the structure plan with GeelongPort and Council's Environment Department indicate that this current waterway could be better managed for use of the Park through increased stormwater retention at Stead Park for reuse at Stead Park. Enclosing the waterway, down stream from Stead Park would reduce the downstream flow, enabling greater utilisation of flood prone and dissected land between St Georges Road and Greta Street and south of the Terminals site. Alternatively this waterway could be enhanced along part or its full length. Further investigation of the treatment of this waterway for environmental and port use benefits should be further investigated between GeelongPort and Council including clarification of any sites of biodiversity significance, as identified on Map 10, that may be affected by treatment works.

Access to deep water fishing areas from land is a key issue for local residents. Opportunities for improved land based fishing are identified in the Moorpanyal Park masterplan and in the PLUS. A collaborative approach between industry, government departments and relevant stakeholders to improve the limited areas of public foreshore reserve could provide for improved opportunities for local recreational fishing.

5.5 Climate Change

Recent climate change modelling work undertaken by the CSIRO in 2004 has identified within the Corangamite and Port Phillip regions that by 2070 there will be perceivable warming of ambient temperatures decrease in rainfall and sea level rises. The extent of sea level rise by 2070 is expected to be in the range of 0.07 – 0.55m. This is unlikely to have impacts on Port facilities (wharfs) which have an average height of 3.8m above the low water mark and other private land and road assets etc are well above this mark. However an increase in sea level, intensity and frequency of storms may have impacts in terms of flooding and erosion on low lying areas including public foreshore areas and raise management issues for public land managers. A mapping and modelling exercise to be undertaken by state government and CSIRO over the next two years for 10 metres above sea level to assist in identifying vulnerable coastal areas will assist in identifying areas at risk and requiring specialised management and planning for coastal areas.

5.6 Key Influences

Key influences identified from discussion above for the structure plan development include:

- There are a number of sites of biological significance both on land and sea adjoining and near core Port facilities that can be better managed and enhanced as public assets.
- The pollution of Corio Bay from industrial operations in the Port area has caused problems in the past. The existing and potential sources of pollution risks to the marine environment from the industrial uses in the area need to be identified, assessed and managed according to planning approvals either existing or proposed.
- Whilst the Port is a core industrial area, there is a recognition by both Council and Port operators that the Port sits in a modified natural environment with areas of public foreshore reserve that must be managed for continued public use.
- Corio Bay, including the intertidal area to the foreshore of the Port Structure Plan area includes sections of sea grass and sensitive marine ecosystems that need to be considered and assessed in any future land use and development proposed in the structure plan area.
- There are opportunities to improve landscape amenity of public areas near the Port.
- There are a number of heritage sites, both formally identified and not including maritime heritage places. These need to be considered in assessing new development.
- Improvements to Stead Park, Cowies Creek and the foreshore reserve can have positive benefits for both the residential community of Geelong and Port industries.
- The Geelong Port area has interface to the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site to the north east of the study area. There are specific protocols and environmental policy that affects development in and around this Ramsar site.
- The need for the preparation of Cultural Heritage Management Plans for a range of activities within registered places of cultural heritage sensitivity under the provisions of the Aboriginal Heritage Act and Regulations 2007.
- The need for foreshore managers to be aware of future impacts of rising sea levels.

6. Amenity Protection and Buffers

The protection of amenity including the consideration of air pollutants, noise, fumes and odour impacts between industrial and sensitive land uses is address by both the Planning and Environment Act 1987 and the Environment Protection Act 1970.

The Planning and Environment Act 1987 requires that in determining the approval of a planning permit the responsible authority (Council) must consider any significant effects which the responsible authority considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development.

The provisions of the Greater Geelong Planning Scheme require that some industrial uses require a planning permit depending upon whether the air emission distances of Clause 52.10 of the Planning Scheme are met. Where such distances are met, often the use does not require a planning permit.

Many such industries still, however, require works approval by the Environment Protection Authority (EPA) under the provisions of the Environment Protection Act 1970. The purpose of this Act is to have regard to the principles of environment protection as defined by the act including the adoption of sound environmental practices and procedures as a basis for ecologically sustainable development for the benefit of all human beings and the environment.

The Act states that this requires the effective integration of economic, social and environmental considerations in decision making processes with the need to improve community well-being and the benefit of future generations.

In 1977 the EPA adopted "*Recommended Buffer Zones (Distances) for Industrial Residual Air Emissions*" which highlights the need to separate industries from residential areas to ensure the amenity of residential areas is safeguarded. This was updated in 1979 and again in 1984. The buffer distances are largely reproduced in the Planning Scheme at Clause 52.10 Uses with Adverse Amenity Potential although some differences in distances do occur for some uses.

The Environment Protection Act 1970 requires that before prescribed industries or processes are established (that is, if a premises will become a scheduled premises), the person intending to establish that industry must have a works approval from the Authority. A works approval is also required where changes are planned to an existing industry that will have an effect on the wastes discharged to the environment. The Environment Protection Act, 1970, stipulates activities that could be covered by works approvals. Any alteration, modification or addition which is likely to increase the discharge of waste requires a works approval.

For a Schedule 1 premises, this could include:

- alteration of the method of operation of any trade or any process
- alteration of the type of fuel used in any fuel burning equipment or industrial plant
- alteration of the type of materials or products used or produced
- installation, alteration or replacement of any fuel burning equipment or industrial plant and
- construction, relocation or reduction of the height of any chimney through which waste is or may be discharged or emitted to the atmosphere.

For a Schedule 2 premises, works approvals are required for:

- installation, construction or modification of apparatus for discharge of waste into water or onto land for treatment of waste prior to discharge, and
- any works which are likely to cause the discharge or emission of waste to land or water or result in an increase of discharge to the environment. This includes landfills.

The activities that are subject to this process are specified in the *Environment Protection (Scheduled Premises And Exemptions) Regulations 1996*.

After the works are completed, the occupier is then normally required to apply to the Authority for a licence which will specify EPA requirements for the operation of the business such as limits on the amount and types of waste that may be discharged to the environment and other conditions designed to minimise the environmental effect of the process.

To provide for public input into this process, EPA information suggests that all applications for works approvals and some types of licence applications and licence amendments are advertised in the media allowing for public comment which is taken into account by the Authority when deciding on the issue of the works approval. Appeal rights exist for people who have commented and are aggrieved by a license decision.

During the preparation of the Geelong Port Structure Plan, consultation with the EPA was undertaken. A list of licensed industries in Geelong was provided by the authority. At the time of writing there are five industries in the Geelong Port study area which have EPA licences. These are listed below:

- Shell - Petroleum works
- Incitec Pivot- Chemical works
- One Steel- Metal galvanising
- Terminals- Premises storing of compounds
- Ford- Metal works

Statutory processes, including the issuing of works approvals and licences and the enforcement process when breaches occur, is the primary means used by the EPA to achieve their environmental objectives. Many industries also have operations plans which they co-ordinate with the EPA with the aim of continuously improving their environmental operations.

This includes on going monitoring of air and water quality emitting from licensed premises. EPA reporting indicates that air and water quality in the nearby area remains good and consistent with general standards for Victoria. A number of site specific problems have been identified over previous years that have required remediation works from industry. Community concern remains that industries in the Port area need to be carefully monitored to ensure that air and water quality of Corio Bay, foreshore and surrounding residential areas is maintained to a high standard.

6.1 Areas of existing buffer conflicts

Whilst new industry development seek planning permits and EPA works approval to confirm that buffer issues can be managed a number of existing industries and residential areas were established in the early 20th century at a time when having housing close to industry was important to enable workers to walk to work. Changes in amenity expectations and the scale of industry at these locations over the years have meant that there has been an increase in conflict between uses.

Areas of amenity concern are areas where normal buffer distances between noise and dust emitting industries and residential areas are not met. This may include addressing areas where existing conflicts exist, or where proposed development presents a potential conflict.

The amenity impacts of the Port need to be appropriately managed however it is also necessary to develop mechanisms to address inappropriate development proposals which may adversely impact on, or unreasonably constrain the operations of the commercial port. Surrounding land uses should have regard to the history of the Port and its economic contributions to the local and State economies. In some locations the necessary separation distances required to adequately buffer the Port are not available due to the historical patterns of land use development. There is little scope for internal port area buffering strategies, thus consideration should be given to placing the onus of responsibility upon the "*agent of change*" in the port environs, a principle that would protect the port from encroaching and adjoining incompatible land use.

This principle was adopted in the assessment of the Hometown application as the applicants were requested to submit a Reverse Amenity Impact Report. In this proposal, despite the assurances of the proponent that amenity issues could be managed, the Panel remained concerned that the introduction of commercial and office uses into a previously core industrial area could unnecessarily restrict the operation of the Port as a key economic resource of Victoria.

Areas of particular amenity conflict / concern are detailed below:

North Shore

North Shore has a small residential area comprising approximately 200 dwellings, a few neighbourhood shops and a Mission to Seamen building. Beginning at Moorpanyal Park, which has a playground and barbecue area, a bay walk traverses the shore between the industry and Corio Bay. Houses along the Esplanade enjoy some of the best views of Corio Bay and the city.

During preparation of the structure plan the North Shore residents group was consulted with key issues identified as:

- to improve the street intersection (safety) at Phosphate Road and The Esplanade,
- to address the issue of truck traffic on The Esplanade particularly the movement of wood chip vehicles from Lascelles Wharf to Corio Quay, and
- to ensure the ongoing improvements to Moorpanyal Park.

The neighbourhood has a strong local community identity with residents active in projects such as the Moorpanyal Park masterplan development and implementation. The North Shore Residents Group consults regularly with local industry and has established a protocol with its most dominant neighbour, Incitec Pivot regarding operations on windy days.

Incitec Pivot has also progressively purchased a number of housing lots directly abutting its site on the south side of Seabreeze Parade between Seabeach Parade and Phosphate Road which contains three dwellings (two privately owned) with the remaining dwelling and vacant lots owned by Incitec Pivot. This strip is zoned Residential 1. The proximity of this strip to industry inhibits any significant development opportunities, residential or otherwise. Incitec Pivot have expressed a desire to retain ownership and control of this buffer landscaped to increase the buffer distance between core activities of their site and residences. Opportunity exists to undertake further landscaping works in this area and for the company to purchase the remaining privately owned properties to further reinforce the buffer.

The Incitec Pivot administration building and carpark is bound by Phosphate Road, The Esplanade and Seabreeze Parade office site contains an open grassed area to the south of

the carpark. Incitec Pivot provide for community use of part of the administration building. The development of this area for industrial activity is unlikely given its proximity to residential areas although it might be expected that further development of administration facilities on site would be anticipated in the future. Again the ongoing landscaping and presentation of the site is important to reinforce the buffer role this site plays.

North Shore also has an area of smaller, non port related industrial development to the west of Sea Breeze Parade. This area is zoned Industrial 2, however, it comprises areas of small service based industry. Rezoning this area to Industrial 3 or similar may provide additional protection to residents abutting this area without limiting the core activities of the Port.

The draft SLUP proposed to instigate overlay provisions to restrict future development of the North Shore area for more intensive residential use. The PLUS does not seek to implement specific measures, but to *"work with the CoGG to develop a local area plan for the North Shore residential areas as part of the Port Structure Plan, with a focus on the amenity and buffering from adjacent industrial land uses.*" (PLUS section 6.4).

The North Shore Residents Group has also sought to seek a two storey height limit within the residential precinct. Council is currently finalising a Housing Diversity Strategy that identifies opportunities in walkable catchments around activity centres to actively support medium density housing (preferred areas) and with other areas identified as "incremental change areas". Under this policy approach areas such as North Shore are identified as "incremental change" areas, with higher open space and lower density standards than nominated by Rescode and maintenance of the 7.5m height Design and development Overlay 14 trigger. For the North Shore residential area this direction will retain the established character and avoid significant further intensification of housing which would exacerbate existing amenity conflicts.

Norlane

This area of public and private housing is understood to have been established as workers housing for the Ford Motor Company directly south of North Shore Road. The area is not within the core study area but sections are within buffer distances to core industries including Midway and Pivot, as well as some operations of Ford.

The interface area of North Shore Road and Station Street suffers from poor visual and noise amenity, being directly adjacent to industrial development and truck movements along these roads. The railway reserve east of Station Street could be better landscaped to improve visual amenity.

Community consultation with the Northern Community Consultative Group through the preparation of the Structure Plan identified issues including:

- Concern with the physical and personal safety in using both the Corio and North Shore railway stations due to their poor access, isolation and combined use as freight routes.
- Opportunity to vegetate areas of public land along the rail line to improve visual appearance.
- A need to clarify and be consulted on the location of the proposed Barwon Water / Shell wastewater reuse facility.
- Concern over the condition of the road at the intersection of St Georges Road, Station Avenue and railway reservation at this point.

Some suggestion was raised that either one station or both the Corio and North Shore should be closed for passenger use, with better bus transit put in place to service residents to other safer stations. Both these stations are poorly utilised as passenger stations. Site inspections indicate that commuter use / park and ride is poor to non existent, pedestrian linkages limited

and passenger facilities rudimentary. The siting of Corio Station adds to its sense of being isolated and potentially unsafe. Passenger figures from DoI also indicate that patronage from these stations is very low although this is potentially due to the factors above and limited public transport services to the stations. The Corio station would also seem to be well used by Geelong Grammar students at particular times of the week with a school bus service provided. Loss of station facilities is likely to have some impact on commuter accessibility and the community impacts would need to be further investigated.

The Norlane area is currently subject of a renewal project by the Office of Major Projects. This project provides an opportunity to better address the interface issues west of the railway line, including consideration of landscape improvements along Station Street and North Shore Road, rationalisation of the use of the stations. This strategy should also consider the need to address general amenity buffer issues and minimisation of housing intensity directly adjacent to the port industrial areas.

It is noted that industrial areas directly east of the Norlane area are generally smaller lot, service based industry that could be better zoned Industrial 1 or 3 to recognise its proximity to residential development.

North Geelong

South of the study area, sections of North Geelong are within the defined buffer distance for Pilkington Glass and also experiences potential amenity problems associated with the Malting Plant north of Mackay Street. This area is generally well protected through the existence of Osborne Park between the industrial area and the North Geelong residential area.

The Osborne House Masterplan, provides a comprehensive managed approach to addressing this buffer area and when implemented should improve the visual amenity of the residential areas of North Geelong as well as ensuring a long term buffer between industrial and residential uses.

Geelong Grammar

Geelong Grammar is located to the west of Shell Parade generally between Briddicombe Road and Limeburners Bay, east of Shell Oil Refinery. Between Briddicombe Road and Shell Parade the school provides equestrian facilities and some residential accommodation, mainly for staff as well as a number of ancillary functions of the school. Much of this area is screened from view of Shell Parade by large Cypress Trees along the eastern edge of Shell Parade.

Geelong Grammar has an on campus student population of approximately 600, with approximately 450 of these students being full time borders. In addition approximately 100 staff live on site either alone or with families.

Hence, whilst much of the site is zoned Farming, its use is more residential in nature and presents a sensitive interface to the north of the port area. The Farming zoning of the school campus rather than a Special Use (Education) Zone is potentially anomalous particularly given that the Farming zone prohibits an educational establishment notwithstanding 'existing use rights'. The application of a Special Use Zone on the school site would provide transparency and clarity that there is a use of sensitive nature close to Shell and the port facilities as well as enabling the school to establish uses and works in an appropriate planning regime that exempts it from the need for some buildings and works associated with school operations. The timing of any rezoning zone (including proportion of the school grounds to be covered) and the content of a specific zone schedule to reflect the schools primary activities should be developed in conjunction with the school potentially as part of a Master Planning approach which would recognise buffer treatments to industrial areas.

The school is an active member of the Port of Geelong Consultative Committee and has on going discussions with Council and Shell Oil refinery as adjoining land owners. From consultation with the school it is understood that whilst the school acknowledges the on-going role of Shell and Refinery Pier it has concerns regarding the increased use of areas near its site for hazardous uses. In particular it has concerns regarding the increased use of Shell Parade for heavy vehicles to the Melbourne Road and Heales Road industrial estate.

This issue needs to be further addressed in the specific traffic studies to be undertaken by Department of Infrastructure and Council regarding the future access between the Heales Road industrial area and the Port. Geelong Grammar has also identified traffic conflicts with freight traffic related noise concerns and the practice of trucks parking in Shell paraede and associated litter etc.

6.2 Key Influences

Key influences identified from discussion above for the structure plan development include:

- Assessment of new industry and port related uses needs to be assessed against relevant assessment criteria of both the Planning and Environment Act 1987 and the Environment Protection Act 1970. Individual development proposals need to be assessed on the relative merits of the proposal, its location and potential impact on surrounding uses and the environment.
- Ongoing management of existing buffer conflicts will require consultation with relevant resident and industry groups. Current redevelopment projects including the Osborne House management plan of Council and the Norlane redevelopment project of the Office of Major Projects may provide further opportunity to address existing buffer conflicts.

7. Transport

7.1 Roads

The Port of Geelong functions as a transport land/sea interface for the movement of products, generating a substantial amount of truck movement. The port area features a mix of land uses including industrial and residential. The mix of industrial/trade operations results in conflict, primarily created by the movement of trucks along roads abutting residential properties and recreational facilities. This is particularly the case at peak time of the year during the grain harvest season and also when trucks seek to avoid delays on the Princes Highway.

It is necessary to find a balance between the port access needs of industry and the residential amenity in this area. Funds were allocated for the deviation of Seabeach Parade between Seabreeze Parade and the Esplanade to the west of Seaside Parade away from the residential areas. The road has now been completed and should improve residential amenity and truck access while maintaining 24 hour port access. The realigned section of Bayside Road has been declared as part of the Arterial network and is open to all traffic include B Double trucks.

Consultation with residents of North Shore indicates that despite the introduction of the Bayside Road bypass of North Shore there is concern that some trucks continue to use Seabeach Parade to The Esplanade. This is potentially an education exercise, with trucks being slow to take up the alternative route. It may be necessary for Council to consider the need to establish and enforce a load limit on this now local section of road to further restrict truck movements in the residential area should behaviour change of truck movements not result over the coming 12 months.

The Port of Geelong is presently well serviced with adequate arterial road access (being the Corio Quay Road to Shell Parade route commonly known as the Bayside Main Road), including a network of licensed B-Double routes. VicRoads has engaged consultants to prepare a report (due at end of 2007) on the need, location, costs and benefits associated with the development of strategic links from the Geelong Bypass and Heales Road industrial estate to the Port of Geelong. The City of Greater Geelong is participating in this study as a member of the project steering committee.

Construction of the Geelong Bypass has recently commenced and will be undertaken in three stages with completion of the final stage due in 2009. It is anticipated that construction of the Bypass will alter freight patterns around Geelong with the Bypass being a significant freight attractor. The Geelong Bypass Traffic Impacts Study which was prepared for VicRoads by Hyder Consulting recommends a detailed review of the need for and investigation into the issues with a designated freight link between the port and the Bypass.

The benefits of providing a more direct link between the port and Heales Road Industrial Estate have been espoused in previous studies. GeelongPort and the City of Greater Geelong support the need for the development of this link as the Heales Road estate is noted as an alternative location for port related industries which cannot locate in close proximity to the port because of the unavailability of land.

The draft Port Strategic Land Use Plan (SLUP) noted that investigations have been made into the need for a road-rail intermodal terminal in the Geelong region. Identifying a suitable site is difficult to satisfy the requirements of main-line access with sufficient siding length and suitable road access, a site in Gheringhap with access to the Midland Highway is under consideration. The draft SLUP noted that Geelong Port's need for an intermodal facility is limited as it is not a container port and it is not likely to increase its handling of containers as Hastings is identified as the preferred point for containers after the Port of Melbourne.

DOI has since commissioned a study into the feasability of an intermodal freight terminal within the Heales Road industrial estate or other sites. It is intended that freight would be trucked to/from the terminal from South Western Victoria and the Geelong environs and then transported by rail directly to the Port of Melbourne. Council is a member of the steering committee to review this study providing opportunity for Council to participate in the development of this study.

Consultation with representatives from Geelong Grammar identified concerns regarding road safety on School Road and Shell Parade. Students from Geelong Grammar frequently walk along School Road where there is no pedestrian path from the school grounds to access the shops at the intersection with the Highway, these include Hungry Jacks, Subway and Harvey Norman. Shell Parade and, to a lesser extent, School Road are also used by trucks accessing the Port. Vic Roads is the roads authority for Shell Parade and School Road is a Council road. Should Shell Parade be considered for increased truck movement this will need to consider the noise and visual amenity issues associated with the adjoining school site, notably the accommodation uses that in proximity to Shell Parade. The school has identified concerns associated with truck volumes and the parking of trucks on the side of the road and associated littering etc.

Council's traffic department and VicRoads both advise that the current roads are within capacity for their current use. The designation of truck routes between Heales Road and the Port, notably with a preferred route along Shell Parade will need to be further investigated as Heales Road is developed and pressure increases for additional industrial land to service the Port. North Shore is linked to the rest of Geelong via a bus network. The bus routes are illustrated on Map No 11. Bus transit through the area is limited, however, they provide an important link for workers in the area to residential precincts of Geelong that would be enhanced by increased services. There are no plans to alter routes through the structure plan area.

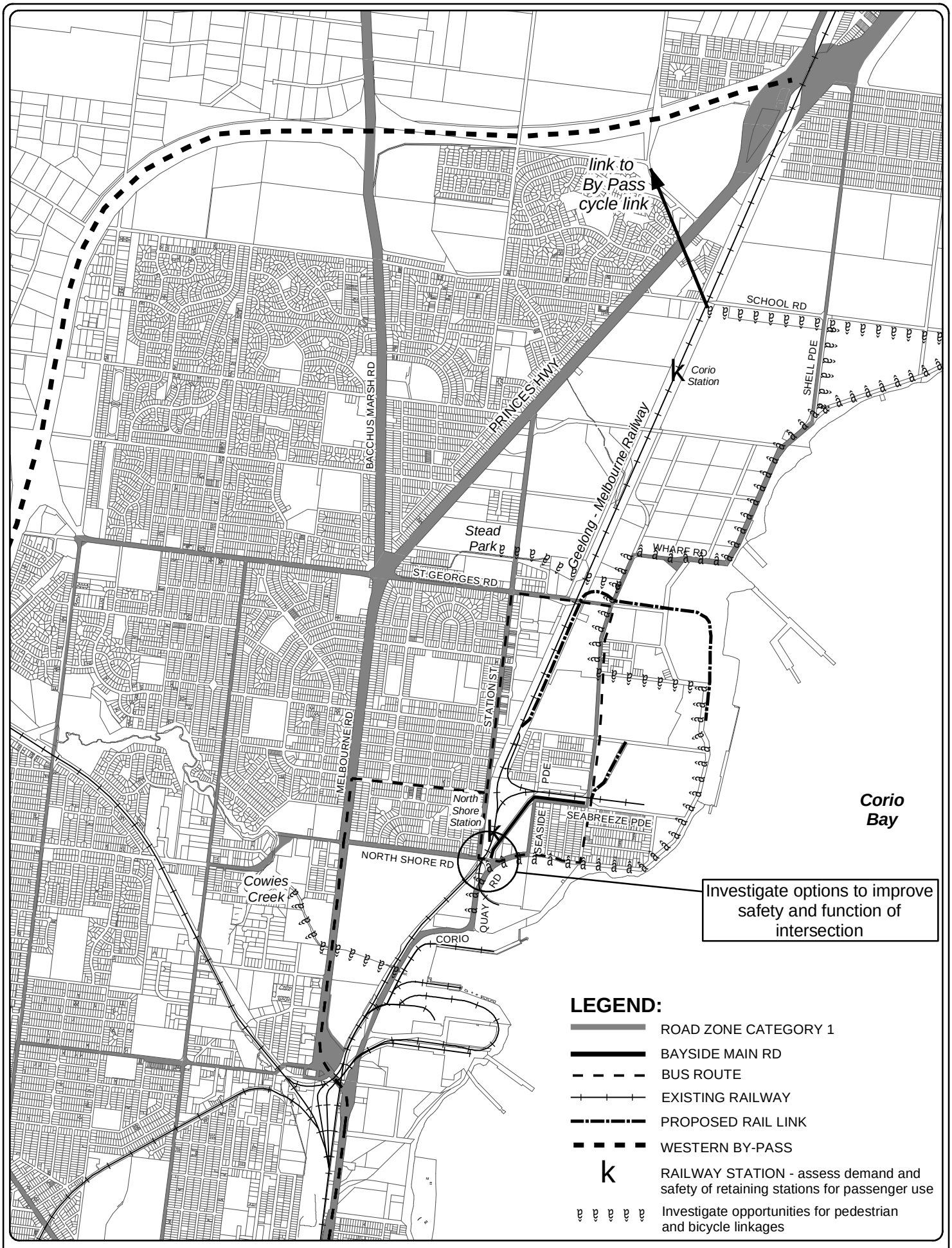
7.2 Rail

The Port of Geelong is connected to the State's standard and broad gauge rail network by rail lines running northwards to Melbourne and westwards to Western Victoria and Adelaide. The rail network to the Port of Geelong is illustrated on No. 11. The rail connections to the wharves at the Port are summarised in the table 4:

Table 4 – Rail infrastructure

Location	Rail Connection
Corio Quay North	3 x 350m broad gauge siding, currently disconnected
Corio Quay South	2 x 300m broad gauge sidings
GrainCorp's grain receivable facility	Dual gauge rail connection (the grain loop)
Lascelles Wharf	No rail connection. State Government committed to provide a dual gauge rail connection via the St Georges Road alignment
Incitec Pivot fertiliser works	Broad gauge connection. Incitec Pivot proposes to convert the present rail spur to a dual gauge when Lascelles Wharf rail spur is constructed. The cost will be shared with the State.
Midway site-north of Corio Quay	Constructed a private, dual gauge rail spur.

Source: Geelong Port: Strategic Land Use Plan for Toll Geelong Port and Department of Infrastructure



CITY OF GREATER GEELONG

N

0 0.25 0.5 1 1.5 2 Km

Prepared by City of Greater Geelong - September 2007 Dwg. No. 346

Although all due care has been taken to ensure that this document is correct, no warranty is expressed or implied by the City of Greater Geelong or Barwon Water in its use.

TRANSPORT INFRASTRUCTURE

PORT OF GEELONG STRUCTURE PLAN

Map No. 11

Improvements to signalling in the North Geelong rail yard have been implemented along with a standard gauge spur line into the Midway site at Corio Quay (the standard gauge element is unable to be utilised until such time as the dual gauge Corio Independent Goods Line (CIGL) which will link the Midway siding is constructed). In principle agreement has been reached with the State Government and Pacific National (the lessee of the Victorian intrastate rail track) for a dual gauge rail spur line into Lascelles Wharf. Construction of stages 1 and 2 of the three stage CIGL project are due to commence shortly extending a dual gauge line to the Incitec-Pivot siding at North Shore improving the likelihood of stage 3 to Lascelles wharf more viable.

A strip of land owned by One Steel extends across the Incitec-Pivot site from Seabeach/Seabreeze Parade intersection to Walchs Road coinciding with a previous rail siding which provides an alternative or additional connection opportunity to Lascelles Wharf.

Operational constraints affect the rail network accessing the Port with train lengths accessing GrainCorp limited because of the level crossings at Thompson Road and Separation Street in North Geelong. This is identified as a capacity problem and potentially a long term limitation to port use and conflicts with residential uses.

There are existing crossing conflicts also at the intersection of North Shore Road/Station Street with the rail line and at the intersection of St Georges Road and the rail line. The St Georges Road/rail line intersection problems are likely to be further exacerbated by the proposed spur line to Lascelles Wharf.

Rail access to the Heales Road Industrial estate is available via a rail spur north of the intersection of Forest and Heales Roads although this is a broad gauge spur although opportunity exists to create a dual gauge siding.

As noted earlier the DOI have commissioned a study to examine the viability of an intermodal terminal in Heales Road industrial estate. This location is seen as attractive as it already features a rail spur which is connected to the Geelong-Melbourne rail line which also comprises the Melbourne-Adelaide standard gauge rail line.

As mentioned elsewhere in this report, concern has also been raised that the passenger use of Corio and North Shore Station provides personal and physical safety problems associated with access to the stations and their isolation.

An overall assessment of the use of these stations, ideally as part of the Norlane renewal project should be undertaken. An increase in passenger facilities at Corio and North Shore Stations, pedestrian and bus connections and frequency of services is likely to provide increase in patronage and community accessibility.

7.3 Bicycle and Pedestrian Movement

As noted elsewhere in this Structure Plan the Geelong Transport Strategy identifies future locations for the development of on road and off road bicycle paths throughout the study area. For safety reasons, future planning for these should be cognisant of the significant number of heavy goods vehicles accessing the road network surrounding the Port and the frequent occurrence of (typically non-signalised/uncontrolled) railway crossings along the proposed bicycle paths, and the need to maintain sections of the Port as restricted areas as provided by federal laws relating to the security of freight terminals. GeelongPort has identified a number of existing potential conflict points particularly spur line crossing points while industry generally has identified concerns about potential cycle-vehicle conflicts with expanded pedestrian-cycle movements.

Council is currently completing a revised Cycle Strategy. It is understood this is considering a number of options to improve cycle access through the area including investigation of:

- A link between Cowies Creek recreation trail to the foreshore trail near Corio Quay
- A link between Stead Park to the foreshore trail along Lowe Street
- Improved on or off road links between the new on road path at Bayside Road to the existing off road links at Lowe Street and Wharf Road.
- Assessment of rail and road crossing points with off road paths as an audit of safety of rail routes.

There is a continued need to maintain and improve existing paths and routes to link to new paths as being developed. Existing paths that provide important local and regional links include the 'Bay Walk shared path to Geelong Grammar and the Hovell Creek path to Lara as well as the on and off road lanes and paths along Seabeach Parade and Corio Quay Road.

Future improvements and extension of pedestrian and cycle networks will need to be mindful of industry activity and vehicle movements, restricted access areas and future Port growth.

7.4 Key Influences

Key influences identified from discussion above for the structure plan development include:

- Current roads to and through the port area are generally within capacity. Expansion of Port operations, in particular increased use of Heales Road as a supporting industrial area may see the need for improved truck links.
- There are existing rail / road crossing conflict points that are likely to be exacerbated if port operations increase. These need to be further addressed as long term safety and efficiency issues for the community and port users.
- There are a number of opportunities to improve cycle links through the port study area to link to broader cycle links around the foreshore and Limeburners bay.
- Provision of safe, accessible and frequent public transport for workers and residents in the area should be considered in further detail as part of on going Council transport planning and as part of the Norlane Renewal project.

8. Physical Infrastructure

8.1 Water Supply

Barwon Water is responsible for the provision of water and sewerage services in the Geelong region. It advises that the supply of water for the Port's operations over the life of this Structure Plan is not a constraint to the future development of the Port.

General reduction in water supply available to Geelong though increased drought years and a larger population base, however, is placing increased pressure on finding innovative means of collecting and reusing water for non drinking purposes.

8.2 Sewer and Trade Waste

Barwon Water advises that the existing sewer network and the pump stations around the Port area are operating close to capacity. It notes that the proposed Northern Water Plant would relieve some of this pressure.

Barwon Water handles more than 5 percent of the trade waste discharged into Victorian sewers each year. It has a Trade Waste Management Policy which includes public health and safety and environmental protection objectives. Barwon Water advocates the EPA's industrial waste minimisation initiative and encourages waste avoidance, reduction, recycling, treatment and disposal.

Occupiers of commercial and industrial premises must enter into a Trade Waste Agreement with Barwon Water before discharging trade waste into the sewerage system. In assessing whether an agreement can be made Barwon Water undertakes a risk assessment which considers:

- The possible impact on the health and well being of the workers in or around the sewage system;
- The impact or possible effect on the sewerage system;
- Any effect or potential impact of the waste on the water reclamation plant process;
- Any possible detrimental environmental impact.

Assessment details the volume and type of waste that can be discharged to the sewer. Contaminants in trade waste can make the treatment of sewage more difficult to treat and could potentially limit opportunities for water recycling. It is therefore important that Barwon Water and industry work together to improve the quality of trade waste

As an incentive to reduce waste Barwon Water has a system of quality and quantity based charges for the receipt and treatment of trade waste, these charges are passed back to the trade waste customer. Trade waste discharges are monitored regularly to test volumes and quality to ensure they are consistent with the trade waste agreement. If a company is found to be in breach of its trade waste agreement a non-compliance notice is issued which provides the company with time to response to the breach. Ultimately failure to comply with a trade waste agreement can result in prosecution by Barwon Water and may result in a fine of up to $20,000. Barwon Water has many customers that have entered into Trade Waste Agreements around the Port of Geelong and is presently not experiencing any non-compliance issues.

8.3 Water reclamation

Barwon Water is currently undertaking a plan for the sustainable management of sewage and trade waste for the next 40 years. At some locations sewers are running near or at full capacity and are challenged with catering for a larger population and growing industry. The Shell Refinery, which is one of the largest water users and trade waste dischargers in the region, has made commitments to improve the quality of trade waste discharged into the sewer and Corio Bay.

The development of a Northern Water Plant has been identified as Barwon Water's preferred option to manage sewage from Lara and Northern Geelong and trade waste from Shell (and potentially other industries at the Port) in the future. In dry weather all water produced by the plant would be recycled for use by Shell and other potential customers. This would substitute for drinking water currently used by the refinery for its boilers and reduce the current use of water by 5 mega litres per day which is 5 per cent of Geelong's total water use. In wet weather when flows to the plant increase, the supply of recycled water would exceed demand. The excess treated water would be stored at the site until the rainfall event had passed and then be released back into the sewerage system.

It will provide significant water conservation and water recycling benefits, and should result in no odour or noise impacts to residences and other sensitive areas. The proposal should result in a 5 percent reduction of the discharge at Black Rock water reclamation plant.

The preferred location of the proposed Northern Water Plant was chosen having regard to the need for its location close to Shell and to existing Barwon Water sewerage infrastructure. The proposed location abuts the western side of the Geelong-Melbourne railway line to the south west of the Shell refinery and is approximately 350 metres from the nearest residence. The biological treatment process will be fully enclosed to ensure there are no odour or noise impacts on residential and industrial neighbours.

The development of the Northern Water Plant is subject to funding from government. In the event that funding is procured the development would be subject to an application for a planning permit and a works approval from the EPA. These processes will allow for further community consultation in additional to the consultation already undertaken by Barwon Water.

8.4 Key Influences

Key influences identified from discussion above for the structure plan development include:

- There is adequate provision of physical services to the Port.
- Greater efficiencies in port related use of Geelong's potable water supply is required. Opportunities exist for some Port related industries to utilise recycle water and contribute to the supply of recycled water to adjacent residential areas.
- Discharge of wastewater and stormwater from industrial sites needs to be carefully managed and monitored to ensure it meets the appropriate EPA and State Environment and Protection Policy requirements. The pre-treatment of all stormwater discharges from new industrial developments in order to meet the best practice guidelines is a requirement of the City.

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Appendix 1 – Proposed amended local policy

21.XX PORT OF GEELONG

Key Influences

- The Port of Geelong is a vitally important resource for the City's economy with forecast trade growth likely to place significant demands on Port infrastructure capacity.
- The availability of suitably zoned land in the Port area (as defined in the Structure Plan map) is critical to the continued viability of the Port.
- Efficient freight movements by road and rail within and between industrial areas and transport links to the origin and destination of goods being critical to the Port growth and efficiency.
- Growth pressures at the Port need to be balanced with the need to maintain public amenity and safety for surrounding communities.

Economic Objectives

- To promote the growth and development of Geelong Port as a key economic resource to the state of Victoria and the Geelong community for dry bulk and break bulk goods and liquid bulk storage and handling.
- To provide a focus of bulk liquid chemical storage adjacent to Refinery Pier.
- To provide land and servicing resources to support the future growth of the Port.

Strategies

- Ensure core port facilities are appropriately zoned to enable core port functions to operate and further develop.
- To apply a local policy which facilitates development of the Port consistent with the key objectives and strategies of the Structure Plan including containing the development of operations primarily involving the bulk liquid storage of dangerous goods as defined by the Dangerous Goods Act to a defined area adjacent to Refinery Pier.
- Maintain appropriately zoned industrial land around the core Port facilities to service the Port and port related industry and provide a buffer to port activities
- Maintain appropriately zoned industrial land around the core Port facilities to service the Port and port related industry and provide a buffer to port activities.
- Ensure that non-port related industry or other complementary industrial zone activities do not compromise Port operations, port and port related industry buffers and opportunities for port development.
- Ensure that industrial or other uses at the interface of industrial and residential or commercial zones minimise amenity impacts on sensitive uses, have appropriate built form treatments and do not compromise Port activities and development.
- Acknowledge the multiple roles of interface land abutting the Princes Highway to provide employment opportunities for a range of industrial (including Port related uses) and other uses complementary to the setting and relationship to the Port and which contribute to an attractive and well landscaped gateway entry to urban Geelong.
- Support expansion of Port facilities (eg. additional berthing facilities) in a manner thatensures protection of the environmental and cultural values of Corio Bay.
- Discourage the fragmentation of larger industrial sites in and around the Port Structure Plan area, acknowledging that large parcels of land are an important long term resource for the core Port uses and complementary industrial uses of the area.
- Discourage the conversion of the port related industrial area in and around the Port Structure Plan area for non compatible uses that may result in future amenity conflicts with core port uses.

Transport Objectives

- To maintain and enhance the efficiency and effectiveness of the Geelong Port as a multi modal transport interchange.
- To ensure efficient and safe movement of road and rail freight through the Port with connections to the to access the the rail network, Geelong Ring Road, Princes Freeway and Heales Road industrial estate.
- To maintain the functionality of key freight Port access routes.
- To ensure transport routes are managed to minimise amenity intrusion to nearby sensitive land uses.
- To provide cycle and pedestrian routes through the Port area that can link to broader, linear links around Corio Bay and other recreational trails which are safe and amenable.

Strategies

- Support development and changes to transport routes in the structure plan and surrounding area that seek to minimise conflict points (e.g. car and pedestrian level rail crossing points) and maintain the functionality of those routes so as to improve commuter safety and reduce freight movement times.
- Where road or rail improvements are proposed as part of Port expansion and development, notably the increased use of Shell Parade to access Melbourne Road and the Heales Road industrial estate, assessment of these improvements should include consideration to minimise noise and improve landscape amenity to nearby sensitive uses.
- Protect rail linkage opportunities as identified in the Structure Plan map.
- Support the development of new cycle linkages to existing cycle/pedestrian networks within the Port area and improvement of the safety of the network consistent with the Structure Plan and Council's Cycle Strategy. Future improvements and extension of pedestrian and cycle networks will need to be mindful of safety, industry and port operations and vehicle movements, restricted access areas and future Port growth. New development in the Port should have regard to maintaining and enhancing these links.
- Support the improvement of public transport services including improvement of pedestrian linkages and bus connections to stations and improvement of passenger facilities local at stations.

Environment and Recreation Objectives

- To ensure new development in the port has regard to state and local environmental policies.
- To encourage the enhancement of and minimise the impacts of use and development on sites of environmental significance along the bay foreshore and other sites identified in the Structure Plan that there are sites of biological significance along the bay foreshore and marine environments adjacent to Port facilities.
- To acknowledge that public access to parts of the foreshore adjacent to the port security area will be limited due to safety, security and logistical issues.
- To support the establishment of pedestrian and cycle linkages to existing open space and recreation assets.
- To ensure use and development has appropriate regard to sites of cultural and historic significance within the structure plan area.
- To promote the principles of Ecologically Sustainable development in the future servicing of the Port and surrounding industrial areas.

Strategies

- Encourage industry to undertake landscape and environmental improvements on site as well as restoration and revegetation works on adjacent public or foreshore areas. This may include requirements for new development to contribute to off site revegetation or infrastructure works,

where opportunities for on site landscaping is limited or off site revegetation may assist in off setting on site amenity impacts of the new development.

- Support programs to encourage industry to work with local communities to revegetate local public foreshore areas with indigenous native species.
- Provide linear links for pedestrian and cycle use through the Port area (ideally as off road paths) to connect to the broader pedestrian and cycle links of Geelong as shown in the Structure Plan and consistent with the Cycle Strategy. Linkages are to be developed so to minimise impact on Port operations and potential for traffic or safety conflicts.
- Planning applications for significant industrial extensions or new use and development should be accompanied by Environmental Management Plans to identify on or off site environmental planting and works, site construction environmental management measures, trade waste and stormwater management consistent with best environmental management practices as appropriate.
- Undertake liaison with industry, managers and users of piers and berthing facilities regarding Council's Stormwater Management Plan and Environmental Management Strategy 2006-2011and the potential risks to marine biodiversity and environment generally identified in these Plans.
- New development should have regard to sites identified as having state or local cultural and heritage significance.
- Require the preparation of Cultural Heritage Management Plans for a range of activities within registered places of cultural heritage sensitivity under the provisions of the Aboriginal Heritage Act 2007.
- Support and facilitate programs which encourage industry to minimise non renewable energy consumption and minimise the use of potable water and introduce wastewater and stormwater reuse projects.

Amenity Buffer Objectives

- To balance the needs to the working port with the amenity entitlements of existing sensitive uses at the Port interface, notably residential areas adjacent to the Port.
- To minimise future amenity conflict in the Port and interface area.
- Apply the 'agent of change' principle to new land use activities establishing within the Port area.

Strategies

- Discourage the intrusion of sensitive land uses and developments into core port and peripheral industrial areas (e.g. office, retail or residential based uses where not associated with the Port, industry or marine industry activity and other activities) which may adversely impact on, or unreasonably constrain the operations and future development of the Port and related industry
- Encourage the use of effective on site management practices and application of related planning permit conditions to control and manage off site amenity impacts;
- Apply the 'agent of change' principle and discourage use and development that may result in significant amenity impacts to existing residential areas within and adjacent to the Port study area.
- Applications with the potential to impact on port operations and port related industry or existing sensitive uses are to be accompanied by a Reverse Amenity Impact report.
- Improve the visual and landscape qualities of the Port area, both viewed internally and as viewed from surrounding areas including high quality landscaping treatments where practical (using local indigenous native species) around the Port, frontages to main transport corridors and areas of potential high amenity conflict.

Health and Safety Objectives

- To promote the growth and development of Geelong Port that supports the health and wellbeing of the Geelong community, consistent with the principles of Council's Strategic Health Plan.
- To ensure existing use and development of the Port prepare and maintain contingency plans to appropriately manage risks from off site impacts to the local community and environment.

Strategies

- Assess new applications for uses at the Port against Council's Strategic Health Plan to ensure the future health and safety of the community of Geelong.
- Planning applications for the development or expansions to dangerous goods storage facilities and other new industry and Port development outside the 'Core port uses – liquid' area which are likely to have potential off site emission impacts (particularly those not requiring EPA works approval) should meet required buffer distances and other environmental requirements and provide a Health and Safety Management Plan consistent with the principles of the Strategic Health Plan: 2006 – 2008 including identification of hazard risks, site emissions monitoring and management including emergency response.
- Continue to facilitate consultation with local stakeholders local resident groups, as required, to monitor and address issues of amenity and health concerns.

Implementation

These strategies will be implemented by:

Using policy and the exercise of discretion

Using the Port Structure Plan in assessing planning permit applications for use and development with particular reference to detailed strategies and directions of the Structure Plan and Precinct Plans within this Structure Plan.

Applying Zones and Overlays

- Apply Industrial 2 zone to core industrial uses close to port activities
- Maintain Industrial 2 zoning between Geelong – Melbourne Rail line and Princes Highway within the Corio Quay precinct to acknowledge the industrial use of Ford motor company and the potential industrial land uses to complement the existing industry and port functions of this area.
- Apply Industrial 3 zone to areas where both a direct conflict between residential and industrial activity exists and smaller industrial sites limit the form of use.
- Apply Special Use Zone 6 to new port assets including wharf extensions and land used for port related purposes by the Port operator.
- Apply PPRZ to land that is held in public ownership along the foreshore that is not currently designated as such.
- Apply a Design and Development Overlay over the former Ford site fronting Melbourne Road to ensure approporiate built form and landscaping treatments to this strategic site.

Undertaking further strategic work

- In partnership with GeelongPort, DOI and local community to develop a Comprehensive Buffer Strategy and Community Development Plan for the North Shore residential area.
- Implement the Osborne House Master Plan and develop appropriate zone and policy framework for development of marine precinct.

Other Actions

- Continue assistance from Council's Economic Development Unit to industry seeking to establish import/export reliant business in the vicinity of the Port.
- Liaise with Vic Roads, VicTrack and DOI to advance the development a Road Transport Plan to provide for road system upgrades, traffic conflict area improvements, freight transport linkages and consideration of residential amenity; and with other relevant agencies to upgrade rail linkages and facilities within the Port area and secure rail links to Lascelles Wharf.
- Continue to liaise with Vic Roads to facilitate the completion of the Freight Linkages Study and its implementation to improve links from the port to the Princes Freeway, Ring Road and rail lines and Heales Road industrial estate;
- Advocate for state agencies, such as the EPA, WorkCover and the Dept. of Human Services, to provide greater license monitoring of port industry and port operations and enforcement of relevant legislation as necessary to maintain community health and safety.
- Liaise with industry, managers and users of piers and berthing facilities regarding Council's Stormwater Management Plan and Environmental Management Strategy 2006-2011and the potential risks to marine biodiversity and environment generally identified in these Plans.
- Encourage EPA to develop management plans with industry for known contaminated sites.

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Appendix 2 - Potential Design and Development Overlay

SCHEDULE X TO THE DESIGN AND DEVELOPMENT OVERLAY

Shown on the planning scheme map as **DDOX**

MELBOURNE ROAD, NORTH GEELONG

1.0 Design objectives

To encourage visual interest and vitality of the Melbourne Road area as a major entry gateway to North Geelong by encouraging well designed and sited buildings and integrated landscaping treatments.

To encourage active building areas to be sited so that they are visible and readily accessible by pedestrians from Melbourne Road

2.0 Buildings and works

A permit is required for all buildings and works.

A permit is required to construct a fence along the Melbourne Road frontage.

Siting and design guidelines

Buildings should be sited so that they are visible and readily accessible by pedestrians from Melbourne Road. Where possible, buildings should be sited to face Melbourne Road with carparking located to the side, rear or underground.

Buildings should be setback sufficient distance from front and side boundaries to enable the establishment of a vegetated edge which includes canopy trees and screening of rear storage areas, and soften the appearance of large buildings to Melbourne Road.

Ground level Melbourne Road frontages should contribute to the visual interest and vitality by avoiding large blank walls and incorporating:

- Customer service areas or display areas or similar uses
- Building articulation and architectural elements which provide visual interest
- Window and door openings, displays, artwork or architectural detailing
- Extensive areas of clear glazing
- Scale appropriate to the street and proximity to pedestrians
- Landscaping treatments to provide shelter, soften building facades and reinforce entrances
- Clear connections and linkages from the street to business entrances enhanced by landscaping.

Landscape Plans should be provided which detail landscaping and site layout treatments including landscaping around buildings and entrance points, landscaping and rehabilitation works along Cowies Creek and allowance for a future cycle path connection along Cowies Creek.

Carparking areas should be located to the side or rear of premises and landscaped to provide a high level of amenity and positively contribute to the landscape character of Melbourne Road.

Signage should be incorporated into the overall building design to reduce clutter and complement the landscape and built form objectives.

3.0 Decision guidelines

Before deciding on an application the responsible authority must consider, as appropriate:

- Whether the design, form, layout, proportion and scale of any proposed buildings, landscaping and works is compatible with the siting and design guidelines;
- Whether the layout and design of any building or structures achieves the following:

- Avoids blank walls and large bulky buildings towards the Melbourne Road frontage
- Provide visual interest and articulation of wall and roof forms so as to avoid excessively large, bulky building elements towards the Melbourne Road frontage
- Includes setbacks which allow for the creation of landscaped buffers

- Provides safe, attractive and active frontages to buildings
- Ensures that ground floor activity on the Melbourne Road frontage is visible to the street
- Provides design feature entries to buildings that area easily visible and identifiable from Melbourne Road
- Integrates services and utilities to the side or rear of buildings
- Limits the number of vehicle crossovers
- Provides good lighting
- Integrates signs into the building façade and a provides for a limited number of contemporary designed freestanding signs
- Avoids extensive visible fencing along the Melbourne Road frontage.