



WEST FYANS-FYANS STREET PRECINCT STRUCTURE PLAN

Adopted June 2009



coomes consulting



Coomes Consulting Group prepared this structure plan on behalf of the City of Greater Geelong. Coomes Consulting engaged Essential Economics to provide expertise relating to economic analysis.

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1 Introduction

The City of Greater Geelong commissioned Coomes Consulting Group to prepare a structure plan for the West Fyans/Fyans Street area in 2007. The study area is bounded by West Fyans Street and Fyans Street to the north, Shannon Avenue in the west, Swanston Street to the east and the Barwon River to the south. The area is an historical area of Geelong and contains significant industrial and residential built form from Geelong's early settlement in the 19th Century and prominence in the wool industry. The area enjoys excellent landscape and amenity qualities adjacent to the Barwon River and in proximity to major sporting facilities, Pakington Street strip shopping centre and road transport.

A land use plan was prepared for part of the area in 2002 by Planisphere on behalf of the City of Greater Geelong, The study area for that plan terminated in the east at Latrobe Terrace. However, the West Fyans Street Strategic Land Use Plan 2002 was not incorporated into the Greater Geelong Planning Scheme, and a number of policy changes have lead to the need for a new structure plan for the area. One of the most significant policy changes has resulted from the recommendations of the Housing Diversity Strategy which identified this area as a 'Key Development Area' for medium and high density residential development.

Council adopted the West Fyans-Fyans Street Precinct Structure Plan in June 2009 and sought to prepare Amendment C205 to the Greater Geelong Planning Scheme. An independent Panel was appointed to consider submissions to the amendment in June 2010. The Panel supported the recommendations of the Structure Plan subject to minor modifications. Council readopted the Structure Plan on the 23 November 2010 with minor variations relating to a Structure Plan review period, implementation staging, deleting floor space provisions and inserting a revised Structure Plan and Access and Amenity Improvement Plan.

2 Purpose of the Structure Plan

The West Fyans/Fyans Street Structure Plan is a strategic land use planning framework for the area.

The purpose of the Structure Plan is to:

- identify key strategic planning issues for the study area.
- determine the preferred future planning directions
- identify appropriate planning controls and amendments to the Greater Geelong Planning Scheme to achieve the preferred vision
- provide an implementation plan identifying infrastructure works required to achieve the preferred vision.

3 How will this plan be used?

The plan will be used by the City of Greater Geelong as a strategic planning tool, guiding decision making for planning scheme amendment requests and planning permit applications within the study area. The plan provides the direction for future use and development and outlines specific principles and method of implementation to achieve the objectives.

4 Plan Components

The West Fyans/Fyans Street Structure Plan contains three parts, **Part A** 'Structure Plan', **Part B** 'Implementation and Review' and **Part C** 'Background Report'.

Part A contains the structure plan which sets out key principles and directions for the area based on the information and key influences obtained from the Background Report in Part C.

The structure plan considers:

- Urban Growth
- Settlement and Housing
- Infrastructure
- Site Contamination
- Environment and Landscape
- Economic Development and Employment
- Urban Design

A precinct-based approach has been adopted for the structure plan and Part A contains the Precinct Plan with recommendations for each sector of the structure plan.

Part B 'Implementation and Review' establishes development principles and outlines the planning controls, planning scheme amendments and further work required to implement the directions in the structure plan.

Part C 'Background Report' is a summary of the strategic background research, policy context and opportunities and constraints identified in the review of the study area. In the production of this structure plan the following background studies were completed:

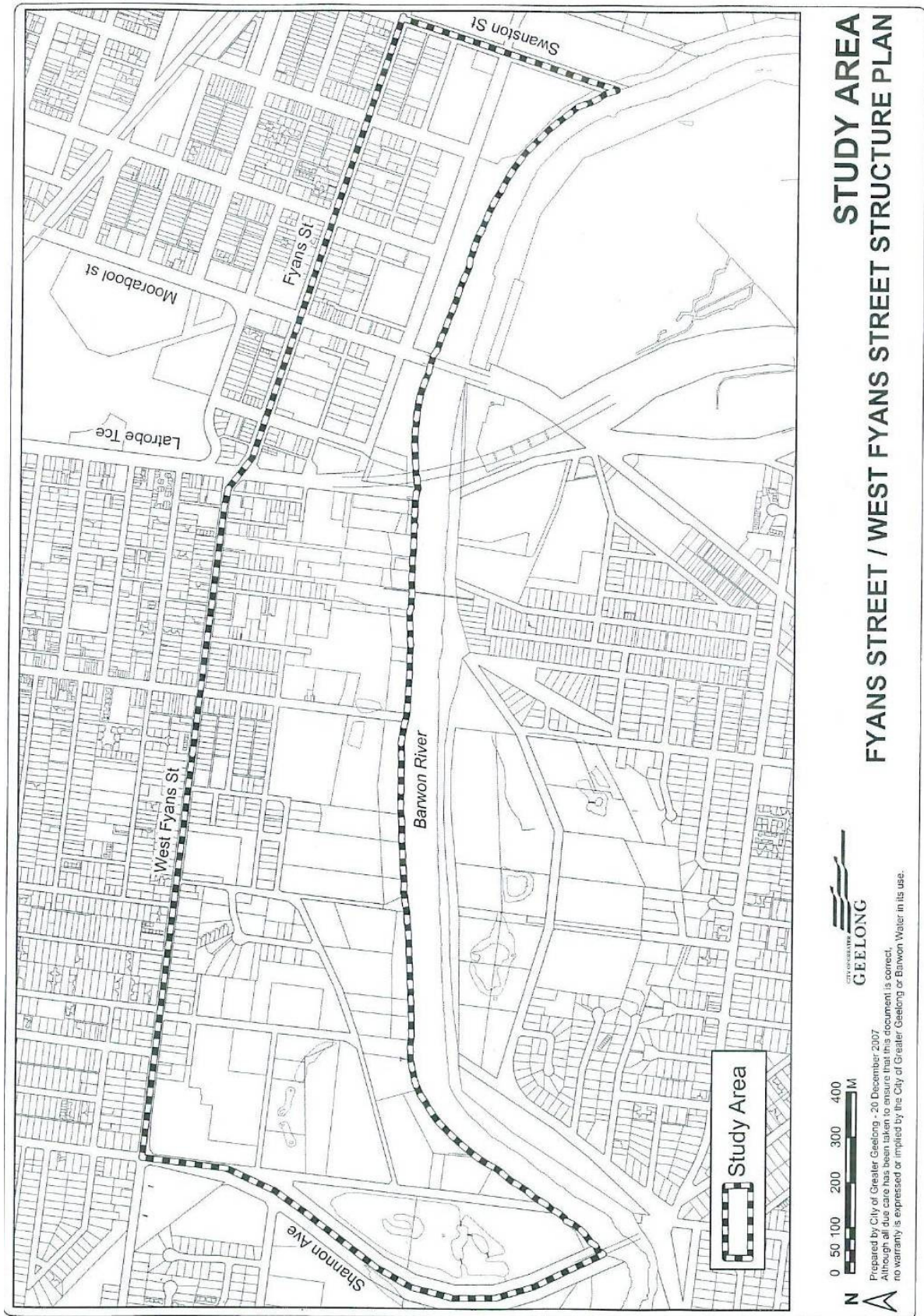
- Recreation Assessment Report by Coomes Consulting Group
- Social Planning Assessment by Coomes Consulting Group
- Traffic Impact Assessment by JPT Traffic (Coomes Consulting Group)
- Economic Assessment Report (Essential Economics)
- Infrastructure Servicing Report (Coomes Consulting Group)

For the sake of brevity, contextual information is not reproduced in the structure plan but can be found in the Background Report.

5 The Study Area

The structure plan will apply to the study area bounded by Shannon Avenue in the west, West Fyans/Fyans Street in the north, Swanston Street in the east and the Barwon River to the south as identified in Map 1 below:

MAP 1 – STUDY AREA



6 The Plan

6.1 The Vision

The Housing Diversity Strategy 2007 identified the study area as a 'Key Development Area'. The vision for the precinct at that time was to:

"Accommodate a diverse range of quality living and working environments, in a way that reconnects the precinct with the Barwon River and celebrates its industrial heritage".

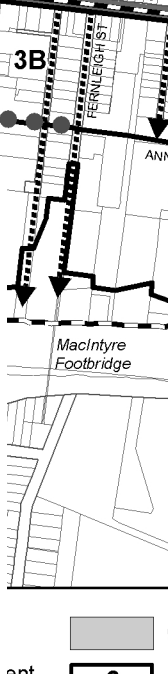
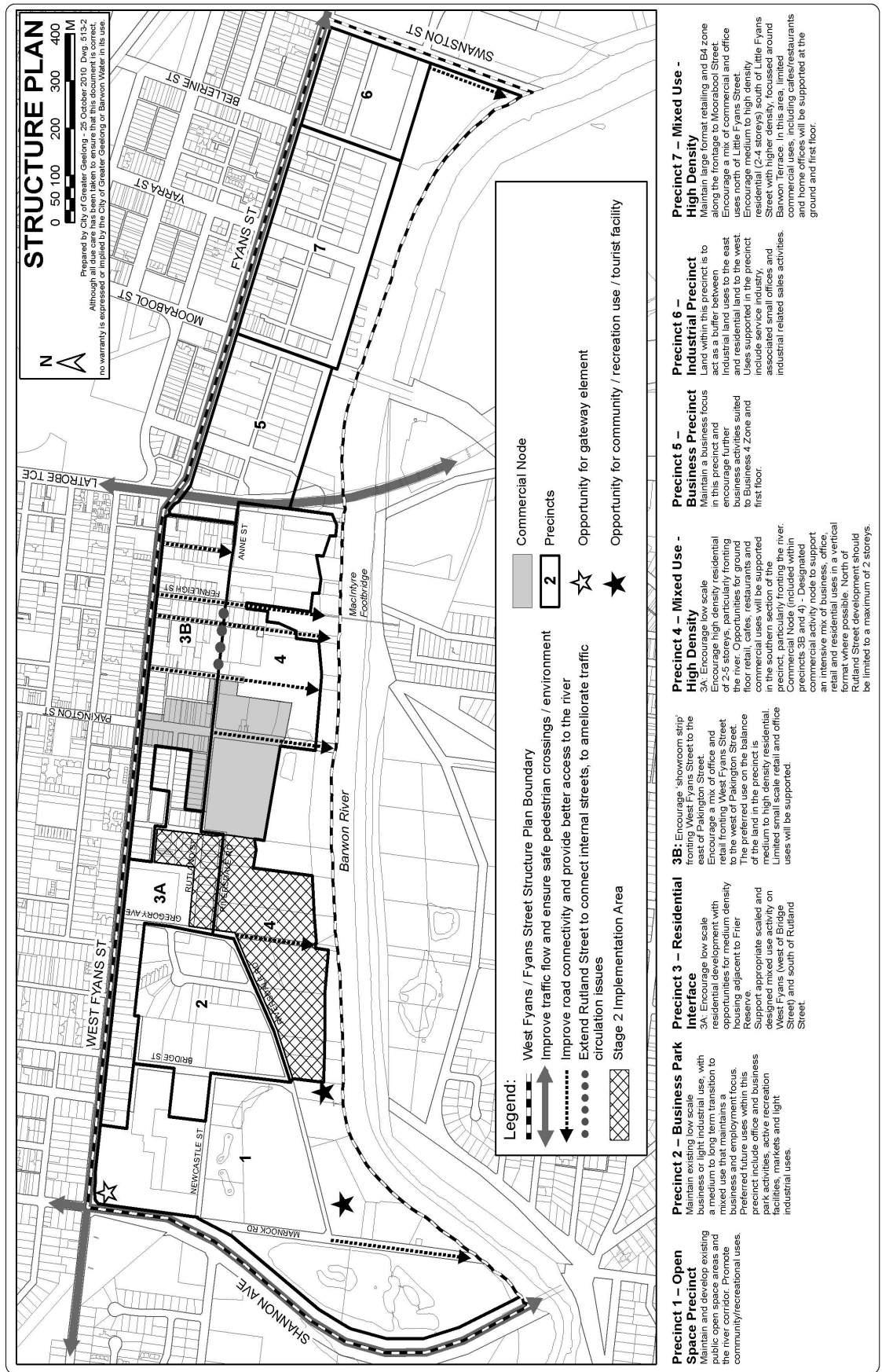
The vision has been reviewed during this structure planning process and found to still be valid and reflects the desired future for the precinct as determined through the structure planning process. The structure plan for the precinct is contained overleaf. Details of the directions contained in the structure plan are contained in the following sections of the report.

6.2 Influences, Principles and Directions

Through the background analysis a series of key influences emerged that have influence the future land use directions of the Structure Plan. These influences have informed a series of principles and actions relating to the following key planning themes:

- Settlement and Housing
- Infrastructure / Site Contamination
- Natural and Built Environment
- Economic Development and Employment

The following sections of this report, discuss the higher level influences, principles and directions associated with the above themes. More detailed discussion of how these actions will be implemented at a individual Precinct level is contained in Section 7.



Precinct 4 – Mixed Use - High Density
Encourage low scale residential, particularly fronting the river. Opportunities for ground floor retail, cafes, restaurants and commercial uses will be supported in the southern section of the precinct, particularly fronting the river. Commercial Node (included within precincts 3A and 4) - Designated commercial node precinct with an intensive mix of business, office, retail and residential uses in a vertical format where possible. North of Rutland Street development should be limited to a maximum of 2 storeys.



6.2.1 Settlement & Housing

The background analysis has identified a series of key influences associated with the future direction of settlement and housing in the precinct. These influences can be summarised as follows:

- The promotion of consolidation of urban form through intensification of a mix of land uses around public transport routes.
- The population of the City of Greater Geelong grew by 10 percent between the period 2001 to 2006 and is expected to increase exponentially (by 46 percent) over the next 25 years.
- The precinct is identified within the Housing Diversity Strategy and Municipal Strategic Statement (MSS) as a 'key development area' and is targeted as an area suitable for medium and high density residential development. The vision for the precinct is to accommodate a diverse range of quality living and working environments in a way that connects with the river and the industrial heritage.
- There is a demand for high quality units and apartments but a lack of quality product in the Newtown/South Geelong area.
- The growth of industrial activities in the precinct is not supported by the Industrial Land Use Strategy.
- Rezoning requests for mixed use development indicate an impetus for change in this precinct consistent with the overarching policy drivers.
- The protection of amenity and industry through the provision of appropriate interfaces between sensitive uses and the treatment of potentially contaminated land is required to manage the land use transition.
- The promotion of high quality urban design and architecture to enhance the liveability, diversity, amenity and safety of the public realm is encouraged. Other design objectives include the achievement of energy efficient built form and the provision of healthy and walkable communities.

Based on the key influences, a series of overarching principles have been established in relation to settlement and housing to assist in realising the overall vision for the precinct:

- **Attract a proportion of Geelong's urban growth to this inner city area.**
- **Protect the Barwon River and provide an appropriate interface with new development.**
- **Locate new residential development close to an activity centre and public transport routes.**
- **Consolidate urban form and prevent urban sprawl.**
- **Provide opportunity for alternative residential product and a diversity of housing sizes and types.**
- **Ensure that heritage properties are protected and enhanced while capitalising on their potential.**

The articulation of these principles in the West Fyans Precinct will require the following actions:

1. Encourage significant infill development to increase the resident population by approximately 2,000 people.

The objective of the structure plan is to attract a proportion of growth away from the periphery and redirect it to the inner city. Currently the structure plan area contains approximately 120 dwellings with an estimated population of 240 persons.

The aspiration of the structure plan is to increase resident population in the area by approximately 1,000 dwellings; increasing the population to 2200 persons.

The structure plan also aims to provide a choice of housing type not available elsewhere in the residential market. Specific precincts have been identified to accommodate future residential development in a variety of densities.

2. Apply a precinct based approach to the identification of areas for high and medium density development in appropriate locations

Precincts 3A & 3B will be characterised by a low to medium density housing environment. Rate of change of residential growth / change in this area may be slow due to current mix of land use, smaller lot sizes and fragmented ownership.

Precinct 4 is identified as the focus for high density housing. This precinct is characterised by large sites, proximate to the river, with limited fragmentation in land ownership, creating a real opportunity for change in the short to medium term.

Precinct 7 is identified to support medium density housing as part of a mixed use development outcome, with priority for upper level housing accessing the views and amenity of the Barwon River environs.

To ensure new residents have access to daily retailing needs in Precincts 4 & 7 a vertical integration of uses is encouraged. An active street frontage is promoted with cafes, restaurants and other food and drink premises encouraged at ground level.

3. Locate new residential development close to Pakington Street activity centre or the South Geelong railway station.

Precincts 3A / 3B and 4 will deliver housing opportunities proximate to the Pakington Street activity centre. To create an extension of the Activity Centre into the West Fyans Precinct, a commercial node centred around Pakington / Rutland Streets has been identified. This node will consolidate retail and commercial activity, medium density housing and community uses to support the new residents and will act as an attractor to assist in the integration of this new community with surrounding neighbourhoods.

The extension of Precinct 7 to Fyans Street provides an opportunity to increase critical mass of people and activities proximate to the South Geelong railway station.

4. Ensure new development provides a sensitive interface with the Barwon River through the application of urban design guidelines and appropriate planning controls.

A series of Design and Development Overlays have been identified in Section 7 to be applied to manage built form in terms of height, setback and articulation and energy efficiency. The Overlays also seek to ensure high quality design outcomes that do not create a negative visual impact on the environmental and landscape setting of the Barwon River corridor.

5. Encourage quality high density built form in appropriate locations that respond to the character, heritage values and topography of the area.

The fine grain nature of precincts containing single detached heritage dwellings, particularly in Precinct 3A, should be maintained wherever possible, with development of these sites to be low scale.

The historical woolstores and other larger heritage buildings are a significant asset and offer opportunities for innovative residential product such as warehouse apartments. The size and scale of these buildings provide an unusual urban design context that lends itself to complementary high rise development on adjacent land. The topography and proximity to the river provide further potential for access to views and higher densities. Therefore, higher density development is encouraged in Precincts 4 and 7.

6. Provide guidelines for appropriate interfaces between potentially conflicting uses.

A Design and Development Overlay is required to ensure that during the transition from industrial to a mixed use environment that all new residential development provides for design treatments which manage the amenity impacts from off site noise and odour sources.

6.2.2 Infrastructure & Site Contamination

The background analysis has identified a series of key influences associated with infrastructure needs in the precinct. These influences can be summarised as follows:

- Infrastructure provision must be efficient, sustainable and relate to key needs.
- The Fernleigh pump station and Bowlers Main present issues of odour control.
- The area is subject to flooding from the Barwon River and many parts are low lying. Approximately 20% of the study area is subject to inundation and drainage infrastructure requires upgrading.
- It is anticipated that any new residential or industrial development in this area will be required to provide on-site stormwater quality controls.
- Increased residential densities will maximise the use of the existing supply of community and recreation facilities in and surrounding the precinct.
- The precinct is currently reasonably well served by an arterial road network that accommodates public transport routes, however circulation through the internal road network in the precinct is poor and will require improvement to deliver the policy vision.
- The creation of a sustainable community requires improvements in the provision of public transport in and through the precinct, and the provision of a safer and more efficient road and pedestrian/cycle network.

Based on the key influences, a series of overarching principles have been established in relation to infrastructure to assist in realising the overall vision for the precinct:

- **To provide an adequate range of social and recreation facilities to accommodate an increase in residential population.**
- **To provide appropriate hard infrastructure to accommodate population increase and ameliorate existing issues such as flooding and odour in the area.**
- **To provide an improved and sustainable road and parking network.**
- **To provide connected and accessible pedestrian and cyclist linkages.**
- **To protect future sensitive uses from the adverse effects of contaminated land.**

The articulation of these principles in the West Fyans Precinct will require the following actions:

Directions:

1. Upgrade existing drainage infrastructure.

The upsizing of the existing main drainage through Frier Reserve and Lambert Avenue to the Barwon River should be undertaken in accord with the City of Greater Geelong's "Bridge Street Main Drain and Western Gully Main Drain Flood Study" recommended flood mitigation works.

These works should be a high priority for the City of Greater Geelong's capital works programme within the next few years. Any new development either residential or industrial will be required to provide on-site stormwater quality controls. Detailed design will be required to determine the extent of drainage works required and appropriate siting.

2. Upgrade Fernleigh Street pumping station to manage odour.

The Strategy proposes the development of sensitive uses in the West Fyans Precinct. While the sewer infrastructure is capable of accommodating this development potential, odour control is required at Fernleigh Street.

The Fernleigh Street pumping station has partially effective odour controls in place, but at times offensive smells emanate and affect the immediate area. At the moment the station is relatively isolated and therefore the number of people affected is minimal. However, with the proposed rezonings the pumping station will require more effective odour control such as the installation of a bio-filter with carbon scrubbing. This upgrade is likely to cost approximately \$300,000-400,000. The City of Greater Geelong is currently in discussions with Barwon Water regarding ownership of the access road and car park behind the station, currently owned by Barwon Water. If the installation of additional odour control is required, Barwon Water will need to retain a section of the carpark.

3. Upgrade sewer infrastructure capacity to manage odour at Bowlers Inlet Main.

The Strategy proposes the development of sensitive uses in the West Fyans Precinct. While the sewer infrastructure is capable of accommodating this development potential, odour control is required at Bowlers Inlet Main.

The main has several manholes and vents and transfers highly odorous trade waste. The Inlet Main alignment runs parallel to the Barwon River on the northern bank. The Strategy proposes rezonings in the vicinity which will trigger the need for works on the Bowlers Inlet Main to cover existing vents and control odour.

The main is located in close proximity to existing buildings and some sections are protected in easements. Barwon Water has advised it will not be permissible to build over this main, and as development proceeds, easements may need to be created to cover the entire main. Proposals for new development within the structure plan area should investigate any infrastructure on the site and design accordingly.

4. Provide a community meeting space and install a playground at Friers Reserve.

As a local focus for the new community in the West Fyans Precinct, it is proposed that Friers Reserve should be upgraded to include a community meeting space and playground to broaden its utilisation and attract people to build social networks in this emerging community. While many other opportunities exist for adaptive re-use of heritage buildings within the precinct, this location may act to enhance a more informal meeting environment, providing for integration with the existing surrounding residential community, particularly north of Fyans Street. This is a key element of creating a sustainable and integrated community.

5. Upgrade existing open space to provide improved amenity.

The Strategy seeks to enhance open space, connections and pedestrian accessibility along the Barwon River corridor and adjacent open space. Precinct 1 will remain an open space and recreation precinct, with community and recreational uses promoted within the area. It is recommended that a masterplan is prepared for this Precinct to improve the open space quality and utilisation. In addition to this masterplanning exercise, significant landscaping improvements are also recommended.

7. Support the establishment of child care centres, kindergartens and playgroups.

To support the growing population base in the Precinct, the Strategy provides opportunities for social infrastructure in key locations, in particular in the commercial node at the extension of the Pakington Street Activity Centre. This node provides a central location within the walkable catchment of most of the proposed residential areas, and will also provide for multi purpose trips increasing overall sustainability for residents and workers.

8. Install clear directional, distance and interpretive signage in the structure plan area for pedestrians and cyclists, including directions to the Barwon River and community facilities.

The Strategy seeks to maximise the efficient and safe movement of people through the precinct for active and passive recreation, as well as providing legible street networks that enhance overall walkability for visitors, residents and workers.

It is recommended that the progressive development of a trail system that connects residential areas to the Barwon River and community facilities be supported and should incorporate key local destinations such as Barwon Valley Community Centre, Geelong YMCA and Friers Reserve. The trail network should include interpretive and directional signage to improve navigation. These trails and other key pedestrian links should be landscaped to follow CPTED principles to promote a feeling of safety and passive surveillance.

The Strategy also recommends the priority investigation of safe pedestrian and cycling options at both Latrobe Terrace and the Fernleigh Bridge.

9. Create an extension to Anne Street.

The structure plan identifies the need for a road connection between Anne Street and Pakington Street to improve east-west connectivity through the Precinct, and improve overall permeability to the key commercial and employment node. The extension of Anne Street will require land acquisition by the City of Greater Geelong to facilitate this access improvement. Design of this link will require careful design to minimise impacts on existing/future activities as well as to manage the connection with the Barwon Grange access road which is of heritage significance.

10. Install traffic signals at the intersection of Gregory Avenue and West Fyans Street.

To mitigate future traffic issues as a result of the proposed rezonings and development potential in the western end of the study area between Pakington Street and Shannon Avenue, the Strategy recommends the installation of traffic signals at Gregory Avenue. This will assist in managing overall traffic flow and movements through the precinct.

11. Improve the intersections of West Fyans Street/Latrobe Terrace and Pakington Street/West Fyans Street by measures such as 'No Standing' Zones and clearways.

To improve overall safety and movement in the Precinct, it is recommended that the intersection of Pakington Street and West Fyans Street and LaTrobe Terrace and West Fyans/Fyans Street and LaTrobe Terrace undergo improvements. It is considered that there is potential for "No Standing Zones" or "Clearways" at these intersections to remediate traffic congestion and increase safety. The Strategy recommends that the intersection of West Fyans/Fyans Street and LaTrobe Terrace undergo major redesign to improve overall safety, legibility and vehicle movement at a key entry to the precinct.

12. Review traffic engineering for major roads throughout the structure plan area.

Precinct 7 targeted for Mixed Use development can adequately accommodate future growth due to the fine grade permeable nature of the road network in the Fyans Street area and the control of major intersections by traffic signals and roundabouts. The robust road network provides no issues for development.

High traffic volumes of traffic and lack of controlled crossing points on West Fyans Street however mean that pedestrian accessibility is constrained. There is an opportunity to improve accessibility across West Fyans, particularly near bus stops, by the installation of pedestrian refuges. Traffic signals at Gregory Avenue will also increase the number of controlled crossing points.

13. Improve road connectivity and access to the Barwon River.

The analysis concluded that the number of pedestrian accesses to the Barwon River and open space corridor is adequate to support future development. However, these accesses are considered to be in poor condition, not readily visible or in fact accessible for pedestrians. For example, the access at the southern end of Pakington Street is steep and overgrown by vegetation. Significant potential exists to improve access points both in relation to signage, grade, visibility and streetscape improvements particularly for narrower north-south streets Woodstock, Fernleigh, Boswell and Bloomsbury Streets. Improvements are recommended as part of the overall capital works program to implement the Structure Plan.

14. Undertake minor traffic works to address local traffic management issues.

To assist in creating improvements to the overall structure of the precinct, the strategy recommends that local traffic management strategies be prepared for the following: The intersection of Marnock Road/Newcastle Street/Shannon Avenue requires delineation and clarification; The intersection of Gregory Avenue/Riversdale Road requires delineation; West Fyans Street/Gregory Avenue intersection requires localised road widening in addition to traffic signals to accommodate additional traffic.

15. Apply the Environmental Audit Overlay to all precincts nominated for mixed use development.

The Structure Plan proposes the rezoning of industrial land for mixed use purposes. The history of the study area as an industrial precinct means that the potential for site contamination is high. Due to the inadequacy of records and the lack of empirical data, the identification of all contaminated sites is not possible within the study area.

The old tip site in Precinct 1 has been disused for many years but environmental concerns persist and decontamination of the site would be costly and expensive. Therefore, this site has not been identified for redevelopment.

It is proposed that an Environmental Audit Overlay (EAO) be applied to all precincts targeted for rezoning from Industrial to Mixed Use and Precinct 1 identified to continue as public open space.

Rezoning precincts 2, 3, 4 and 7 with an EAO is considered appropriate to provide a mix of land uses, and is also consistent with Ministerial Direction Number 1. By applying the Mixed Use Zone and the EAO Council is ensuring that land subject to future development for a sensitive use such as residential will be environmentally audited before the use is permitted to commence.

16. Apply Design and Development Overlays to precincts 3, 4 and 7 to manage offsite amenity impacts

The Structure Plan proposes the application of DDO's as appropriate in precincts 3, 4 and 7 which establish requirements for design treatments which minimise the transition of noise and odour to residential buildings from external noise and odour sources. Consideration should also be given for the provision of reverse amenity impacts on existing industry and business activities as part of the DDO decision guidelines.

6.2.3 Natural and Urban Environment

The background analysis has identified a series of key influences associated with the natural and built environment in the precinct. These influences can be summarised as follows:

- The precinct contains a number of precincts/individual sites of historical significance, many of which are covered by a Heritage Overlay. Policy encourages conservation and re-use of heritage buildings and discourages the demolition of heritage places.
- The Barwon River corridor has high quality environmental, cultural and landscape values.
- The southern part of the precinct is contained within the floodplain.
- The river corridor provides a mix of passive and active recreation opportunities that serve the broader community and should not be compromised or impacted upon by development within the precinct.

Based on the key influences, a series of overarching principles have been established in relation to the natural and built environment to assist in realising the overall vision for the precinct.

- **Protect the environmental and landscape values of the Barwon River.**
- **Facilitate appropriate development that does not adversely impact on existing environmental and landscape values.**
- **Retain and improve viewsheds to and from the Barwon River corridor.**
- **Provide appropriate interface between potentially conflicting developments.**

- **Provide appropriate interface between the Barwon River corridor or open space and new development**
- **Promote a consistent streetscape in commercial development precincts**
- **Encourage development responsive to the landscape.**

The articulation of these principles in the West Fyans Precinct will require the following actions:

1. Retain the existing Significant Landscape Overlay.

One of the important objectives of the structure plan is to support development which does not impact on the existing environmental and recreation values of the waterway and river corridor. Land abutting the Barwon River is identified as a significant landscape and an SLO Schedule 2 currently applies generally to the majority of titles south of Riversdale Road to the escarpment from Bridge Street to Fernleigh Street. The Structure Plan supports the retention of the SLO in this location.

2. Prepare urban design guidelines and controls to ensure new development has an appropriate and safe interface with the Barwon River.

The West Fyans Street/Fyans Street area enjoys high amenity due to its location abutting the Barwon River, which has significant environmental and recreation values. Balyang Sanctuary is located in the South-west sector of the study area and provides habitat for a range of bird species and native vegetation such as River Red Gums. The reach from Latrobe Terrace to Shannon Avenue is populated by dense vegetation on the northern bank, including large River Red Gums and some exotic species.

The Structure Plan proposes significant re-development opportunities at the River interface. It is recommended that to manage the siting and design of buildings in this area that design guidelines are prepared that control building setback, articulation and materials where possible. The proposed height controls, particularly in Precinct 4 will also assist in the management of visual impact from the River corridor.

3. Prepare urban design guidelines and controls to protect viewsheds to and from the Barwon River in new development.

Given the quality of the natural environment, the strategy seeks to ensure that the landscape and viewsheds to and from the Barwon River corridor for the entire study area should be maintained and enhanced. New development should not impede on these values and should take advantage of the views afforded by the topography.

4. Ensure new development treats stormwater appropriately.

New development will be required to manage stormwater through appropriate drainage and WSUD measures to avoid any impact on the Barwon River. This is particularly important in Precinct 4 where runoff and outfalls have potential to impact directly on the river.

5. Undertake landscaping and streetscape works on link roads within the structure plan area to improve amenity.

It is recommended that new development abutting the river corridor should provide a sensitive interface in accordance with CPTED guidelines to ensure safety and surveillance of the public spaces. Landscaping should be appropriate to the area and utilise indigenous species where possible to avoid weed infestation of the river corridor.

6. Encourage landscaping in new developments, on roadsides and in reserves utilising indigenous vegetation.

To enhance the quality of streetscapes and soften built form it is recommended that link roads such as Rutland Street, Gregory and Riversdale Road should have landscape and streetscape improvements to improve amenity and connectivity through the structure plan area.

7. Create public space in the form of a road or shared path between development west of Latrobe Terrace and the river corridor.

To encourage activation of this space and improve overall amenity, the strategy proposes the provision of some form of access way between development west of LaTrobe Terrace and the river corridor. This access would improve connections to the river for both the precinct and the broader community, and would assist in overall integration of cycling and walking networks and the activation of this part of the precinct.

8. Apply appropriate guidelines and planning controls such as a Design and Development Overlay to control the interface between potentially conflicting uses.

In addition to preparing guidelines to manage the visual impact of built form at the river interface, it is recommended that guidelines be prepared to manage interfaces between conflicting uses i.e. residential and industrial. The application of such guidelines will be appropriate for the Precinct 2 / 4 interface whereby the transition of industrial activity will occur over the long term but residential development will occur in the short term. These guidelines should include criteria related to upper level setbacks, and the location of balconies / decks at the key interface, and where possible the location or type of windows at the key interface.

9. Prepare urban design guidelines for commercial precincts in the structure plan area east of Latrobe Terrace.

To manage the look and feel of the commercial areas and establish a strong sense of character in this transitioning and revitalising area, the strategy recommends the preparation of design guidelines for commercial precincts and the commercial node. The aim of these guidelines will be to manage form to ensure activation of the street, opportunities for passive surveillance, management of car parking, and overall aesthetic at key gateway locations.

The key directions for access and streetscape improvements are shown on the **Access and Amenity Improvement Plan**.

6.2.4 Economic Development and Employment

The background analysis has identified a series of key influences associated with economic development and employment. These influences can be summarised as follows:

- The precinct contains a disparate mix of industrial and commercial uses. Further development of industrial activities within Geelong are encouraged in alternative strategic locations (Heales Road Industrial Estate, North East Industrial Precinct, Avalon etc).
- To realise the vision a range of employment opportunities will need to be provided.
- Provision of retail in the precinct must be in accord with Council's Retail Strategy.
- The precinct transition will require the protection of amenity and industry through the provision of appropriate interfaces between sensitive uses.

Based on the key influences, a series of overarching principles have been established in relation to economic development and employment to assist in realising the overall vision for the precinct:

- **Retain an employment base within the structure plan area.**
- **Ensure a genuine mixture of uses within the structure plan area.**
- **Provide an alternative to conventional residential development by the reuse of heritage listed buildings and differing housing types**

The articulation of these principles in the West Fyans Precinct will require the following actions:

1. Retain peripheral sales, showrooms and retailing within the structure plan area.

The Structure Plan supports the retention of peripheral sale and showrooms in the study area to maximise diversity of business and employment opportunities. It is recommended that the Business 4 Zone land on West Fyans Street in Precinct 3B be retained as well as the key peripheral sales node east of Moorbool Street in Precincts 5 and 6. These precincts will increase diversity without impacting on the CAD retailing function.

2. Provide opportunities for cafes, restaurants and active frontages along Pakington Street and Barwon Terrace.

The Strategy seeks the activation of these key locations through ground and first floor level uses such as cafes, restaurants and retails where appropriate. The ability to activate and create interest at the ground and first floor will increase use and visitation and help to integrate the revitalised precinct with the surrounding residential areas. This strategy is particularly important in terms of increasing the mix of non-resident users to the precinct.

3. Apply the Mixed Use Zone in areas targeted for new development to ensure flexibility and allow a range of uses.

The Structure Plan seeks to maximise diversity and allow for transition of existing industry and business through the application of the Mixed Use Zone across a number of key precincts. A risk associated with this zone is the fact that it is often used as a de-facto residential zone. To avoid this situation, the strategy seeks to identify a preferred land use focus for each precinct to assist in decision making and to avoid the development of single use nodes.

4. Nominate sites within the structure plan for tourist and recreation facilities.

As identified in other Strategies the Structure Plan seeks to maximise recreation facilities, with a focus on active and passive recreation including improvements to Friers Reserve. The study area is proximate to Landy Field which provides a key opportunity for active recreation for new residents in the precinct. Opportunities to create links and connections to other surrounding recreational facilities is promoted through this strategy. New recreation uses will also be supported in the precinct where possible, with a focus on the commercial node and Precinct 4, 2 and 3B.

Tourist opportunities to build on synergies with the river and historic woolsheds should be supported, including accommodation facilities potentially located within the commercial node around the extension of Pakington Street. Tourist uses will not only create employment, but add further vibrancy and character to the location. The James Harrison Museum concept as well as appropriate uses for the Marnockvale site examples of such opportunities.

5. Manage transition of industrial activity.

There is potential that there will be an overall net decrease in employment area through the increase in residential land development over existing employment generating land, particularly industrial. However, there is potential for new forms of employment to offset this loss. The industries most likely to remain in the study area are light/small industry or automotive industry-related and trade supplies which typically serve local markets. The increase in population instigated by the change of zone to Mixed Use and the encouragement of high density development will provide opportunities for new businesses in the provision of goods and services.

There may be significant incentives for businesses to relocate associated with: The increase in land values afforded by rezoning of the land; the availability of industrial sites with better road access for large vehicles and without potential conflicts with nearby residents; and opportunities to expand on larger sites.

It is considered that the potential exists for businesses in the area to relocate to other areas within the City of Greater Geelong, particularly those with ties to the local market in regard to customer base or labour force such as the Heales Road Industrial Estate and the North East Industrial Precinct in Armstrong Creek. Therefore, despite transition in this area, overall job numbers will be retained within Geelong through a re-distribution of demand as a result of this strategy.



ACCESS AND AMENITY IMPROVEMENT PLAN

CITY OF GREYSONG

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Project by City of Greater Geelong - 24 May 2009.
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Legend:

- West Fyans / Fyans Street Structure Plan Boundary
- ⇄ Improve traffic flow and ensure safe pedestrian crossings / environment
- ⋯ Improve road connectivity and provide better access to the river
- Extend Rutland Street to connect internal streets, to ameliorate traffic circulation issues
- - - Improve intersection; potential for 'no standing zones' or clearway
- ▬ Landscape / streetscape improvements on link roads
- ⇄ Public shared path or road to provide public access / improved interface
- ⇄ Improve pedestrian accessibility, particularly near bus stops
- ▨ Active street frontage and improved pedestrianisation
- * Traffic signals / local widening of Gregory Avenue
- ▲▲▲▲ Active interface with river corridor
- ▨ Stage 2 Implementation Area
- ⋯ Enhance entrance to Barwon Grange
- ⋯ Traffic and Pedestrian Strategic linkage opportunities

7 Precinct Based Land Use Directions

As identified in the previous section, Council has adopted a 'precinct based' approach to the structure plan. Each precinct has distinctive characteristics which in some cases are important to maintain, such as heritage buildings, or amenity advantages that can be capitalised upon, such as abuttal to the Barwon River. The following table contains the detailed land use directions to guide planning and development decision making associated with individual precincts within the broader structure plan area. These precinct based land use directions bring life to the overarching thematic principles and strategies contained in Section 7.

The precinct based land use directions identified in this Section have derived from the detailed site analysis and background research in Part C of the structure plan and consultation with stakeholders. It should be noted that the definition of 'High Density' used in the Precinct descriptions is development over 3 storeys in height at 40+ dwellings per hectare, as adopted in the Housing Diversity Strategy 2007. 'Medium Density Development' is defined as 20-40 dwellings per hectare.

The following table contains all specific land use directions by Precinct, as well as the required implementation elements to ensure that appropriate decision making can be undertaken to deliver the articulated desired vision.

Precinct	Existing Land Use Profile	Desired Vision	Implementation
Precinct 1: Open Space Precinct	<ul style="list-style-type: none"> • The dominant use in this precinct is public open space, including Balyang Sanctuary and Balyang Par 3 golf course. • The land is elevated and has extensive views across the suburban area and over the Barwon River. • Although expansive the land is generally undeveloped and landscaping is minimal. 	<ul style="list-style-type: none"> • The future of this precinct is for passive and active open space. • This precinct will create a high amenity edge to the broader West Fyans area and will provide highly accessible recreation opportunities for existing and future residents that will be accommodated in this area following re-development of Precincts 3A, 3B and 4. • To deliver this vision an open space masterplan will be required to be prepared by Council to manage overall design and development of this precinct over time. This masterplan should consider opportunities for active and passive recreation, urban forest and an entry statement at the prominent corner of West Fyans Street and Shannon Avenue. • Two key land use changes will be required within the precinct to deliver the open space vision. <ul style="list-style-type: none"> • Subject to appropriate treatment for contamination the former tip site at the corner of West Fyans Street and Shannon Avenue will be redeveloped as a public park bounded by West Fyans Street to the north and Newcastle Street to the south. • Incorporate Council leased land in West Fyans into the adjoining reserve as part of the open space masterplan implementation. 	<ul style="list-style-type: none"> • Prepare an open space master plan for the whole of the precinct

Cont'd

<p>Precinct 2: Business Park Precinct</p>	<ul style="list-style-type: none"> • This precinct contains a mixture of uses, primarily industrial, some of which are of significant heritage value such as specific buildings on the E.P. Robinsons Wool Scourer in Bridge Street. • Lambert Avenue is dominated by light industry on smaller allotments with narrow, irregular street frontages. 	<ul style="list-style-type: none"> • The desired vision for Precinct 2 is as a industrial and business park precinct. This is a transitional precinct which will change over time to provide opportunities for less intensive and light manufacturing and commercial uses (markets, office). • Lambert Avenue will be a focus for re-development of commercial and industrial activities, given the current land use complexion of this area. Contamination on some sites may need to be addressed prior to redevelopment and consolidation of some lots may be required to maximise development opportunities. • Heritage values are to be preserved, and potential conversion of heritage sites should be considered. • The transition of this precinct is particularly important in terms of managing future amenity and interface issues with the adjacent medium-high density residential precinct to the south. This residential future should not jeopardise the ongoing integrity of the more established and job dense industries in the short-medium term. 	<ul style="list-style-type: none"> • Rezone to B3Z.
<p>Precinct 3A Residential Interface Precinct</p>	<ul style="list-style-type: none"> • Precinct 3A is defined by its fine grained lots with dwellings expressing a strong architectural character. Conservation of these buildings is encouraged, with allowance for adaptive re-use to allow business uses in the core. • The precinct has convenient access to the activity centre in Pakington Street north of West Fyans Street, with retailing, community and education facilities within proximity. • Friers Reserve is located in this precinct on West Fyans Street and supplies recreation and leisure 	<ul style="list-style-type: none"> • The desired vision is for a residential precinct with low scale residential activity and commercial and mixed use on the fringes - a small commercial presence will be supported on land fronting West Fyans Street at the eastern edge of the precinct (rezone B4 to MUZ) and south of Rutland Street (rezone from IN1 – MUZ) i.e. small office and retail at ground level with opportunities for upper level residential use overlooking the Friers Reserve. • In the balance of the precinct, low scale residential will be supported with opportunities for medium density housing around Friers Reserve. • Friers Reserve will be retained within this precinct, creating a local recreation focus for existing and future residents. • DDO's to be applied to encourage appropriate built form responses for commercial and residential uses and to ensure residential development incorporates appropriate acoustic control building design measures. 	<ul style="list-style-type: none"> • Rezone B4Z to MUZ • Rezone IN1Z to R1Z (other than section south of Rutland rezone to MUZ) <p style="text-align: right;">Cont'd</p> <ul style="list-style-type: none"> • Retain R1Z at West Fyans Street frontage. • Apply a DDO to MUZ/R1 land. • Apply Environmental Audit Overlay to

	opportunities, with potential for a children's playground and/or meeting rooms.		all proposed R1 and MUZ areas in precinct.
Precinct 3B - Mixed Use	<ul style="list-style-type: none"> • Precinct 3B is defined by a mixed lot size character comprising of a mix of light industrial services (generally warehouse / storage) with the addition of isolated residential allotments. • The precinct has convenient access to the activity centre in Pakington Street north of West Fyans Street, with retailing, community and education facilities within proximity. • Pakington Street enjoys a strong streetscape amenity with landscaping, constructed footpath and larger building setbacks. 	<ul style="list-style-type: none"> • The vision for this precinct is for a mixed use precinct. • This precinct will contain a 'showroom strip' fronting West Fyans Street, east of Pakington Street. To deliver this outcome, all land fronting West Fyans Street east of Pakington Street will be required to be rezoned B4Z. • This precinct will encourage a mix of office and retail fronting West Fyans Street, west of Pakington Street. To deliver this outcome, all land fronting West Fyans Street frontage west of Pakington Street will be required to be rezoned MUZ. • The balance of the precinct will be developed for medium to high density residential. Limited retail and office uses will be supported. The MUZ will be applied to this part of the precinct to deliver the desired vision. Floorspace limits could be considered to manage the quantity of commercial space within the precinct, given its proximity to the preferred commercial node which is the focus for intensive mixed use activities. • DDO's to be applied to encourage appropriate built form responses for commercial and residential uses and to ensure residential development incorporates appropriate acoustic control building design measures. 	<ul style="list-style-type: none"> • Rezone land east of Pakington Street, fronting West Fyans Street to B4Z. The Balance of the land is to be Rezoned to MUZ • Apply a DDO to MUZ land. • Apply EAO to MUZ (where rezoned from Industrial 1)
Precinct 4 Mixed Use – High Density	<ul style="list-style-type: none"> • Precinct 4 is defined by its direct abuttal to the Barwon River corridor and adjacent vegetated open space, although public access to the river is restricted in places. • The topography and views available provide potential for high amenity. • Historical woollen mill buildings within the precinct and along Pakington Street provide a unique 	<ul style="list-style-type: none"> • Encourage high density residential of 2-5 storeys, particularly fronting the river. • Opportunities for ground floor retail, cafes, restaurants and commercial uses will be supported in the southern section of the precinct. • The buildings should be of a high quality design and include acoustic treatments. • Adaptive reuse of the heritage woollen mills along Pakington Street, south of Rutland Street should be promoted. • New development to provide for or improve pedestrian linkages and streetscapes where identified in the Structure Plan • To deliver the desired vision for the precinct, it is recommended that the MUZ be applied. However, in the future, the proposed substantial change residential zone may in fact be a more appropriate tool to deliver the vision. 	<ul style="list-style-type: none"> • Rezone IN1Z land to MUZ. • Retain Heritage Overlays • Consider applying the new substantial change residential zone to the areas outside the commercial node • Apply a DDO to

	<p>character and opportunity for adaptive re-use for higher density residential development. The streetscape has an existing amenity quality with landscaping and footpaths which could be further enhanced.</p> <ul style="list-style-type: none"> • This Precinct is also within a short walking distance of the Pakington Street Activity Centre. 	<p>The MUZ is currently limited in that it cannot mandate ground floor commercial activities which in fact best reflect the intent of the vision for this precinct. A local policy may be required to achieve this land use direction in decision making.</p> <ul style="list-style-type: none"> • DDO's to be applied to encourage design excellence, ESD principles, adaptive building reuse, appropriate streetscape and waterfront design responses appropriate built form responses for residential uses and incorporate appropriate acoustic control building design measures. 	<p>MUZ land.</p> <ul style="list-style-type: none"> • Apply Environmental Audit Overlay to precinct.
Precinct 5: Business Precinct	<ul style="list-style-type: none"> • This precinct is bounded by three busy roads and the river to the south. Latrobe Terrace, Fyans Street and Moorabool Street carry large traffic volumes and hence isolate this precinct from surrounding areas. • The precinct includes homemaker retailing and food establishments which rely on high levels of exposure. 	<ul style="list-style-type: none"> • The land use vision for this precinct is to support ongoing business activities in the future. • Maintain a business focus in this precinct and encourage further business activities through the retention of the existing Business 4 Zone. • Encourage building designs that create active street frontages and ensure existing buildings retain their active street frontages. 	<ul style="list-style-type: none"> • Retain existing zoning.
Precinct 6: Industrial Precinct	<ul style="list-style-type: none"> • This precinct is predominantly used for industrial activities, with the majority of uses related to the automotive industry and some peripheral sales. 	<ul style="list-style-type: none"> • The desired future for this precinct is as a light industrial precinct that acts as a buffer between the intensive industrial land uses to the east and residential land to the west (precinct 7). • Uses that will be supported in the precinct include service industry, associated small offices and industrial related sales activities. 	<ul style="list-style-type: none"> • Rezone IN1Z land to IN3Z.
Precinct 7: Mixed Use / High Density Residential Precinct	<ul style="list-style-type: none"> • This precinct abuts significant open space to the south with community uses such as Landy Field and the Rowing Mile on the south side of Barwon Terrace. The Barwon River corridor affords significant 	<ul style="list-style-type: none"> • The desired vision of this precinct is for a desired mixed use precinct with a commercial and office focus supported by higher density residential maximising amenity afforded by the river frontage. • Existing B4Z land fronting Moorabool Street will be retained. This will be complimented by the introduction of a MUZ to land north of Lt. Fyans Street which will have a commercial and office focus. 	<ul style="list-style-type: none"> • Rezone land south of Lt Fyans Street to MUZ. • Apply a DDO to MUZ land south of Lt Fyans

	<p>natural amenity, although flooding is an issue in the area.</p> <ul style="list-style-type: none"> • Barwon Terrace provides an ideal public interface between development and open space. The local road network is a grid formation which can accommodate intensified uses. • Current uses within the precinct include peripheral sales and industrial development. 	<ul style="list-style-type: none"> • Land to the south of Lt. Fyans Street will be encourage to re-develop to support higher density residential (2-4 storeys), particularly fronting the river along Barwon Terrace to take advantage of the natural amenity. • Small scale retail and office uses will be supported with café, restaurant, food and drink premises, small office and studios limited to land at ground and first floor level along Barwon Terrace • To deliver the vision for land south of Lt Fyans Street, land will be rezoned to Mixed Use Zone. • The residential buildings in this precinct should be of a high quality design which responds to flooding issues as well as providing acoustic treatments to appropriately respond to the industrial interface. Buildings should be built to a high architectural standard to maximise street interaction and building quality 	<p>Street.</p> <ul style="list-style-type: none"> • Apply Environmental Audit Overlay to land south of Lt Fyans Street.
Commercial Node		<ul style="list-style-type: none"> • The vision for this precinct is to deliver a designated, intensive commercial activity node within the Structure plan area and be the focus of commercial activities in the precinct. This will create an extension of the existing Pakington Street activity centre spine. • Activation of the Pakington Street frontage and Rutland Street frontage is proposed to support an intensive mix of business, office, retail and residential uses in a vertical format where possible. • Development in this precinct should range between 2 (north of Rutland) -4 storeys (south of Rutland) to allow for vertical integration of uses. Building height and design must be respectful of heritage sites. • Street tree canopy character should be reinforced. 	<ul style="list-style-type: none"> • Rezone land within the commercial node to MUZ.

PART B IMPLEMENTATION AND REVIEW

The Implementation and Review Section identifies review provisions, planning scheme amendments and additional strategic work to implement the visions and directions in the structure plan.

The following table outlines the application of new zones and overlays and the future work required, nominating the responsible agency and appropriate timeframe for completion.

1 Implementation Table

ACTION	RESPONSIBLE AGENCY	PRIORITY
APPLICATION OF ZONES AND OVERLAYS:		
Amend Clause 21 of the Municipal Strategic Statement to reference the West Fyans/Fyans Street Structure Plan precinct as an area for mixed use and higher density residential development	Council	1
Rezone land east of Pakington Street in Precinct 3B, fronting West Fyans Street to B4Z. The Balance of the land within Precinct 3B is to be Rezoned to MUZ .	Council	1
Rezone IN1Z land within precinct 3A to R1Z (north of Rutland Street) and MUZ (south of Rutland Street)	Council	1
Rezone B4Z land within precinct 3A to MUZ	Council	1
Rezone land in precinct 2 to B3Z	Council	1
Rezone IN1Z land in Precinct 4 to MUZ	Council	1
Rezone land in Precinct 6 from Industrial 1 Zone to Industrial 3 Zone	Council	1
Apply a PAO to provide connection of Anne Street through to Pakington Street	Council	1
Rezone land within Precinct 7 to MUZ	Council	1
Rezone land within the Commercial Node to MUZ	Council	1
Delete DDO14 from the study area which currently limits building height to 7.5 metres without a planning permit, to promote higher density vertical development in appropriate precincts.	Council	1
Apply an Environmental Audit Overlay to the study area of precincts 3A, 3B, 4 & 7 which are being rezoned to MUZ or R1Z from an Industrial Zone. This will ensure site contamination is addressed in new development.	Council	1
Apply a DDO to the commercial node as well as along the street frontage of Barwon Terrace in Precinct 7 to ensure active street frontages in accordance with the principles in the structure plan	Council	1
Prepare and apply a DDO to Precinct 4 and south of Lt. Fyans Street in Precinct 7 to ensure high density development will occur in accordance with the principles in the structure plan	Council	1
Prepare and apply a DDO to areas required to be rezoned to MUZ and R1Z within Precincts 3A, 3B and 4 to ensure interface and amenity issues are appropriately addressed.	Council	1

ACTION	RESPONSIBLE AGENCY	PRIORITY
FURTHER STRATEGIC WORK		
Undertake a traffic engineering assessment of the structure plan area, including the operation of the network and traffic counts on local roads.	Council	2-3
Develop a masterplan for precinct 1 to enhance landscaping and visual amenity	Council	3-4
Develop a streetscape design for ' <i>Landscape / streetscape improvements on link roads</i> ' as show on the Access Amenity and Improvement Plan to improve visual amenity along these link roads	Council	3-4
OTHER ACTIONS:		
Upgrade drainage system to ensure adequate stormwater retardation and treatment within the study area	Council	1-2
Fernleigh Street Pumping Station upgrade to improve odour treatment (possibly a bio-filter with carbon scrubbing).	Barwon Water	1-2
Bowlers Inlet Sewer Main upgrade to improve odour control	Barwon Water	1-2
Consideration as to whether the application of the new substantial change residential zone to the MUZ land outside of the Commercial node within precinct 4	Council	When applicable
Improve pedestrian links to the Barwon River corridor including accessibility and safety	Council/CCMA	3-4
Install children's playground at Friers Reserve	Council	3-4
Provide meeting space at Friers Reserve or other community building	Council	4-5
Relocate or improve articulation to rowing shed at the end of Yarra Street.	CCMA	4-5
Traffic signals at the intersection of Gregory Avenue and West Fyans Street	VicRoads	3-4
New connection from Anne Street to Pakington Street	Council to acquire	3-4
Shared path connection from Pakington Street to Riversdale Road to be provided as part of any new	Developer	When

ACTION	RESPONSIBLE AGENCY	PRIORITY
development proposal		applicable
Provision of pedestrian refuges along West Fyans Street	VicRoads	2-3
Investigate the installation of clearways and no standing zones at the intersection of West Fyans/Fyans Street/Latrobe Terrace and the intersection of Pakington Street and West Fyans Street	VicRoads	2-3
Redesign of West Fyans Street/Fyans Street/Latrobe Terrace Intersection	VicRoads	5
Delineate the intersection of Marnock Road/Newcastle Street/Shannon Avenue and clarify.	Council	2-3
Delineate the intersection of Gregory Avenue/Riversdale Road	Council	2-3
Undertake localised road widening at West Fyans Street/Gregory Avenue intersection.	Council	2-3
Interpretive, directional, and distance signage and “degree of difficulty” signage for pedestrian pathways and connections to the River, community facilities and recreation areas	CCMA/Council	3-4
Advocate for improved public transport services in West Fyans Street area including the upgrade of bus stops.	Council	Ongoing

2 Further Strategic Work

In addition to the requirement contained in the implementation table above, the following strategic work is recommended to implement the Structure Plan vision:

- It is recommended that Council undertake a full review of traffic engineering within the structure plan area including: the operation of major roads, the operation of the local street network between Latrobe Terrace and Pakington Street, and traffic counts on local streets.
- It is recommended that Council prepare a landscape master plan for Precinct 1.

3 Guidelines for Further Development

The following guidelines may be incorporated into the planning scheme to ensure the Structure Plan is appropriately implemented to guide development and achieve the vision of each precinct.

3.1 Carparking

The character of the local street network in the area bounded by West Fyans Street, Latrobe Terrace and Pakington Street presents a number of challenges for redevelopment, including: dead end streets, double frontage lots and narrow street pavements. To improve the local street network a connection from Anne Street east-west to Pakington Street is recommended by the structure plan.

All new development within this area should provide the full carparking requirement generated by the use in accordance with the Greater Geelong Planning Scheme on site wherever possible. Planning permits seeking to waive or reduce carparking requirements should not be supported unless justified by a traffic impact assessment by a suitably qualified professional. In multi-storey developments of greater than two storeys, basement carparking is encouraged. All applications for planning permits should address on-street and off-street carparking, road traffic capacity, access and egress from the site, and impact on the local street network.

3.2 Landscape Protection and Character

Objectives

1. To create a well-landscaped, attractive mixed use precinct with a high level of urban design and amenity
2. To protect identified landscape and viewsheds
3. To protect and enhance the natural character of the Barwon River and Balyang Sanctuary

Strategies

1. Landscaped buffers should be provided between industrial development and adjoining non-industrial land uses to the satisfaction of the Responsible Authority.
2. Landscaping and built form should not obstruct viewsheds to and from the Barwon River corridor available in the public realm.
3. Landscaping should be designed to require low maintenance levels. Indigenous species should be utilised adjacent to the Barwon River and Balyang Sanctuary.
4. Development adjacent to the Barwon River corridor or open space should provide a sensitive interface, with appropriate landscaping and visually permeable fencing to provide passive surveillance.
5. Maintain Significant Landscape Overlay Schedule 2 on the north bank of the Barwon River.
6. Prepare a masterplan for the open space in Precinct 1 to enhance the open space amenity.

3.3 Built Form and Urban Design

3.3.1 High Density Development

Higher density development four storeys and above should comply with the State Government's "Guidelines for High Density Residential Development".

'High Density Development' is defined in this structure plan as over 3 storeys in height, at 40+ dwellings per hectare in accordance with the definitions adopted in the *Housing Diversity Strategy 2007*

'Medium Density Development' is defined as 20-40 dwellings per hectare and should meet the requirements of Clause 55 of the Greater Geelong Planning Scheme.

3.3.2 Design and Development Overlay for High Density Precincts

Objectives – General

1. To ensure that subdivision design, site and building layout contributes to the visual amenity of the area.
2. To ensure new built form responds to the topography of the land.
3. To encourage building forms, finishes and colours that minimise visual impacts when viewed from surrounding areas.
4. To ensure that sites adjacent to the Barwon River corridor and open space provide an appropriate interface
5. To provide opportunities for safety and passive surveillance of public areas.
6. To ensure new built form is sensitive to existing heritage sites and areas of high environmental and landscape value.
7. Encourage new development incorporating high quality contemporary architecture.

Strategies

Built Form

1. Building walls visible from the street, public open spaces or from outside of the study area should utilise non-reflective materials and finishes. A proposed colours and materials palette for all proposed buildings or works must be submitted to and approved by the Responsible Authority prior to development.
2. New development adjacent to open space or the Barwon River corridor must contribute to safety and provide passive surveillance of public areas.
3. New development adjacent to open space or the Barwon River must address the open space and provide a positive urban design response.
4. Higher rise structures should take advantage of the topography and views without adversely impacting on the visual landscape and existing amenity.
5. New development must be responsive to the surrounding context, including views and historical and cultural elements.
6. New development in proximity to the rowing mile and Landy Field, or adjacent to existing industrial development, should include noise attenuation measures in the design such as careful consideration of open space areas, double glazing, wall thickness/materials, acoustic fencing along common boundaries and the like.
7. Heights of 2-5 storeys are encouraged in Precincts 4 and 7.
8. Development above 4 storeys must be justified by a detailed site analysis and design response, including an assessment of context in relation to viewsheds, landscape and streetscape character.

Fencing

9. Fencing to private land along street boundaries and abutting open space or the Barwon River corridor should be visually permeable.

3.3.3 Design and Development Overlay: Pakington Street, Rutland Street and Barwon Terrace

Objectives

1. Achieve an active street frontage which encourages pedestrians and provides safety and surveillance
2. Create a people-orientated public realm in the streetscape
3. Create building frontages which make a positive contribution to the streetscape
4. Enhance the public realm so that it is accessible to pedestrians, particularly the elderly and disabled.

Strategies

1. Apply a Design and Development Overlay to Pakington Street between West Fyans Street and the Barwon River, Barwon Terrace from Moorabool Street to Bellerine Street and Rutland Street between Pakington Street and Hampton Street which encourages an active street frontage and facilitates ground level frontages to buildings which contribute to the safety, visual interest and vitality of the street.
2. Ensure street furniture, surfacing, landscaping and footpaths encourage pedestrian and social interaction.
3. Provide appropriate street lighting external lighting to new development
4. Blank wall facades will not be permitted
5. Ground floor private spaces should have a positive interface with the public realm.
6. Provide pedestrian footpaths and linkages to activity centres, public spaces, community buildings and open space.

Fencing

1. Fencing to private land along street boundaries and abutting open space or the Barwon River corridor should be visually permeable.

3.3.4 Design and Development Overlay – Industrial Interface Areas

Objectives

1. Protect the amenity of future residents.
2. Create appropriate interfaces between potentially conflicting uses.

Strategies

1. Apply a Design and Development Overlay to Precincts 3A, 3B, 4 and 7.
2. New development to consider the incorporation of noise attenuation measures where appropriate such as double glazing, wall thickness and construction materials.
3. New development to give consideration to the appropriate location of buildings openings and private space areas to minimise the transition of noise and odours from external sources.
4. New development to give consideration to appropriate interface along boundaries such as fencing materials and height, building setbacks and screen planting.
5. Require Reverse Amenity reports for new residential proposals.

4 Review of the Structure Plan

The development and particularly the redevelopment of land for residential purposes within the structure plan needs to be monitored. A basic review of the structure plan should occur every five years, with a full structure plan review every ten years. If redevelopment occurs at an accelerated rate, the priorities in the Implementation Plan may need to be revised, particularly those relating to infrastructure and services.

This structure plan provides the framework to achieve the objectives for the area; however, market forces will decide the rate and type of redevelopment that occurs.

The Mixed Use Zone is contained within the residential suite of zones in the Victorian Planning Provisions. However, an examination of areas where it has been applied in other municipalities has indicated a tendency for the zoned area to become dominated by one particular type of use; for example, either industrial or residential. Therefore, the ten year review should consider the appropriateness of this zone and mixture of uses contained within the precincts.

4.1 Review of the Structure Plan 2015

In June 2009 Council adopted to implement the recommendations of the Structure Plan in 2 stages. Stage 1 includes all scheme changes identified in the implementation table but excludes rezoning of identified Industrial land west of Hampton Street and south of Riversdale Road to the Mixed Use Zone pending a review of the Structure Plan in 2015 (stage2).

In readopting the Structure Plan Council affirmed the conclusions of the report of the independent Panel appointed to consider the structure plan amendment (C205). The Panel supported the stage 2 implementation process recommending that the second stage of the Structure Plan be implemented only after conducting a review of the Structure Plan which considered a range of factors including;

- the rate of change and activity in the other precincts contained within stage 1;
- monitoring existing industrial activity and any land use changes in the stage 2 area;
- assessing the performance of the Mixed Use Zone, Clause 21.17 and the Design and Development Overlay 26 in other precincts;
- engaging with land holders within the Structure Plan area, particularly stage 2 to seek their views on the rate of change occurring, nature of industrial activity occurring and effectiveness of the planning controls within the area;
- determining whether an amendment to the Geelong Planning Scheme is warranted to rezone land within Stage 2, whether other planning tools to implement the Structure Plan objectives are available and whether a further review period should apply and
- clarify this position in both Clause 21.17 and Structure Plan Document.

1 Introduction

1.1 Background

In order to ensure the continued and proper planning and development of the City of Greater Geelong, the Council has identified the West Fyans/Fyans Street precinct as an area with significant potential for redevelopment.

The precinct is an historic area of Geelong, traditionally known for its mixture of light industrial and business uses associated with the river, such as wool processing. Small residential lots are also located throughout the area.

Previous strategic policy documents prepared by the City of Geelong Council, including the Geelong Housing Diversity Strategy 2007 and the West Fyans Strategy Land Use Plan 2002, recognised that there is a wealth of untapped social and economic capital within the precinct. The 2002 West Fyans Strategy Land Use Plan recommended that the precinct be developed as an area with increasing diversity of living and working environments. A stated objective of the Land Use Plan was to reconnect the river landscape with Geelong; celebrate and protect the area's cultural heritage; concentrate retail and community facilities along West Fyans Street and Pakington Street and improve access from Gregory Ave and Bridge Road. The recommendations contained within this Plan were not formally adopted into the Geelong Planning Scheme, however many of these recommendations are included in the Housing Diversity Strategy.

The Housing Diversity Strategy (2007) identifies the study area as a 'Key Development Area', which has the potential to accommodate significant amounts of new medium and higher density housing, including mixed use development. The strategy recommended that structure plans be prepared for all the key development areas to inform in greater detail the preferred scale, intensity and mix of development in each area and address matters such as infrastructure and service provision, interfaces with the surrounding environment, accessibility and urban design. Key development areas are to accommodate the bulk of higher density development in Geelong to 2031, which is estimated to be between 6,300 to 9,500 medium to higher density dwellings.

1.2 Location

The West Fyans/Fyans Street precinct is located approximately 1.8 km south west of the main activity centre of Geelong City, within the suburban area of Newtown. The study area is defined by Shannon Ave to the west, West Fyans Street to the north, Swanston Street to the east and the Barwon River to the south.

The site is within close proximity to the city centre of Geelong and has arterial road access from Latrobe Terrace. Existing public transport services to the precinct include bus services along West Fyans Street, Moorabool Street and Latrobe Terrace, as well as train services from South Geelong Station. The precinct consists of a mix of industrial/commercial developments with some residential allotments, primarily located to the west of Latrobe Terrace. The Barwon River is also a major feature of the precinct and with it comes large areas of open space along the river frontage.

Due to the scale of the study area and the range of existing uses within the precinct, there are currently several different zoning classifications associated with the land. The south west corner of the precinct bounded by Shannon Ave and the Barwon River is a designated Public

Conservation and Resource Zone. This zone extends through the study area along the river frontage. The majority of the precinct is zoned Industrial 1 and Business 4, whilst the remainder of the study area has two Public Use Zones, a strip of Residential 1 zoned sites facing onto West Fyans Street and three Public Park and Recreational zoned areas.

The surrounding area is dominated by residential development. Immediately north of the precinct is a large residential area, through which Pakington Street Activity Centre runs along a north/south axis. Lands adjoining the east of the precinct are zoned Industrial 1. Land immediately south of the Barwon River is protected as a Public Park and Recreation Zone.

1.3 Indigenous Heritage

The environment of West Fyans Street/ Fyans Street (Newtown) does not provide significant values or associations with Aboriginal history. Aboriginal Affairs Victoria (AAV) has confirmed that there is no record of significant Aboriginal sites within the structure plan area. However, in accordance with the Aboriginal Heritage Act 2006, any land within 200 metres of a waterway is considered an area of cultural heritage sensitivity.

All development within the structure plan area will need to be carried out in accordance with established protocol and State and Commonwealth legislation relating to the protection of Aboriginal cultural heritage.

1.4 Role of Urban Development within the City of Greater Geelong

The population of Geelong is continually growing steadily, The Greater Geelong Municipal Strategic Statement states that the population projections made by the Department of Infrastructure (DOI) and the Australian Bureau of Statistics (ABS) indicate the City of Greater Geelong will need to accommodate an additional permanent population of between 41,000 to 71,000 persons to the year 2020. A balance must therefore be achieved between the need to provide for the growth and development of sustainable communities whilst ensuring that the typical characteristics and the heritage of Geelong are not lost through careless and insensitive expansion and development.

The current and future role of the Study Area must have regard to the role of other settlements, both locally and within the broader region, in the provision of goods, services and activities.

1.5 History / Heritage

This area of Newtown has a long history of settlement and industrial use dating back to mid 19th Century. The City of Newtown *Urban Conservation Study 1991* identified two precincts: the Rocky Point Heritage Area and the Woollen Mills Heritage Area within the boundaries.

The Rocky Point Heritage Area was bounded by Riversdale Road, Gregory Road, the bluestone drain west of the extension of Bridge Street and the Barwon River. The precinct's Statement of Significance identifies the land as:

"...an early landmark along the river, as the site of early Geelong industries including tanning, ice making, quarrying, soap and candle works and for its significant places, namely the buildings of Austral Paper Mill and "Barwon Bank".

According to the study, the Barwon River frontage was used for industry and stone quarrying since the early settlement of Newtown, and some sites may contain sub-surface remains of earlier industries. One of the most noteworthy buildings is the former Marnockvale Wool

scouring and Carbonising Works in Bridge Street, Newtown, for which a landscape, conservation and management plan was prepared in 1996.

The Woollen Mills Heritage Area is bounded by Barwon River, LaTrobe Terrace, Hampton Street and Rutland Street. It contains several significant mill buildings, smaller cottages and large residences “Barwon Grange” and “Rosebank”. Albion Mill (c1869) is one of four that played a significant role in Geelong’s wool industry history in the 19th Century. Others in the precinct include the Collins Woollen Mill and the Returned Sailors and Soldiers Woollen Mill at the corner of Pakington Street and Rutland Street.

The study area also contains a number of individual sites of historical significance, many of which are covered by a Heritage Overlay in the Greater Geelong Planning Scheme. Those sites are shown graphically in Section 4 of the Urban Design Assessment: Opportunities and Constraints Report, and include “Barwon Banks”, “Sladen House”, “Barwon Grange” and other Victorian, Edwardian and Federation dwellings.

2 Policy Context

2.1 Site Specific Strategic Studies

West Fyans Strategic Land Use Plan 2002

The West Fyans Strategic Land Use Plan was published by the City of Greater Geelong in 2002. It acknowledged the crucial role that future development will play in realising the potential of the West Fyans Street precinct as an area providing an increasing diversity of quality living and working environments, in a way that will reconnect with the river landscape and celebrate the industrial heritage of the area.

The study area was bounded by the Barwon River to the south, Shannon Avenue to the west, West Fyans Street to the north and LaTrobe Terrace to the east. The Plan delineated the West Fyans Area into eight precincts. These are broadly based on groupings of activities as follows:

- Precinct A - land along the river edge is identified as public open space and river amenity
- Precinct B - river flat land currently in use as for recreational purposes (golf flat) and open space
- Precinct C - the former tip bounded by Newcastle Street, identified as open space.
- Precinct D - the escarpment edge, which has a mix of uses including light industrial and manufacturing, offices and heritage houses.
- Precinct E - Lambert Avenue and Bridge Street, identified as having large and smaller scale light industrial activities.
- Precinct F - the West Fyans Street Frontage area, which comprises residential, retail, office and medical suites.
- Precinct G - LaTrobe Terrace, dominated by car yards and retail uses.
- Precinct H - Core Area comprises a variety of residential, industrial, manufacturing, car sales, panel beaters and motor repairs uses.

Many recommendations contained within the plan encourage building upon existing characteristics, such as retaining LaTrobe Terrace for used car sales use and the core area for a cross section of uses. The Plan recommends that existing recreation facilities and public open spaces should be retained and enhanced through better connectivity to the river.

Areas identified for specific uses include:

- Precinct D: currently a mix of uses, marked to evolve as an area of mixed uses including Residential.
- Precinct E: recommended change to “lighter” industrial activities
- Precinct F: evolution as a mixed use precinct.
- This early study of the West Fyans Street area was never incorporated in the Greater Geelong Planning Scheme and relied on advocacy to promote its objectives. Although the study area was smaller than the current study area, the Land Use Plan was used to inform the current structure plan process.

2.2 Environment

Barwon River Land Use & Open Space Corridor Plan 2003

The primary purpose of the Barwon River Land and Open Space Corridor Plan is to guide future recreational use and landscape character of the River and adjoining space in a manner that is compatible with its environmental values.

The project created guidelines for areas of adjoining land that were highly visible from the waterway. The Barwon River Land Use and Open Space Corridor Plan recommended that the visual encroachment of development on the natural waterway values should be minimised. The guidelines differ according to the changing types of land use and scale of development along the waterway, and have been tailored to suit different land use settings in Geelong. The project area extended from Merawarp Road into the west at Ceres to the mouth of the River at Barwon Heads, and includes the public open space adjoining the waterway corridor within the West Fyans/Fyans Street Study Area.

The following key priorities were identified for REACH 3- Shannon Avenue to Breakwater Road:

- Retain and promote the established water-based recreational use of the River through this reach.
- Improve the landscape character and treatment to the River given its high visual prominence for the City of Greater Geelong whilst improving the environmental values.
- Improve the visual, recreational and environmental character and values of Belmont Common.
- Support the recognition and interpretation of the industrial history of Geelong.

The plan recommends that the municipality implement the following recommendations within REACH 3:

- Recognise the heritage values of the rowing use on the Barwon River through this reach and support its retention and continued use on the River.
- Water skiing is supported to continue from the boat-launching ramp in Belmont Common to the Breakwater, and on Sundays in the Rowing Mile.
- Improve the quality and design of the rowing mile precinct by enhancing the visual and environmental values and diversity of recreational use provided at Belmont Common.
- Apply the Significant Landscape Overlay or other suitable planning mechanism to protect the natural and heritage character of view sheds along the Barwon River from the adverse impacts of future development and from incremental redevelopment.
- Future facility planning should recognise the central section of this reach of the rowing mile as the most highly modified and future commercial activities with an interface to the River are preferred adjoining the rowing mile.
- Apply the Environmental Significance Overlay over the River corridor to signal intended reinstatement of the biodiversity values in this reach.
- Improve the visual and environmental character of the rowing mile with over storey tree planting (using indigenous species), retaining good sight lines and views to the River and establish some habitat link.

- Recognise this reach includes the industrial heritage of the City including the woollen mills. The recommendations include retaining selective views to these heritage buildings to reinforce this character.

Geelong Wetlands Strategy

The Wetlands Strategy provides a framework for the City of Greater Geelong to protect and enhance the biodiversity and ecological values of the municipal wetlands.

The City of Greater Geelong boasts some of the most important wetlands in Victoria and for some species in Australia. The implementation of the strategy will contribute to the obligations as a signatory to the Japan – Australia Migratory Birds Agreement (1974) and China – Australia Migratory Bird Agreement (1986), Convention of Migratory Species (Bonn Convention 1979) and the Ramsar Convention on Wetlands (1971).

The strategic objectives of the strategy included:

- Wetland protection through the Planning Scheme
- Integration of wetland protection into major Urban Sustainable Development proposals
- Wetland protection and enhancement through land and water management.
- Partnerships with wetland managers
- Wetland education and awareness
- Wetland definition, assessment and monitoring.

Biodiversity Strategy (2003)

The *Biodiversity Strategy* was adopted by Council in 2003. It identifies the central role of partners and partnerships between the City of Greater Geelong and a wide range of organisations and individuals in enhancing and protecting Geelong's unique biodiversity.

The strategic objectives of the Biodiversity Strategy include primary and secondary biodiversity conservation; weed (invasive alien) management; biodiversity planning and legal protection; biodiversity mapping and monitoring; biodiversity education and awareness.

Environment Management Strategy 2006-2011 Geelong's pathway to a sustainable future Local Agenda 21

The Environment Management Strategy 2006-2011 provides a clear direction to the community, developers and government as to what the City of Greater Geelong's approach to sustainable development and environmental management entails.

The Waterway and Wetlands section contains specific objectives, targets and actions that should be considered as the Barwon River lies within the study area. The objectives, targets and actions that are of particular relevance to the study area are mentioned below:

Objectives:

- 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.
- To improve the quality of stormwater runoff entering the City's waterways and wetlands.
- To protect and improve the environmental health and social and economic values of the City's natural waterways and wetlands.

Targets:

- Progressive improvements in the condition of City waterways as measured by the CCMA Index of Stream Condition so that by 2010 none are rated in poor condition.

Actions:

- Recommend as part of the new Urban Animal Management Strategy (to be prepared) the investigation into the introduction of cat curfews on residential areas adjacent to the City's freshwater waterways.
- Establish as Council policy that waterways and wetlands are drained or disturbed as part of any development or works.
- Prepare management plans for all water bodies managed by the City.

Operational Practices

- Introduce measures to moderate storm surge damage from urban areas to waterways and wetlands.
- Undertake a programme to increase fish passage in all waterways.
- Actively implement and enforce the Local Law addressing stormwater runoff and litter from building and construction sites.
- Continue to support the Waterwatch Program.
- Implement the actions in the Barwon and Moorabool Rivers management Plan.
- Implement the recommendations in the Barwon River Land Use and Open Space Corridor Plan Final Report - 2003, in particular the application of Landscape and Environmental Overlays.
- All new development discharging stormwater to waterways and wetlands shall meet the water quality and water reuse requirements of Councils WSUD guidelines.

City of Greater Geelong- Geelong Flood Mitigation Strategy 1997

The Geelong Flood Mitigation Strategy has been prepared to provide a review of the Geelong Flood Plain Management Study (1982 Study) in light of the subsequent changes within the Barwon River flood plain and the major flooding of November 1995. The Strategy also proposes to develop appropriate flood plain management strategies for flood-prone areas along the Barwon River to the Barwon Heads Bridge.

The Strategy recommends that the following areas be adopted as flood fringe areas:

- South Geelong Industrial Area;
- Riversdale Road area;
- Belmont Common between Settlement Road and Barwon Heads Road.

City of Greater Geelong Storm Water Management Plan

The *Stormwater Management Plan* has been prepared in four volumes. The Plan has been developed to improve the environmental management of urban stormwater within the City of Greater Geelong. The plan separated the municipality into a number of sub catchments so as to allow the development of comprehensive management strategies.

The *Storm Water Management Plan* explains that the Newtown sub catchment is a well-established urban sub catchment between Aberdeen Street and Swanston Street. "It is considered to have *Very High* recreational amenity value, due to the passive and active recreational pursuits undertaken along and on the Barwon River, which also has *Very High* visual and landscape amenity value. Additionally, the Barwon River plays a *Highly* valued role in conveying floodwaters". The Plan notes the key stormwater threats and discusses them in relation to: Residential Land Use; Commercial Land Use Runoff; Industrial Land Use Runoff; Major Roads and Transport Corridors; Land and Infrastructure Development; Building site Runoff; Unstable and Degraded Waterways; Septic and Sewer Leakage; Aging Infrastructure,.

Volume II of the Geelong *Storm Water Management Plan* provides detailed information on: the approach adopted in developing the Plan; Recommendations aimed at responding to existing

threats to environmental values; and suggests improvements to Council's management framework to limit the future occurrence of stormwater threats.

Volume IV of the *City of Greater Geelong Water Management Plan* contains the detailed threats and values assessment to accompany Volume II. This section of the *Stormwater Management Plan* discusses the following:

- Descriptions of the waterways within the municipality;
- Details of the sub catchment breakdown;
- Information on typical threats and value types within the municipality;
- A summary of values and threats scores throughout Greater Geelong; and
- A detailed analysis of threats and values within each study sub catchment.

The threats and values throughout the municipality are discussed in great depth. For example the Newtown sub catchment is analysed in section 12 using the following headings:

Key Stormwater Threats

- Industrial Land Use Runoff
- Major Road/Transport Runoff
- Septic and Sewer Leakage
- Residential Land Use Runoff
- Commercial Land Use Runoff
- Unstable and Degraded Waterways
- Landfill and Contaminated Sites
- Golf Course Runoff

Values:

- Environmental
- Cultural
- Amenity
- Stormwater
- Economic
- Receiving Environment Values

2.3 Urban Growth and Land Use Planning

Housing Diversity Strategy, 2007

The Strategy represents a key response to the City of Greater Geelong Housing Strategy Background and Issues Report (2005), which clearly established the need for Council to designate areas where increased housing diversity would be supported.

The document divides the Geelong municipality into 5 key development Areas which are listed below:

- Central Geelong;
- West Fyans Key Development Area;
- Waurin Ponds Key Development Area;
- Proposed Armstrong Creek Medium and Higher Density Housing Areas; and
- Other designated precincts in new residential areas.

It is proposed that Key Development Areas will accommodate the bulk of higher density housing development in Geelong to 2031. The Housing Diversity Strategy defines Key Development Areas as '*large existing and future development areas that have the potential to accommodate significant amounts of new medium and higher density housing, including mixed use development*'. Due to their large size, location and function, Key Development Areas can be purposefully planned and designed to accommodate substantially higher housing without detrimental amenity impacts on established suburban areas.

Key Development Areas are to accommodate the bulk of higher density development in Geelong to 2031, which is estimated to be between 6300 and 9500 medium to higher density dwellings.

The strategy recommends place specific plans, such as Structure Plans or Development Plans, be prepared for all Key Development Areas. This will inform in greater detail the preferred scale, intensity and mix of development in each area and address matters such as infrastructure and services provision, interfaces with the surrounding environment, accessibility and urban design.

The study area is contained within the West Fyans Key Development Area located in the suburb of Newtown. The area is bounded by the Barwon River, LaTrobe Terrace, West Fyans Street and Shannon Avenue.

The strategy explains that Council and the community have shared a vision for the West Fyans Key Development Area to accommodate a diverse range of quality living and working environments, in a way that reconnects the precinct with the Barwon river and celebrates its industrial heritage. The provision of high quality medium and higher density housing in a mixed use environment is vital to achieving this vision. The strategy stated that due to the mixed use nature of the vision for the West Fyans Key Development Area it was not possible to accurately estimate the amount of new residential development the area might accommodate. The production of a structure plan was to provide more detail on development capacity.

Urban Growth Strategy 1995-2020

The purpose of the strategy is to determine the most suitable areas for the accommodation of urban growth to 2020.

The Strategy notes the potential locations for growth within the municipality as being in Lovely Banks, Ocean Grove, Armstrong Creek/Mount Duneed, Wandana Heights, Leopold, Drysdale/Clifton Springs, Wallington and Lara.

It was found that the most suitable areas for future residential development within the municipality are located in Mount Duneed/Armstrong Creek area, the Lovely Banks area and an area south east of Drysdale/Clifton Springs.

The strategy concluded that the three most significant recommendations are as follows:

- future development should occur at higher densities;
- consolidation of existing urban development should be encouraged; and
- long term growth should be directed to Armstrong Creek/Mount Duneed.

In general these recommendations confirm the current policy context both of the State Government in terms of urban consolidation principles and previous Strategies prepared for the Geelong region which has designated Armstrong Creek/Mount Duneed as a long term growth area.

2.4 Community Development

A social planning report was completed for the study area and contains an assessment of cultural and social infrastructure in the West Fyans Street/ Fyans Street area. It identifies the key findings arising from the State and Local Policy Review, and their implications for the social sustainability of the precinct. The West Fyans/Fyans Street structure planning process presents the opportunity to plan for community facilities in the precinct within this policy context.

Growing Victoria Together 2001

Growing Victoria Together establishes the policy parameters within which the State Government has released separate economic, social and environmental policy action plans. These plans

collectively provide a triple bottom line framework that identifies and balances key economic, social and environmental policy goals for the state. Government has identified 10 goals that will be a focus for the Government priority setting, including legislation and spending decisions over the next ten years.

Goal 3 of Growing Victoria Together is “High quality, accessible health and community services”: *“Health greatly influences our quality of life. High quality health and community services need to be available to all Victorians when they need them to preserve and restore good health”*

Goal 7 is ‘Building friendly, confident and safe communities’ - a goal which links community connectedness and service provision: *“Friendly and confident communities have strong support networks, services and infrastructure to meet the needs of people who live and work in them”*

A Fairer Victoria, 2005

A Fairer Victoria is the State Government’s Social Policy Action Plan aimed at reducing social disadvantage and creating opportunities in 14 strategy areas. Two of the elements that comprise the Fairer Victoria framework include “Access to universal services” and “Reducing barriers to opportunity”. These two elements focus on the provision of accessible and appropriate services that will provide all members of the community equal opportunities. Pertinent strategy areas include ‘Providing fairer access to services’ and ‘Building stronger communities’. The framework included a specific focus on including early years, elderly, mental health and disadvantaged groups in community facility planning and community building.

Open Space

The City of Greater Geelong has a number of policies that identify the importance of the open space and the connection of the West Fyans/Fyans Street precinct to the Barwon River. These policies include the Open Space Strategy 2001, the Barwon River Land Use & Open Space Corridor Plan 2003, Marnockvale: landscape, conservation and management, the Barwon Management Plan 2007, Geelong Wetlands Strategy, Biodiversity Strategy and the Environment Management Strategy 2006-2011.

Collectively these policies aim to protect and enhance the environmental values of the Barwon River; retain a connected, continuous path along the river for pedestrians and cyclists, design elements and the role of council in open space provision and environmental protection.

2.5 Economic Development and Employment

City of Greater Geelong – Retail Strategy 2006

The *City of Greater Geelong – Retail Strategy 2006* discusses in great depth the importance of maintaining the on-going development of the retail sector and retail activity centre in the city. The objectives of the 2006 Retail Strategy are as follows:

- to review the existing strategy that was prepared in 1998
- to analyse retail development potential for the municipality
- to identify the appropriate location and format of future retail development
- to consider Council and community viewpoints and concerns associated with retail planning and development.
- to prepare a new Retail Strategy 2006 which will guide retail planning and development in the municipality for the next 15 years (incorporating periodic reviews)

The Retail Strategy notes that like any buildings, those on retail centres need to be well maintained and in some cases renewed over time in response to typical 'wear and tear'. However, fragmented property in the older centres, combined with the need to protect the existing built character and the amenity of adjoining residential properties, can limit the financial feasibility of reinvestment in activity centre building stock.

Geelong Industrial Land Study 2001

This report comprised a three stage investigation into Industrial Land in the City of Greater Geelong. The aim of Stage 1 (industrial audit) was to assess any constraints or opportunities in the development potential of existing industrial land in Geelong.

The audit report suggests there are reasonably good prospects for industry growth in Geelong's industry base. It was noted that the existing Newtown/South Geelong Industrial Precinct contained some of Geelong's oldest industrial areas from the mid to late nineteenth century.

The study indicated that Heritage Buildings impede industrial development and become derelict and unused when no longer required for their original purpose. However, there is potential for medium to long term regeneration of this area for mixed use development. The report separates the municipality into distinct sections. The Newtown/South Geelong Industrial Area is called Area H.

The Newtown/South Geelong Industrial Areas are located to the north of the Barwon River between Shannon Avenue and Breakwater Road. The area is close to Geelong Central Activity Area and has a long history as an industrial area. The textile industry still dominates the area with such companies as Godfrey Hirst and Austrim Textiles within the precinct.

The Newtown/South Geelong area is situated in proximity to La Trobe Terrace and the Princes Highway. As the area has been used for industrial purposes for over 100 years, the lot sizes, road access and heritage buildings are no longer appropriate for many modern industrial practices and requirements. The report indicates that small lot sizes hinder development of new large industries. Narrow and deteriorating roadways, such as Barwon Terrace and Gravel Pits Road do not easily accommodate large vehicles. Heritage controls over some sites also restrict the potential for industrial uses.

The analysis concluded the following for the South Geelong/Newtown suburbs:

- The preferred location for industry is the smaller end of the market in the North Geelong and South Geelong/Newtown areas.
- These light industrial locations were found to have low amenity with little or no attention paid to design elements.
- It is suggested that new development should follow Councils directions by consolidating existing industrial estates such as Moolap, Newtown, South Geelong and Breakwater, prior to the use of the Marshall Industrial Area for industry.

The strategy refers to the "Report of the Advisory Panel and Advisory Committee Reviewing the Greater Geelong New Format Planning Scheme, March 1999). According to the report, the Panel made the following comments:

"Newtown (between West Fyans Street and the Barwon River) – Much of this land is environmentally and/or historically important and included in Significant Landscape and Heritage Overlays. The land is used for a mix of commercial, residential and industrial uses. Instead of retaining this area as industrial land, the Panel's strategic vision suggested redevelopment of the

heritage buildings and utilisation of the strategic location of the site close to and overlooking the Barwon River. To maximise the potential of the land the Panel recommended that a Mixed Use Zone would be appropriate in this area to encourage gradual redevelopment of sites for residential or commercial uses whilst accommodating existing industrial and residential uses. The Panel went into some detail about this site and it is its strong belief that the continuation of the industrial zoning of the land is not appropriate.”

Key Issues affecting the Newtown/South Geelong Industrial Area include:

- The precinct contains some feature heritage buildings which are underutilised by the existing industrial activity area.
- The lot sizes, road access and heritage buildings are no longer appropriate for many modern industrial practices and requirements.
- Small lots hinder development of new large industries.
- Narrow and deteriorating roadways, such as Barwon Terrace and Gravel Pits Road do not easily accommodate large vehicles.
- Heritage controls over some sites also restrict the potential for industrial uses.
- Land close to the river is either in the Flooding Overlay or Land Subject to Inundation Overlay, limiting the types of use and development.

It is recommended the redevelopment of the Newtown/South Geelong Industrial Area should be facilitated by a rezoning of the land to Mixed Use Zone to provide for transition from industry to mixed use development.

The Stage 2 report examined Greenfield sites and concluded that the most appropriate area for major industry was the central and eastern portions of the Avalon Investigation Area.

The focus of *Stage 3* of the *Industrial Land Study* was to review the outcomes of the initial two stages of the study and provide an action plan for the development of existing industrial zoned land and the greenfield sites and addressing other issues raised in the study. This report concluded that:

- There is limited capacity to absorb any significant new industrial development in the North Shore, Fyansford, Newtown/South Geelong and Breakwater Industrial areas.
- The Geelong Real Estate Industry has indicated that there is a growing shortage of suitably located sites for development of the smaller lots.
- The preferred location for industry in the smaller end of the market is in the North Geelong and South Geelong Newtown Localities.
- The Geelong market lacks an aggressive industrial land developer/s driving the development of serviced sites and marketing the industrial land opportunities.
- The Avalon Investigation Area was considered the most suited to the location of major industry.
- The North Western Investigation Area (west of Lara in proximity to Stacey’s Road) was found to be the second most suitable option.

Inner South West Area Traffic Study 2001

The Inner South West Area Traffic Study covers the area bounded by Latrobe Terrace and Settlement Road in the east, Aberdeen Street to the north, the West Bypass alignment to the west and Roslyn Road to the South. The Study aims were to:

- “Determine existing deficiencies in the major road network;
- Determine the impacts of future development related travel demand on the road network;
- Identify road network infrastructure developments, operational improvements and funding responsibilities for the subject area to cost effectively manage the safe and orderly movement of people and product and;

- Specifically determine the impacts of the Wandana Heights development on the road network, the associated upgrading/improvement works required and the apportionment of costs to the developers and other parties.”

The *Inner South West Area Traffic Study* has a number of recommendations proposed for an action plan related to walking, cycling and public transport:

- The central purpose of the action plan for pedestrians is to create a continuous network of pedestrian routes. The proposed routes would provide assistance to pedestrians to cross busy roads, and footpaths would have all weather surfaces.
- The recommendations for cycling are based on the Barwon Region Strategic Bicycle Plan.
- It was concluded that the existing bus services provided in the area were largely peripheral to the needs of those travelling in the area. Public Transport recommendations relate to the short term (up to 2005) and longer term (up to 2010 and beyond).

Geelong Economic Development Strategy 2005-2010 – Geelong, Smart Thinking

The objectives of the Geelong Economic Development Strategy 2005-2010 will:

- Stimulate economic growth by fostering investment within the Region’s existing business base and by attracting new investment to Geelong.
- Create employment opportunities.
- Increase community prosperity.
- Encourage sustainable development.
- Encourage growth of regional domestic product through value adding and export activities.
- Improve the attractiveness of Geelong as a place to live, work and invest.

The Strategy proposes that innovative and smart industries will drive Geelong’s future. It is felt that the creation of an attractive environment will retain dynamic and creative people that will facilitate investment and generate business activity.

The Strategy is divided into three key themes, Strategic Growth Sectors, Foundation Projects and Bridging Initiatives. The themes address all aspects of economic development by identifying potential growth sectors, highlighting infrastructure requirements and developing marketing and business support initiatives to foster and facilitate development.

Geelong Transport Strategy 2002

The *Geelong Transport Strategy* has been prepared to provide the transportation framework for the entire Greater Geelong municipality. The Strategy sets the direction for the planning, development and management of an integrated transport system, defining visions, strategic directions and actions for the next decade from 2003-2013.

2.6 Open Space and Recreation

City of Greater Geelong Study of Open Space Networks 2001

The Study of Open Space Networks provides a strategic overview of the existing open spaces in the City of Greater Geelong and identifies possible future uses, opportunities and linkages so as to maximise the relevance and effectiveness of open space to the community.

The study highlights the importance of open spaces as they provide a range of social, economic and cultural benefits and values to the community. This is considered to be particularly relevant to the municipality where open space is intrinsic to the lifestyle and image of the region.

The Study of Open Space Networks explains that Geelong's landscape and environmental features are important factors in promoting the city as a liveable place for new residents, tourists and broader economic investment. Opportunities to create linkages between and through these features are viewed as important and should be embraced.

The report separates the Geelong municipality into 3 broad zones including the Central Zone – is which in turn is divided into sub-zones including the Central Geelong (includes Newtown, East Geelong, Breakwater, and Geelong West).

The key overall responses for the Central Geelong sub zone are to:

- Develop a series of Sub-zonal Linear routes throughout the Sub-zone through enhanced urban design, traffic calming and pedestrian crossings.
- Develop inter-zonal linear pedestrian and cycle routes to the south, west and east of the central Geelong area in addition to proceeding with the links between the coastal trail and the Bellarine Rail Trail at South Geelong.
- Initiate a programme to better define and improve the safety (e.g. Resolving conflict points between cyclists, pedestrians and other foreshore users) of the coastal Linear Linkage route, particularly in the intensive use areas around Eastern Beach.
- Seek opportunities to expand and enhance Linear Links, Informal Parks and Landscape and Amenity open space opportunities offered through existing sites, landscaping and plantings. These actions should occur in association with residential, schools, retailing and utilities and service provision. In particular, consider sites in areas away from the Barwon River and Corio Bay foreshore. (E.g. Little Malop Street beautification, Pevensy Park, Johnstone Park and links from the foreshore to city tourist sites.)
- Seek opportunities to expand and enhance Informal Park and Landscape and Amenity open space through the redevelopment of components of existing Sports sites. Monitoring the use of and need for these sites with a view to the long term reallocation of some to Informal Park and Landscape and Amenity open spaces (e.g. Bakers Oval, Richmond Oval, Kevin Kirby Reserve, Peter Lowe Reserve, Sparrow Park, Windmill Reserve with a link to Leachwood gardens and the Barwon River.). It should be noted that John Landy Park, Eastern Park, Kardinia Park and the Botanic Gardens are subject to a current masterplan for redevelopment.
- Investigate access rights for land north and south of the Geelong Water viaduct to obtain public access to this site of significance and establish a circuit trail to the site. Investigate options to create the viaduct as a more viable destination point through development of complementary recreation, tourist or cultural uses at either end of the viaduct. (E.g. arts centre /café with vistas back to Geelong). Opportunities for funding, grants and partnerships should be explored to upgrade and manage the viaduct as a useable linear link.
- Explore the potential for joint use agreements with specified schools/ public authorities to meet the gaps in open space provision identified in this sub zone.

City of Greater Geelong Open Space Strategy

The purpose of the study was to create a comprehensive open space strategy that recommends actions that reflect both the Council's and the Community's aspirations for the provision of open space within the City of Greater Geelong.

The Open Space Strategy- Part 1 Background Reference Report focuses around land provided and managed by Council. However, open spaces provided by the Crown, Parks Victoria, Barwon Water and the Department of Education are also analysed. The Open Space Strategy noted that environmental planning was a major concern to residents and stakeholders. There was found to be a perceived major service gap between resident's expectations in the Protection/rehabilitation of waterways, wetlands and indigenous vegetation, and the performance of Council.

The strategy indicates that the hallmark open spaces in the inner urban zone are Eastern Park and the Barwon River which has a significant open spine, habitat and vegetation corridor. It is suggested that the total quantity of open space within the Newtown area is 112.4 hectares within the Queens Park and Balyang Sanctuary holdings.

The document discusses the role of Council and how the community perceives it is performing in regards to the management and upkeep of open spaces throughout the municipality. The community indicated that Council should upgrade its service to meet community expectations, in the following areas:

- Provision of facilities for persons with a disability.
- Planning and design of open space in new and existing residential areas.
- Enforcement of local laws.
- Protection/Rehabilitation of waterways, wetlands and indigenous vegetation.
- Information about parks and what they offer.

The Open Space Strategy also identifies a number of common design constraints in existing residential areas which impacted considerably on the usability of open space. The design problems relate to the size of land taken, their relationship to other land uses and public space, and spaces not being selected with clear functions, setting types, activities or users in mind.

Part 2 of the City of Greater Geelong Open Space Strategy- The Plan; Policy and Principles, recommends a planning framework, benchmarks, a core service provision and issue based policy principles to guide future decision making. The Plan Policy and Principles document envisions that:

“Through greater community and stakeholder co-operation and co-ordination, and commitment to better protection, planning, information, and management of natural assets and open space, the residents of Greater Geelong will have better quality, and access to; open space, the natural environment and recreational opportunities.”

MARNOCKVALE: Landscape, Conservation and Management 1996

The *Marnockvale: landscape, conservation & management* document is a masterplan for land adjacent to the Balyang Sanctuary at the western extent of the study area. The area has a long history associated with wool scouring and carbonising thus making it an important site for Geelong. The analysis of the site revealed a number of opportunities, constraints and future options. The masterplan involves the redevelopment of the existing factory site and the adjacent area. It is suggested that:

- Land currently owned by DNRE south of Riversdale Road is to be consigned to Barwon Water for their management.
- All other land owned by the DNRE in the large site be bequeathed to the City of Greater Geelong for their management or/and future sale or lease to an entity which is agreed to by the DNRE.

Stage 1 Recommendations were:

- Historically significant artefacts and waste timber and metal from the plant are to be stored in the wool shed.
- The Marnock factory plant to be demolished and the timber cottage to be offered for sale.
- Removal of vegetation on the cliff face at Rocky Point and planted on top to screen recent factory addition.
- Integrate the flood plain into the existing linear park network initiated by, developed and managed by Barwon Water.

- Use local indigenous plant material where appropriate.
- Existing road networks should be retained within Balyang Sanctuary.
- The masterplan suggested a detailed investigation should be commissioned into the potential contamination of the soil and water table through past operations of the factory.
- Capping the site is not recommended as it will obliterate any important archaeological remains and raise ground levels which may effect future flood plain management.

Stage 2 Recommendations were:

- Investigate potential developers interested in the development of a housing, golf course and café facility on the Marnockvale site.
- Extension of the study area boundary to include sites to the north
- Undertake a feasibility study into the redevelopment of Balyang Sanctuary as a part ornamental lake and part wetland.
- Investigate the ex-tip site to the north for stability and methane emissions to determine its suitability for housing.
- Removal of Riversdale Road.
- Develop a golf driving range between Marnockvale and the existing 9 hole golf course.
- Incorporate an outdoor sculptural park based on an historical industrial theme.
- Underground power at the site.
- Extend the line of Spotted Gums.
- Utilise the larger site for housing (above the floodline), a nine hole golf course, recreation and cultural facilities.
- Investigate housing development on the hill overlooking the site.
- Refurbishment of the golf club as a new manager's residence and construction of a new golf club.
- Removal of Newcastle Street to facilitate the links course.
- Construction of a roundabout at the Marnockvale site.

Barwon (through Geelong) Management Plan

The *Barwon Management Plan* seeks to develop and maintain well connected, diverse and sustainable waterway parkland. The Plan will replace the existing Land Management Plan prepared in 1996 for Barwon Water. Overall Visions and Key Objectives:

- Recognise, protect and restore environmental values along the Barwon River.
- Reduce the visual and physical encroachment of urban development and infrastructure on the floodplain function and natural character of the waterway corridor.
- Recognise, protect and enhance the Indigenous and European cultural heritage values of the Barwon River.
- Improve walking and cycling opportunities along the waterway open space corridor.
- Manage adjoining open space to maintain balance between recreational facilities and waterway corridor values.
- Support continued water-based recreational use on the Barwon River at a level that is compatible with the environmental and land based passive recreational uses

The Management Plan divided the study area into a number of different zones that have been identified by common management aims. The following is a summary of the key recommendations for works in some of the sections.

Zone 1: Stan Lewis Walk Queens Park Road to Shannon Avenue (west bank)

- Centre line mark path and install 'code of conduct' regulatory signage. Longer term when path requires replacement widen to a minimum of 2.5m.

- Protect significant remnant indigenous vegetation along the river and remove weed species including Ash, Willows, Poplars, Peppercorns and Blackberry,
- Liaise with City of Greater Geelong to undertake at source litter control on major stormwater outfalls.

**Zone 2: Fyans Park/Newtown Park
Queens Park Road to Shannon Avenue (east bank)**

- Centre line mark path and install 'code of conduct' regulatory signage. Long term when path requires replacement widen to min. 2.5m prioritising areas where the trail is confined by steep topography.
- Realign trail and car parking at the West Fyans Street boat ramp to minimise conflict between vehicles and rail users. Provide integrated water quality treatment system and improve landscape amenity and interface to the river.
- Improve all ability path access from picnic area to existing City of Greater Geelong toilet facilities at Fyans Park.
- Short term retain established avenue of Ash trees, establish additional indigenous trees in between to retain landscape character when, in the longer term, their health declines and they require removal.
- Liaise with adjoining landholders to improve management and maintenance of steep escarpment areas adjoining the river including erosion control, removal of weeds and revegetation with indigenous species.
- Protect significant remnant indigenous floodplain vegetation continuing weed and rabbit control programs.
- Zone 3: Rowing Mile North
- Shannon Avenue to Swanston Street (Landy Field- north bank)
- Liaise with Barwon Water (Fernleigh Street) and City of Greater Geelong (Pakington Street) to improve steep access and integrated directional/regulatory signage in these areas.
- Confirm land ownership and upgrade vehicle control along the path west of Latrobe Terrace. Remove obstructions from the path including barriers and fencing and establish an avenue of indigenous overstorey trees along the river. Retain existing poplars until new vegetation becomes established.
- Remove redundant timber platforms from along the river.
- Investigate opportunities to provide stormwater treatment on the open drain at Bridge Street including potential reuse of water in the adjoining golf course.
- Commence removal of weeds at Pakington Street retaining mature exotic specimen trees where they are associated with adjoining heritage properties at Sladen House and Barwon Grange. Investigate opportunities to establish a large water quality treatment wetland and restore natural indigenous floodplain vegetation to improve habitat values.
- Upgrade picnic facilities at Richardson Reserve.
- Develop an alternative path route behind the boat sheds to retain all year round continuous public access and to assist in management of major events.
- Develop interpretive signage regarding the rich history of industrial development and rowing.
- Maintain existing environmental focus for the north bank continuing to improve existing natural landscape and habitat values. Retain areas east of Latrobe Terrace for major event use and recreational facilities.

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 municipality.

The key State and Local Planning Policies, together with the zone/overlay provisions are summarised in Table 2, Table 3 and Table 4.

Table 1 – State Planning Policy

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
12.03 Metropolitan Development: Networks with Regional Cities	<p>Promote the growth of regional cities on regional transport corridors as part of a 'networked cities' model.</p> <p>Establish Geelong as viable alternative urban location to Metropolitan Melbourne.</p> <p>Limit the impact of urban development on non-urban areas and support development in those areas that can accommodate growth.</p>	<p>The re-zoning, re-development and regeneration of the West Fyans/Fyans Street Study Area complies with State policy direction as:</p> <ul style="list-style-type: none"> • Development will be consolidated within the existing urban environment; and • New residential and commercial development will support the strength of Geelong as a regional activity centre.
14.01 Settlement	<p>Prepare structure plans to facilitate the orderly development of urban areas.</p> <p>Identify opportunities for redevelopment and intensification of existing urban areas and encourage the consolidation of existing urban areas while respecting neighbourhood character.</p> <p>Encourage higher density and mixed use development near public transport routes.</p>	<p>Structure Plans must comply with State Policy directives.</p>
15.02 - Environment Floodplain Management	<p>Assist the protection of life, property and community infrastructure from flood hazard and ensure that floodplain areas are protected as areas of environmental significance.</p>	<p>The development of floodplain areas must be consistent with regional catchment strategies and special area plans approved by the Minister for Environment and Water; State environment protection policies and Environment Protection Agency best practice models. The existing flood plain overlay controls outlined within the Geelong Planning Scheme must be incorporated into the Structure Plan. The development of emergency facilities, including hospitals, police stations, transport facilities or education centres will not be permitted within designated floodplain areas.</p>

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
15.04 Air Quality	Protect and improve air quality.	Consideration must be given to Recommended Buffer Distances for Industrial Residual Air Emissions (EPA 1990) to determine the extent of separation between potentially amenity reducing and sensitive land uses and developments.
15.06 Soil Contamination	Ensure that potentially contaminated land is suitable for its intended future use and development, and that contaminated land is used safely.	<p>The Structure Plan must be consistent with Ministerial Direction 1 of the Planning and Environment Act 1987. The Direction states that a planning authority must satisfy itself that potentially contaminated land which is to be used for a sensitive use, agriculture use or public open space, will be suitable for that use.</p> <p>Before a sensitive use commences or before the construction or carrying out of buildings or works in association with a sensitive use commences a certificate of environmental audit must be issued for the land in accordance with Section 57AA of the Environment Protection Act 1970.</p> <p><i>To ensure compliance with State policy an Environmental Audit Overlay control must be attached to the Study Area.</i></p>
15.09 Conservation of Native Flora & Fauna	Assist the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals and control of pest plants and animals.	For amenity and conservation purposes, development of the Structure Plan should include policy which protects native vegetation, particularly within areas along the riverside.
15.10 Open Space	Assist the creation of a diverse and integrated network of public open space commensurate with the needs of the urban community.	Existing open space amenity within the Study Area must be maintained and improved through linking walking and cycle trails with open space and allowing for pedestrian routes through new development and subdivisions.
15.11 Heritage	Conservation of places that have natural, environmental, aesthetic, historic, cultural, scientific or social significance.	Recommendations of the Victorian Heritage Council and the provisions of the Heritage Act 1995 must be taken into account in the development of the Structure Plan.

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
16 Housing	Ensure the appropriate mix and scale of new housing development, designed in accordance with Rescode (Clauses 54-56).	Conservation and potential regeneration opportunities should be explored for all heritage listed buildings and sites within the Study Area.
17 Economic Development	Ensure the growth and consolidation of activity centres and encourage economic development which meets community needs for commercial services, industrial uses and agriculture.	Residential development standards must comply with State policy directives. New residential policy should build upon Rescode rather than replicate Clause 54-56 provisions. Retail and commercial development must be commensurate with the scale of new residential development within the Study Area and development must accord with the broader municipal/regional retail hierarchy.
18 Infrastructure	Integrate physical and community infrastructure and promote development in areas with a high level of existing infrastructure services.	There is potential to extend the existing activity centre along Pakington Street into the Study Area and create new activity spines beside public open space recreational services. Infrastructure provision must be efficient, sustainable and relate to key needs.
19.03 Urban Design	Promote high quality urban design and architecture which enhances the livability, diversity, amenity and safety of the public realm.	Development of the Structure Plan may include specific policies relating to the design, scale, height and massing of new developments.

Table 2 - Local Planning Policy Framework

Amendment C129 to the Greater Geelong Planning Scheme propose changes to Clause 21 and 22 however the general content remains the same as outlined below:

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
21.04 Vision and Guiding Principles	Provides overview and context of Geelong and its environs. Publicises Geelong's strengths and achievements as a competitive alternative to Melbourne for economic development.	Appropriate new development is encouraged within the Study Area.
21.07 Strategic Directions	Strategic directions contains a framework plan for the Municipality which identifies growth areas.	The Study Area is identified as a growth area within the City of Geelong.
21.08 Urban Growth	<p>Promotes the redevelopment of under-utilised commercial and industrial sites to provide opportunities for medium density inner city living.</p> <p>Urban consolidation is to be assisted by seeking 15 dwellings per Ha in all future residential development.</p>	Development of the Structure Plan complies with Local Urban Growth Policy. Implementation of policy provisions allows for the application of the Mixed Use Zone to limited locations where a mix of residential densities and other urban activity is sought.
21.10 Environmental Management	Establishes principles to protect Geelong's natural environment and promote Ecologically Sustainable Development.	Development within the Study Area must comply with the City of Greater Geelong's Environmental Management Strategy (1999).
21.11 Catchments, Waterways & Groundwater	Establishes principles to protect and enhance the amenity of waterways.	Existing Environmental Significance Overlay controls attached to the riverside land within the area should be retained.

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
21.12 Flood Management	To minimise the potential for significant public and private property damage and risks to the safety of the community resulting from flooding.	Existing Flood Overlay controls and Land subject to Inundation Overlay controls should be retained within the Study Area. Council must consider the impact of all use and development applications proposed in flood prone areas.
21.14 Flora & Fauna	Establishes principles for the protection of existing areas of bio-diversity.	Development within the study area must comply with Planning Scheme overlay controls including Public Conservation and Resource Zoning classifications and Environmental Significance Overlay provisions.
21.15 Open Space	Promotes the maintenance of existing open space.	The Study Area has a significant amount of Public Open Space. The protection and improvement of public open space areas and the introduction of publicly accessible pedestrian routes linking the open space along the riverfront should be incorporated into the Structure Plan.
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 residential development.	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 Housing Diversity Strategy.
21.19 Economic Development	Builds upon the State Planning Policy relating to Economic Development.	Promotes a diverse range of economic opportunities.

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
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.
21.21 Central Activities Centre	Establishes a location hierarchy for commercial development within Geelong.	Commercial and retail development within the study area must be planned with regard to the Geelong Retail Strategy and other Local policy provisions.
21.22 Industry	Establishes directions to build on the existing industrial base.	The Study Area is not directly identified as an area for continued industrial growth. Alternative locations identified within Geelong such as the Heales Road Industrial Estate are considered most appropriate for future industrial expansion.
21.23 Tourism	Establishes principles relating to Geelong's tourism opportunities.	Promotes tourism features which integrate with other activity centres and facilities, through urban design and linkages.
21.26 Integrated Transport	Establishes principles to build on transport linkages within Geelong.	Key implications for the study area include ensuring new developments are linked with existing road and cycle routes.
21.30 Design and Built Form	Builds upon State Planning Policy and promotes urban design and architecture which reflects the community characteristics, aspirations and cultural identity.	The Structure Plan should emphasis greater continuity in the treatment of landscaping, street furniture, building treatments and advertising signs in order to unify the study area and enhance its overall appearance and amenity.
22.09 Assessment Criteria for Retail Planning Applications	Establishes policy criteria for assessing applications for new or expanded provision of retail floor space.	Retail development within the study area must be commensurate with the current trade area or catchment population level and forecast growth rate for the next five to 10 years. Development must be in line with Retail Development Framework policy provisions, as outlined in Council's adopted Retail Strategy.

CLAUSE	KEY OBJECTIVES AND PROVISIONS	IMPLICATIONS FOR STUDY AREA
22.20 Cultural Heritage	Establishes development objectives for properties affected by Heritage Overlay Controls.	<p>There are a total of seventeen heritage listed properties or protected areas within the study area. Local policy encourages development to be undertaken in accordance with the accepted conservation standards of the ICOMOS Burra Charter. It is important to ensure that new development and external alterations of existing buildings make a positive contribution to the built form and amenity of the area.</p> <p>The demolition of heritage places is broadly discouraged.</p>
22.24 Woollen Mills Heritage Area	Establishes heritage policy specific to Newtown's woollen mills historic precinct.	<p>Objectives and provisions outlined include references to retaining:</p> <p>The early concrete kerb and channel and concrete paving in Rutland Street and bluestone kerb and channels and street tree planting in Pakington Street.</p> <p>The significant urban foci in the area, including the brick chimney at the Returned Sailor's & Soldiers Woollen Mills, Albion Mill, office of Collin's Union Mill, Sladen House and the visual relationship of the area with the Barwon River.</p> <p>The uniformity of scale throughout the area, including the two-storey height limit, minimal front setback, building separation and subdivision pattern.</p>

Table 3 – Zones

The following zones apply to the Study Area. The zone and purpose are summarised in the table below.

Zone	Purpose
Business 4 (B4Z)	The purpose of the Business 4 Zone is to provide for the development of a mix of bulky goods retailing and manufacturing industry and their associated business services. The majority of Business 4 type uses within the study area are located along La Trobe Terrace and Moorabool Street. There are also two small parcels of Business 4 zoned land situated along West Fyans Street.
Industrial 1 (IN1Z)	This zone provides for general industrial development. The majority of the developed lands within 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.
Industrial 2 (IN2Z)	The purpose of the Industrial 2 zone is to promote manufacturing industries and storage facilities that require a substantial threshold distance within the core of an industrial zone. It is generally where more hazardous or amenity impacting industries are located. Currently there are no Industrial 2 zoned lands within the study area. Considering the amenity value of the Barwon River and the potential for future mixed use development throughout the study area it is not recommended that Industrial 2 zoned land is introduced to the West Fyans/Fyans Street precincts.
Industrial 3 (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. There is currently only one Industrial 3 zoned site within the study, however, has been considered in the study process as an alternative zone for locations directly abutting sensitive residential areas such as along Fyans Street (between Moorabool and Swanston Street). The Industrial 3 zoning classification requires more uses to obtain a planning permit so as to have regard to amenity impacts to nearby residential areas.
Mixed Use Zone (MUZ)	The purpose of the mixed use zone is to provide for a range of residential, commercial, industrial and other uses which compliment the mixed-use function of the locality. Residential development must comply with Rescode policy, specifically Clauses 54-56 and respect the neighbourhood character of the area. There are currently no mixed use zoned areas within the study area, however it is considered that the introduction of this zoning to the precinct is key to the overall regeneration and re-development of Fyans Street and West Fyans Street.

Zone	Purpose
Public Conservation and Resource Zone (PCRZ)	The Balyang Sanctuary and land bordering the Barwon River are zoned as Public Conservation and Resource amenity areas. The purpose of this zone is to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values. The areas zoned as Public Conservation and Resource will remain under the Structure Plan.
Public Park and Recreation Zone (PPRZ)	There are three Public Park and Recreation Zoned areas located throughout the study area, which include Frier Reserve Sports Pavilion, John Landys Athletics Field and the Balyang Par Three Golf Course. The objectives of the PPRZ classification is threefold: 1. To recognise areas for public recreation and open space. 2. To protect and conserve areas of significance where appropriate. 3. To provide for commercial uses where appropriate.
Residential 1 (R1Z)	The primary objective for Residential 1 Zoned land is to provide a scale, mix and range of densities which will meet the housing needs of the entire community. Although there are residential units located sporadically throughout the study area, including heritage listed dwellings such as Grange and Sladen House, there are only two relatively small areas zoned R1Z, located along West Fyans Street.
Public Use Zone (PUZ)	There are two areas zoned for Public Use in the study area, one is located to the south of Fernleigh Street which extends to the rivers edge and the MacIntyre Footbridge, whilst the second (the Barwon Water Community Tree Propagation Centre) is located on the corner of Swanston Street and Barwon Terrace. These sites have been specifically recognised for public utility, community services and facilities.

Table 4 – Overlays

The following overlays also apply in the study area. The overlay and a summary of the control are summarised below:

Overlay	Control
Design and Development - Schedule 14	This overlay applies to all residential areas within the City of Greater Geelong. The purpose of the overlay is to ensure new dwellings and extensions to existing dwellings are compatible with the existing scale and character of adjoining dwellings. It 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	<p>The purpose of this overlay is to conserve and enhance heritage places or places of natural or cultural significance. The following properties within the study area are affected by heritage overlay controls:</p> <ul style="list-style-type: none"> • Riversdale Residence (HO1421) • Moorpanyal House (HO1205) • Rocky Point Heritage Area (HO1617) • Barwon Club Hotel (HO1074) • Woollen Mills Heritage Area (HO1618) • Properties within which prohibited uses may be permitted include: • E.P Robinson Wool Scourer (HO1247) • 485-487 Moorabool Street (HO1073) • 308 Bellerine Street (HO876) • 310 Bellerine Street (HO877) • 316 Bellerine Street (HO878) • New Breed Furniture/ originally Austral Paper Mills (HO1292) • Returned Sailors & Soldiers Woollen Mill (HO1371) • Sladen House (HO233) • Albion Woollen & Worsted Mills (HO1306) <p>Properties Included on the Victorian Heritage Register include:</p> <ul style="list-style-type: none"> • Barwon Grange (HO108) – Victorian Heritage Register Reference H1102 • Barwon Bank (HO107) – Victorian Heritage Register Reference H425 (prohibited uses may be permitted)

Overlay	Control
Significant Landscape – Schedule 2	Land adjoining the northern bank of the Barwon River as it passes through Newtown is located within a mixed use environment. It is characterised by an escarpment on the northern bank that overlooks the Barwon River. This is of particular visual significance from both the river banks and the higher lands on the south bank. The river banks of the Barwon River have been progressively acquired and developed for a significant open space spine over many years and the enjoyment of this space should not be compromised by inappropriate or imposing development.
Land Subject to Inundation	The purpose of the Land Inundation Overlay Control is to identify land which is in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority. The Responsible Authority must ensure that development within inundation identified areas will not cause any significant rise in flood level or flow velocity. Within the study area there are a number of areas along the Barwon riverside which have been identified as land subject to inundation. The Structure Plan does not propose to alter these planning controls.
Floodway	Similarly to the Land Subject to Inundation overlay control, the purpose of the Floodway control is to identify waterways, major flood paths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.
Public Acquisition	The study area contains two areas which have been identified as land which is proposed to be acquired by the public authority for use as public open space.
Environmental Audit	<p>The Environmental Audit Overlay control is not currently used within the study area, however due to the industrial heritage of the land and the potential for future mixed use development it is considered appropriate to include this planning control on the majority of the study lands. Through introducing this control we can ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination. The Environmental Audit Overlay control states that before a sensitive use (residential use, child care centre, pre-school centre or primary school) commences or before the construction or carrying out of buildings and works in association with a sensitive use commences, either:</p> <p>A certificate of environmental audit must be issued for the land in accordance with Part IXD of the Environment Protection Act 1970, or An environmental auditor appointed under the Environment Protection Act 1970 must make a statement in accordance with Part IXD of that Act that the environmental conditions of the land are suitable for the sensitive use.</p>

2.8 Key Influences

Environment:

- Visual encroachment on the natural environs of the Barwon River needs to be prevented.
- The recognition and interpretation of the industrial history of Geelong should be supported.
- The recognition and protection of the environmental values of the Barwon River and Balyang Sanctuary should be supported.
- The landscape and viewsheds adjacent to the Barwon River should be protected and enhanced.
- The quality of stormwater runoff entering the City's waterways and wetlands and the water quality and flow of waterways should be improved.
- Flooding and stormwater are issues for land adjacent to the Barwon River and need to be considered in relation to any new development.

Urban Growth and Land Use Planning:

- West Fyans Street is an identified Key Development Area for higher density residential development.
- The vision for the area is to accommodate a diverse range of quality living and working environments in a way that connects with the river and the industrial heritage.
- Consolidation of existing urban development and higher densities are encouraged by local policy.

Community Development:

- Urban consolidation provides for a reduction of urban sprawl.
- The area should be designed to provide for healthy and walkable communities, urban infrastructure (including community and health services) and protect neighbourhood character.

Economic Development and Employment:

- The West Fyans Street/Fyans Street area is currently occupied by the smaller end of the market light industrial uses.
- Major industry would be ideally located in the northern industrial estates eg. Avalon.
- The area has a number of constraints for industry including: small lots, flood prone land, narrow roads unsuitable for large vehicles and heritage controls constraining development.

- The heritage buildings in the area are underutilised.
- The area should be rezoned Mixed Use Zone to assist a transition from industry to mixed use.
- Walking, cycling, public transport and roadside amenity/safety are transport factors to be considered.

Open Space and Recreation:

- Values along the Barwon River should be recognised, protected and restored.
- The visual and physical encroachment of urban development and infrastructure on the floodplain function and natural character of the waterway corridor should be reduced.
- The Indigenous and European cultural heritage values of the Barwon River should be recognised, protected and enhanced.
- Walking and cycling opportunities along the waterway open space corridor should be improved.
- Adjoining open space should be managed to maintain balance between recreational facilities and waterway corridor values.
- Water-based recreational use on the Barwon River should continue to be supported at a level that is compatible with the environmental and land based passive recreational uses.

3 Natural and Urban Environment

The West Fyans Street/Fyans Street area is defined by its key landscape attribute mainly the Barwon River, Balyang Sanctuary and surrounding reserves. The values of these key attributes are significant for the local and wider environment, and are intrinsic to the township and community.

3.1 Natural Environment

3.1.1 Key Environmental Features

The most significant environmental feature of the study area is its location abutting the northern bank of the Barwon River, although the river corridor is outside the study area. The Barwon River has significant environmental values and provides a habitat corridor through this area of Geelong. The reach from LaTrobe Terrace to Shannon Avenue is populated by dense vegetation, including large native trees such as River Red Gums, and some exotic species.

The Balyang Sanctuary is located at the south-west corner of the study area and is an artificially created lake. The area provides habitat for a number of bird species and native vegetation such as River Red Gums.

Flooding is extensive adjacent to the Barwon River, with the most southerly part of the study area covered by a Flooding Overlay or Land Subject to Inundation Overlay.

The history of land use in the area signifies that some parts of the precinct may be subject to contamination. This matter is discussed further in Section 1.1.3 of this report.

3.1.2 Key Views and Vistas

A steep escarpment separates the properties on the southern boundary of the study area from the Barwon River corridor and is extensively vegetated. The vegetation restricts views to and from the river, while the sloping embankment further obscures views of built form within the study area from the open space on the northern bank of the river.

Many roads between Gregory Avenue and LaTrobe Terrace terminate in dead ends. At these locations, physical access to viewpoints on the northern bank of the river is restricted by privately owned land titles and the existing built form.

The corner of West Fyans Street and Shannon Avenue is the highest point of the study area and slopes steeply to the river flats at the golf course and Balyang Sanctuary. Extensive views of the river and surrounding suburbs is available from this point.

At the eastern end of the study area the land is relatively flat, although some view corridors have been obstructed by buildings. In particular, the rowing shed on the open space at the view termination at Yarra Street obstructs views to the river corridor.

3.1.3 Open Space

A variety of significant open space areas lay within and around the study area. The open space distribution within the study area can be classified into four broad categories: Balyang Sanctuary, Balyang Par 3 Golf Course, Frier Reserve, and the river corridor. Balyang Sanctuary (to the west) and John Landy Athletic Field (to the east) form 'bookends' to the study area. A variety of passive and active recreational reserves occur along Balyang River, including shared pathways, a rowing club and the athletic field.

3.1.4 Site Contamination

This area of Newtown/Chilwell has a long history of industrial development dating from the 19th Century. Those uses, often associated with the wool industry, used early management practices which resulted in the direct discharge of effluent to the Barwon River, inappropriate disposal of waste on site, and adverse off site odour and noise pollution. Management practices have since improved, but the history of land use and the lack of specific

knowledge about all properties mean that the potential for site contamination exists across the study area.

The absence and poor quality of record keeping from that era means that few records exist regarding industrial activity. The Environment Protection Authority has no record of confirmed contaminated sites in the study area.

The corner of Shannon Avenue and West Fyans Street was a former landfill site and has been capped. The golf course has also been capped for use for recreation purposes. The Marnockvale Wool Scouring Plant is a known contaminated site, and it is assumed that other wool scouring plants in the study area may be subject to contamination.

The Parish Plans from December 7, 1896 show three quarries, G. Corp., Government and N. & C. extending across the three titles from the corner of West Fyans Street and Bridge Street to the west.

“Corporation Cattle” at that date occupied land bounded by Fyans Street, Swanston Street, Bellerine Street and Little Fyans Street, with a ‘market’ occupying the next block to the south bounded by Little Fyans Street, Swanston Street, Bellerine Street and Barwon Terrace. It is not known if the market was a produce market or related to the cattle yards.

The previous uses on the above sites indicate that the land at these locations may be contaminated. Ministerial Direction Number 1 requires that, if potentially contaminated land is to be rezoned to allow a residential use, public open space, agriculture or child care centre/school, the Planning Authority must be satisfied that the environmental conditions of the land are suitable for those uses. The extent of contamination must be determined prior to the commencement of a sensitive use, usually via an Environmental Audit.

3.2 Urban Environment

3.2.1 Residential/Industrial Character

A small amount of residential properties are located within the study area and are generally developed with single dwellings which utilise low or no fencing. A large developed residential area is located to the north of the study area which generally employs a similar design style but also includes the presence of multi unit dwellings.

The Opportunities and Constraints Report summarises some key points of the residential character and include the following:

- Shannon Avenue, West Fyans/Fyans Street and Latrobe Terrace carry high traffic volumes into the study area. West Fyans Street has significant traffic congestion. Latrobe Terrace is a major traffic barrier between the eastern and western parts of the study area.
- Irregular setbacks create an inconsistent and undefined street edge. Car yards fronting West Fyans Street detract from streetscape.
- Numerous residential lots are located within the industrial area.

A variety of industrial lot sizes exist within the study area and therefore contain a mix of industrial land uses types. However small light industrial type uses primarily make up the industrial area within the study area. Irregular setbacks detract from the existing streetscape. An opportunity exists to establish consistent street setbacks in the car sales precinct between Latrobe Terrace and Moorabool Street.

3.2.2 Recreation Facilities

As part of this project a recreation assessment of the study area was undertaken to consider:

- Expected market demand for various sport and recreation activities
- A review of the supply of sport and recreation settings within and immediately surrounding the precinct
- Consideration of broader industry benchmarks and participation trends that apply to the precinct, and
- The outcome of an assessment which analyses the capacity of existing recreation settings to accommodate expected changing levels of supply in recreation activities

The study identified the precinct as a vibrant recreation point. The Barwon River and extensive linear open space associated with it, and Kardinia Park are major focal points that attract significant visitations.

The Barwon River (including the extensive linear open space that comes with it) and Kardinia Park are major focal points and attract significant visitations. Major themes within the assessment are therefore associated with vehicle and pedestrian access and circulation. Of specific interest also are a number of major developments expected in and immediately around the precinct. Specifically, the Victorian Government has made a commitment to link the existing parks and reserves along the River from Geelong to Barwon Heads. Recognising the state significance of the link, and the marked increase in the number of people who walk or ride as a form of regular recreation activity, the development is expected to significantly increase extent of pedestrian circulation within the precinct. Similarly, the City of Greater Geelong will develop a major cycling precinct within Belmont Island, adjacent to the Barwon Valley Activity Centre. Referred to as the home of cycling, the development will bring together a range of cycling groups and efforts with works including a criterium track, for training and competitions, mountain bike and BMX facilities

The assessment identified a high concentration sport and recreation organisations within the precinct with 38 different organisations identified. Of these, 25 are organised sporting clubs. Rowing, athletics, AFL football and cricket facilities are amongst the most commonly supplied facilities. While it is expected that the existing supply of sport and recreation facilities will accommodate any future residential growth within the precinct, further consideration is required to manage vehicle and pedestrian access to these areas, which are predominantly located on the east side of Latrobe Terrace on the north bank of the River.

With current and future visitations to the precinct, particularly along the Barwon River expected to be very high, Council may face increased pressure to consider the development of commercial activities within what is a highly sensitive and environmentally important area. With this in mind, while commercial developments (such as café and bicycle vendors) are supported in principle, its footprint, location and design should not compromise the environmental value that underpins the precinct.

The recreation assessment concludes with a number of planning themes and resultant actions, which are summarised below. The progressive development of a trail system that connects residential areas to the Barwon River and community facilities will markedly influence the capacity and opportunity for people to regularly participate in recreation. Implicit to this is the understanding that regular participation enables people and their communities to derive the health, social, economic and environmental benefits that come with participation.

Specific actions include:

- Landscaping treatments to follow CPTED principles to promote a feeling of safety and passive surveillance.
- Interpretive and directional signage and distance markers to reinforce the connectivity between the River, community facilities and residential areas.
- Safe pedestrian and cycling options at both Latrobe Terrace and the Fernleigh Bridge are considered priorities. Safe crossing for residents at LaTrobe Terrace (at River) aims to promote access to sport and swimming facilities and Kardinia Park from the eastern side of Latrobe terrace. The pedestrian bridge at Fernleigh Street provides an important link to recreation and open space at the south bank. Both initiatives aim to increase walking and cycling and minimise the use of cars for these journeys.
- Key entry points to the precinct at Pakington Street and Fernleigh Street to reinforce sightlines to the River.

The precinct does and will continue to attract large volumes of people because of the district and regional catchment of facilities within and abutting it. While commercial developments (such as bike hire and café vendors) are supported in principle, its footprint, location and scope should not compromise the environmental value that underpins the precinct.

Pakington and Fernleigh Streets are important entry points to Barwon River. Coupled with the location of buildings of historic significance, this area of the precinct may experience a marked spike in visitations. Therefore issues to be addressed are:

- Alternative access points or parking provision for visitors in cars.
- Maintenance of clear sightlines to the river from these points.
- Directional signage and distance markers, as well as an indication of 'degree of difficulty' if the terrain is not obvious.

Major sporting events and competitions such as at Landy field and along the Rowing Mile make important economic, social and health contribution to the community and should be encouraged. Council will therefore need to consider measures to manage acoustic levels where appropriate as part of any future residential development.

Strengthening local / neighbourhood facilities in an effort to foster local community participation and social networks is a key planning requirement that has long term impacts to the health and wellbeing of communities. Barwon Valley Community Centre, Geelong YMCA and Friers Reserve are significant local destinations and should be included within the overall context of footpath / trail network.

3.2.3 Residential Development

Limited residential development has occurred within the study area given only a small proportion of the land is zoned Residential 1 Zone (R1Z). The Opportunities and Constraints Report has detailed the location of more than twenty Industrial Zoned lots currently being used for residential purposes. Approximately 120 dwellings exist in the study area.

3.3 Key Influences

<p>Given previous or existing industrial uses some parts of the precinct may be subject to contamination.</p> <p>Flooding is extensive adjacent to the Barwon River, with the most southerly part of the study area covered by a Flooding Overlay or Land Subject to Inundation Overlay.</p> <p>The Barwon River and Balyang Sanctuary are important environmental assets to be protected.</p> <p>Extensive views of the river and surrounding suburbs is available from certain locations within the study area given the steep slope of the land.</p> <p>The study area contains a number of individual sites of historical significance, many of which are covered by a Heritage Overlay in the Greater Geelong Planning Scheme.</p> <p>The study area has been identified as a vibrant recreational point which attracts significant visitations.</p> <p>A small number (120) of dwellings exist in the study area but residential development has been limited by the amount of land zoned for residential purposes.</p>
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4 Demographics and Social Profile

4.1 Population

Data published by the Australian Bureau of Statistics census illustrates that the population of Victoria grew by 271,430 persons between 2001 and 2006. This is an increase of 5.8 percent over the incidental 6 year period. It is significant in the fact that the increase was generally balanced across the Melbourne Major Statistical Region but that regional city bases such as Greater Geelong experienced higher than average population growth at 10.1 percent.

Table 5: Population Change at State, City & Local Level 2001-2006

	2001	2006	2001-2006
State	4,660,991	4,932,421	+ 5.8%
Melbourne City*	3,366,542	3,592,768	+ 6.7%
City of Greater Geelong	186,889	205,928	+ 10.1%

(Source: Australian Bureau of Statistics, Census 2006 *Major Statistical Region Area & City of Greater Geelong Council Forecast)

In accordance with the City of Greater Geelong population forecasts it appears that this increase will continue over the next 25 years. The 2006 figure of 205,928 is expected to rise to 300,886 by the year 2031. This translates into a massive 46.11 percent increase in the population of the Greater Geelong area.

4.2 Average Household Size

The City of Greater Geelong forecast results predict that the average household size within Geelong will steadily decrease from 2.47 persons per household in 2006 to a median of 2.39 persons per household by 2031. As the table below shows, in contrast to overall Geelong trends the 25 year forecast model predicts a marked decrease in the number of persons in the Newtown Area, whilst the number of households is predicted to rise only marginally. This is most likely indicative of the large number of industrial sites within the area which have not previously been identified for potential re-development as mixed use or residential sites.

Table 6: Average Household Size in the Greater Geelong and Newtown Area 2006 and 2031

Year	Area	Number of Persons	% Change	Number of Households	% Change	Average Household Size
2006	Greater Geelong	205,928	+ 46.11%	81,116	+ 18.5%	2.47
2031		300,886		96,170		2.39
2006	Newtown	9,957	- 3.8%	3,955	+ 2.1%	2.45
2031		9,576		4,039		2.31

(Source: Australian Bureau of Statistics, Census 2006)

Having regard to the population projection forecasts for the City of Greater Geelong as a whole, it is evident that the 46 percent increase in population will lead to a correlated increase in housing demand. Couple this with the decrease in household size it can reasonably be deduced that there will be significant residential demand in the locality. It is suggested that increased provision of residential dwellings would meet a future demand and may play a positive role in affordability in the area.

4.3 Age Distribution Assessment

An analysis of the age profile of the local population indicates that in comparison to Greater Geelong, the Newtown study area has a distinctly adult population, with only 14 percent of population being under the age of fifteen. There is also a higher percentage distribution in the 45-59 year age group (24

per cent) compared to the Geelong average of 19.2 per cent. This may be directly related to the nature of the established residential areas within the Census study area, immediately north of the West Fyans/Fyans Street Study Area. In addition, figures for the percentage young adults in the resident population (age groups 15-44 yrs) are consistent with city averages at c. 40 percent. This age group have the greatest propensity for household formation and are most likely to start families.

Table 7: Age Distribution within Greater Geelong and Newtown

	0-14 yrs	15-24 yrs	25-44 yrs	45-59 yrs	60 - 74	75 +	TOTAL	Dependency Ratio
Greater Geelong* (2001)	20.2%	20%	21.2%	18.6%	12.6%	7.4%	186,889	40.2
Greater Geelong* (2006)	18.5%	18.2%	19.5%	19.2%	12.4%	12.2 %	205,928	43.1
Newtown (2006)	14%	21%	20%	24%	12%	9%	9,957	35

(Source: Australian Bureau of Statistics, Census 2006) *Greater Geelong (C) Local Government Area

(For the purpose of analysing the population structure of the receiving environment three factors will be examined: the dependent population (i.e. those persons within the 0-14 and 60+ age cohorts) and the working/independent population (i.e. those persons residing in the 15-60 year age cohorts and those persons within the childbearing age cohorts, aged 25-44).

The age profile of the area is an important consideration for the Structure Plan. It becomes an issue when considering the provision of schools, healthcare and employment in the area. The working age group is defined as those in the 15 - 60 age range. A high percentage of the population in this range would indicate a requirement for employment, and it follows that a low percentage here would indicate a need for emphasis on health care and education facilities to service the 0-14 and 60+ sectors of the population.

4.4 Dependant and Working Age Cohort Groups

Dependent age cohorts relate to that part of the population that is unlikely to be self sufficient, such as the young (age cohort 0-14) and more elderly (age cohort 65+). Accordingly, this social group is reliant on the rest of the population. If the proportion of individuals in the dependent age cohorts is significantly high, this places a strain on other members of a local population, and on its economy. Depending on the distribution of the age group cohorts, the provision of certain facilities or services may be considered appropriate. The Newtown area has a lower representation of persons in the 0-14 age group and the 60+ age groups with only 35 percent of the population falling into the dependent category in comparison to Greater Geelong as a whole which has a 43.1 dependency ratio. This is indicative of the general household composition in the area, which comprises a majority of adults of working age (15-60 yrs). However, as illustrated above (Table 7), the high percentage of persons within the 45-59 age group (24 percent) indicates that there is an

aging population within the area. It is evident that this demographic trend has proliferated from 2001 to 2006 throughout Greater Geelong also, with the 60 plus age groups increasing from 20 percent to 24.6 percent during the intercensal period.

4.5 Socio-Economic Structure

Table 8: Socio Economic Structure

% Distribution	Professional/ Managerial	Non-Manual Skilled Manual	Semi Skilled / Unskilled	All Others Gainfully Employed
Greater Geelong (2001)	35%	34%	29%	2%
Greater Geelong(2006)	28%	40%	30%	2%
Newtown (2006)	45%	33%	20%	2%

(Source: Australian Bureau of Statistics, Census 2006)

It can be seen from the above that in comparison to the City averages, the Newtown area has a lower representation in the non-manual/skilled and semi-skilled/ unskilled classes. Concurrent with this, there are a significantly high percentage of persons in the professional/managerial classes (45 percent) compared with the City of Geelong 2006 average of 28 percent.

It follows from the high level of those employed in the local area in the professional/ managerial economic group that the local community generally incorporates a predominantly tertiary sector workforce. These figures would indicate (particularly when cross referenced with age distribution data noted above) that the Newtown Census Study Area, which includes much of the established residential community immediately north of the West Fyans/Fyans Street Study area, would benefit from increased professional/ skilled jobs provision in the area.

Furthermore, it indicates that the labour force for existing industrial units and businesses in the Study Area may not be sourced from the locality. Overall however the socio-economic profile of the area highlights that there is a range and diversity of social stratification which should be maintained.

4.6 Mobility

Table 9: Principal Means of Travel in Greater Geelong & the Newtown Census Study Area

	Foot	Bike	Bus	Train & Tram	Motorbike	Car (driver)	Car passenger	Other / Not Stated
Greater Geelong	3.2%	1%	1.1%	1.4%	0.4%	68%	5.4%	19%
Newtown	5.8%	1.4%	1%	1.6%	0.2%	65%	5.2%	19%

(Source: Australian Bureau of Statistics, Census 2006)

The above table indicates that the prevailing method of transport for persons in the Newtown Census area is by private car (65 percent). This modal choice is consistent with the trend for the entire City of Greater Geelong, as the 2006 Census results highlight that 68 percent of the population drive to work every

day, whilst another 5.4 percent travel as car passengers. Private car usage is not considered to be a sustainable mode of transport and it is evident from the above results that public transport is potentially under provided and under utilised within the City and study area.

As Section 5 of this report will demonstrate, there are a number of social services and facilities within walking distance of the majority of homes, which may account for the higher than average percentage of walking trips (5.8 percent) within the study area. That said however, it is apparent that travel to work is the main trigger for car usage. When cross referencing the above (particularly with the socio economic structure Table 8) and considering the type and variety of existing employment generators within the area, it is apparent that the majority of the population within the Census study area travel to work by private means due to the location of their places of employment being outside of easy walking distance.

It is also important to note that currently the population of the Newtown area (as defined by the Census) does not have the critical mass of persons required to justify additional public transport services. This coupled with the existing population forecast predictions (Table 6 above) does not indicate that this situation is set to change in the immediate future, unless there is significant residential development within the area that will increase the critical mass of the population.

4.7 Key Influences

The population of the City of Greater Geelong grew by 10 percent between the period 2001 to 2006 and is expected to increase exponentially (by 46 percent) over the next 25 years.

Population forecasts for the Newtown area are not consistent with this trend, predicting a slight drop in population over the same period. As part of the urban consolidation of Greater Geelong the development potential of existing urban areas such as Newtown must be explored.

Household size is steadily decreasing leading to the need for different types and sizes of accommodation. There is potential for increased number of apartment and townhouse style dwellings. The development of a variety of dwelling types will help meet changing community needs with the aim of also improving residential affordability.

The ageing population (age groups 45-59) within Newtown is indicative of established neighbourhoods. The current dependent cohort ratios are subject to change over the next 25 years and may result in a disproportionate older age group within the area should new and diversified housing stock not be developed.

The socio-economic profile illustrates the high percentage of professional/managerial tertiary employee's resident within Newtown.

Consistent with the Greater Geelong area, private car usage is the primary mode of transport to work within Newtown.

5 Economic Development and Employment

An economic analysis of the study area was undertaken by Essential Economics. The report examined land uses in the study area and found the following land use mix:

TYPE	LAND USE	PERCENTAGE
	Industrial (including heavy, light, automotive, storage)	30.3
Sales	Peripheral	14.5
Sales	Retail	3.5
	Residential	27.5
	Vacant	5.8
Commercial	Other	4.6
	Community	10.6
	Other	3.0
	Unknown	0.2

Total employment in the study area is estimated to involve approximately 2,570 jobs, with the main employment sector being retailing, the majority of which is concentrated in the Moorabool Street-Latrobe Terrace area.

A population of approximately 270 residents live in the study area, based on the 119 allotments identified and the average household size for the area of 2.26 persons based on ABS 2006 Census data.

The socio-economic analysis found that the area, particularly Newtown, has average household incomes which are significantly higher than the average for Greater Geelong and for Regional Victoria. Housing costs are above average and a significantly larger proportion of workers are employed as managers and professionals. Unemployment is low.

Trends indicate an increase in residential property demand in inner areas and an increase in property values. There is also an overall trend for a net increase in jobs in inner areas.

There appears to be a move away from traditional industry within the study area, although the demand for small industrial lots remains in the Fyans Street area, which has the potential to continue as an attractive location for small or light industry.

Residential property trends indicate that the market peaked in 2000-2004 while more recently median prices and sales have slowed. However, there is a demand for units and apartments throughout the City of Greater Geelong with a strong price growth. Demand continues for high density living in inner suburbs and close to railway stations. However, there is a lack of quality product available to the market in Newtown and South Geelong.

A comparison of residential and industrial land values shows that residential land is typically valued above that of industrial land, with a 40% premium on residential land.

5.1 Key Influences

<p>The main employment sector in the area is retailing.</p> <p>There is a move away from traditional industry in the area.</p> <p>There is a demand for high quality units and apartments but a lack of quality product in the Newtown/South Geelong area.</p> <p>Residential land attracts a higher premium than industrial land.</p>
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6 Facilities and Services

In order to comprehensively assess the social capital accessible within the West Fyans/Fyans Street Structure Plan Area, an audit of all local community and social infrastructure was undertaken within the suburbs of Newtown, and to a lesser extent South Geelong in order to gain service provider input and identify service gaps.

'Community infrastructure' or 'social infrastructure' refers to both hard and soft infrastructure that enhances the quality of life and wellbeing of the community through access to community support, health, education, arts and culture, recreation and sport, open space, housing, safety and security. Community infrastructure in the study area is generally found in the form of recreation facilities and open space.

6.1 Local Community Services and Facilities

The following community infrastructure in the study area is located within the boundaries of the West Fyans Street Structure Plan study area:

- Barwon Design Park (Better Hearing Australia and epilepsy Foundation of Victoria)
- VicRoads, Geelong
- YMCA, Newtown Stadium
- Barwon River foreshore cycle/walking trails and open space
- Rowing Sheds/Clubs
- Geelong Aquatic Centre
- Friar Reserve
- Balyang Par Three Golf Course
- Balyang Sanctuary
- Rollerway Skate Centre

6.2 Open Space, Leisure & Recreation Facilities

As mentioned earlier a recreation assessment of the study area was undertaken and identified the precinct as a vibrant recreation point which contains some major focal points that attract significant visitations i.e. The Barwon River and Kardinia Park.

The supply of open space within the precinct is substantial and diverse, providing a range of settings and a diverse mix of experiences. The open space network along both banks of the Barwon River is considerable and provides one of the most significant allotments of open space within urban Geelong. A large proportion (36%) of open space within the precinct is available for public use. Map 2 illustrates the open space system associated with the River.

The study notes the commitment made by the Victorian Government to link the existing parks and reserves along the River from Geelong to Barwon Heads and recognises the state significance of the link, and the marked increase in the number of people who walk or ride as a form of regular recreation activity.

The Recreation Assessment Report concluded with the following set of directions:

- The progressive development of a trail system that connects residential areas to the Barwon River and community facilities will markedly influence the capacity and opportunity for people to regularly participate in recreation. Implicit to this is the understanding that regular participation enables people and their communities to derive the health, social, economic and environmental benefits that come with participation.
- The precinct does and will continue to attract large volumes of people because of the district and regional catchment of facilities within and abutting it.
- Strengthening local / neighbourhood facilities in an effort to foster local community participation and social networks is a key planning requirement that has long term impacts to the health and wellbeing of communities.

6.3 Tourism

Many tourist areas are located Within Greater Geelong including beaches and the coastal environment of Corio and Swan Bays and Bass Strait, the coastal resort townships of the Bellarine Peninsula, the inland attractions of the You Yangs and Brisbane Ranges, the developed urban features of Geelong (including the developing Waterfront Geelong precinct), Eastern Beach bathing complex, the Botanic Gardens and Skilled Stadium (Kardinia Park) for AFL football matches.

Growth of tourism opportunities in Greater Geelong will result in expanded infrastructure, services and business opportunities. Tourism is expected to be a strong employment provider in the future.

The major initiatives such as Waterfront Geelong and the revitalisation of Geelong Central are aimed at making these areas more attractive to residents and creating efficient functioning activities centres, as well as providing a focus within Geelong for tourism activities.

Further areas within Geelong have the potential to be promoted as a visitor destination point, the *Barwon River Land Use & Open Space Corridor Plan 2003* outlines that the Barwon River is part of the unique character of Geelong and it should be more widely promoted as an attraction for Geelong. Council and the community have identified during the project process that there is potential for the River's profile and use to be improved by regional visitors that will complement other features in the Geelong area.

Whilst there are significant benefits to increased tourism, issues can be caused through inappropriate traffic routing. A high level of recreation and tourist traffic is already placing pressure on the existing arterial road system within Greater Geelong. Strategies will need to be devised to ensure traffic issues are kept to a minimum.

6.4 Key Influences

A significant amount of community and recreation facilities are located within the study area.

A commitment has been made by the Victorian Government to link the existing parks and reserves along the River from Geelong to Barwon Heads.

A large proportion (36%) of open space within the precinct is available for public use.

The study area is within proximity to the some major tourist destinations within Geelong including the Geelong Waterfront and more specifically Skilled Stadium (Kardinia Park).

7 Physical and Transport Infrastructure

7.1 Physical Infrastructure

Adequate physical infrastructure for services is necessary for an area to be able to cope with the additional development in the area. The *West Fyans Street/Fyans Street Structure Plan Preliminary Servicing Report* was completed in 2008 to ensure appropriate servicing could be introduced to enable additional development within the West Fyans/Fyans study area.

7.2 Water Supply

Barwon Water is the Authority responsible for the supply and distribution of potable water within the Geelong region. Water from the Otways is stored at the Wurdee Boluc Reservoir where it is also treated and transferred via pipelines to Geelong. The Montpellier and Highton service basins are supplied from Wurdee Buloc, these two basins supply water to the subject area.

Currently, the eastern portion of the study area from Pakington Street is supplied by a 600mm diameter Highton Feeder Main which travels along High Street and Moorabool Street and across the Moorabool Street Bridge. The western portion of the study area is currently supplied by a 350mm diameter water main along Camden Road which is fed from the Montpellier Basins. There are existing water mains along most of the streets in the study area which provide services to the existing property owners. It is Barwon Water's preliminary advice that there would be spare capacity in the system to provide for the increase in demand due to development in the study area. However, further investigation may need to be made once the type of industry to be located in the study area is determined. As the study area is very low lying due to its proximity to the Barwon River, Barwon Water advise that supply pressures should be satisfactory.

In the long-term, Barwon Water aim to upgrade their water recycling infrastructure at Black Rock to service for new recycling projects. They recognise the importance of providing such services to the community. However, in the short-term they do not envisage providing recycled water supply to future industrial or residential developments in this area.

7.3 Sewer

Barwon Water is the Authority responsible for collection and treatment of waste water within the Geelong region. According to Barwon Water, "the existing sewerage system has capacity to accept the increase in demand from this site being further developed" and hence the development of the area will not result in any sewerage infrastructure upgrades. However, Barwon Water has stated that any new industries which propose to discharge high volumes of trade waste would need to be assessed on a case by case basis".

Wastewater produced at Geelong is currently treated at the Black Rock Water Reclamation Plant (BRWRP) which is located near Thirteenth Beach, south of Geelong. Approximately 15% of sewage treated at the BRWRP originates from industrial/commercial properties. The Black Rock WRP has an average flow of 50-55ML/day with a design average dry weather flow of 70 ML/day (or 25,550ML/year), a peak dry weather flow of 100ML/day and a peak wet weather flow of 210ML/day. In the year 2006/07, 17,531 ML of residential and non-residential sewage was treated at the BRWRP.

The current Geelong sewer reticulation system generally consists of 150mm and 225mm diameter mains, which discharge to larger strategic assets. All of the wastewater produced in Geelong either gravitates or is pumped to two main sewers. The two main sewers are referred to as the 'Outfall Sewer', which flows south across the MacIntyre Bridge at the southern end of Fernleigh Street and the 'Ovoid Sewer' which flows through central Geelong. These two sewers join south of Marshall and continue to the BRWRP as single 1650mm diameter gravity main.

There is several strategic sewerage assets located within the study area. Those include the Fernleigh Street Pump Station, Bowlers Pump Station,

Excelsior Pump Station, Outfall-Ovoid Cross-Connection Rising Main and the Barwon Slopes Sub Main. The Fernleigh Pump Station located at the southern end of Fernleigh Street Newtown, was constructed in August 2004. This pump station has a capacity of 410 L/sec and is one of the largest in Geelong. It is connected to the Ovoid Sewer via the cross-connection main, however it generally does not receive sewage from the study area.

According to Barwon Water, the Fernleigh Street pump station will be upgraded in 2016/17 to cater for expected growth in the northern suburbs.

The majority of the study area is serviced via a gravity reticulation network discharging to the Barwon Slopes Sub Main which runs west to east through the study area, discharging to the Ovoid Sewer. A small portion of the western end of the study area is serviced by the gravity sewers discharging to the Bowlers Pump Station, located on the northern bank of the Barwon River between Pakington Street and Latrobe Terrace. The capacity of this pump station is 48 L/sec. This pumps flows into the Outfall-Ovoid Cross Connection Main. The Excelsior Pump Station located on the corner of Barwon Terrace and Swanston Street opposite Landy Field, services a small section of the study area, the capacity of this station is 145L/sec.

Barwon water has also advised that at present they do not have any live monitoring of odour levels at Fernleigh Street PS and alternatively they use an odour neutralising chemical. This treatment is currently satisfactory as the pump station is relatively isolated however should the area be rezoned an improved odour treatment (possibly a bio-filter with carbon scrubbing) will be required. Barwon water has outlined that they will require land to be set aside and designated for the installation of odour control.

The Bowlers Inlet Main may also become an issue should a rezoning occur. Whilst the main has several manholes and vents, the sewage it transfers is highly odorous as it is primarily trade waste.

7.4 Drainage

The City of Greater Geelong is responsible for the local drainage network within the region. The study area is affected by the Bridge Street Main drain catchment as identified on Figure 3, which is one of the City of Greater Geelong's oldest urban catchments. The Bridge Street Main Drain catchment drains south towards the Barwon River. The drainage catchment has some of the most serious and frequent stormwater flooding within the municipality, with several low-lying areas are subject to inundation.

Council's "Bridge St Main Drain and Western Gully Main Drain Flood Study" report highlights the flood extents and depths, and flood hazard areas. Figure 3 identifies the location of the 100 year ARI flood extents of the Bridge Street Main drain catchment and the Western Gully Main Drain catchment. The Western Gully Main Drain catchment is situated north of the Bridge Street Main drain catchment, and outlets to the Corio Bay near the Cunningham Pier. The study area is not affected by this drainage catchment.

The eastern portion of the site from Pakington Street to Swanston Street drains southerly towards the Barwon River. The area between Moorabool Street and Swanston Street is also subject to inundation.

Flood levels along the Barwon River have been detailed in the Geelong Flood Mitigation Strategy prepared for the Council by GHD (refer to Figures 4 & 5). The flood levels along the study area river frontage, ranges between RL 5.68m AHD to RL 6.39m AHD, subjecting approximately 20% of the study area to inundation.

The Corangamite Catchment Management Authority (CMA) advises that the study area is located partially within the floodplain of the Barwon River. They recommend that no new development encroach upon the floodplain, defined by the 100 Year Average Recurrence Interval (ARI) flood extent. Approximately 40% of the study area is affected by the 100 year ARI flood extent.

Council's "Bridge St Main Drain and Western Gully Main Drain Flood Study" report recommends that flood mitigation works for the Bridge Street Main Drain catchment include upgrading the size of the existing main drainage through Frier Reserve and Lambert Ave to the Barwon River (refer to Figure 6). The proposed Western Gully Main Drain mitigation works is outside of the study area.

It is anticipated that any new residential or industrial development in this area will be required to provide on-site stormwater quality controls. The detailed design phase will determine the quantity and location of the drainage infrastructure required.

7.5 Gas

SP-AusNet is the authority responsible for providing reticulated gas to the Geelong region. SP-AusNet advises that their preliminary investigations indicate that there is sufficient capacity within the existing gas network to support the development of the study area. Existing 40mm, 50mm, 63mm, 150mm diameter PE gas mains run throughout the study area. An existing 200mm diameter high pressure gas pipeline is located on the western side of Swanston Street.

7.6 Telecommunications

Telstra, Optus and Neighbourhood Cable are responsible for providing telecommunication services to the Geelong region. According to their existing asset plans, they have local and main telephone copper cables and optic fibre.

Telstra advise that the existing capacity of these cables is adequate and able to cater for some growth, however is dependant on the type of industry and size of the residential development. Telecommunications services would be extended and upgraded to the study area to meet development requirements.

7.7 Power

Powercor provides power to the Geelong region. Powercor advises that they have 3 Phase overhead and underground supplies within the vicinity of the study area. Existing underground HV cable is located in small lengths on Fyans Street, Little Fyans St, and Willis Street. Dependant on the type of development uses (industrial or residential) and its proposed loading, a new zone substation may be required. Powercor will investigate their current network and determine service upgrades as further development proceeds.

7.8 Transport Infrastructure

The transport network within the study area is focussed on road based movements. Some formal pedestrian footpaths and linkages are narrow or in poor condition. The Barwon River area is a focus for pedestrian activity in the township. To comprehensively assess the physical and transport infrastructure within the West Fyans/Fyans Street Structure Plan Area, a traffic impact assessment was undertaken of the study area within the suburbs of Newtown, and to a lesser extent South Geelong. The report identifies current traffic conditions and volumes and includes a section on pedestrian movements.

7.8.1 Roads

The Four (4) state arterial roads (1 primary and 3 secondary arterial roads) provide access to the study area. The study area road network is essentially a fine grade grid layout, particularly on the east side of Latrobe Terrace which generally enhances accessibility and permeability for all road users. On the west side the road network is more affected by the Barwon River escarpment and the grid layout is less pronounced. There are also some narrow roads (e.g. Westbourne Place, Woodstock Street), accommodating a mixture of business, industrial and residential use which impact on the amenity and traffic operations on these roads, particularly where there are high demands for on-street parking. The Traffic Impact Assessment goes into further detail in regard to the key roads in the study area and their operating conditions.

VicRoads state that in order to minimise congestion and enhance safety for road users it is desirable to minimise the number of access points onto the arterial road network. Therefore, "it is desirable that no new road connections onto the arterial road network (Fyans Street, West Fyans Street, Latrobe Terrace and Shannon Avenue) would be created and desirably, new developments abutting these roads would utilise existing rear access or side road frontage where available for vehicle access."

Currently, VicRoads has no major capacity or upgrade works planned for the arterial road network abutting the study area. The report noted that Latrobe Terrace/Fyans Street/West Fyans Street intersection often experiences localised congestion which is principally due to:

- short stand up lanes and nearby on-street parking on West Fyans Street approach;

- split phase operation of the traffic signals (e.g. West Fyans Street and Fyans Street run separately to each other).

The surrounding arterial road network is considered to operate satisfactorily during the majority of the day.

The Geelong Bypass is expected to be completed in 2009 and it is anticipated to significantly reduce north - south traffic movements by approximately 25% on Shannon Avenue and Latrobe Terrace. The traffic modelling suggests that east - west traffic movements are unlikely to change.

7.8.2 Public Transport

The Traffic Impact Assessment of the West Fyans/Fyans Street study area outlined that the area has good access to bus services along West Fyans Street, Latrobe Terrace and Moorabool Street, however whilst there is good access to the bus services, service frequency and times of operation are deficient. Frequency is generally around 1 hour with evening and weekend services lacking on some routes.

7.8.3 Pedestrian and Bicycle Network

Encouraging non motorised forms of transport is essential in reducing car dependence and improving the health and well being of residents as outlined in the *Traffic Impact Assessment*. The study mentions Council's Strategic Footpath Strategy and outlines that as a general principle pedestrian facilities should be accessible and link to local attractions and key pedestrian generators such as sporting facilities, retail areas and other major developments.

Whilst there are a number of streets in the study area that do not provide footpaths or provide footpaths that are too narrow, adequate links from the industrial/residential areas to the Barwon River are provided at:

- Marnock Road;
- Bridge Street;
- Pakington Street;
- Fernleigh Street;
- Latrobe Boulevard;
- Barwon Terrace.

The accessibility and appearance of these pedestrian links could be improved.

Some residents had expressed concern with pedestrian accessibility across West Fyans Street as the existing distance between these formalised crossing points ranges from 500m between Latrobe Terrace and Pakington Street to 1,100m between Pakington Street and Shannon Avenue. VicRoads have recommended within the report that pedestrian refuges or the like may be considered along this length of road.

7.9 Identified Improvements to Transport Movement Network and Parking Supply

The *Traffic Impact Assessment* outlines that redevelopment (e.g. 3 – 4 storey high density residential apartments) within the Fyans Street precinct is unlikely to cause significant traffic congestion as the permeable nature of the road network, together with major intersections being controlled with traffic signals and/or roundabouts provides a robust operational network.

It also recommends that redevelopment on the West Fyans Precinct narrow streets (e.g. Woodstock Street, Boswell Avenue) should be limited as the narrow carriageway is likely to create potential capacity and operational issues.

The redevelopment at the western end of the West Fyans precinct is unlikely to cause significant traffic issues. However, this is dependent on the upgrading of access to the precinct occurring with traffic signals being installed at Gregory Avenue to service future development.

7.10 Key Influences

Additional wet industries that create high volumes of trade waste would need to be assessed on a case by case basis given the sewage system may be unable to cater for certain volumes of waste.

The Fernleigh pump station and Bowlers Main present issues of odour control.

The flood levels along the study area river frontage subject approximately 20% of the study area to inundation and drainage infrastructure requires upgrading.

It is anticipated that any new residential or industrial development in this area will be required to provide on-site stormwater quality controls.

Public transport service frequency and times of operation are deficient.

Pedestrian and bicycle links could be improved.

8 Urban Growth, Residential Lot Supply and Further Development

8.1 Urban Growth

The *Economic Assessment as Input to Structure Plan* for the West Fyans/Fyans Street area has recently been completed by Essential Economics. Part of the assessment was to analyse population trends in the City of Greater Geelong, the report outlines that Greater Geelong has experienced a steady population growth in recent years generally within the outer suburbs. It is forecast for this trend to continue for approximately 15 years.

The growth of the study area itself is varied, where the eastern portion of the study area has experienced steady population growth of 1% pa between 2001 and 2006; with, strong growth of 3.1% pa forecast to occur between 2006 and 2011 primarily due to higher density residential development occurring in the inner Geelong area.

The western portion of the study area is essentially an established residential area and is forecast to experience a slight decline in population due to the declining household sizes and a lack of development opportunities.

It is estimated there are approximately 270 residents living in the study area on 119 residential allotments. Table 10 summarises population trends and forecasts for Newtown, Geelong, South Geelong and Drumcondra and the City of Greater Geelong, as prepared by i.d. Consulting.

Table 10: Population Trends and Forecast, 2001-2021

Location	2001	2006	2011	2016	2021
Resident Population					
Geelong, South Geelong and Drumcondra	6,090	6,410	7,490	7,980	8,510
Newtown	9,920	9,970	9,980	9,890	9,810
<i>City of Greater Geelong</i>	<i>194,480</i>	<i>208,140</i>	<i>222,180</i>	<i>240,620</i>	<i>260,650</i>
Average Annual Growth (%)					
Geelong, South Geelong and Drumcondra	-	1.0%	3.2%	1.3%	1.3%
Newtown	-	0.1%	0.0%	-0.2%	-0.2%
<i>City of Greater Geelong</i>	-	<i>1.4%</i>	<i>1.3%</i>	<i>1.6%</i>	<i>1.6%</i>
Average Annual Growth (no.)					
Geelong, South Geelong and Drumcondra	-	64	217	98	105
Newtown	-	10	1	-18	-16
<i>City of Greater Geelong</i>	-	<i>2,732</i>	<i>2,809</i>	<i>3,688</i>	<i>4,006</i>

(Source: *Economic Assessment as Input to Structure Plan*)

The *Economic Assessment as Input to Structure Plan* also outlines the recent property trends and implications. The main points raised include:

- The Geelong property market has recently experienced strong residential growth driven by investors, those moving to Geelong to work locally and those who commute to Melbourne.
- There is insufficient residential property in the inner city and in close proximity to train stations.
- Residential properties in suburbs with frontage to the Barwon River are popular, but this property is tightly held as a number of land owners are aware of a potential for rezoning in the future.
- The rezoning of land in the western wedge has generated interest in higher density living.
- The Geelong industrial property market has been relatively strong in recent years.
- In general, demand for larger industrial properties (3,000m² to 5,000m²) in Geelong has exceeded supply and smaller industrial properties of around 300m² to 500m² have also been popular, particularly in the East Fyans Street area.

Most of the industrial land in Geelong is located to the north of the municipality and this is logistically important as it is in proximity to the ring road, to the Avalon airport and to the Princes Highway leading to metropolitan Melbourne.

Median house prices in Newtown and South Geelong are above the median for Greater Geelong, however the 2006 median unit/apartment prices for both of these suburbs were below the median for Greater Geelong (\$225,000). Newtown and South Geelong have also recorded slower price growth than the average for Greater Geelong. This is also the case in the majority of surrounding suburbs, apart from Geelong which had a 2006 median unit/apartment 34% above the Greater Geelong median.

There appears to be a demand for unit/apartment living throughout the City of Greater Geelong given the strong price growth. The lack of price growth in the subject areas of Newtown and South Geelong would indicate a lack of quality unit/apartment living available to the market.

8.2 Residential Lot Supply

Council has recently completed the *Housing Diversity Strategy 2006*, it anticipates that Geelong will grow substantially between the years 2006 and 2031 and it is expected that approximately 41433 additional households will be required to support this population growth with the majority of future households (approximately 75%) to be detached dwellings, leaving approximately 25% of future households to be used for medium to higher density living.

The strategy suggests that the West Fyans/Fyans Street study area could accommodate a portion of the required medium to high density future households.

8.3 Future Growth

The *Urban Growth Strategy 1995-2020* was created to determine the most suitable areas for the accommodation of urban growth to the year 2020 within the Geelong region. It specifies locations where growth should be encouraged and recommends that future development should occur at higher densities, consolidation of existing urban development should be encouraged and long term growth should be directed to Armstrong Creek/Mount Duneed.

The *Housing Diversity Strategy 2007* designates key development areas where housing diversity will be supported. The West Fyans Key Development Area is specified as one of five Key Development Areas which will accommodate the bulk of higher density housing development in Geelong to the year 2031 which is estimated to be between 6300 and 9500 medium to high density dwellings.

The *Geelong Industrial Land Study Project 1 – Industrial Audit 2001* suggests there are reasonably good prospects for industry growth in Geelong's industry base. It was noted that the existing Newtown/South Geelong Industrial Precinct contained some of Geelong's oldest industrial areas from the mid to late nineteenth century. The study inundated that Heritage Buildings impede industrial development and become derelict and unused when no longer required for their original purpose. However, there is potential for medium to long term regeneration of this area for mixed use development.

The report recommends the redevelopment should be facilitated by a rezoning of the land to Mixed Use Zone to provide for transition from industry to mixed use development.

8.3.1 Rezoning Requests

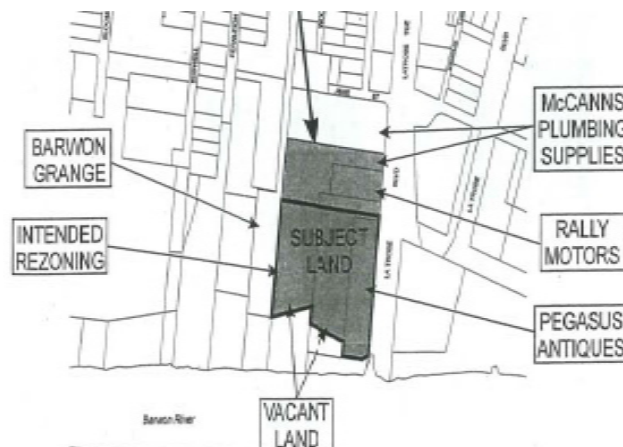
As mentioned above, the *Geelong Industrial Land Study Project 1 – Industrial Audit 2001* recommends the redevelopment should be facilitated by a rezoning of the land to Mixed Use Zone to provide for transition from industry to mixed use development.

There are a range of rezoning proposals or firm development proposals on key development sites within the study area before council pending the completion of the Structure Plan including:

510a to 560 Latrobe Boulevard Newtown - Planning Scheme Amendment C5

The above Amendment proposed to rezone the land from part Business 4 Zone and part Public Park and Conservation Resource Zone to Mixed Use Zone. The Amendment was exhibited and subsequently considered at an Independent Panel Hearing. The Panel Report was received May 2001 which recommended that the entire precinct in the West Fyans Street area next to the river be considered on a holistic basis. The Amendment was considered premature and lacking strategic context, although the Panel described the precinct as a potential 'major urban renewal front'. The Amendment was subsequently abandoned on 13 June 2001. This amendment was the impetus for the 2002 Planisphere strategic study of the area.

C5 Locality Map:



510a Latrobe Boulevard, Newtown - Mixed Use Development Proposal

A draft proposal has been made to Council for a mixed use (contemporary design multi level residential - commercial) development on vacant land adjacent to Pegasus Antiques at 510a LaTrobe Boulevard Newtown. The site has direct access to the Barwon River corridor and is an elevated site.

25-27 & 29 Barwon Terrace, South Geelong - Rezoning from Industrial 1 Zone to Business 4 and Mixed Use Zone

A number of applications are before Council for rezoning of land fronting Barwon Terrace from the current Industrial to Business 4 zone and Mixed use zone to facilitate a commercial/retail/residential development of land facing the Barwon River.

James Harrison Museum – Rocky Point

A proposal has been presented to Council for the construction of a \$1.5 million purpose built museum and conference centre at Rocky Point, at the end of Bridge Street, overlooking the Barwon River, to highlight the life and achievements of the famous Geelong identity, James Harrison. A James Harrison Museum Incorporated committee is currently raising funds to finance the project, and the Committee has applied for funding to the City of Greater Geelong Arts and Grants Fund. The Corangamite Catchment Management Authority(CMA) has extended its in-principle support for a long term lease of the land, which is managed by the CMA. The location of a museum at this historic location as a tourist attraction is compatible with the proposed future use of adjacent areas for mixed use development and would enhance the vibrancy and character of the locality.

The above developments would capitalise on the opportunities afforded by the environment but the City of Greater Geelong has lacked a strategic land use plan for the area to enable their consideration. The current proposals offer an opportunity to better utilise existing urban land and assist urban consolidation.

8.4 Key Influences

The population of the City of Greater Geelong is likely to continue to grow over steadily over the next 15 years.

The majority of future growth in Greater Geelong is likely to continue to occur in the outer suburbs.

Newtown is largely an established residential area and is forecast to experience a slight decline in population due to the declining household sizes and a lack of development opportunities.

The eastern proportion of the study area is forecast to experience strong growth of 3.1% pa between 2006 and 2011.

Previous reports have recommended rezoning the land to Mixed Use Zone to facilitate the transition from industry to mixed use.

Rezoning requests to Council indicate an impetus for change.

9 References

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