Hastings Port Industrial Area

Land Use Structure Plan

As adopted by the Westernport Regional Planning and Co-ordination Committee and endorsed by the Minister for Planning

April 1996
FOREWORD

The Westernport Regional Planning and Coordination Committee (WRPCC) was established under the Planning and Environment Act 1987 and disbanded in December 1994. Its primary function was to advise the Minister for Planning on matters relating to planning in the Westernport region. The Committee’s key method of providing that advice was to undertake strategic planning projects. The WRPCC’s study of the Hastings Port Industrial Area is one such project. The final outcome of that project is this Structure Plan. It is the culmination of a long process of discussion, consultation and consideration.

One of the WRPCC’s last actions was to adopt this important report containing the Hastings Port Structure Plan in its unpublished form. It has since been prepared for publication by the Department of Planning and Development. In understanding the report the reader should bear in mind that it was written prior to the amalgamation of Local Councils and prior to the inclusion of the State residential, business and industrial zones in the State Section of Victorian Planning Schemes. This does not adversely affect the prospects of its implementation. Implementation of some of the recommendations of the report, for example those relating to the Cemetery and Anglers Estate, is in fact, well underway.

I would urge all affected agencies to recognize the part they played in the preparation of the structure plan and publicly acknowledge their common ownership of the plan. The task now at hand is for all agencies to jointly work towards implementation of the Hastings Port Structure Plan.

I thank all those many people who have contributed towards the production of this document.

[Signature]

Peter Meeking
Chairman
Westernport Regional Planning and Coordination Committee
MEMBERS OF THE HASTINGS PORT INDUSTRIAL LAND USE REVIEW STEERING COMMITTEE

CHAIRMAN: Mr John Daley (until March ‘93)
Mr Peter Meeking (from March ‘93)

SPECIAL INTEREST/COMMUNITY REPRESENTATIVES
Local Conservation Dr Brian Cuming
Mrs Bronwyn Ridgway
Mr Ian Weir
Trades Hall Council Mr Frank Thompson
Shire of Hastings Cr Stan Paul
Cr Nigel Austin
Mr Ray Webb
Manufacturing Industry Commerce Mr Ron Mason

GOVERNMENT AGENCY REPRESENTATIVES
Business and Employment Mr Malcolm Arscott
Conservation & Natural Resources Ms Robin Clark
Ms Rowena Myers
Chris Marshall
Mr David Harper
Port of Melbourne Authority Mr Paul Eldridge
Mr David Baird
Department of Planning Mr Alistair Kellock
VicRoads Mr Tim Black
Mr David Rowlands
Executive Officer WRPCC Mr Mark Tansley (until Dec. ‘93)
Mr Brad Miles (from Dec. ‘93)
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2.0 THE HASTINGS PORT INDUSTRIAL AREA EXISTING LAND USE AND INFRASTRUCTURE</td>
<td>5</td>
</tr>
<tr>
<td>2.1 Port facilities and reserves</td>
<td>5</td>
</tr>
<tr>
<td>2.2 Port-related industrial development</td>
<td>9</td>
</tr>
<tr>
<td>2.3 Non-port-related development</td>
<td>12</td>
</tr>
<tr>
<td>2.4 Land transport</td>
<td>13</td>
</tr>
<tr>
<td>2.4.1 Roads</td>
<td>13</td>
</tr>
<tr>
<td>2.4.2 Rail service</td>
<td>17</td>
</tr>
<tr>
<td>2.4.3 Other service infrastructure</td>
<td>18</td>
</tr>
<tr>
<td>3.0 THE EXISTING FRAMEWORK OF PLANNING POLICIES AND CONTROLS</td>
<td>20</td>
</tr>
<tr>
<td>3.1 Hastings Planning Scheme</td>
<td>25</td>
</tr>
<tr>
<td>3.2 Background to the present planning controls and policies</td>
<td>23</td>
</tr>
<tr>
<td>3.2.1 Site specific legislation</td>
<td>23</td>
</tr>
<tr>
<td>3.2.2 Western Port Regional Planning Authority</td>
<td>23</td>
</tr>
<tr>
<td>3.2.3 Statement of Planning Policy No. 1 (Western Port)</td>
<td>24</td>
</tr>
<tr>
<td>3.2.4 Western Port Bay environmental study</td>
<td>25</td>
</tr>
<tr>
<td>3.2.5 Statement of Planning Policy No. 1 - Western Port (as varied)</td>
<td>26</td>
</tr>
<tr>
<td>3.2.6 Hastings Port Industrial Area Plan</td>
<td>27</td>
</tr>
<tr>
<td>3.2.7 Western Port: Port Landscape Guidelines Study</td>
<td>27</td>
</tr>
<tr>
<td>3.2.8 Sites of significance studies</td>
<td>27</td>
</tr>
<tr>
<td>3.2.9 The Westernport Regional Planning and Co-ordination Committee</td>
<td>27</td>
</tr>
<tr>
<td>3.2.10 1986 Review of Planning Policy for Western Port</td>
<td>28</td>
</tr>
<tr>
<td>3.3 Other relevant planning policies</td>
<td>31</td>
</tr>
<tr>
<td>3.3.1 State Environment Protection Policy No. 28 - (The Waters of Western Port Bay and Catchment)</td>
<td>31</td>
</tr>
<tr>
<td>3.3.2 A Coastal Policy for Victoria</td>
<td>32</td>
</tr>
<tr>
<td>3.3.3 The Melbourne Metropolitan Strategy</td>
<td>33</td>
</tr>
<tr>
<td>3.3.4 South-Eastern Growth Area Plan</td>
<td>33</td>
</tr>
<tr>
<td>3.3.5 Local towns plans</td>
<td>34</td>
</tr>
<tr>
<td>3.3.6 The Western Port Coastal Villages Strategy</td>
<td>34</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>3.3.7 Western Port Bay Strategy</td>
<td>35</td>
</tr>
<tr>
<td>3.3.8 Land Conservation Council Melbourne Area</td>
<td>36</td>
</tr>
<tr>
<td>3.3.9 Industrial Planning</td>
<td>38</td>
</tr>
<tr>
<td>3.3.10 Victorian Ports Land Use Plan Draft Final Report</td>
<td>40</td>
</tr>
<tr>
<td>3.3.11 Government preferred reforms of the State’s port authorities</td>
<td>42</td>
</tr>
<tr>
<td>3.3.12 Mornington Peninsula Arterial Roads Strategy (MoPARS)</td>
<td>43</td>
</tr>
<tr>
<td>3.3.13 International Treaties and Conventions</td>
<td>44</td>
</tr>
<tr>
<td>3.3.8 Land Conservation Council Melbourne Area</td>
<td>36</td>
</tr>
<tr>
<td>3.3.9 Industrial Planning</td>
<td>38</td>
</tr>
<tr>
<td>3.3.10 Victorian Ports Land Use Plan Draft Final Report</td>
<td>40</td>
</tr>
<tr>
<td>3.3.11 Government preferred reforms of the State’s port authorities</td>
<td>42</td>
</tr>
<tr>
<td>3.3.12 Mornington Peninsula Arterial Roads Strategy (MoPARS)</td>
<td>43</td>
</tr>
<tr>
<td>3.3.13 International Treaties and Conventions</td>
<td>44</td>
</tr>
<tr>
<td>4. OPPORTUNITIES AND CONSTRAINTS</td>
<td>45</td>
</tr>
<tr>
<td>4.1 Port Facilities</td>
<td>45</td>
</tr>
<tr>
<td>4.1.1 Capacity of existing facilities</td>
<td>45</td>
</tr>
<tr>
<td>4.1.2 Opportunities for new facilities</td>
<td>46</td>
</tr>
<tr>
<td>4.1.3 Trade volumes</td>
<td>47</td>
</tr>
<tr>
<td>4.1.4 The competitive advantage of the Port of Hastings</td>
<td>50</td>
</tr>
<tr>
<td>4.1.5 Conclusion</td>
<td>51</td>
</tr>
<tr>
<td>4.2 Port-related industries</td>
<td>52</td>
</tr>
<tr>
<td>4.2.1 Existing and potential industries</td>
<td>52</td>
</tr>
<tr>
<td>4.2.2 Conclusion</td>
<td>56</td>
</tr>
<tr>
<td>4.3 Environmental sensitivity</td>
<td>57</td>
</tr>
<tr>
<td>4.3.1 Specific sites of environmental sensitivity or significance</td>
<td>57</td>
</tr>
<tr>
<td>4.3.2 Remnant terrestrial vegetation and faunal habitat</td>
<td>60</td>
</tr>
<tr>
<td>4.3.3 Coastal vegetation</td>
<td>61</td>
</tr>
<tr>
<td>4.3.4 Offshore environments</td>
<td>63</td>
</tr>
<tr>
<td>4.3.5 Coastal landforms and landscape</td>
<td>67</td>
</tr>
<tr>
<td>4.3.6 Conclusion</td>
<td>67</td>
</tr>
<tr>
<td>4.4 Hazard risk and amenity buffers</td>
<td>69</td>
</tr>
<tr>
<td>4.4.1 Existing and potential risks and buffers</td>
<td>69</td>
</tr>
<tr>
<td>4.4.2 Conclusion</td>
<td>72</td>
</tr>
<tr>
<td>4.5 Subdivision controls, land tenure and public reserves</td>
<td>72</td>
</tr>
<tr>
<td>4.5.1 Existing situation</td>
<td>72</td>
</tr>
<tr>
<td>4.5.2 Conclusion</td>
<td>76</td>
</tr>
<tr>
<td>4.6 Land Transport</td>
<td>76</td>
</tr>
<tr>
<td>4.6.1 Existing transport network</td>
<td>76</td>
</tr>
<tr>
<td>4.6.2 Conclusion</td>
<td>84</td>
</tr>
<tr>
<td>5.0 THE STRUCTURE PLAN</td>
<td>86</td>
</tr>
<tr>
<td>5.1 Development of the structure plan</td>
<td>86</td>
</tr>
<tr>
<td>5.2 Statement of objectives</td>
<td>87</td>
</tr>
<tr>
<td>5.3 Issues-based strategies</td>
<td>88</td>
</tr>
<tr>
<td>5.3.1 Port facilities</td>
<td>88</td>
</tr>
<tr>
<td>5.3.2 Port-related industrial development</td>
<td>92</td>
</tr>
<tr>
<td>5.3.3 Conservation of the environment</td>
<td>96</td>
</tr>
<tr>
<td>5.3.4 Land transport</td>
<td>97</td>
</tr>
<tr>
<td>5.3.5 Land subdivision, tenure and public reserves</td>
<td>100</td>
</tr>
<tr>
<td>5.3.6 Yaringa subdivision detail</td>
<td>102</td>
</tr>
<tr>
<td>5.3.7 Cemetery Road estates detail</td>
<td>102</td>
</tr>
<tr>
<td>5.4 The Physical Framework Plans</td>
<td>105</td>
</tr>
<tr>
<td>5.5 Recommended Planning Scheme controls</td>
<td>105</td>
</tr>
<tr>
<td>5.5.1 Purpose of the planning controls</td>
<td>116</td>
</tr>
<tr>
<td>5.5.2 Requirement for a permit</td>
<td>117</td>
</tr>
<tr>
<td>5.5.3 General guidelines</td>
<td>117</td>
</tr>
<tr>
<td>5.5.4 Performance standards</td>
<td>118</td>
</tr>
<tr>
<td>5.5.5 Port development and maintenance of port development opportunities</td>
<td>124</td>
</tr>
<tr>
<td>6.0 IMPLEMENTATION</td>
<td>126</td>
</tr>
<tr>
<td>6.1 Key recommendations</td>
<td>126</td>
</tr>
<tr>
<td>6.2 The funding of infrastructure improvements</td>
<td>126</td>
</tr>
<tr>
<td>6.3 The funding of recommended restructures and land acquisition</td>
<td>131</td>
</tr>
<tr>
<td>6.4 Land Transport</td>
<td>132</td>
</tr>
<tr>
<td>6.4.1 Existing transport network</td>
<td>132</td>
</tr>
<tr>
<td>6.4.2 Conclusion</td>
<td>132</td>
</tr>
<tr>
<td>PLANS</td>
<td></td>
</tr>
<tr>
<td>Plan 1 Study Area</td>
<td>4</td>
</tr>
<tr>
<td>Plan 2 Existing Land Use</td>
<td>8</td>
</tr>
<tr>
<td>Plan 3 Existing Land Use Zoning - Northern Sector</td>
<td>21</td>
</tr>
<tr>
<td>Plan 4 Existing Land Use Zoning - Southern Sector</td>
<td>21</td>
</tr>
<tr>
<td>Plan 5 Areas of Environmental Sensitivity - Vegetation</td>
<td>62</td>
</tr>
<tr>
<td>Plan 6 Areas of Environmental Sensitivity - Fauna, geomorphology</td>
<td>65</td>
</tr>
<tr>
<td>Plan 7 Areas of Environmental Sensitivity - Other heritage values</td>
<td>66</td>
</tr>
<tr>
<td>Plan 8 Existing Infrastructure - Northern Sector</td>
<td>80</td>
</tr>
<tr>
<td>Plan 9 Existing Infrastructure - Southern Sector</td>
<td>81</td>
</tr>
<tr>
<td>Plan 10 Northern Sector: Cemetery Road Estates Detail - Existing Land use/infrastructure</td>
<td>82</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

The Hastings Port Industrial Area stretches along the coastline of Western Port from Hanns Inlet in the south to Watsons Inlet in the north and extends up to four kilometres inland. The area excludes land within the townships of Hastings, Crib Point, Bittern and Tyabb.

At its meeting on 14 February 1991 the Westernport Regional Planning and Coordination Committee appointed U.S.E. Consultants, in association with The Centre for Transport Policy Analysis, AGC Woodward Clyde Pty Ltd and Andrew O’Brien and Associates to undertake a Study to prepare a Structure Plan for the Hastings Port industrial area.

The purpose of the Study was to prepare a structure plan for the future development of the Hastings Port Industrial area following an evaluation of the land use and related development issues associated with the future planning of the area. The structure plan was required to:

- Realise the potential of the area for port-related industrial development;
- Conform with and implement the State Government’s overall planning policy for the port area as specified in the Hastings Planning Scheme;
- Assist with the co-ordination of land use, port facilities, land transport and infrastructure in the area;
- Guide development in the area;
- Identify any areas which should no longer be zoned for port use;
- Guide the use of the area’s resources in an efficient and environmentally sustainable manner;
- Minimise land-use conflicts; and
- Take into account the needs, safety and amenity of the residential community and work-force.
The study, and the structure plan, was to focus on land use and provision for coordinated infrastructure. While a review and consideration of likely port requirements was required, it was not intended that the study or the plan should make detailed recommendations regarding details of the nature and scale of possible future port facilities or of the environmental carrying capacity of the bay for shipping or the provision of shipping and of seabed management. A 'no development' option was not included in the study brief as this would be contrary to longstanding planning policy and the conclusions of the 1987 Review of State Planning Policy Number 1 (Western Port).

A Steering Committee was established to oversee the consultants' work and the preparation of the Structure Plan. The Steering Committee included representatives from the Shire of Hastings, relevant State government agencies (Department of Business and Employment, Department of Conservation and Natural Resources, Port of Melbourne Authority (PMA), VicRoads, and the Department of Planning and Development), as well as three community representative members of the Westernport Regional Planning and Co-ordination Committee (WRPCC). The Steering Committee reported to the WRPCC and was chaired by the WRPCC's Chairman.

Unfortunately, the initial commencement and subsequent completion of the Study was delayed pending the completion and release of the Risk Assessment of the ESSO/BHP Fractionation Plant and Tank Farm and then, proposed, Whitemark facility, and later (January 1993) by the change of Government and receipt of advice on the government priorities for the Port of Hastings.

The Study was recommenced on 8 July 1993 following the public release of the Risk Assessment Final Report on 22 June 1993, and a request from the Minister for Planning dated 24 June 1993 that the Study be recommenced as quickly as possible.

A draft Structure Plan was adopted for public exhibition by the WRPCC in November 1993, and following the receipt of the Minister's for Planning and for Ports and Roads consent for exhibition, was released by the Minister for Planning at Hastings in February 1994. It was placed on exhibition for two months and submissions were sought. Copies of the report and a summary brochure were widely distributed.

Twenty-eight written submissions were received and all were assessed and considered by the Steering Committee prior to the preparation of the final Structure Plan. A list of the submissions received is included as Appendix 1, with a brief summary of the issues raised in the submissions included as Appendix 2.
Victoria is served by four major commercial ports located at Melbourne, Hastings, Geelong and Portland. The PMA presently administers Melbourne and Hastings while the other two ports are administered by separate authorities.

Western Port is one of the finest natural harbours in the world and as such is recognised as being of national importance. Western Port enjoys wide unobstructed heads while providing well sheltered waters for Victoria’s deepest port – the Port of Hastings. The approach channels to the Port of Hastings have a guaranteed minimum depth of 14.3 metres. Utilisation of tides, which range from 2.2 metres to 3.3 metres, allows regular passage of ships with draughts of 15.5 metres. The deep water channels do not require regular maintenance, although they may require periodic maintenance dredging. Parts of the channel, and the Cowes anchorage, exceed 20 metres in depth. Given current world trends the current maintained depth will retain the Port of Hastings’ deep water competitive strength.

In comparison to the deep water of the Port of Hastings, the Port of Melbourne is only able to accommodate ships with a maximum draught of 12.6 metres. Regular dredging of approach channels and berths is required due to the natural silting action of the Yarra River. Increasing the depths of the approach channels and berths to the Port of Melbourne is not practical because of the restrictions imposed by the depths of Port Phillip heads.

The Port of Hastings is served by four jetty complexes comprising the Crib Point oil-terminal jetty, Long Island Point Pier, BHP Steel Industries Wharf complex and Stony Point port services complex. Details of the berth facilities are summarised below:

- Crib Point Jetty is a State owned jetty with two oil berths (currently unused). The approach channel and swing basin for these berths has a depth of 14.3 metres. No. 1 Crib Point has a depth alongside of 15.8 metres with a design capacity to accommodate vessels of up to 300 metres in length and a berthing displacement tonnage of 110 000. Tankers of up to 160 000 dwt have been handled at this berth. Until 1989, this jetty was used by ESSO for the export of crude oil. The berth is currently being recommissioned and upgraded for the
purposes of importing crude oil to supply the Crib Point Terminals Pty Ltd (Shell/Mobil), and for importing refined petroleum for Whitemark Industries. No. 2 Crib Point has a depth alongside of 12.8 metres and is capable of accommodating vessels up to 95 000 dwt. There are currently no plans to upgrade this berth.

* The Long Island Point Pier is a State-owned pier with a single oil/gas berth and is used by ESSO for the export of crude oil and LPG. The pier has a depth alongside of 15.8 metres with a design capacity to accommodate vessels of up to 300 metres in length and a berthing displacement tonnage of 110 000. Tankers of up to 165 000 dwt have been handled at this berth. The approach channel and swing basin for this berth has a depth of 14.3 metres.

* BHP Steel Industries Wharf is a two-berth complex owned and utilised by BHP, whose steelworks is located 2.5 kilometres from the wharf. The approach channel and swing basin for these berths has a depth of 9.1 metres. No. 1 berth has a depth alongside of 12.1 metres with a design capacity to accommodate roll-on roll-off vessels of up to 200 metres in length and beam of 28 metres (20 000 dwt). This berth is currently used by a dedicated BHP vessel to import slab steel for processing from Port Kembla. No. 2 berth has depth alongside of 12.1 metres with a design capacity to accommodate general cargo/dry bulk vessels up to 200 metres in length and beam of 28 metres (45 000 dwt). This berth is currently used by BHP to export finished steel product primarily to the USA and Europe.

* The Stony Point port services complex contains a jetty with a depth alongside that ranges from 2.5 metres to 6 metres, the port depot and the harbour control centre. This complex services the navigation aids and is the home base for tugs, mooring-line boats, pilot launch and port work-boats. The complex is also used by the Royal Australian Navy and commercial ferry operators, fishing industry and oil exploration vessels. The complex is not presently used for commercial cargo operations but has in the past been used for Bass Strait Island trade.

Typical vessels using the port include:

* medium-range tankers 170 metres in length, drawing 11 metres (e.g., ESSO crude-oil tankers and, in the future, Whitemark)

* long-range tankers 290 metres in length, drawing 15.5 metres (e.g., ESSO crude oil tankers and, in the future, Crib Point terminals)

* dry-cargo RoRo vessels 179 metres in length, drawing 9.0 metres (e.g., BHP coastal traders)

* dry-cargo dry-bulk vessels (e.g., BHP export vessels).

Crown land presently used by the PMA for port purposes consists of an area of approximately 2.1 hectares containing the Stony Point port services complex, an area of approximately 7.6 hectares containing the Crib Point jetty and an area of approximately 2.5 hectares containing the Long Island Point Pier. The PMA is considering the possible establishment of a private wharf at Old Tyabb between the Long Island Point Pier and BHP Steel Industries Wharf complex. Such a facility may occupy up to approximately 85 hectares of which 25 hectares is existing reclaimed land and the balance comprises an area of the sea bed between the deep water channel and the shoreline.

Proposed Port Purposes reserves have been established at The Bluff affecting approximately 110 hectares (36 lots), Crib Point/Stony Point affecting 60 hectares (219 lots), and the ‘Cemetery Road estates’ affecting four hectares (45 lots). A long-standing and on going program of purchase of these lots is still current. Existing tenure is either Crown land or freehold - see section 4.5.1 for details. Much is currently vacant land, some lots retain remnant bushland, others have improvements, including houses.

Under an agreement between the State and the then John Lysaght (Australia) Limited (now BHP) facilitated by the Western Port (Steel Works) Act 1970, BHP has certain development rights over a defined ‘Reclamation Area’ which adjoins its landholding. The BHP Steel Industries Wharf, referred to above, is the only part of this area developed to date.

The development of a major private port facility (and associated port-related industry) on part of this Proposed Port Purposes reserve at The Bluff to the north of the BHP reclamation area is actively promoted by the joint owners of the land, Dr Alan Bond and Natwest Bank. At this time, however, no definite proposals have been submitted to government authorities for consideration.
Access and Service Corridor reserves have also been established through longstanding programs of land acquisition, with the designated reserve to The Bluff encompassing 38 hectares (11 lots) and to Crib Point encompassing 31 hectares (127 small lots and sections of five larger lots).

2.2 PORT-RELATED INDUSTRIAL DEVELOPMENT

The Hasting Port Industrial Area contains two major port-related industries - the BHP Westernport Steelworks (BHP Steelworks) and the ESSO/BHP Refractionation Plant (ESSO Plant) petroleum products storage and pumping facilities - the WAG Pipeline Pty Ltd and Whitemark Pty Ltd facilities; a number of other sites that are the subject of current development proposals and approvals including the Crib Point Terminals Pty Ltd (Shell/Mobil) proposed tank farm, and a large area of bushland, farmland, rural residential subdivisions and old ‘inappropriate’ (that is, not recognised by current residential zonings) residential subdivisions.

The existing port-related industries make a significant contribution to employment in the Hastings and surrounding areas. They provide a significant multiplier or flow-on effect to the local economy. It is to be expected that additional port-related industries would enhance this contribution to employment and local economies as well as to the State and national economies.

The BHP Steelworks, fronting Bayview Road, is the main centre for steel production in Victoria. Steel slab is brought in by rail and ship, primarily from Port Kembla, for processing into a range of finished-steel products for the local, national and international markets. Products are sent by truck to the local market, by rail to interstate markets in South Australia and Western Australia, and by ship to international markets.

BHP is constantly reviewing and upgrading its operations to increase efficiency and become more export-orientated. A new cold-strip galvanised steel production line has recently been commissioned at a cost of some $138 million.

Presently BHP steelworks employs 1500 persons and produces approximately 1.2 million tonnes of steel a year from a plant that has a capacity to produce 2.6 million tonnes. The new galvanised steel line increased production capacity by some 800 000 tonnes without requiring any large increase in staff numbers.
The BHP steelworks occupies less than 25 per cent of a total 656 hectare company landholding which extends from Bayview Road to Pikes Road. In addition BHP was provided rights under the *Western Port (Steelworks) Act 1970* to reclaim an area of Western Port extending from Bayview Road to Whitneys Road.

The ESSO Plant at Long Island Point forms part of the Victorian petrochemical complex and is the centre for liquified petroleum gas (LPG) production. While jointly owned by BHP and ESSO it is managed by ESSO. The refractionation plant and the crude oil storages (west of Cemetery Road) are linked by pipeline to the Bass Strait oilfields via Longford in Gippsland. It is also connected by a pipeline system, across to the Westernport-Altona-Geelong (WAG) pump-station facility and thence to the petrochemical industries and refineries at Altona and the petroleum refinery at Geelong. Petroleum and gas exports are sent by ship from the Long Island Point Pier. LPG gas for the local market is transported by truck from a new computerised truck-loading facility fronting Long Island Drive.

The ESSO plant occupies a 141 hectare site and directly employs some 119 persons. The operator of the plant, ESSO, is constantly upgrading facilities, operational procedures and staff training to enhance both efficiency and safety. The company considers its operation in Hastings to be of national importance whose significance is likely to continue well into the next century, with substantial further capital investment and expansion envisaged. The company is presently developing proposals to expand its LPG truck-distribution facilities at the site.

Additional lots within the adjoining Cemetery Road Estates area have been and continue to be purchased by the company in order to expand the buffer areas surrounding the gas refractionation plant. ESSO also owns additional land in Jeremiah's Road and on the corner of Bayview and Cemetery Roads.

Westernport-Altona-Geelong Pipeline Pty Ltd (WAG Pipeline Pty Ltd) is the owner and occupier of some 0.56 hectares on the edge of the Cemetery Road estates. The facility on the site includes a pumping station, which is operated in conjunction with the companies pipeline which links the facility, via easement areas to Altona and Geelong. The WAG Pipeline Pty Ltd installation and pumping station site, together with the pipeline and easement, are of fundamental importance to a number of other port-related uses at both Long Island Point and Crib Point, as well as for the Victorian Petrochemical Complex - see also section 2.4.3.

Crib Point Terminals Pty Ltd (Shell/Mobil) have been granted approval to develop a petroleum storage facility on the site of the former BP refinery at Crib Point. The facility will provide a supply of imported crude oil for refining at Altona and Geelong to compensate for the gradual depletion of reserves in Bass Strait. Initial site works and detailed design of the facilities are now underway. The proposed storage facility will occupy 20 per cent of the 143 hectare site. The construction of the facility was put on hold for a 12-month period, pending improvement of the general economy and, more recently, the company has announced that it would be put on indefinite hold.

Whitemark Pty Ltd has recently developed a 21 hectare site in Barclay Crescent for the purposes of a petroleum products storage facility. The site is linked to the Crib Point Jetty by pipeline. The facility is near completion and is anticipated to be operational in 1995.

A proposal has been approved (February 1990) for the development of a petroleum products storage facility by J. W. Merkus and Associates on a 26.5 hectares site fronting McKirdys Road. The project has not proceeded to date.

Jack Thomson Industries has recently completed development of a bearings maintenance plant on a four hectare site fronting Graydens Road. The plant provides maintenance services for the BHP Steelworks.

Crib Point Engineering Pty Ltd has been in operation for 30 years, and has been located at its present site in the Cemetery Road estate area for a number of years. It is a general engineering works which currently specialises in the construction of boat gantries. It also operates a slipway into Hastings Bight. It has acquired a number of adjoining lots and is interested in acquiring additional lots to provide for expansion of the business in future years.

Transwest/BHP operates a storage warehouse on Bayview Road (opposite the BHP Steelworks entrance). This is the former Cresco facility.

The Gas and Fuel Corporation retains ownership of a 90 hectare site fronting Woolleys Road, Crib Point, for the possible future importation and storage of liquefied natural gas. The development of such a facility may be required upon the depletion of reserves in Bass Strait and would compliment any future construction of an interstate pipeline.
The SEC retains ownership of an 81 hectare site north and south of Bungower Road, Watsons Inlet. The site was originally acquired in the mid 1960s as a site for a possible power-station. Much of the site has been declared surplus to requirements, with a 24 hectare area south of Bungower Road containing remnant bushland subsequently recommended by the Land Conservation Council to be included in a Nature Conservation Reserve. The remainder of the site is to be retained as a future terminal station.

The development of a major port facility and associated port-related industry at The Bluff north of the BHP reclamation area is actively promoted by the joint owners of the land, Dr Alan Bond and Natwest Bank. At this time, however, no definite proposals have been submitted to government authorities for consideration.

2.3 NON-PORT-RELATED DEVELOPMENT

Approximately 1850 hectares of land within the Study Area (30 per cent) comprises farmland, bushland and rural residential land.

The Shire of Hastings supports an important agricultural sector with the capacity to productively use and maintain much of the land that is not presently required for port-related industrial purposes. Within the Shire, some 291 agricultural businesses are located, including 85 cattle properties, 61 orchards, 25 nurseries, 24 vegetable growers, poultry farmers as well as a number of vineyards.

Part of the Port Related Uses zones area contains soils that have been identified as being of high agricultural quality and would support intensive agricultural operations. These operations include orchards, market gardening and a large intensive agriculture farming operation recently established on land fronting Bungower Road. The best soils are located in the northern part of the Study Area.

Debco Industries, located in McKirdys Road, is actively involved in agricultural research and application of new technology.

Those parts of the Study Area which are remote from residential areas have proven to be increasingly attractive for poultry farming operations, with four existing poultry farms located within the Port Related Uses zone. While not currently a prohibited use, an application to establish a poultry farm on a site fronting Bayview Road was refused on the grounds that it may prejudice the development of the area for port development.

The Study Area contains a number of residential and rural residential subdivisions which occurred well before planning controls were introduced. Some subdivisions date back to the 19th century. Most have been restructured to permit development on consolidated blocks, in others, residential development is effectively restricted. The main subdivisions in the Port Related Uses zoned area comprise:

- The Cemetery and Anglers Estate;
- Part of the original Crib Point Township;
- Rural residential subdivisions at Yaringa;
- Rural residential lots east of Tyabb Township.

Finally, the Study Area includes a number of non-port-related public facilities comprising the Municipal Tip (24 hectares), SEC depot (9 hectares), Melbourne Water (7 hectares) as well as public open space reserves and municipal cemetery.

Table 1 sets out the existing land uses within the Study Area.

2.4 LAND TRANSPORT

2.4.1 Roads

Western Port is linked to the metropolitan area by main arterial roads but is more than 20 kilometres from the nearest metropolitan freeway.

**Western Port Highway (Dandenong-Hastings Road)**

Road access to Hastings from the north is provided by the Western Port Highway, a primary arterial road, which connects to the South Gippsland Freeway at Lyndhurst. A December 1991 traffic count north of Frankston-Flinders Road indicated that the 24-hour traffic volume was approximately 4400 vehicles per day (vpd).
Table 1 Existing Port and Port-Related Uses

<table>
<thead>
<tr>
<th>Port Related Uses zone</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHP Steelworks</td>
<td>656.0</td>
</tr>
<tr>
<td>ESSO Plant</td>
<td>123.0</td>
</tr>
<tr>
<td>Whitemark Storage Facility</td>
<td>21.0</td>
</tr>
<tr>
<td>WAG Pipelines Pumping Station</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Sites currently being developed for port-related uses</strong></td>
<td></td>
</tr>
<tr>
<td>Crib Point Terminals (Shell/Mobil) Storage Facility</td>
<td>143.0</td>
</tr>
<tr>
<td><strong>Other industrial sites</strong></td>
<td></td>
</tr>
<tr>
<td>CIG</td>
<td>5.0</td>
</tr>
<tr>
<td>Debco Fertilisers</td>
<td>5.0</td>
</tr>
<tr>
<td>Bowens Timber</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Undeveloped land</strong></td>
<td></td>
</tr>
<tr>
<td>Gas and Fuel Corporation, Crib Point</td>
<td>13.0</td>
</tr>
<tr>
<td>ESSO, Jeremiah's Road and some 70 lots at the Cemetery Road Estates</td>
<td>17.0</td>
</tr>
<tr>
<td>Farmland, bushland and rural residential areas</td>
<td>1,850.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,838.0</strong></td>
</tr>
</tbody>
</table>

Reserved Port Related Uses zone

<table>
<thead>
<tr>
<th>Public reserves</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stony Point Jetty Complex</td>
<td>2.1</td>
</tr>
<tr>
<td>Crib Point Jetty Complex</td>
<td>7.6</td>
</tr>
<tr>
<td>Long Island Point Pier Complex</td>
<td>2.5</td>
</tr>
<tr>
<td>Old Tyabb Reclamation Area</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Proposed Port Purposes Reserves

<table>
<thead>
<tr>
<th>Proposed Port Purposes Reserves</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyabb/The Bluff (31 lots)</td>
<td>107.0</td>
</tr>
<tr>
<td>Cemetery and Anglers Estate (45 lots)</td>
<td>4.0</td>
</tr>
<tr>
<td>Crib Point/Stony Point (219 lots)</td>
<td>60.0</td>
</tr>
</tbody>
</table>

Access and service corridors

<table>
<thead>
<tr>
<th>Access and service corridors</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyabb/The Bluff (11 lots)</td>
<td>38.0</td>
</tr>
<tr>
<td>Crib Point/Stony Point (131 lots)</td>
<td>31.0</td>
</tr>
<tr>
<td>SEC Reserve Watsons Inlet</td>
<td>81.0</td>
</tr>
<tr>
<td>Gas &amp; Fuel Corporation Crib Point</td>
<td>77.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>419.0</strong></td>
</tr>
</tbody>
</table>

Balance of study area

<table>
<thead>
<tr>
<th>Balance of study area</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2,343.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Total supply of land within the study area

<table>
<thead>
<tr>
<th>Total supply of land within the study area</th>
<th>hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6,000.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

The Western Port Highway is contained within a 60 metre-wide reservation between Cranbourne-Frankston Road and Tyabb-Tooradin Road and a 40 metre-wide reservation exists between Tyabb-Tooradin Road and Frankston-Flinders Road. The existing reservations will allow for the future upgrading of the road when required.

The Western Port Highway, formerly the Dandenong-Hastings Road, was declared a State Highway on 24 March 1994. It is programmed to be duplicated between South Gippsland Freeway and Cranbourne-Frankston Road in stages over the next five years. This section of the road carries approximately 20,000 vpd, which includes commuter traffic from the Frankston region.

There are no definite plans to duplicate the Western Port Highway south of Cranbourne-Frankston Road. The existing volume of traffic varies from about 7000 vpd north of Frankston-Flinders Road to about 15,000 vpd south of the Cranbourne-Frankston Road.

**Frankston-Flinders Road**

Road access to Hastings from the north is also provided by Frankston-Flinders Road to the north-west, which links to the Mornington Peninsula Freeway at Frankston. Frankston-Flinders Road continues south of Hastings to Flinders and is classified as a Primary Arterial Road.

The traffic volume on Frankston-Flinders Road varies from 8100 vpd north of Dandenong-Hastings Road to 6000 vpd south of Stony Point Road.

Previous traffic studies indicated that the directional distribution of traffic on Frankston-Flinders Road at Denham Road is as follows:

- Non-commercial vehicle traffic is split 70 per cent to Frankston-Flinders Road and 30 per cent to Dandenong-Hastings Road;
- Commercial vehicle traffic is split 60 per cent and 40 per cent respectively;
- Semi-trailer traffic is split 40/50 per cent and 60/50 per cent respectively.

Some 13,000 vpd use the Frankston-Flinders Road between the Western Port Highway and Graydens Road, about 13 per cent of which represents commercial vehicles.
Watts Road
Watts Road is that section of Frankston-Flinders Road within Hastings township. It is a
Primary Arterial Road which functions as a town centre bypass to the west of Hastings.
Watts Road was upgraded to the status of a Primary Arterial Road to allow the former
route through Hastings town centre to be downgraded to a Secondary Arterial Road.
Watts Road is a two-lane undivided road and has a 24 hour traffic volume south of
Graydens Road of approximately 7200 vpd.

Bayview Road
Bayview Road, Barclay Crescent and Long Island Drive are classified as a Secondary
Arterial Road providing access from Marine Parade to BHP’s steelworks and jetty
complex and the ESSO plant and Long Island Point Pier.

The Port Road Access Study – Hastings, prepared by Ove Arup & Partners in 1990,
examined traffic volumes on Bayview Road and turning movement volumes at the
Barclay Crescent Marine Parade intersection. At that time, the 24 hour traffic volume
on Barclay Crescent was approximately 4650 vpd, 700 (15 per cent) of which were
commercial vehicles and 455 (10 per cent) of those were semi-trailers. The directional
distribution of traffic on Barclay Crescent at Marine Parade was as follows:

* Non-commercial vehicle traffic is split 50 per cent to the north and 50 per cent to the
  south;
* Commercial vehicle traffic is split 85 per cent to the north and 15 per cent to the
  south;
* Semi-trailer traffic is split 95 per cent to the north and 5 per cent to the south.

Traffic-light signals were installed on the corner of Barclay Crescent and Marine Parade,
in August 1994, to assist in improving the safety of the intersection.

Denham Road
Denham Road has been constructed as a two-lane local road between Frankston-Flinders
Road and McKirdys Road. It has a 24 hour traffic volume of approximately 500 vpd.
The road reserve extends east from McKirdys Road to the coastline but has not been
constructed over this section.

McKirdys Road
McKirdys Road has been constructed as a two-lane local road which links Denham Road
northwards to Dandenong-Hastings Road. McKirdys Road carries approximately 200
vpd.

Stony Point Road
Stony Point Road connects to Frankston-Flinders Road between Hastings and Bittern
and provides access to Crib Point, Stony Point and the Royal Australian Navy’s Depot
HMAS Cerberus. Stony Point Road is a two-lane Primary Arterial Road. South of
Woolleys Road, Stony Point Road carries approximately 5000 vpd.

Intersection control
The intersections of Frankston-Flinders Road with Dandenong-Hastings Road and
Denham Road are closely spaced with a give-way sign in Frankston-Flinders Road at
Denham Road and a stop sign at Dandenong-Hastings Road. All other Primary Arterial
Road intersections are controlled either by stop or give-way signs with or without
associated channelisation, or by roundabouts.

2.4.2 Rail service

The Hastings Port industrial area is served by a railway from Spencer Street via Caulfield
and Frankston to Stony Point (not electrified from Frankston to Stony Point). Spur lines
link the BHP Steelworks, Transwest (ex Cresco site) and ESSO plant sites. The jetty
complexes at Crib Point, Long Island Point and the BHP Steel Industries wharf complex
are not connected to the rail line.

Presently BHP sends 300 000 tonnes of steel a year by rail from Whyalla and Port
Kembla to Western Port, but has an agreement which would permit this tonnage to be
increased to 800 000 tonnes. Processed steel is sent from Western Port by rail to
Adelaide and Perth.

The rail link from the BHP Steelworks to Spencer Street forms part of the national grid
managed by the National Rail Corporation.

The Prime Minister’s One Nation Statement, February 1992, allocated $454 million over
the next two years to complement the National Rail Commission’s 10 year $1.7 billion
investment program which includes:
$115 million to fund the standardisation of the line between Melbourne and Adelaide via Ballarat.

$181 million to upgrade the Melbourne-Sydney rail link, and

$5 million to build direct road connections from South Dynon Road to Swanston and Appleton Docks.

There are no plans, however, to upgrade the railway line to Western Port to standard gauge. The intention is to construct a new transhipment terminal in Melbourne. Transhipment of BHP Steel trains between standard and broad gauge presently takes place at Wodonga and Port Pirie. The transhipment process adds approximately two hours to travel times.

In recent years, there have also been proposals to link the Port of Hastings directly with the Gippsland line. While the Federal Department of Regional Development, and local parliamentarians have indicated support for such proposals, there is to date, no commitment for such a railway. (See also section 4.6.1)

2.4.3 Other service infrastructure

Pipelines

The Hastings Port industrial area forms an integrated part of the Melbourne petrochemical industrial complex by virtue of its existing pipeline linkages. Separate gas and oil pipelines link the Long Island Point Pier to Gippsland and the Bass Strait oil and gas fields. An oil pipeline links the Long Island Point Pier to the Crib Point Oil Terminal Jetty. The WAG pipeline links the Long Island Point Pier to the Mobil refinery at Altona and the Shell refinery at Geelong. Whitemark Pty Ltd has constructed a new pipeline to link the Crib Point Jetty to its petroleum storage facility in Barclay Crescent.

The Crib Point Terminals Pty Ltd (Shell/Mobil) site is connected by pipeline to Dandenong. The pipeline was constructed by BP Australia to pump fuel from its former Crib Point Refinery to a truck distribution centre in Greens Road, Dandenong. The pipeline has not been used since the refinery was closed but has been maintained and is still licensed.

In the future, as the supply of crude oil from Bass Strait is depleted, the WAG pipeline will be used to supply imported crude oil to the Shell refinery at Geelong and Mobil refinery at Altona. Modernisation of the Shell refinery and Mobil refinery to accept imported crude oil has been approved by the State Government, with construction now well under way.

During a period of transition it is proposed that imported crude oil will be delivered to storage facilities at Crib Point and then transhipped in smaller or half-loaded ships to storage facilities at Point Gellibrand in Port Phillip Bay. In the longer term, ship deliveries of base product to both Hastings and Melbourne are expected. The preference of the oil companies is to ship some petroleum directly to storage facilities near the refineries to ensure adequate supplies for production. The proposed Crib Point facility is presently on hold.

Power grid

A 220 kV transmission power line traverses the northern block of port-related zoned land, with the line running parallel to the Tyabb-Tooradin Road and the southern-most section of the Western Port Highway, presently terminating at the BHP Steelworks. A terminal station lies between the Western Port Highway and Denham Road.

Other reticulated services

Part of the Port Related Uses zoned area is well-serviced by reticulated mains water, with the remainder of the area still readily accessible to Melbourne Water facilities. Gas reticulation is also available to those sites closer to Tyabb and Hastings and Bittern/Crib Point.
3.0 THE EXISTING FRAMEWORK OF PLANNING POLICIES AND CONTROLS

3.1 HASTINGS PLANNING SCHEME

Planning policy, land use zones and development controls for the Study Area are contained in the Hastings Planning Scheme (the 'Planning Scheme').

The Regional Section of the Planning Scheme sets out State Policy to:

* Preserve the area for port and industrial uses which depend on, or gain significant economic advantage from, the natural deep water channels;

* Protect the important natural and ecological systems of Western Port, its waters and catchment area from damage by port-related or other development;

* Limit and contain residential development within existing township areas rather than facilitating major urban residential development, and

* Maintain buffer areas between port and industrial development and township areas.

The local section of the Planning Scheme includes detailed land use zoning and development control provisions which:

* Reserve land for port facilities,

* Include approximately 28 square kilometres of land within a Port Related Uses zone,

* Include approximately 400 hectares within a Proposed Port Related Uses Zone,

* Define the township boundaries of Hastings, Tyabb, Bittern and Crib Point - to accommodate a potential population of 20,000 to 22,000 people,

* Include rural residential zones as low density buffer areas to adjoining industrial zones and townships,

Note: This is a summary zoning plan only. For full and up to date zoning information refer to Hastings Planning Scheme.
3.2 BACKGROUND TO THE PRESENT PLANNING CONTROLS AND POLICIES

The planning policies and development controls contained in the Hastings Planning Scheme are the result of extensive investigations and review over a period of more than 20 years.

3.2.1 Site specific legislation

Initial development at Western Port proceeded on a site by site basis in accordance with special acts of Parliament. The BP refinery at Crib Point (now demolished) was developed in accordance with the Western Port (Oil Refinery) Act 1963, the ESSO refinery was developed in accordance with the Western Port Development Act 1967 and Western Port Development Act 1970 and the BHP Steelworks was developed in accordance with the Western Port (Steelworks) Act 1970.

Other than the Western Port (Oil Refinery) Act 1963, which was largely repealed by the Westernport (Crib Point Terminal) Act 1994 (other than certain sections relating to the responsibility of remaining pipelines), these Acts are still in place.

3.2.2 Western Port Regional Planning Authority

In recognition of the need to co-ordinate and control development, the Western Port Regional Planning Authority was established in February 1969. The original task of the Authority was to prepare a planning schemes for the area stretching from the Mornington Peninsula to Phillip Island, however, it also became increasingly involved in
undertaking strategic planning across the region. Another of the major objectives of the Authority was to give effect to Statements of Planning Policy as approved by the State Government. One of these was Statement of Planning Policy No. 1 - Western Port.

Following the preparation of planning controls which implemented Statement of Planning Policy No. 2 - Mornington Peninsula ('the Conservation Plan') in 1978 and controls implementing Statement of Planning Policy No. 1 - Western Port (the Hastings Port Industrial Area Plan) in 1981 (see below), the Authority was disbanded.

3.2.3 Statement of Planning Policy No. 1 (Western Port)

In response to the increasing pace of major industrial development the State Government adopted Statement of Planning Policy No. 1 (Western Port) in 1970 (SPP No 1). The policy applied to the Western Channel of the northern arm of Western Port and coastal land on the mainland from Stony Point to Quail Island and land on the western side of French Island and:

* facilitated development of the area primarily as a major specialised industrial port and heavy industrial complex,
* emphasised the port as the primary generator of future growth and development,
* provided for the integration of future growth at Western Port with development in the metropolitan area,
* recognised the importance of protecting the long-term values of the port by preventing land subdivision and preserving potentially suitable areas for future wharf development.

The adoption of SPP No. 1 sparked off considerable public debate and concern about the effects of major industrial development on the ecology of Western Port. In response to concerns:

* The State Government, in October 1971, announced a proposed ecological study of the waters of Western Port and its catchment.
* The Western Port Regional Planning Authority, in August 1972, adopted a policy limiting the boundaries of industrial development and specifying interim controls for industrial development, and initiated the preparation of detailed planning control known as the Hastings Port Industrial Area Plan.

- Phase 1 of the Westernport Bay Environmental Study was commenced in February 1973.
- The State Government imposed a development freeze at Western Port pending completion of the Phase 1 Study.

3.2.4 Western Port Bay environmental study

The Western Port Bay environmental study was a major multi-disciplinary study involving over one hundred people over a two year period. It was jointly funded by the Victorian Government and industry. The objective of the study was to develop guidelines for the future management of the bay based on comprehensive and in-depth baseline information of its physical, chemical, biological, social and economic characteristics.

The report of the study, known as the Shapiro report, provided a range of advice (in the form of recommendations and guidelines) covering:

* the institutional environment
* industrial development
* major port development
* urban development
* agricultural development
* recreation
* conservation
* environmental quality control
* requirements for further work.
It concluded that some expansion of industry, housing and recreation development was reasonable, given proper safeguards and standards.

These findings were published in 1975 and in response to these findings the State Government:

- lifted the moratorium on development in February 1976,
- adopted Revised Statement of Planning Policy No. 1, in October 1976, and
- released Draft State Environment Policy (Waters of Western Port Bay and its Catchment) for public comment in September 1976.

3.2.5 Statement of Planning Policy No. 1 - Western Port (as varied)

A revised Statement of Planning Policy No. 1 - Western Port, adopted in 1976, incorporated changes and modifications to:

- limit the boundaries of the Policy Area, to some 75 square kilometres of land stretching from Hanns Inlet to Watsons Inlet east of the Tyabb Fault/Clyde Monocline so as to exclude port development from French Island, Quail Island and land within the Shire of Cranbourne north of Watsons Inlet.
- preserve the area for port and industrial uses which depend on or gain significant economic advantage from the natural deep water channels rather facilitating the development of the area as a more general heavy industrial complex,
- recognise the environmental values and importance of the area and hence protect the area from general urban and industrial development,
- limit and contain residential development within existing township areas rather than facilitating major urban residential development, and
- maintain rural buffers between port and industrial development and township areas rather than allow further subdivision of rural land.

These policies are now incorporated into the current Hastings Planning Scheme.

3.2.6 Hastings Port Industrial Area Plan

In September 1981, the Hastings Port Industrial Area Plan was approved as part of the Hastings Planning Scheme after a lengthy process of public review and scrutiny lasting six years.

The plan designated areas suitable for industrial activity and port development and included a range of controls covering safety, siting, performance and waste discharge.

The essential elements of the plan form the basis of the current controls for the Port Related Uses Zone and Port Purposes reserves in the current Hastings Planning Scheme.

3.2.7 Western Port: Port Landscape Guidelines Study

This document was prepared for the then Ports and Harbours Division of the Public Works Department and the Westernport Regional Planning Authority. The study arose from the desire to assist in the attainment of the SPP No. 1 requirement that there be 'visual integration of industrial port and residential development with the landscape and seascape'. The report is not prescriptive but its purpose is to 'demonstrate the range of landscape options that are available for port development at Western Port and that a high standard of visual presentation of that development is possible'.

3.2.8 Sites of significance studies

In the early 1980s a study program was initiated whose objective was to identify areas and sites which had special values, based on a comprehensive data base, to assist in the land use planning and management of those areas.

Reports covering sites of zoological, botanical, geological and geomorphological, and archaeological significance were produced and published in 1984. Management recommendations regarding the conservation of the identified values were also prepared.

3.2.9 The Westernport Regional Planning and Co-ordination Committee

Following a request by the Premier in 1982 to investigate the need for co-ordination of planning in Western Port, and the consideration of an Interdepartmental Committee report, legislation was enacted in 1986 which established the WRPCC - an advisory
committee which reports to the Minister for Planning. It provides advice to the Minister on major planning issues and undertakes strategic planning work.

3.2.10 1986 Review of Planning Policy for Western Port

In response to the 1986 request of the then Minister for Planning, the WRPCC carried out an investigation of the need for review of Statement of Planning Policy No. 1.

The main findings of the WRPCC as set out in the Report of Investigations July 1987 were as follows:

1. SPP No 1 is valid and does not need a review of its basic principles
2. The preamble to the policy should be revised and related to new economic circumstances, and to the growing knowledge of Western Port’s environmental and ecological systems
3. The policy wording should be changed to recognise its new context and, in particular, to clarify the intent of Clause 2.3 (which recognised the importance of selected industrial development but indicated that ancillary developments should not take place in the ‘immediate vicinity’)
4. A review of the Hastings Port Industrial Plan is urgently required, and future uses for certain areas presently zoned as Port Related uses should be examined.
5. Any negotiations between the Government and BHP regarding the ‘reclamation’ area should consider the needs of other potential industries for waterfront access
6. Studies and surveys should be undertaken to:
   * identify factors which may prejudice the establishment of port-related developments,
   * gain new knowledge and fill information gaps concerning the ecology of Western Port and its catchment area,
   * assess the environmental effects of existing and potential port-related uses, and
   * gauge the possible effects on Western Port of a predicted general rise in sea level.

In relation to the need for a review of the Hastings Port Industrial Plan, the Report of Investigations raised the following questions as general matters that need to be addressed:

* Is port-related uses a suitable zoning term and is it clearly defined?
* Should there be different categories of Port Related Use zoning for different types of industry in different localities? Are some changes needed to existing boundaries of Port Related Use areas? Are other uses more appropriate for some of this land?
* How much port-related urban land is enough?
* Is there reasonable access to the waterfront, and are transport and service provisions adequate for future needs?
* What are suitable uses, and intensities of these uses, of port related use land prior to and in the absence of industrial development? How can these uses be conducted without undue hardship or restriction?
* What part should the Port Plan play in protecting the environment and ecology of Western Port and the Peninsula? How should it do this?

In relation to the suitability of particular areas within the Port Plan for different uses the Report of Investigations identified a clear distinction between areas north and south of Hastings township.

While both areas are well-served by transport and other service networks, the land zoned for port-related industry near Crib Point has good access to deep water, but its development potential is limited by its proximity to residential areas. By contrast, the land north of Hastings is generally more distant from urban areas, but is less easily accessible to the deep-water channel.
Furthermore the Report of Investigations makes the following specific recommendations for particular sites within the Port Plan:

- The former BP refinery site is appropriately zoned for port-related industries, but is regarded as unsuitable for uses which are likely to have a significant detrimental effect on nearby residential areas. Priority should be given to industries which move materials through pipelines or via fixed rail, rather than those which would generate large volumes of road traffic northwards through Hastings.

- Use of the Gas and Fuel Corporation's land for storage of crude oil and natural gas is acceptable, provided there are adequate buffers within its boundaries for nearby residential areas and other land uses.

- The existing and proposed Public Purposes reserves south of the former BP refinery have significant long-term potential for port purposes. This land is becoming degraded, and should be properly managed in the interim for public recreation and conservation.

- The land formerly owned by BHP between Hastings and Bittern townships (including the environmentally significant Jack’s Beach area) is inappropriately zoned as Port Related Uses. It would be better considered for other uses which would not destroy its function as a buffer between the townships.

- The remaining area just north of Bittern township would be too small for port-related industries and a change of zoning should be considered.

- The area south of Bayview Road, adjacent to Hastings township and including the Cemetery and Anglers Estates, is unsuitable for Port Related Uses, and should be rezoned to provide for marine and general industries which would satisfy identified local demand. Developments in this area should be well landscaped.

- Part of the land near Watsons Inlet at the eastern end of Bungower Road, and including some of the SEC holding, should be rezoned for uses which protect its conservation values.

With respect to the main findings of the report. SPP No. 1 is now included in the Regional Section of the Hastings Planning Scheme, with the exception of the preamble which was not retained (nor consequently amended). The envisaged policy rewording to clarify the intent of Clause 2.3 has been changed to date, with the envisaged additional studies being carried incrementally. Negotiations between the Government and BHP regarding the “reclamation” area are still to be concluded. Those parts of the Hastings Port Industrial Plan recommended for review, as outlined in three preceding paragraphs, are all addressed in this Structure Plan.

### 3.3 OTHER RELEVANT PLANNING POLICIES

#### 3.3.1 State Environment Protection Policy No. 28 (The Waters of Western Port Bay and Catchment)

State Environment Protection Policy No. 28 (The Waters of Western Port Bay and Catchment) was adopted in February 1979. This policy complements Statement of Planning Policy No. 1 - Western Port (as varied) and seeks to protect the high standard of water quality in the bay.

The defined attainment program of this State Environment Protection Policy (SEPP), among other things, includes a section on dredging, spoil disposal and other works, which states that: 'Dredging, reclamation, building of port facilities and other works should be carried out in a manner which causes minimal disturbance of plant and animal habitat, particularly in the case of salt marshes, mangroves, and sea grass meadows. Where practicable, the disposal of dredged spoil shall be at external marine sites or on land above the salt marsh zones'.

#### 3.3.2 A Coastal Policy for Victoria

The 1988 Coastal Policy for Victoria includes a number of policies related to ports and related activities, as well as natural systems and human settlement.

The port and industrial development policy states that:

The development and efficient operation of ports and their associated industries will be encouraged and assisted. Unwanted impacts of such activities on the coastal environment will, however, be minimised.
It also refers to the protection of port development areas from encroachment, permitting only coast dependant industries, and use of environmental assessment procedures for major works.

Policies for the coast’s natural systems and resources cover water quality, wetlands, marine and estuarine areas, landforms, flora and fauna, beaches and coastal systems, and rising sea levels.

It is expected that the Government’s proposed legislation to put into place its new approach for coastal planning and management (CABMAC) will include provision for a new Statewide Coastal Strategy which will supersede the current Coastal Policy for Victoria.

### 3.3.3 The Melbourne Metropolitan Strategy

The Statement by the Minister For Planning ‘Planning a Better Future for Victorians and New Directions for Development and Economic Growth’, dated August 1993, forecasts that between now and the year 2030 Victoria’s population is expected to increase by 1,600,000 people. This population increase and decreasing household size is expected to necessitate the building of a further 800,000 homes and provision of 1,000,000 jobs (refer to page 12 of the Statement).

*Shaping Melbourne’s Future*, dated August 1987, recognised as the last comprehensive government statement on metropolitan growth, indicates that over the medium term (20 years) most growth is to be concentrated in three growth areas: south-eastern Berwick, Cranbourne and Pakenham Corridor, the Werribee Corridor and the Plenty Corridor. Major growth is not envisaged to occur within the Shire of Hastings. Rather Western Port and the Mornington Peninsula have been identified as containing important natural resources.

The Government now considers that the 1987 metropolitan policy, *Shaping Melbourne’s Future*, is now out of date and does not reflect the current Government’s intentions and priorities. A new strategy is being developed which is intended to depart from previous metropolitan strategies by concentrating ‘on outputs rather than processes and provide the framework necessary to enable evaluation of these outputs against objectives, it will give ‘a new and practical dimension to the concept of ‘liveability’ as a major competitive advantage of Melbourne’; and thirdly, it will pay special attention to the needs of ‘information-intensive industries’.

Following the establishment of a number of working and co-ordination groups and the carrying out of a range of consultancies, a discussion paper, titled *Melbourne Metropolitan Strategy - A Discussion Paper*, was published in June 1994. The discussion paper outlines a range of key issues and poses questions that need to be addressed in future metropolitan development. These range from issues of ‘liveability’ to infrastructure use and conservation of resources. The need to respond to the expanding ‘functional area’ of Melbourne, and the related problems of transport, hydraulic and social infra-structure costs, and detrimental environmental impacts, is flagged. It is envisaged that the final strategy will be adopted in 1995.

### 3.3.4 South-Eastern Growth Area Plan

The South-Eastern Growth Area Plan, adopted in a Minister’s Direction amended 1993, provides for the expansion of the metropolitan area from Dandenong to Pakenham in the east and Cranbourne in the south. The plan designates sufficient land to accommodate a population of up to 370,000 persons.

Most urban growth will be contained in the western part of the growth corridor. The plan provides for Officer to accommodate a population of about 30,000, Pakenham about 60,000, and Cranbourne about 80,000 persons. The balance of the new population will be located in peripheral areas around Hampton Park, Narre Warren, Berwick and Beaconsfield.

The plan does not promote the development of major employment opportunities at Western Port. Rather the plan is designed to achieve a relatively high level of self containment with employment dispersed throughout the area at centres south of Dandenong, Hallam, Lyndhurst, Cranbourne, Narre Warren and south of Berwick, Officer, Pakenham West and south-east of Pakenham.

The implications of the development of the South-Eastern Growth Area for the Westernport Region is the subject of a separate study ‘Hinterland Impacts Study 1993’, undertaken for the WRPCC. In relation to the Hastings Port Industrial Area the study report comments that:

‘Development of this land is likely to rely on expansion of the capacity of the port to take general cargo traffic and to service a Statewide sea cargo market or development of a few very large port-related industrial uses. Decisions on port
expansion are likely to be made in the light of analysis of the performance and capacity of Victorian ports as a whole.'

3.3.5 Local town plans

The Somerville Outline Development Plan 1992, the Baxter Outline Development Plan 1990, the Hastings Outline Development Plan 1993, and the Western Port Coastal Villages Strategy 1994, all provide for additional urban development within defined boundaries, mostly with an emphasis on reinforcing existing centres and ensuring that existing functions and special character are retained. Extensive urban expansion is not envisaged.

Current estimates of these towns ultimate population are, respectively, 9400 to 9900, 15 000 to 16 000, 14 800, and 1560 to 2050.

3.3.6 The Western Port Coastal Villages Strategy

The Western Port Coastal Villages Strategy makes a number of specific recommendations about the Cemetery Road estates area and the settlement at Yaringa, which is presently partly included in a Proposed Port Purposes reserve and partly in the Port Related Uses zone area.

The Strategy recommends that this area not be designated as an urban settlement but, in accordance with the recommendations of the Draft Hastings Port Industrial Area Land Use Structure Plan, be zoned for Port Related uses and restructures into larger consolidated blocks.

With respect to Yaringa, the strategy recommends that it not be considered as a village. It goes on to state that:

'The 27 lots comprising the Yaringa settlement have been in a nexus since placed under the proposed port zoning. If the current review proposals result in this zoning being lifted the opportunity exists for this area to again be available for a high-quality low-density residential development in a bushland setting and an appropriate buffer between the remaining Port Related Uses zoned land, the marina, and the Land Conservation Council recommended Nature Conservation Reserve encompassing the areas of highest environmental value to the north.'

The Strategy also recommends that a nature conservation value survey be undertaken, that a structure plan be prepared, that there be no further subdivision of existing lots, and that a new planning control be prepared.

3.3.7 Western Port Bay Strategy

The Western Port Bay Strategy (1992) seeks to ensure that demands for development and use of the bay are accommodated in a way which does not compromise the functioning of its natural systems. It is the result of a long process of development and consultation by the Western Port Regional Planning and Co-ordination Committee. The Strategy is a comprehensive planning and management strategy for the bay and builds on the earlier policies of SEPP No. 1 - Western Port as well as the Westernport Bay Environmental Study and the Sites of Significance reports of the mid-1980s. Nine key issues are identified in the report:

- Management of Western Port
- Water quality
- Prevention and control of oil spills
- Protection of natural ecosystems
- Coastal erosion and greenhouse induced sea-level rise
- Coastal and water-based recreation
- Port and industrial development
- Coastal landscapes
- Tourism

With respect to Port and Industrial development, the strategy notes a range of factors which contribute to Western Port's high value for port and industrial purposes. It goes on to note the likely increase in port usage and the necessity for any port or industrial development to be carried out in a manner which does not adversely affect natural systems, and conserves identified sites of environmental significance. It also indicates
that there are a number of factors which make the coast north of The Bluff generally unsuitable for port and industrial development.

A number of policies dealing with managing environmental effects of port and industrial development are detailed in the Strategy as are policies covering the retention of land for port and industry - see Appendix 3. Specific recommended actions are:

* The current review of the Hastings Port Industrial Plan should give particular attention to maintaining areas essential for port and industry, protecting the quality and dynamics of the ecosystem, protecting conservation areas and making land not required for port purposes available for alternative uses. A time frame for the release of this land should be adopted.

* The review of the Hastings Port Industrial Plan should consider the need to reserve the following areas for conservation and passive recreation, rather than for port purposes: the foreshore areas north of Iluka Road (the road immediately north of The Bluff), and Hastings Bight.

* No port development should be permitted on the National Estate coastline designated at Jacks Beach with the exception of the Crib Point Jetty and jetty easement.

* Any future major port works within the reclamation area declared under the Western Port (Steelworks) Act 1970 should be subject to environmental assessment in accordance with the Environment Effects Act 1978 as subsequently amended.

3.3.8 Land Conservation Council Melbourne Area District 2 Review

The Land Conservation Council Melbourne Area District 2 Review Final Recommendations were released in July 1994. They make recommendations for the future of public land for the Melbourne Area which includes the Study Area. To date, the recommendations have not been adopted by the Government.

In relation to future port development the Review recommends:

That the following areas be used in accordance with the general recommendations for services and utilities above, and be available for port development:
(a) the harbour depot area at Stony Point
(b) the jetty easement at Crib Point
(c) the Long Island Point Pier
(d) Old Tyabb foreshore.

Notes:
1. In the long term, if there is a need for additional port land, Council [LCC] considers that the Tyabb foreshore south of The Bluff* and the less environmentally sensitive area between Stony Point and Crib Point should be considered as possible sites. Any proposed port development should be subject to Environmental Effects Act procedures.
2. Council [LCC] is aware that the Government has an option to purchase 50 per cent of the ‘reclamation area’ and believes that this option should be taken up.” (refer to page 258)

[* Recent correspondence with the LCC indicates that the note reference to ‘The Bluff’ should read ‘Iluka Road’ - to correspond with the text preceding the recommendation.]

The Review recommends that the coastline north of Iluka Road to the marina at Yaringa, much of the Hastings Bight and the coastline between Crib Point and Stony Point be retained within a Coastal Reserve to be used to:

* provide opportunities for informal recreation for large numbers of people and also for recreation related to enjoying and understanding nature;

* protect and conserve natural coastal landscapes, ecosystems, and significant geomorphological, archaeological and historical features for public enjoyment and inspiration and for education and scientific study;

* ensure the protection and conservation of important aquatic and terrestrial fauna and flora;

* provide opportunities for fishing and facilities for boating, together with the necessary navigation aids. (refer to page 169).
Within the Coastal Reserve the Review recommends that a number of principles be recognised, including the fact that any major coastal development projects such as jetties, seawalls, reclamation and non-maintenance dredging should be subject to detailed environmental studies prior to commencement of work by the body proposing such development.

The Review also recommends that land surplus to SEC requirements south of Bungower Road be added to a nature conservation reserve encompassing the northern foreshore of Western Port. It also makes specific reference to public land at Crib Point to the west of Point Road/The Esplanade (which is included in a port purposes zone in the Hastings Planning Scheme); recommending that it be used in accordance with the general recommendations outlined for 'land not required for public purposes'.

Notes:
1. This area is subject to a continuing port land use planning process
2. Where possible, the botanical values of the heath land should be retained.

[* Recent correspondence with the LCC indicates that this recommendation should read 'uncategorised public land.']

3.3.9 Industrial Planning

In response to concerns of both resident groups and manufacturing industry, the Department of Planning and Development carried out a review of industrial planning. The recommendations of the Report of the Department, Industrial Planning The Review and Administration of Planning Schemes July 1992, are directed towards:

* Improving planning controls and guidelines for industrial development.

* Improving the assessment of industrial proposals.

The Report of the Department identifies Western Port as one of the significant industrial areas of the State which have major growth prospects or are the key to servicing the industrial economy. The Report recommends that these important industrial land resources and many others throughout the State need protecting and promoting. Specifically in relation to Western Port the Report states:

'The innovative planning policy for Western Port established in 1971 and implemented through the Hastings Planning Scheme is a precedent for policies of this report. The policy protects an area for industries which require port facilities, introduces buffers around towns, keeps land in large sites suitable for land extensive industries, protects populations from locating too close to pipelines and the Long Island gas fractionation plant and sets aside land for ports and their transportation corridors' (p.7).

In response to submissions to this report, the Government, in August 1993, decided to prepare a set of Statewide zones for manufacturing areas. The draft zones have been published in a report titled 'An explanation of Draft Manufacturing Zones: Draft Zones for Comment', released in March 1994.

The approach taken is one of a small number of zones with limited variations 'where there are special State or regional considerations. Performance-based planning and design criteria are advocated rather than the traditional 'arbitrary and restrictive' controls.

The three draft zones proposed are:

* Manufacturing 1 zone which is envisaged to be used for most manufacturing industry areas, it is a general industry zone for an extensive range of non offensive uses

* Manufacturing 2 zone - this zone is intended to apply to the major industrial areas of the State. Potentially offensive and hazardous manufacturing industries would be provided for in the core of the zone.

* Manufacturing 3 zone - a specialised zone which provides for industries within a buffer between the Manufacturing 2 zone and local communities, where the local communities will have the opportunity to make comment on proposed developments.

The text of the Manufacturing 2 zone indicates that these major industrial areas are large, averaging 20 square kilometres, each having core areas remote from residential communities, 'where most basic processing industries could locate without planning permit, as distance has reduced their potential for offence or risk to negligible levels'. It
also states that specialised areas such as the port industrial areas of Western Port would benefit from the use of such controls.

The document also describes proposed performance standards approaches covering noise (for example, meet SEPP requirements), airborne emissions (for example, to EPA requirements), hazard and risk (for example, OHSA criteria), traffic (guidelines for responsible authority consideration), design of industrial development (use of approval guidelines for assessing subdivision, development plans, etc.).

3.3.10 Victorian Ports Land Use Plan Draft Final Report

The aim of the Victorian Ports Land Use Plan is to ensure that appropriate port land is available to meet Victoria’s long-term trade needs. The Plan aims to set a framework for future port development over the next 20 years. The Plan is now with the Government for its consideration. It remains, however, the most readily available source of information on port usage trends and possible future port development.

The draft Plan considers the needs of, and relationships between, the four Victorian commercial ports of Melbourne, Geelong, Portland and Western Port (Hastings). It considers all cargo types; that is, containerised or break bulk cargo, general cargo, liquid bulk cargo, dry bulk cargo, and loose packed cargo.

The Draft Final Report recognises the value of Western Port and its existing facilities, the advantages of Western Port for bulk liquid trade and the potential for increased bulk liquid trade at Western Port. The Draft Final Report concludes that:

• Western Port should continue as Victoria’s major liquid bulk port;

• Existing facilities are capable of handling the forecast trade levels for the next 20 years, and

• Additional land for oil storage will probably be required.

In relation to other development opportunities, the Draft Final Report recognises the existence of potential port development sites, the strategic significance of Western Port for Victoria and the need to preserve future development opportunities. The Draft Final Report concludes that port development could occur at the Old Tyabb or Tyabb sites to satisfy the needs of new trades not identified in the forecasts. Furthermore, while the Draft Final Report considers the relocation of trade from the Port of Melbourne is unlikely, it recognises that unforeseen circumstances may increase the attraction of Western Port.

The Draft Final Report considers the area south of Crib Point to be the least attractive site for port development and concludes that, in view of the outlook for trade development, the retention of this area for port development is difficult to justify.

In relation to land transport, the Draft Final Report concludes that the ability of the rail line to handle additional tonnage is significantly constrained while the main road links to Melbourne and road network in the Western Port area are inadequate to cater for the needs of a port. The Report recognises that the expected progressive duplication of Dandenong-Hastings Road, with a first stage planned for completion in the next 6-7 years, together with an extension of Bayview Road to Frankston-Flinders Road will improve traffic access. The Report concludes that the costs of upgrading the rail link may not be justified for port purposes even if major trade relocation occurred or major new trade developed.

The Victorian Ports Land Use Plan Draft Final Report makes the following set of recommendations for Western Port:

RECOMMENDATIONS H1

(Liquid bulk facilities)

It is recommended that:

• Long Island Point Pier and Crib Point Jetty be used for handling the crude oil, gas and petroleum product trades in the Port of Hastings;

• The old BP refinery site be reserved for possible future liquid bulk storage requirements; supply from this site should be via pipeline;

• Should the use of very large and ultra large crude carriers be proposed in the port, an environmental effects statement would be required, including a comparison with options for a single-point mooring facility outside Western Port.
RECOMMENDATIONS H2
(General cargo facilities)
It is recommended that the steel trade continues to be handled at the two BHP Steelworks jetties.

RECOMMENDATIONS H3
(Potential Development sites)
It is recommended that the Old Tyabb site (between Long Island Point and the Steelworks jetties and Lumeah Road) be retained for potential port development.

RECOMMENDATION H4
(Port Boundary)
It is recommended that:

* The PMA and Department of Conservation and Environment continue negotiations with a view to including land required for the operation of the port within the port boundary, this would include areas at Stony Point, Crib Point, Long Island Point and Old Tyabb.

* The waters of the Port of Hastings be declared as part of the port (this recommendation has now been implemented).

3.3.11 Government preferred reforms of the State’s port authorities

Key elements of the preferred approach are the privatisation of the shore-based assets of each port (and, in the instance of the Port of Hastings, the sale of usage rights to the channel), the transfer of channels and associated navigational controls to a new State-owned company, the separate sale or divestment of non-essential port assets, and the sale or transfer of non-commercial operations such as the ‘associated ports’ and regulatory functions. It is envisaged that following offers of first right of refusal to existing berthholders and leaseholders, the remaining assets of the Port of Hastings would be sold to a single private owner.

The preferred reforms go beyond the often advocated creation of a separate Port of Hastings Authority and encouragement for it to compete for trade with the Port of Melbourne and other ports.

The government has sought comment on its preferred port reforms and a final position has not been announced.

3.3.12 Mornington Peninsula Arterial Roads Strategy (MoPARS)

The five Mornington Peninsula councils, the Cities of Frankston and Cranbourne, and the Shires of Flinders, Hastings and Mornington, have formed an association to develop and initiate MoPARS with the assistance of and in co-operation with VicRoads. The overall objective of the MoPARS Strategy has been to develop a strategy for improvements to nominated arterial roads in the region by using a joint (inter-Council) programming approach to determine priorities.

The Strategy sets out programs in relation to road safety, access and mobility, economic development and environment. The programs give priority to:

* Improving road safety;

* Maintaining road assets; and

* Upgrading heavily trafficked 2 lane 2 way roads.

To assist economic growth, the Strategy provides for the upgrading of two-2 lane two-way arterial roads carrying more than 15 000 vpd. The only program listed for the Study Area is the duplication of the Frankston-Flinders Road between High Street and Stony Point Road. This program is given a Priority 3 ranking, on the basis that the Frankston-Flinders Road is not forecast to reach capacity until after the year 2000.

To assist economic growth, the Strategy provides for the upgrading of the primary freight route between Western Port and south-eastern metropolitan suburbs. Within the Study Area, the duplication of Frankston-Flinders Road between Western Port Highway and Graydens Road is given a Priority 2 ranking as a road which is expected to reach capacity by the year 2000.

To reduce the adverse effects of traffic through built up areas, particularly the effects of truck traffic on residential areas, the Strategy provides for the duplication of Frankston-Flinders Road between Graydens Road and High Street.
3.3.13 International treaties and conventions

Western Port is subject to the Ramsar Convention on wetland and migratory bird protection and provides habitats for many of the species listed in the Japan-Australia Migratory Birds Agreement (JAMBA) and the China-Australia Migratory Birds Agreement (CAMBA).

The Ramsar Convention was the result of an international conference on wetlands and in particular waterfowl habitat held in Ramsar, Iran in 1971. As a signatory to the convention, Australia is bound to designate important wetland habitat for conservation. The whole of Western Port has been nominated for protection under the convention.

The JAMBA and CAMBA agreements require Australia to protect the habitat of migratory bird species which are listed on the two treaties. Many of the listed birds occur at sites in Western Port. Protection of habitat may be taken to mean protection of specific sites (for example, roosting and foraging areas) from disturbance, as well as broader scale impacts such as the effects of poor water quality on food supplies.

Listed bird species include a variety of sandpipers, curlews, stints, and terns, a number of which utilise areas offshore from the study area coastline.

4.0 OPPORTUNITIES AND CONSTRAINTS

4.1 PORT FACILITIES

4.1.1 Capacity of existing facilities

Existing facilities at the Port of Hastings have the potential to handle increased volume of trade. Present utilisation of the facilities, for the 1993-94 period, is set out below. The facility’s theoretical maximum capacity, assuming 70 per cent utilisation, is provided in parenthesis:

- BHP Steel Industries Berth No. 1 (Ro/Ro) - 63 vessels representing 20 per cent berth occupancy utilisation (204 vessels)
- BHP Steel Industries Berth No. 2 (General Cargo) - 37 vessels representing 51 per cent berth occupancy utilisation
- Long Island Point Pier (bulk liquid) - 165 vessels representing 40 per cent berth occupancy utilisation
- Crib Point No. 1 Berth (bulk liquid) - not used, that is, nil per cent utilisation
- Crib Point No. 2 Berth (bulk liquid) - not used, that is, nil present utilisation

Upon the completion of the Crib Point Terminals Pty Ltd (Shell/Mobil) and Whitemark Pty Ltd petroleum storage facilities Crib Point No. 1 Berth will be operating at 30 per cent utilisation.

The facility’s theoretical maximum capacity assumes 70 per cent utilisation, given that, as a general guide, port facilities may be regarded as being at full capacity for practical purposes, given operation requirements such as allowing for safe turn around, when operating at 70 per cent utilisation.

Existing opportunities for new port users, however, are effectively limited to the Crib Point Jetty. The BHP Steel Industries wharf complex is privately owned by that company, and given that Company's operational requirements, it is difficult to provide for other users. ESSO enjoys primary use rights over the Long Island Point Pier which
would likewise make it difficult for another commercial operator to efficiently utilise the facility.

Existing opportunities for new trade are effectively limited to bulk liquid or dry bulk cargoes. The Crib Point Jetty has spare capacity to handle increased bulk liquid trade. The jetty could also be upgraded to include a conveyor-belt to handle dry bulk cargo at No. 2 Berth.

The existing ship channel of the Port of Hastings also has the potential to handle increased volume of trade. Some 265 ships used the port during 1993-94. The channel, which was formed in 1966, is 200 metres wide and has a theoretical capacity for more than 4000 ships a year before widening would be required. The two existing tugs which service the port have a theoretical capacity, assuming a 24 hour operation, of 2000 ships a year.

4.1.2 Opportunities for new facilities

Planning policies for Western Port were prepared at a time when prevailing images were of the old port of London with its long line of wharfs adjoining rows of warehouses supporting heavy industrial complexes of the type found in the post-war Ruhr Valley of Germany.

Modern container terminals can vary in size, but large throughput can be handled in 10 hectares. In any case, general cargo handling no longer requires large areas. A land stack is required on the dock. It may also be useful to have some break of bulk capacity on the dock to serve coastal trade. A great percentage of trade, however, is transported direct door-to-door or to freight stations located within metropolitan areas. The Old Tyabb site is comparable in area to Swanson Dock East.

Modern bulk operations can throughput large volumes from relatively small areas for stockpiles but sites of 20 hectares may be appropriate. Port Kembla handles 20 million tonnes of coal a year through a single coal loader, supported by 50 hectares of land for stock piles. Bulk cargo stock piles can be located some distance from the berth face.

While recognising that port facilities vary, depending upon the nature of the trade, as a very general guide, the existing designated port areas of the Port of Hastings could potentially be expanded from five existing berths to more than twenty berths. It is not envisaged that the Port of Hastings would be expanded to accommodate twenty or more berths but rather the intent is to demonstrate that a range of options for port development is available - based on a generalised standard of 300 metre-long berths supported by ten hectares of land:

- Old Tyabb Reclamation Area has the potential for three new berths.
- The coastline between Crib Point and Stony Point has the potential for six new berths.
- The Tyabb reclamation area has the potential for six new berths.
- The Bluff has the potential for three new berths.

Major works are unlikely to be necessary to take advantage of much of this potential, but are not altogether precluded.

While the Tyabb Reclamation Area has the potential for six new berths, this opportunity is currently only available to BHP, which enjoys sole rights to this area. Such restriction on an area which encompasses relatively good access to the deep-water channel and land transport, is still distant from the areas of highest environmental quality, as well as being distant from residential areas, forms a constraint on future port development and is of potential adverse impact. In addition, the current legislation establishing the reclamation area, does not recognise knowledge of environmental values and alternative engineering approaches available since the 1960s. Certainly, reclamation is no longer required to provide land for port-related uses, given the extensive areas now set aside for such use. The provision of private rights over such an extensive area of sea bed also has a range of implications.

Under the legislation which established the Tyabb Reclamation Area, the Government has the option to acquire half of this area. BHP has indicated, in its submission to the draft Structure Plan, that it believes that this option, should remain unchanged, with further acquisition potentially restrictive of the company's cargo handling needs in the future.

4.1.3 Trade volumes

The Port of Hastings is Victoria's largest bulk liquid cargo port and accounts for 57 per cent of bulk liquid trade in Victoria. The primary role of the Port of Hastings as a bulk
liquid port is revealed by the fact that bulk liquid cargo accounts for 90 per cent of the Port’s throughput. The remaining trade is generated by BHP Steelworks’ operations. Existing volumes of international and coastal general cargo trade through the Port of Hastings relate solely to the BHP steelworks. The Port of Hastings does not handle any dry bulk cargo trade.

With the declining production and, hence, export of crude oil and natural gas from the Bass Strait reserves, the number of ships using the Port of Hastings and the volume of cargo handled by the port has fallen since the peak level achieved in 1984-86. In 1992-93 some 281 ships visited Hastings involving some 6.6 million tonnes of cargo. In 1984-85 430 ships visited Hastings, involving some 15.6 million tonnes of cargo.

The completion of the Crib Point Terminals Pty Ltd (Shell/Mobil) and Whitemark Pty Ltd petroleum storage facilities is expected to reverse past trends and increase the volume of trade handled by the Port of Hastings.

The Victorian Ports Land Use Plan Draft Final Report December 1991 concluded that existing facilities at Victorian ports are adequate to satisfy demand for the next 20 years, given forecast growth in trade will be offset by:

* an existing over investment in facilities in the Port of Melbourne; and

* increases in the productive use of existing facilities.

Table 3  Trade statistics 1980-93

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</tr>
<tr>
<td>1991-92</td>
<td>264</td>
<td>5 273 174</td>
<td>728 347</td>
<td>5 813 830</td>
<td>6 542 177</td>
</tr>
<tr>
<td>1992-93</td>
<td>281</td>
<td>6 621 662</td>
<td>812 529</td>
<td>6 925 693</td>
<td>7 738 222</td>
</tr>
</tbody>
</table>

Source: Port of Melbourne Authority

Within this context the need for the development of new facilities at the Port of Hastings would only arise from:

* The emergence of major new industries or trades which cannot physically be accommodated at other ports.
Long-term growth beyond the 20-year time frame adopted for the Victorian Ports Land Use Plan.

The ability of the Port of Hastings to successfully compete for existing trades currently served by other ports.

The ability of the Port of Hastings to successfully compete for new port users that in the past have been directed to other ports.

In the longer term, future port requirements are difficult to predict given the continuing changes in transport technology and trade requirements. Planning policy requirements are required to take a long-term view and preserve the strategic value of Western Port for future generations. The Victorian Ports Land Use Plan adopted a much shorter 20-year planning horizon but, nevertheless, also recognised the need to preserve practical options in order to accommodate possible longer term requirements.

4.1.4 The competitive advantages of the Port of Hastings

The Port of Hastings enjoys a range of competitive advantages over other Victorian Ports. These include:

- The capacity to handle larger, deeper ships;
- The availability of large areas of land suitable for industrial development;
- Proximity to international and coastal shipping routes and, therefore, shorter steaming times;
- Proximity to major industrial areas to the south and east of Melbourne; and
- Proximity to potential resources development at Gippsland.

The current channel depth, given current world trends, will remain a competitive strength in the longer term. In respect of Port Phillip Bay it has a 4.5 metre advantage.

Present trade handled by other ports which may be more efficiently located at the Port of Hastings includes:

- Coastal shipping and in particular Tasmanian and Bass Strait Island trade, and
- General cargo bound for the south eastern suburbs of Melbourne.

Foreseeable trade opportunities, based on previous studies and forecasts, which may be directed to the Port of Hastings includes:

- Gippsland brown coal products; and
- Wood and paper products also from possible developments in Gippsland.

The Government has a policy of port reform, which includes the separation of the Port of Hastings operation from that of the Port of Melbourne, and could include the privatisation of the shore-based assets of the port and sale of usage rights to the channel. Such separation could assist in the marketing and attractiveness of the Port of Hastings and, in turn, an increase in the demand for bulk commodity access may arise in the medium, rather than longer term.

4.1.5 Conclusion

Existing facilities at the Port of Hastings have the potential to handle increased volumes of trade. Existing opportunities for new port users are, however, limited to the Crib Point Jetty. The Crib Point Jetty has the potential to handle increased bulk liquid trade. The jetty could also be upgraded to include a conveyor belt to handle dry bulk cargo at No. 2 Berth.

The Hastings Port Industrial Area includes large areas of coastline and back up land which provide a range of opportunities and options for accommodating and servicing new port facilities.

The Port of Hastings possesses natural competitive advantages which could provide sufficient transport economies to justify private investment in new port facilities and transport infrastructure.

Future port requirements are difficult to foresee, particularly in the longer term, given the continuing changes in transport technology and trade requirements. Accordingly, long-term options for port development should be preserved in the absence of any other compelling use for the land.
4.2 PORT-RELATED INDUSTRIES

4.2.1 Existing and potential industries

The Hastings Port Industrial Area is one of the few industrial areas in the State capable of accommodating land-extensive port-related industries. The BHP Steelworks and ESSO Gas Fractionation Plant would not be located at Western Port if the deep water channel in Western Port did not exist.

A deep water port location continues to provide important locational advantages for some major industries notwithstanding the fact that the nature of these locational advantages may have changed over time. For instance, the BHP Steelworks initially relied entirely upon ship transport for supplies of raw steel. Today, supplies of raw steel product are provided partly by ship and partly by rail transport. While the importance of ship transport for supplies of raw materials has decreased, an increasing amount of finished steel is being shipped to international export markets rather than being sent by rail and road to domestic markets.

The Port Industrial Area is not required to be developed for local service industries given; the comparatively small population base of the Shire of Hastings, planned limits on the future growth of the townships and adequate supply of industrial land surrounding these townships.

The Port Industrial Area is not required to be developed for non-port-related general industries given:

* The distance and length of travel times to the metropolitan area, and
* The abundant supply of vacant industrial land in the Dandenong area to accommodate general industrial development associated with the future development of the south-eastern growth corridor.

The Report of the Department of Planning and Development 'Industrial Planning - The Review and Administration of Planning Schemes' July 1992, identifies Western Port as one of the significant industrial areas of the State which have major growth prospects or are the key to servicing the industrial economy. Industrial zones located within reasonable proximity to built-up (residential) areas of the Melbourne and Geelong region are limited to areas at Point Henry, Point Wilson/Avalon, Laverton, Altona, Somerton/Campbellfield, Dandenong south of Hallam and Western Port. The industrial zones at Point Wilson, Point Henry and Western Port are the only areas with the potential to accommodate a land-extensive industry requiring a port location. In particular, the Port of Melbourne does not have the capacity to accommodate such an industry.

The continued growth prospects of Western Port for port-related industries is revealed by the fact that, while major industrial development did not materialise during the 1980s, strong investment has taken place in the 1990s as is shown by the following table:

Table 4. Recent and proposed investment in port-related industries

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost (Sm)</th>
<th>Permanent employment</th>
<th>Construction employment</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHP galvanised steel production</td>
<td>138</td>
<td>10</td>
<td>150 for 2 years</td>
<td>Now complete</td>
</tr>
<tr>
<td>Whitemark petroleum storage</td>
<td>20</td>
<td>10</td>
<td>20-30 for 18 months</td>
<td>Near completion</td>
</tr>
<tr>
<td>ESSO LPG truck transport</td>
<td>2</td>
<td>Fully automated</td>
<td>10 for 6 months</td>
<td>Under construction</td>
</tr>
<tr>
<td>Crib Point Terminal petroleum storage (on hold)</td>
<td>30</td>
<td>5</td>
<td>100 for 18 months</td>
<td>On hold</td>
</tr>
<tr>
<td>Jack Thompson Industries (BHP maintenance) facility expansion</td>
<td>2</td>
<td>50</td>
<td>10 for 1 year</td>
<td>Under construction</td>
</tr>
</tbody>
</table>

The above table shows that investment has been primarily directed to capital intensive rather than labour-intensive projects.
Increased opportunities have emerged for downstream service industries. The upgrading and rationalisation of BHP's steel operations created the opportunity for Jack Thompson Industries to provide contract maintenance services.

Past studies examining the Hastings Port Industrial Area have identified various industries that could become major users of port facilities at Hastings. Why Western Port? (September 1988) identified the following new market opportunities:

- petroleum products
- crude oil
- fertiliser
- dry bulk (unspecified)
- fish products
- paper products
- ship construction
- coal products
- gas by-products
- wood-chips.

Of these opportunities, only a few have the potential to be major port users in their own right, although, once facilities are in place, the others may become potential users. For this study, the potential for additional oil storage facilities and development, based on coal products, was examined in detail.

Submissions from the public during the consideration of the Crib Point Terminals Pty Ltd (Shell/Mobil) and Whitemark Pty Ltd petroleum products storage facilities, demonstrated particular public concern about the possible further expansion of such facilities. Analysis of the plans of major oil companies reveals, however, that significant expansion of existing or approved petroleum products storage facilities at Western Port is unlikely within the foreseeable future:

* The preference of Shell and Mobil is to maintain storage facilities at both Western Port and sites near their refineries. In the future, ship deliveries of base product are expected to be made to both Western Port and Port Phillip Bay.

* Some requirements for additional storage facilities may arise from independent oil companies similar to Whitemark Pty Ltd. The volumes involved however, are not likely to be great in comparison to the throughput of Shell, Mobil and ESSO.

Given the operational constraints which apply to Long Island Pier any new operator is likely to be supplied via pipeline from Crib Point Jetty.

* Requirements for additional storage facilities for importation of liquefied natural gas remain a possibility. The Gas and Fuel Corporation has reserved a site at Crib Point for a possible long-term storage facility upon the depletion of reserves in Bass Strait. Such a facility would be of continuing value, even if, in the future, Victoria is connected into a national pipeline grid.

* Requirements for storage facilities for other bulk liquid hazardous chemicals appear remote, given the recommendations of the Final Report of the Coode Island Review Panel that a new land-based bulk liquid hazardous chemical facility be established at Point Wilson on the western side of Port Phillip Bay.

Potential exists for new development at Western Port, based on coal products. Currently, brown coal exports from the Latrobe Valley are shipped through the Port of Melbourne. Briquettes are transported by rail to Footscray where they are stored for a short period to dry out, and then shipped out via Appleton Dock.

Exports of Victorian briquettes have increased in the past four years. For 1991-92 there was an increase of 85 per cent on the previous year, from 44 000 tonnes in 1990-91 to 82 000 tonnes. This increase reflects the following improvements in the competitive advantages of Victorian briquettes:

* The clean burning characteristics with significantly lower levels of sulphur, nitrogen and ash levels is superior to some European coal products. Legislation in various European countries, including Germany, may prohibit the burning of high sulphur coals.

* The competitive advantages of brown coal may be further enhanced by new technologies to greatly reduce its moisture content, from more than 60 per cent to less than 15 per cent and, in so doing, enhance its efficient transportation. At present, the high moisture content of brown coal results in a tendency for it to spontaneously combust in confined spaces, such as the hold of a ship.
Pressures on land zoned Port Related Uses have emerged from intensive forms of primary production. The northern part of the study area contains rich black soils that may continue to attract intensive horticultural farms similar to the one being developed on Bungower Road. The availability of large allotments is a particular attraction of the area. Poultry farms which do not require high-quality soils have also been attracted to the Hastings Port Industrial Area, since the increasing residential development on the Peninsula has made sites for poultry farms harder to find.

There are extensive areas of high-quality soils to the immediate north of the Port Related Uses zone as well as in Koo Wee Rup Swamp area, albeit mainly divided into smaller sized allotments. With respect to poultry farms, in recent years most new applications in the region have been in the Pakenham area rather than the Peninsula. There are few alternatives for port-related industrial sites anywhere in the State.

Primary production is an appropriate productive use of Port Related Uses zoned land in the absence of any likely industrial use of the land within the foreseeable future. Intensive forms of primary production involve substantial investment in improvements such as irrigation works or poultry sheds. These intensive uses may constrain the availability of sites for port-related industries by increasing land values, due to the value of improvements, and by tying up sites in contractual arrangements, for example, poultry farmers may enter into an agreement to supply eggs or poultry for an extended number of years. Accordingly, intensive forms of primary production, such as poultry farms, should not be encouraged and not permitted in areas close to existing port facilities, but rather should be directed to areas north of Pikes Road, which are unlikely to be needed for port-related industrial development in the immediate future.

4.2.2 Conclusion

The primary value of the Hastings Port Industrial Area for major industrial development continues to lie in the outstanding qualities of Western Port as a natural harbour. The land use opportunities are not necessarily dependent on major dredging or reclamation works.

The Hastings Port Industrial Area is one of the few industrial areas of the State capable of accommodating land-extensive port-related industries. The area is not intended, nor required, to be developed for non-port-related local service or general industries. There is no other compelling alternative use which should be given precedence over retaining the long-term opportunity for port-related uses.

The area continues to possess real prospects for growth. While major industrial development did not materialise during the 1980s strong investment has taken place in the 1990s. By way of an example, technology changes have enhanced the prospects for development associated with the export of Gippsland brown coal products.

Submissions from the public during the consideration of the (Crib Point Terminals) and Whitemark Pty Ltd petroleum products storage facilities demonstrated public concern about the possible further expansion of storage facilities (or the prospect of a new refinery). Further major expansion of oil-storage facilities at Western Port appears unlikely, particularly given the preference of Shell and Mobil to maintain storage facilities close to the refineries at Geelong and Altona.

Primary production is generally an appropriate productive use of land in absence of any likely industrial use within the foreseeable future. Capital intensive agricultural uses, such as poultry farms, could be permitted in more remote areas but may prejudice the proper industrial use of sites in close proximity to existing or potential port facilities.

4.3 ENVIRONMENTAL SENSITIVITY

4.3.1 Specific sites of environmental sensitivity or significance

Specific sites with environmental sensitivity or significance are identified in this Section. Table 5 lists the sites occurring within the Port Related Uses zone. These sites are likely to experience direct effects from coastal developments associated with the Port Related Uses zone.

Table 6 lists sites of environmental sensitivity and significance adjacent to or near the Port Related Uses zone. While these sites are unlikely to suffer direct impacts from developments within the Port Related Uses zone, indirect impacts may occur. Broader impacts that may not be site-specific or restricted to the area immediately surrounding the port are not assessed as part of this report.

Tables 5 and 6 also include a brief assessment of potential disturbances to sites as a result of port-related development activities within the Port Related Uses zone. These potential impacts are not specific to particular types of development and further assessment of proposed developments would be required before any conclusions regarding the possible impacts of a particular development could be made.
Yaringa
Long Island
Point
Island
Sandstone
Island
North of Long Island Point, extending to Tyabb and Yaringa, secondary foraging area for birds.

Yaringa
Yaringa

Significant fauna (especially birds) extending from Long Island Point to Watson Inlet. Remnant terrestrial vegetation Tyabb to Yaringa. Mangrove sedimentation landscape sensitivity coastal and inland areas. Band of vegetation between Watsons Inlet and Long Island Point

Significant fauna (especially birds) extending from Long Island Point to Watson Inlet. Remnant terrestrial vegetation Tyabb to Yaringa. Mangrove sedimentation landscape sensitivity coastal and inland areas. Band of vegetation between Watsons Inlet and Long Island Point

State significance (Andrew et al, 1984)
State significance (Andrew et al, 1984)
Remnant vegetation Tyabb to Yaringa. Mangrove sedimentation landscape sensitivity coastal and inland areas. Band of vegetation between Watsons Inlet and Long Island Point

State significance (Andrew et al, 1984)
State significance (Andrew et al, 1984)
Remnant vegetation Tyabb to Yaringa. Mangrove sedimentation landscape sensitivity coastal and inland areas. Band of vegetation between Watsons Inlet and Long Island Point

Potential for disturbance
Noise, human activity may scare wading birds; vegetation clearance or disturbance likely to result in loss of fauna habitat, increased erosion; vehicle access likely to degrade saltmarsh.
Structure may affect geological/geomorphological features; vegetation clearance or disturbance likely to cause loss of animal habitat and degrade landscape.
Sandstone Island unlikely to be suitable for port related development; activities on island may scare foraging birds. Noise, activity likely to disturb birds feeding and roosting, developments in vicinity may permanently scare wading bird population.
Vegetation clearance or disturbance likely to affect animal habitat, degrade landscape and may increase erosion; vehicle access likely to degrade saltmarsh; structures may affect geological/geomorphological value.
Vegetation clearance or disturbance likely to affect animal habitat, degrade landscape and may increase erosion; vehicle access likely to degrade saltmarsh; structures may affect geological/geomorphological value.

Potential for disturbance
National significance (Andrew et al, 1984)
National Trust classified Register of National Estate
Register of National Estate
Site of regional botanical significance (Andrew et al, 1984)

<table>
<thead>
<tr>
<th>Site</th>
<th>Features</th>
<th>Classification or ranking</th>
<th>Potential for disturbance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hastings Bight</td>
<td>Secondary foraging area/habitat</td>
<td>State significance (Andrew et al, 1984)</td>
<td>Noise, human activity may scare wading birds; vegetation clearance or disturbance likely to result in loss of fauna habitat, increased erosion; vehicle access likely to degrade saltmarsh.</td>
</tr>
<tr>
<td>Remnant vegetation</td>
<td>supporting significant fauna between Hastings township and Stony Point (includes Jacks Beach proposed wildlife reserve)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacks Beach</td>
<td>Silurian and Tertiary sediments.</td>
<td>Geological/geomorphological site of State significance (Rosengren, 1984). National Trust classified landscape. Register of National and proposed wildlife reserve.</td>
<td>Structure may affect geological/geomorphological features; vegetation clearance or disturbance likely to cause loss of animal habitat and degrade landscape.</td>
</tr>
<tr>
<td>Sandstone Island</td>
<td>Silurian outcrop</td>
<td>Register of National Estate Geological/geomorphological site of State significance (Rosengren, 1984)</td>
<td>Sandstone Island unlikely to be suitable for port related development; activities on island may scare foraging birds. Noise, activity likely to disturb birds feeding and roosting, developments in vicinity may permanently scare wading bird population.</td>
</tr>
<tr>
<td>Long Island Point</td>
<td>High tide roosting site of wading birds. South of Long Island Point, primary foraging area for wading birds. North of Long Island Point, extending to Tyabb and Yaringa, secondary foraging area for birds.</td>
<td>National significance (Andrew et al, 1984). Note that the area south of Long Island Point is comprised partly of dredged material. State significance (Andrew et al, 1984).</td>
<td>Vegetation clearance or disturbance likely to affect animal habitat, degrade landscape and may increase erosion; vehicle access likely to degrade saltmarsh; structures may affect geological/geomorphological value.</td>
</tr>
<tr>
<td>Yaringa</td>
<td>Significant fauna (especially birds) extending from Long Island Point to Watson Inlet. Remnant terrestrial vegetation Tyabb to Yaringa. Mangrove sedimentation landscape sensitivity coastal and inland areas. Band of vegetation between Watsons Inlet and Long Island Point</td>
<td>State significance (Andrew et al, 1984). Regional significance (Andrew et al, 1984). Geological/geomorphological site of State significance (Rosengren, 1984). Recorded by National Trust. Site of Regional botanical significance (Opie et al, 1984).</td>
<td>Vegetation clearance or disturbance likely to affect animal habitat, degrade landscape and may increase erosion; vehicle access likely to degrade saltmarsh; structures may affect geological/geomorphological value.</td>
</tr>
</tbody>
</table>
4.3.2 Remnant terrestrial vegetation and faunal habitat

Terrestrial vegetation is probably the most widely affected vegetation type within the Hastings Port Industrial Area, and much of the vegetation has been cleared or degraded by activities including rural, residential and industrial land uses. Regionally significant stands of remnant vegetation have been identified at Yaringa, extending along the coast from Bungower Road to Denham Road, with locally significant vegetation identified at Bittern, on the northern edge of HMAS Cerberus extending towards Bittern, as well as a stand of vegetation on O'Neills Road (Opie et al 1984).

The Yaringa site encompasses representatives of five vegetation communities and these are the largest contiguous blocks of vegetation remaining. Its significance rating is derived from the site’s representativeness of the now drastically cleared or altered vegetation native to the near coastal areas of Western Port. The Bittern sites support good examples of grassy woodland - they lie outside the Port Related Uses zoned area. The O'Neills Road site is one of the few locations where Eucalyptus pauciflora is found in the Western Port catchment (Opie et al 1984). More recent information has indicated that remnant heathland vegetation both to the north and south of Governors Road at Crib Point is also of botanical interest.

All remnant vegetation provides significant habitat for populations of native fauna, dependent on the vegetation. The remnant vegetation at Yaringa, extending from Bungower Road south to Graydens Road, has been classified as being of State zoological significance (Andrew et al 1984). While this rating is primarily based on the presence of the now locally extinct New Holland Mouse, some 10 other mammals have been recorded, as have more than 127 species of birds and a variety of reptiles and amphibians. The management and maintenance of the heaths and heathy understorey's of woodland areas are of critical importance to a number of the faunal species which occur. The remnant coastal vegetation between Crib and Stony Points is also part of an area of designated zoological significance (Regional - Andrew et al 1984). The recorded fauna of this area includes a number of small mammals, which are particularly sensitive to disturbance.

Disturbance to terrestrial vegetation may range from clearing of access roads to widespread clearing for buildings or other facilities. Clearing of even small areas of native vegetation can allow weeds to take hold which quickly spread into other uncleared areas. While weed-infested areas may continue to support fauna in the short term, in the longer term the ability of the vegetation to provide adequate food and shelter is affected.

Clearing of native vegetation can also lead to erosion, increasing sediment loads in surface water runoff which, in turn, may cause localised sediment build-up or, on a broader scale, affect water quality in the bay.

The major threat to land animals fauna is habitat destruction, that is the clearance or disturbance of vegetation. Many native animals may also be threatened by introduced animals such as dogs, cats and foxes. Excessive noise, light or other disturbing factors may also affect animals.

Areas of environmental sensitivity are shown in Plans 5, 6 and 7.

4.3.3 Coastal vegetation

Coastal vegetation is important for a number of reasons, including:

* botanical value, particularly through representation of species or species association that may be rare or threatened;
* maintenance of coastal stability, especially reduction of erosion;
* role in ecosystem, especially as habitat for birds and other animals, providing food and shelter;
* aesthetic value, particularly in areas of recognised landscape value.

Coastal vegetation adjoining the Hastings Port Industrial Area is typical of that along low-energy coastlines in Western Port. It consists largely of mangrove (Avicennia marina), backed by saltmarsh and woodland. While any remnants of native vegetation may be considered significant, coastal areas where the mangrove-saltmarsh-woodland transition has been relatively undisturbed are of particular value, as this association has a higher level of species diversity and is representative of original species associations that existed in the area prior to European settlement. This occurs along the coast between Hastings township and Jacks Beach and Yaringa-Tyabb beach (refer to Plan 5). The association between mangrove and saltmarsh is of particular botanical interest as it marks the overlap between the southern extent of mangrove vegetation and the northern extent of saltmarsh vegetation in the Southern Hemisphere. The association occurs only in south-east Australia and much has already been lost as a result of coastal development around the Victorian and South Australian coastline.
Mangroves

Mangroves provide important habitat for birds, fish (especially larvae and juveniles) and other inshore marine species. Mangroves also influence sediment flow patterns on low energy coastlines. Mangrove coverage is still found adjoining the Hastings Port Industrial Area around Crib Point, parts of Hastings Bight, Long Island Point, and northwards from the BHP Steelworks wharf to and beyond Yaringa. (refer to Plan 5).

Mangroves have already been lost through clearing and reclamation prior to coastal development. They are also susceptible to dieback caused by smothering or, damage to pneumatophores (exposed roots). This may occur due to increased sediment load from surface runoff or changes in sediment flow patterns, dumping of dredge spoil and water pollution. Mangroves have been observed to regenerate well in Western Port if left undisturbed, however, where the continuous coastal fringe has been breached, for example, where cleared for channels or jetties, regeneration is reduced. This is thought to be a result of changes in water movement and introduction of sand and silt around the root systems which occurs when a gap in the mangrove fringe is created.

Saltmarsh

Saltmarsh vegetation consists of a variety of salt-tolerant shrubs, herbs and grasses. Saltmarsh vegetation is found around Hastings Bight, particularly from south of Hastings township through to Stony Point, and from north of Long Island Point past Yaringa. Saltmarsh communities act as a buffer in the transition from intertidal to terrestrial processes as well as providing important habitat for birds and other animals.

In contrast to other coastal areas of Victoria, saltmarsh areas around Western Port are generally in good condition. However, disturbance from vehicle access and stock grazing is threatening many areas of saltmarsh, and weed invasion in disturbed areas is a problem. (Areas of saltmarsh are shown in Plan 5).

4.3.4 Offshore environments

A number of seagrass species (Zostera muelleri, Heterozostera tasmanica and Ammophila antarctica), occur on the subtidal and intertidal mudflats offshore from the Hastings Port Industrial Area. Marine Science and Ecology, in their submission to the draft Structure Plan, stated that their monitoring indicates that seagrass is abundant north of the BHP Steel Wharf to Yaringa, but that there is very little seagrass between the BHP Steel wharf and Long Island Point Pier. Since the 1970s seagrass has been observed to suffer extensive dieback, such as in Hastings Bight, where it appears to be
recovery. The exact cause of seagrass dieback has not been established, but may be a result of chemical pollutants in the water or high sediment loads in surface water. An indication of seagrass coverage, based on what is now dated information, adjoining the Port Related Uses zoned area is shown in Plan 5.

The intertidal area south of Long Island Point is one of a number of primary foraging areas for wading birds within Western Port considered to have national significance. In comparison with other areas, it represents only a small proportion of the total area available within the bay for primary foraging and is the only primary foraging site on the west coast of Western Port. Secondary foraging areas are more common on the west coast of the bay. Hastings Bight area is the closest such area to the primary foraging area and roosting site at Long Island Point.

High tide roosting sites are important for wading birds as they do not have the ability to store large reserves of fat and must conserve energy when not feeding. High-tide roosting sites are considered to be scarce in the bay, with only 13 identified by the Bird Observers Club (WRPCC, June 1992). Six of these are considered to be in need of protection from disturbance by humans and domestic animals, however, given the present restrictions on access, Long Island Point was not one of these.

Wading birds are not only vulnerable to habitat destruction, but are also vulnerable to disturbance from noise or other human activities when feeding or roosting. They may also be affected by predators, particularly domestic animals such as cats and dogs. As discussed in Section 3.3.13, a number of wading birds occurring in Western Port are protected by international treaties.

While beyond the scope of this Structure Plan, the low-energy coastlines occurring offshore from the Hastings Port Industrial Area provide food and shelter for a wide variety of other aquatic fauna, and, in particular, may be important breeding and nursery areas. Disturbances to coastal vegetation, particularly mangroves, are likely to affect aquatic animals dependent on these areas. More particularly, the intertidal areas are an integral part of the bay’s ecosystem with waders, seagrass meadows, and fish all interconnected.
4.3.5 Coastal Landforms and Landscape

Sites of geological and geomorphological significance

Sites of geological and geomorphological significance provide information on the composition, origin and dynamics of a region, and are a valuable resource to those studying earth sciences or wishing to better understand the factors affecting landforms in a region.

There are a number of geological and geomorphological sites in the Port Related Uses zone and adjacent areas which are considered to be of State significance (Rosengren 1984). These are shown in Plan 6 and include Jacks Beach, Sandstone Island and Yaringa beach.

These landforms may be susceptible to damage directly from construction, excavation and the like, or indirectly, due to changes in coastal formation processes such as sedimentation, or erosion.

Landscape

High-quality landscapes are generally linked with areas of remnant vegetation, interesting landforms and low levels of infrastructure. Western Port has a number of visually sensitive rural and coastal landscapes which are recognised or recorded by the National Trust (WRPCC, June 1992). Much of the rural and coastal landscape within the Port Related Uses zone has already been modified by urban and port-related developments. However, Jacks Beach (Hastings to Crib Point) has been classified by the National Trust and Yaringa has been recorded by the National Trust, as well as being on the Register of the National Estate. Refer to Plan 7.

Pleasant landscapes add to the amenity of an area. This is important for residents and also as a drawcard for tourism. Landscapes in the Port Related Uses zone are characterised by low relief and may be affected by the clearing of vegetation, the erection of structures and pollution of litter.

4.3.6 Conclusion

Planning and conservation policies for the Hastings Port Industrial Area seek to ensure that demand for port and industrial development are accommodated in a way that does not compromise its outstanding natural values. Consistent with these policies, the Structure Plan should seek the protection of the natural and ecological systems of
Western Port, and its catchment area from damage by port-related or other development.

Future port and industrial development should seek to avoid a number of environmentally sensitive areas. In particular:

* The coast to the north of The Bluff from a point opposite Iluka Road, including the SEC south of Bungower Road, is generally unsuitable for port and industrial development given:
  - the broad width of the intertidal zone and distance to the deep water channel;
  - the State and regional zoological, botanical and geomorphological significance of the coast and offshore areas;
  - the relatively slow tidal interchange in this area; and
  - the proximity to the significant environment of Watsons Inlet and Quail Island.
* Hastings Bight and, in particular, the coastline between the Crib Point Jetty and Warringine Creek, including Jacks Beach and Sandstone Island, is unsuitable for port development given its listing on the Register of the National Estate, intertidal habitat areas and proximity to residential areas.

While recognising the important environmental values and sensitivity of the area, it is possible to define areas where development may be acceptable under certain conditions. Consistent with the recommendations of the LCC. The following areas should be available for port development:

* the harbour depot area at Stony Point
* the jetty easement at Crib Point
* the Long Island Point Pier
* the Old Tyabb reclamation area.

To ensure flexibility, if there is a need for additional port facilities, the following areas should be considered as possible sites:

* the Tyabb foreshore south of the Bluff
* the area between Stony Point and Crib Point.

Of the potential sites for additional port facilities, much of the Old Tyabb site has already been reclaimed; it is in proximity to the deep water channel, and appears to have less offshore seagrass than other sites.

Future development of coastal areas with possible port development potential should be subject to controls to ensure that the sensitive environmental values are protected.

4.4 HAZARD RISK AND AMENITY BUFFERS

4.4.1 Existing and potential risks and buffers

Since 1971, planning policy for Western Port has maintained buffers around townships and has protected populations from establishing too close to pipelines and the ESSO Gas Fractionation Plant.

The Risk Assessment of the ESSO BHP Fractionation Plant and Tank Farm and Proposed Whitemark Site Final Report was released to the public on 22 June 1993. The Risk Assessment was placed on public exhibition by the Shire of Hastings.

The Risk Assessment contains a number of important findings which are relevant to this study. In particular:

* The Old Tyabb Reclamation Area is suitable for port development given reasonable development controls. The additional number of workers within this area should not exceed 16.3 persons per hectare. The additional population should be placed towards the north end of the area to retain maximum separation from the source of risk. Consistent with the standards adopted by the Risk Assessment some 391 people could potentially be employed in this area.
The Cemetery and Anglers Estate is exposed to risk levels which prohibit new residential development. Some new industrial development may be appropriate towards the western end of the estate. The additional number of persons employed within this area should not exceed 11.9 persons per hectare. Consistent with the Risk Assessment, some 416 people could potentially be employed within this area.

The Jeremias Road Area is suitable for industrial use provided that the total number of persons employed does not exceed 18.5 persons per hectare, and no persons are located within 200 metres of Bayview Road. Consistent with the standards adopted by the Risk Assessment some 721 persons could be employed in this area.

The area to the north of BHP Steelworks is not affected by risks which would limit its potential for industrial or port uses.

The Risk Assessment was unable to define proper criteria to assess road transport risk. Notwithstanding this the Risk Assessment concludes that:

- There is a concentration of risks at the intersection of Barclay Crescent and Marine Parade.
- Total risk of fatalities may be reduced by around 75 per cent by construction of a new alignment of Bayview Road to avoid the Old Tyabb residential area.

The response to the exhibition of the Risk Assessment confirms:

- the ongoing community concerns about risks and, in particular, risks associated with road tankers.
- the commitment of ESSO to comply with, and exceed, the standards adopted by the Risk Assessment and in particular:
  - continue the acquisition of lots to the east of Voyager Street within the Cemetery Road Estate, and
  - continue its overall risk management program involving an investment of $40 million over the time frame from 1990 to 1994.

Transport risks have been considered by Officers of the Shire of Hastings in consultation with Officers of VicRoads and industry representatives. In accordance with the findings of this group, presented to the Shire of Hastings Council on 24 August 1993, it is reasonable to manage present traffic volumes at the intersection of Marine Parade and Barclay Crescent, provided that the intersection is upgraded by the provision of traffic signals - now installed - and/or a roundabout. Relocation of the intersection, to avoid the Old Tyabb residential area, would become increasingly desirable if present traffic volumes increase significantly.

To the south of Hastings, the policy of the Gas and Fuel Corporation is to retain ownership and control of its two landholdings north and south of Woolleys Road for a possible terminal for the importation of gas. The Corporation is confident that any risks could be contained on the site.

The proposed reuse of the former Crib Point refinery by Crib Point Terminals Pty Ltd (Shell/Mobil) as a petroleum storage facility will be required to satisfy present standards for the management of hazards and risks.

Under the Planning Scheme, the Crib Point site retains rights for the development of a petroleum refinery. A refinery has not existed on the site for many years. Notwithstanding the current Planning Scheme provisions, any proposal for a new refinery should have to satisfy present safety requirements.

While the future use of the Gas and Fuel site and the balance of the Shell Mobil site is yet to be determined, adequate buffer areas should be maintained to prevent the encroachment of residential development. In this regard, the Minister for Planning, on 25 August 1993, refused to approve Hastings Planning Scheme Amendment L45 which proposed to rezone an area of Creswell Street from Special Urban Industrial zone to Residential 3 and Rural Residential Restructure zone. In his letter the Minister states:

'Whilst I appreciate the work your Council has done in trying to address this residential/industrial interface issues in this area, I consider that it is inappropriate to allow residential development to occur closer to the former BP refinery site. I
note that the report to the council stated that the “BP site is unsuitable for uses which are likely to have significant detrimental effect on nearby residential areas”. Allowing residential development to occur closer to the BP site is likely to further limit future use of this site. The infrastructure related to the Crib Point Jetty represents a significant State asset which is available to service the site. Future use of this infrastructure should not be further constrained by encroachment of residential development.

4.4.2 Conclusion

The nature of petroleum products handled and processed by the Port of Hastings and existing port-related industries requires the provision of buffer areas and development controls to ensure adequate standards of safety and amenity.

The increased understanding of health and safety impacts warrants the expansion of buffer areas and upgrading of development controls.

Encroachment of residential development into the Port Industrial Area should be resisted given that resident perceptions of risk can lead to limitations on the use of industrial land notwithstanding the compliance of the industry with adopted standards for safety and amenity.

4.5 SUBDIVISION CONTROLS, LAND TENURE AND PUBLIC RESERVES

4.5.1 Existing situation

The Hastings Planning Scheme keeps land in large sites suitable for land extensive industries. Within the Port Related Uses zone a subdivision other than for a port-related purpose is prohibited unless the proposal falls within a special exemption provision.

The availability of large areas of land suitable for industrial development is an important competitive advantage of the Hastings Port Industrial area. Should a major new port-related industry emerge, opportunities at other ports, particularly Melbourne, are constrained by a lack of available land at an affordable cost.

The present subdivision restrictions ensure that land within the Port Related Uses zone is maintained at rural land values. Typically, land values may vary from:

- $120,000 per hectare for a two hectare rural residential site,
- $70,000 per hectare for an eight hectare hobby farm site, to
- $10,000 per hectare for a 40 hectare farming site.

The majority of land within the Port Related Uses zone remains vacant. While the scale of major landholdings imposes some constraints, a range of industrial development opportunities exist. To the north, development of port facilities at The Bluff could be supported by major industrial development on the northern area of BHP’s landholding, which does not appear essential to the company’s present operations, and on the Dr Bond/Natwest Bank site which has been actively promoted for development. The development of new port facilities at Old Tyabb may be supported by industrial development on large lots created by the restructure of the Cemetery and Anglers Estates and by industrial development of land to the west of Frankston-Flinders Road, north of Graydens Road. The development of new port facilities at Crib Point could be supported by industrial development of the vacant two-thirds of the Crib Point Terminals (Shell/Mobil) site not required for the petroleum storage facility.

The Western Port (Steelworks) Act 1970 granted BHP rights to reclaim an estimated 400 hectares of Western Port extending along the coastline from the existing Steel Industries Wharf north to Whitneys Road. It is understood that, in accordance with the Act, the Government has an option to acquire 50 per cent of the reclamation area. The view of the LCC, as set out its Melbourne Area District 2 Review Final Recommendations, is that the Government should take up this option.

While a plentiful supply of land is available for major industries, smaller port-related support/downstream industrial development could be constrained by a lack of available 1-2 hectare lots at affordable prices. In this respect, an evaluation of Urban Industrial zones carried out by the Western Port Development Council for the Shire of Hastings identified that:

- Industrial development in Hastings is limited by the restricted range of lot sizes and lack of larger (1-2 hectare) lots.
- Land prices and speculative activity in the Urban Industrial zone of Hastings has increased dramatically since 1986.
The study area contains a number of residential subdivisions which occurred well before planning controls were introduced. Some subdivisions date back to the 19th century. In particular:

- The Cemetery and Anglers Estates contain 390 residential lots, of which 94 have been acquired by ESSO, and a further 47 lots east of Voyager Street are being acquired by ESSO to expand the buffer area surrounding the Gas Fractionation Plant, 45 lots are within a Proposed Port Purposes reserve, seven lots are within a WAG pipeline easement, and 194 lots remain in private ownership.

- The area between the Shell Mobil site and Stony Point Road, Crib Point was subdivided into 355 residential lots, all but a few of which have now been acquired by the Shire of Hastings.

- The Proposed Port Purposes reserve between Disney Street and Governors Road was subdivided into 137 lots.

- The Service and Access Corridor Reserve between Woolleys Road and Disney Street was subdivided into 81 lots.

- The Service and Access Corridor north of Woolleys Road forms part of the site owned by the Gas and Fuel Corporation (50 lots).

- More than 60 per cent of the Proposed Port Purposes reserve along the coastline of the Anglers Estate remains in private ownership. Only 17 of the 45 lots within this reserve have been acquired by the Department of Property Services and Public Works Department.

- The Service and Access Corridor which follows the easternmost side of Dandenong Hastings Road and the northernmost side of Pikes Road to The Bluff remain predominantly in private ownership. Only two of the 11 lots, accounting for less than 15 percent of the land, within the Reservation have been acquired by public authorities.

- The majority of the lots (18 out of 31 lots) within the Proposed Port Purposes reserve at The Bluff have been acquired by the Department of Finance and Public Works Department. The 13 lots which remain in private ownership, however, include the large strategically important Dr Bond/Natwest Bank site and account for approximately 60 per cent of the land within the reserve.

The Study Area also contains a number of existing rural residential lots. In particular:

- The Proposed Port Purposes reserve at The Bluff/Yaringa contains some 31 Rural Residential lots, typically 2 hectares in area.

- Existing rural residential lots at Yaringa extend into the Port Related Uses zone to include a further 10 lots fronting Lumeah Road.

- Within the Port Related Uses zone, a 10 to 15 lot rural residential subdivision is located east of the Tyabb township between the existing Rural Residential zone and Denham Road.

The existing privately-owned rural residential lots fronting Lumeah Road, Yaringa and the rural residential lots to the east of the Tyabb township have largely been developed for separate houses.

The small lots within the Cemetery and Anglers Estates in private ownership are not suitable for residential development because of their limited services, small size, and location. Restructure and consolidation of the lots is required to enable the area to be used for port-related industrial purposes.

Land within the Proposed Port Purposes reserves and Access and Service Corridor reserves is controlled by a number of different State and Commonwealth Departments and Authorities and an even greater number of individual owners. In broad terms:

- The Proposed Port Purposes reserve south and east of Governors Road, Crib Point is predominantly vested in the control of the Department of Conservation and Environment. Only three lots out of 81 lots, accounting for less than 5 per cent of this area, remain in private ownership.

- The Proposed Port Purposes reserve between Disney Street and Governors Road is mainly vested in the control of the Department of Property and Services and Public Works Department. Only 10 lots out of 138 lots, accounting for less than 10 per cent of the land within the reserve, remain in private ownership.
• The Service and Access Corridor between Woolleys Road and Disney Street remains largely in private ownership. Only 31 of the 81 lots within this corridor, accounting for less than 40 per cent of the land, have been acquired by public authorities.

Acquisition of lots within the Proposed Port Purposes reserve and Service and Access Corridors is continuing only in response to requests from owners to alleviate hardship. In the last financial year, some 11 lots were acquired. Uncertainty as to the future of the reserves has put other than essential maintenance of existing government-owned houses within the reserves on hold.

4.5.2 Conclusion

The availability of large sites suitable for industrial development is an important competitive advantage of the Hastings Port Industrial Area.

Future development of smaller service/downstream industries could be constrained by a lack of suitable lots. However it is also important that the provision of opportunities for support/downstream industries does not prejudice opportunities for land-intensive, port-related industries.

Only minor rationalisation of the present Port Related Uses zone boundary is warranted.

Completion of the acquisition of public reserves is progressing only in response to hardship requests. There is a need to ensure efficient use of public funds and minimise private hardship.

4.6 LAND TRANSPORT

4.6.1 Existing transport network

Ports are only one element in an overall transport system. The ability of the Port of Hastings to attract new port users is related to total cost from point of supply to point of destination.

In recent times, growth of other ports has been achieved through growth in intermodal transport operators, that is, major transport companies such as Brambles and DHL. These companies rely upon efficient road transport links to metropolitan areas.

Opportunities for new port development is constrained by the fact that the Port of Hastings is more than 20 kilometres from the nearest metropolitan freeway, State and national highways. Based on present adopted standards, the existing road links between the port and the metropolitan area are adequate to accommodate existing requirements. In accordance with the MoPARS strategy:

• Western Port Highway between Graydens Road and Dandenong Hastings Road is expected to reach capacity and require duplication by the year 2000.

• Other sections of arterial roads within the Hastings Port Industrial Area are not expected to reach capacity until after the year 2000.

Existing arterial road reservations are adequate to enable upgrading of the road network to meet increased demands. Western Port Highway is within a 40 metre-wide road reservation. Road widening reservations and tree reservations have been provided along the section of Frankston-Flinders Road (Watts Road) adjoining residential zones to protect the amenity of these areas. A Service and Access Corridor has been provided to the Port Related Uses zone within the Crib Point Area so that traffic generated by possible future development need not be directed onto Stony Point Road within the Crib Point township.

Traffic generation rates for new developments will be dependent upon the nature of the proposed industrial use or port facility. Based on very generalised assumptions about the nature of possible development, a number of potential implications for transport planning can be identified:

• A new general cargo berth may generate in the order of 600 to 800 vpd. If such a facility were developed at Old Tyabb a new road link from Bayview Road would be desirable so that traffic avoids existing residential areas in the old Tyabb township.

• The proposed application for an additional LPG tanker bay at the ESSO Fractionation Plant, which may generate 120 vehicles a day, is unlikely to require additional road works, but additional safety regulation may be required.
A new three-berth general cargo facility may generate in the order of 1000 vpd which if developed south of Hastings township may warrant duplication of Frankston-Flinders Road.

Major development of available sites at Crib Point for high traffic generating industries has the potential to generate more than 4000 vpd which would require duplication and upgrading of Frankston-Flinders Road.

Major port or industrial development of areas north of Denham Road would require construction of a new road link from the facility to Dandenong-Hastings Road.

Notwithstanding the fact that the existing road network has the existing physical capacity to accommodate expected requirements, additional investment would improve levels of safety, amenity and efficiency and thereby enhance the ability of the Port of Hastings to realise its potential. In this context:

A considerable number of residents have expressed concern relating to perceived risks from LPG and petroleum trucks using roads within residential areas.

Further development south of Hastings township would generate a greater volume of traffic on Frankston Flinders Road resulting in:

- a greater mixing of commercial and residential traffic at intersections, and
- a more apparent physical division of the township and more difficult access for some residents to facilities.

A range of options to upgrade vehicle access to Bayview Road has been considered by the Shire of Hastings:

- For the present it is reasonable to manage traffic by upgrading the existing intersection of Barclay Crescent and Marine Parade.

- Should traffic volumes significantly increase in the future, vehicle access may be upgraded by:
  - constructing a new road along the existing Bayview Road reservation.

The existing rail line has the capacity to accommodate present trade requirements, notwithstanding the fact that the length of existing passing loops and suburban train requirements places some operational constraints on the use of the rail line by BHP.

The proposed standardisation of the rail link between Melbourne and Adelaide and the upgrade of the rail link to Sydney enhances the potential for Melbourne to perform an increasingly important transport and distribution role.

At present only the port facilities at Stony Point are connected to the rail line. Possible demand by new port users for access to rail transport can be met by the construction of a spur line to Old Tyabb via an existing railway reservation. Provision of rail access to Crib Point could be provided via the existing Service and Access Corridor or by the creation of a new reserve adjoining Woolleys Road. Provision of rail access to The Bluff or Tyabb coastline north of BHP would require the creation of a new reservation. The existing Service and Access Corridor is not properly located to serve these areas.

While the existing rail line and reserves are adequate to satisfy existing trade requirements the ability of the Port of Hastings to realise its potential may be enhanced by:

- The standardisation of the rail line from Spencer Street to Western Port to avoid the need for transhipment of goods.

- The provision of a direct link from Western Port to Gippsland to avoid the need for trains to travel to Caulfield to turnaround.

A range of possible routes for a standard-gauge rail link to Gippsland exist. One such possibility would be to follow the existing SEC easement south from Cranbourne.
Since 1972, the WAG pipeline has linked Western Port with the refineries at Altona and Geelong. The pipeline has the capacity to supply the Shell and Mobil refineries with imported crude oil as reserves in Bass Strait are depleted.

The pipeline joining Long Island Point to Crib Point has the capacity to enable stabilised crude oil to be imported via either jetty.

A pipeline for refined petroleum joins Crib Point to the Whitemark Pty Ltd storage facilities so that the need for road tankers to travel through Hastings township will be avoided.

The pipeline joining the Crib Point Terminals Pty Ltd (Shell/Mobil) storage facility to Dandenong is licensed, and while not in current use, has been maintained and could be re-used. Viable use of the pipeline would, however, appear to require a high volume of throughput.

The existing pipeline easements have adequate capacity to accommodate expected needs. Different pipelines can generally be located in proximity to one another so that extensive, wide easements are not generally required: for instance, the easement for the pipeline from Crib Point to Dandenong contains some six different pipelines. Accordingly, new pipelines are more likely to be provided for by efficient engineering design and use of existing easements rather than by the creation of numerous land extensive easements.

4.6.2 Conclusion

Ports are only one element in an overall transport system. The ability of the Port of Hastings to attract new port users is related to total cost from point of supply to point of destination.

Notwithstanding the fact that the existing road network may have the physical capacity to accommodate present requirements, additional investment would improve levels of safety, amenity and efficiency and thereby enhance the ability of the Port of Hastings to realise its potential.

The existing rail line has the capacity to accommodate present trade requirements. Notwithstanding this, the ability of the Port of Hastings to realise its potential may be enhanced by the standardisation of the rail link from Spencer Street to Western Port and/or by the provision of a direct standard-gauge rail link to Gippsland.

Existing pipelines and easements have the capacity to meet present trade requirements. Future requirements are expected to be satisfied by efficient engineering design and use of existing easements rather than by the creation of numerous land extensive easements.
5.0 THE STRUCTURE PLAN

5.1 DEVELOPMENT OF THE STRUCTURE PLAN

While an infinite number of possibilities may exist, the range of rational options is limited by State Planning Policy, practical development considerations and environmental constraints. In this context it must be recognised that:

* A ‘No Further Development’ Strategy is not an option, given the long-established State Planning Policy to preserve the area for port and port-related industrial uses.

* An ‘Unlimited Development Strategy’ is not an option, given the long-established State Planning Policy to preserve the important natural and ecological systems of Western Port and its catchment area.

Three options were considered by the Steering Committee for the purpose of facilitating rational evaluation and debate of the implications and relative merits of adopting alternative strategic directions. Each of the three options included measures to realise the potential of Western Port for port and industrial development, while at the same time preserve the natural environment.

The first option considered was one of minimum development (with reduced areas of Port Related Uses zone and Port Purposes reserves), the second focused on the preservation of long-term options (without reduction of opportunities other than north of The Bluff), and a third advocated ‘maximum development’ (giving equal priority to development both south and north of Hastings). A summary of the key elements of the three Options are is included in Appendix 4.

The Steering Committee considered that the Structure Plan should combine different elements from each of the three options.

Following a consideration of the submissions received on the options outlined in the draft Structure Plan as well as on the preferred option, the following adopted approach maintains the basic thrust of the draft Structure Plan but incorporates a range of amendments.

5.2 STATEMENT OF OBJECTIVES

The definition of objectives provides the criteria against which alternative courses of action and individual development proposals can be assessed. The set of objectives adopted for the Structure Plan are of equal priority and are as follows:

* To provide for the needs, safety and amenity of the residential community and work-force.

* To preserve options for port and industrial development for possible long-term future requirements.

* To preserve the area for industries which depend on or gain significant economic advantage from the natural deep water channels of Western Port.

* To preserve and protect the natural and ecological systems of Western Port and its catchment area from damage or degradation by port-related or other development, particularly recognised sites of significance.

* To maintain land in large holdings suitable for land-extensive industries.

* To provide opportunities for support and or downstream industries which do not prejudice opportunities for land-extensive, port-related industries.

* To maintain and upgrade existing buffer areas between port and industrial development and township areas.

* To control the use of industrial land and surrounding areas consistent with proper standards of risk management and amenity, while taking adequate account of the present established port-related uses.
To ensure funding resources are used to acquire public reserves that will serve a worthwhile purpose and thereby avoid the potential for creating unnecessary hardship to private landowners.

To manage and upgrade the road network, fixed rail links and pipelines to improve levels of transport efficiency, safety and amenity.

5.3 ISSUE-BASED STRATEGIES

5.3.1 Port Facilities

Relevant Objective
The strategy outlined below responds to the following objective:

- To preserve options for port development for possible long-term future requirements.

Summary of present policy
Sufficient coastline and back-up land is provided within the Hastings Port Industrial area to accommodate major expansion of the Port of Hastings.

Preferred strategy
Future port requirements are difficult to foresee, particularly in the long term, given the continuing changes in transport technology and trade requirements. However, the deep water attributes of Western Port allied to the ready availability of land-extensive industrial sites, are features of long term value. Accordingly, long-term options for port development will be preserved, other than in the less well-located, most northern areas.

More particularly:

- Priority should be given to the development of multi-purpose port facilities at the Old Tyabb Reclamation Area.
- Options should be retained to develop port facilities:
  - on the coastline between the BHP Steel Industries wharf complex and The Bluff south of Iluka Road ('East Tyabb') and
  - on the coastline between the Crib Point Jetty easement and Stony Point Port Services Complex.

Development of port facilities, on the coastline between the BHP Steel Industries Wharf complex and The Bluff south of Iluka Road, or on the coastline between the Crib Point Jetty easement and Stony Point Port Services Complex, should be subject to a clear demonstration of why development cannot be accommodated at the Old Tyabb Reclamation Area, and a detailed investigation of:

- the type of berth and commodity proposed,
- proposed dredging and disposal of spoil,
- other environmental issues including an assessment in accordance with the Environmental Effects Act 1978,
- back up land requirements,
- land transport connections (road, rail, pipe), and
- risks and hazards associated with trades, storage and movement.

In order to facilitate efficient port operations and trade development the following areas should be vested in the control of the Port Authority and continue to be maintained and made available for port development:

- The Stony Point Port Services Complex
- The Jetty easement at Crib Point
- The Long Island Point Pier and access land
- The Old Tyabb Reclamation Area (not including the BHP Steel Industries Wharf complex).

It is further considered highly desirable that such assets of the port should not be fragmented but retained as a single entity. In addition, it is considered essential that the ownership, and preferably management, of the port channel be retained in the public domain.
Priority is given to the development of possible new port facilities at Old Tyabb for the reasons that:

- Old Tyabb is served by an existing shipping channel and, hence, new facilities may be developed without major environmental effects and minimal dredging.

- The foreshore has already been substantially reclaimed and, hence, new facilities may be developed without the environmental effects and costs of major reclamation and dredging.

- The area is served by existing road and rail transport and, hence, new facilities may be developed without requiring major investment in infrastructure, although upgrading and realignment works may be required, depending on the scale and nature of development.

- The area is remote from residential areas and, hence, new facilities may be developed without creating detrimental amenity impacts.

- It is a suitable location, in terms of size and safety restrictions, for wharfage to provide for multi-purpose port facilities such as general cargo or a bulk commodity-uses which may arise in the medium term, especially if port management were separated from the PMA.

The option for possible port development on the coast between the Crib Point Jetty easement and Stony Point Port Services Complex should be preserved, notwithstanding the recommendations of the Victorian Ports Land Use Plan Draft Final Report December 1991, given:

- The outstanding physical attributes of this site for port development including its proximity to the deep water channel. The outstanding natural attributes of this area have been recognised since 1961 when Crib Point was the first site in Western Port to be chosen for major port development.

- The recommendations of the Land Conservation Council Melbourne District 2 Review which state that should a need for major port facilities arise consideration be given to development of these facilities on the coast between Crib Point and Stony Point, as well as those of the Tyabb foreshore south of The Bluff, in view of the greater environmental sensitivity of coastal areas to the north.

- Much of the coast and strategic back-up land at Tyabb is owned by BHP and, hence, may not be available for any other potential port users. If the Tyabb area is not available for development, due to environmental or land ownership reasons, the area between Crib Point and Stony Point may be the only practical option for a major new port use in Western Port.

- The need for the Structure Plan to adopt a long-term view and preserve the area for future generations. This long term planning horizon contrasts with the shorter 20-year time frame adopted by the Victorian Ports Land Use Strategy.

The option for possible port development on the coast to the north of Iluka Road has been deleted, given:

- the areas particular environmental sensitivity and value

- the recommendations of the LCC Melbourne District 2 Review, that, if there is a need for additional port land the Tyabb foreshore be considered only south of Iluka Road

- its close proximity to the environmental significant areas of Watsons Inlet

- its increasing distance from the natural deep water channels of the North Arm and, consequently, its significantly higher cost for development of access.

The foreshore between the Crib Point Jetty easement and Stony Point Port Services complex and The Bluff foreshore south of Iluka Road identified as having long-term development potential for possible port-related development should in the interim be used in accordance with the LCC District 2 Review Recommendations to:

- Provide opportunities for informal recreation, and also for recreation related to enjoying and understanding nature;

- Protect and conserve natural coastal landscapes, ecosystems, and significant geomorphological, archaeological and historical features for public enjoyment and inspiration and for education and scientific study;

- Ensure the protection and conservation of important aquatic and terrestrial fauna and flora.
The reservation of this area as a coastal reserve, as recommended by the LCC, should only be as a temporary reserve, to ensure that the opportunity for future port development is retained. As a coastal reserve it is appropriate that a natural resource manager such as the Department of Conservation and Natural Resources be responsible for the area.

Similarly, the coastal foreshore area of the BHP reclamation area should be managed in accordance with the above principles, prior to being required for port purposes.

5.3.2 Port-related industrial development

Relevant objectives
The strategy outlined below responds to the following objectives:

- To preserve the area for industries which depend on or gain significant advantage from the deep water channels.
- To provide opportunities for support /downstream industries which do not prejudice opportunities for future land extensive industries.
- To maintain and upgrade existing buffer areas between port and industrial development and township areas.
- To control the use of industrial land and surrounding areas consistent with proper standards of risk management and amenity.
- To manage and upgrade the road network, fixed rail links and pipelines to improve efficiency, amenity and safety.

Summary of present policy
Sufficient land has been set aside to accommodate new land extensive port-related industrial development.

A Buffer Policy Area control has been provided in the Planning Scheme around townships, to protect the amenity of residential areas.

Within the areas to the south of Hastings township, preference is given to industrial uses which use rail transport or pipelines.

Preferred Strategy
The Hastings Port Industrial Area is an important industrial resource which should continue to be preserved for port-related industrial use, in the absence of any other compelling use for the land. The area is one of the very few industrial areas of the State capable of accommodating a land-extensive port-related industry. The area is not intended nor required to be developed for non-port-related local service or general industrial uses. No other compelling alternative land use has been identified.

Consistent with the retention of the Port Related Uses zone for port-related industries:

- Residential development should be contained within existing township boundaries.
- Primary production is generally an appropriate productive use of the land in the absence of any likely industrial use within the foreseeable future.

- The majority of the area currently zoned should remain as a Port Related Uses zone, other than areas to the north and east of Bittern. The conclusions of the 1987 Review of the Statement of Planning Policy No 1 relating to this land are confirmed. They are considered no longer appropriate for port-related uses because of their close proximity to residential housing, their visually exposed location, the elevated topography making transport connection difficulty, and the constraints of providing internal buffers given the relatively small area and proximity to residential use. These areas could be made available for alternative uses, it is important, however, that the eastern area not be available for residential purposes, given its close proximity to existing port-related uses zoned areas. Current proposals for its allocation to an inter-urban zone (8 ha) would be an appropriate "buffer" use to the Bittern township.

- Other minor rationalisation of the present Port Related Uses zone boundary is considered appropriate at Yaringa and at the Cemetery Road Estates area to encompass areas of Proposed Port Purpose reserve which are now recognised as no longer being required. A reduction in the area of Port Related Uses zone is not considered appropriate even though the area of Port Purpose reserve is to be reduced.

The increased understanding of health and safety issues warrants expansion of buffers and upgrading of development standards in areas surrounding hazardous industries.
Consistent with the findings of the 'ESSO Gas Fractionation Plant and Storage Facilities and Whitemark Petroleum Storage Facilities Risk Assessment Study' (1993):

- the Old Tyabb Reclamation Area may be suitable for port development
- the Cemetery and Anglers Estates may be suitable for port-related industrial use but are not suitable for residential use
- the area east of Jeremiah's Road may be suitable for industrial use.

Given resident perceptions of risk and amenity impacts, infrastructure improvements may be appropriate notwithstanding the compliance of industries with adopted standards of safety and amenity. While recognising the excellent safety record of LPG and petroleum transport operators, and the recent upgrading of the intersection of Marine Parade and Barclay Crescent:

- The provision of a new road link to remove industrial traffic from the township of Hastings (including the Old Tyabb area) should be provided at the time of any new port or industrial development which generates significant increases in the number of trucks using and or more particularly, increases the mix of the nature of traffic using Bayview Road/Barclay Crescent and prior to the capacity of the existing roads being exceeded.

Planning for the area south of Hastings township should balance the importance of preserving the area for industrial development with the concern of residents to protect the amenity of the area. Consistent with this approach:

- Industries which rely on fixed rail transport and pipelines should be encouraged;
- Traffic generated by port-related uses should be directed to The Esplanade, Woolleys Road and the Service and Access Corridor rather than to the section of Stony Point Road within the Crib Point township.
- Continuous buffer areas should be maintained around the Crib Point Terminals Pty Ltd (Shell/Mobil) and Gas and Fuel land at Crib Point to preserve the area for industrial use and prevent any encroachment of residential development.

- Industries which generate high volumes of road transport to carry goods, in particular road transport of hazardous goods, should be directed to locate north of Hastings township.

Also note that most of the areas of Port Related Uses zone lying between the Hastings township and Bittern have in accordance with the recommendations of the 1987 Review of Statement Planning Policy No. 1 - Western Port, now been rezoned to a range of low-density uses, such as open space, inter-urban, and to the west rural residential (the 'Heritage Cove'/Bayview' land).

Opportunities for support/downstream industries should be provided, but in a manner which does not prejudice opportunities for future land-extensive industries. Two areas have been identified as suitable for such use and support/downstream industry encouraged to locate in these areas:

- North of Graydens Road
- South of Bayview Road

Interim management and land use of areas designated for port-related uses, but not currently required for such use

Most forms of primary production are considered to provide an appropriate form of land use and management which will not preclude subsequent use for port-related industry. Intensive forms of primary production, such as poultry farms, involve substantial investment in improvements which may constrain the availability of sites for port-related uses. Accordingly, intensive forms of primary production should be discouraged in the Port Related Uses zone and not be permitted in areas closest to the coastal line and existing port facilities, but may be directed to the area north of Pikes Road/O'Neill's Road which is unlikely to be required for port-related uses within the medium term.

Part of the Port Related Uses zone at Tyabb East and Somerville contains areas that are of recognised high agricultural quality and, in accordance with current State and regional policy, forms of intensive agriculture that are not soil dependent, such as poultry farms, should not be permitted in such areas, although they could be considered in areas of lower soil quality.

All capital-intensive uses which could potentially constrain future port-related uses, including non-agricultural uses such as equestrian centres and waste and effluent
disposal, should be considered on a site-by-site basis, with consideration given to permits being subject to sunset clauses.

5.3.3 Conservation of the environment

Relevant objective
The strategies outlined below respond to the following objective:

* To preserve and protect the natural and ecological systems of Western Port and its catchment from damage or degradation by port-related or other development, particularly recognised sites of significance.

Summary of present policy
Planning and conservation policies for the Hastings Port Industrial Area seek to ensure that the demand for port and industrial development are accommodated in a way that is compatible with the preservation of the environmental values of the area.

Preferred strategy
Port-related development anywhere in Western Port will be located close to or within areas of high environmental value and sensitivity. Port-related development should only be allowed subject to compliance with reasonable standards and performance guidelines which minimise detrimental impacts on the bay.

Port development will avoid the following areas of particular environmental sensitivity and value:

* The coast to the north of The Bluff from a point opposite Iluka Road which includes the SEC Reserve south of Bungower Road.
* The Hastings Bight and, in particular, the coast between the Crib Point Jetty easement and Warringine Creek including Jacks Beach and Sandstone Island.

To preserve environmental values, the above sensitive areas should be included within coastal or suitable conservation reserves and managed in accordance with the principles recommended by the LCC.

Areas with possible long-term development potential for port-related development should be included within reserves which recognise this fact. In the interim, the land should be properly managed to protect environmental values.

Future port development should be subject to environmental controls and guidelines to prevent potential detrimental impacts from dredging or reclamation, effluent discharge, increased traffic, potential for oil spills or discharge from ships (including ballast water). Future proposals for new major port facilities should be subject to environmental assessment in accordance with the Environment Effects Act 1978.

All areas of documented nature conservation value in port purpose areas and port-related uses zoned areas should be values 'to be taken into account' in the preparation and consideration of development proposals.

Management guidelines should be developed to ensure that native vegetation and natural features are protected.

The strategy to preserve options for port and port-related industrial development is consistent with present planning policy objectives for Western Port. The impacts of possible port-related development will extend beyond the boundaries of the Hastings Port Industrial Area. Accordingly, a co-ordinated strategic approach is required to properly manage Western Port. In this case, the Westernport Regional Planning and Coordination Committee advises the Government on the management of Western Port. The Committee has prepared the Western Port Bay Strategy for the protection and development of Western Port.

5.3.4 Land transport

Relevant objective
The strategies outlined below respond to the following objective:

* To manage and upgrade the road network, fixed rail links and pipelines to improve levels of transport efficiency, safety and amenity.

Summary of present policy
The MoPARS Strategy provides a rational co-ordinated framework to ensure scarce funds are directed to areas of greatest need. The rail link to BHP Steelworks forms part of the national system but there are no existing plans to upgrade or standardise the line.
Preferred Strategy

Ports are only one element in an overall transport system. The ability of the Port of Hastings to attract new port users is related to total cost from point of supply to point of destination.

Additional investment in land transport infrastructure would improve levels of safety, amenity and efficiency, and enhance the ability of the Port of Hastings to realise its potential. The following infrastructure improvements are recommended:

- The Frankston-Flinders Road/Western Port Highway link to Melbourne should be duplicated.
- The present rail link to Melbourne should be upgraded to standard gauge as part of the upgrading of the National Rail Grid.
- In the longer term, that the Frankston-Flinders Road be deviated between Graydens Road and the Western Port Highway (Dandenong-Hastings Road) as indicated on Physical Framework Plan Nos. 12 and 13, and that consideration be given to the future grade separation of the road over the rail.
- The provision of a new road link to remove industrial traffic from the township of Hastings (including the Old Tyabb area) should be provided at the time of any new port or industrial development which generates significant increases in the number of trucks using Bayview Road.
- The provision of road access to The Bluff and northern sectors of the East Tyabb coastline not be by way of a specific corridor reservation, but rather be negotiated as part of any port development proposal.
- The construction of a new standard gauge rail link to Gippsland should be provided in the event that a major new port trade or industry emerges which requires bulk transport of goods to or from the Gippsland region. Designation of an appropriate reservation should be pursued, however, only following a detailed study of the feasibility of such route.
- The requirement for any new subdivision adjoining Watts Road to include a substantial set-back from this arterial road, by way of a plantation reserve and / or service road, is endorsed.

Options to upgrade vehicle access to Bayview Road and remove industrial traffic from the township of Hastings (including the Old Tyabb area) should be pursued, although a major increase in traffic is not likely in the immediate future. It is recommended that the following three options be subject to further economic evaluation as to their suitability as a road transport route in the longer term:

- construction of a new road along the existing Bayview Road reservation to link with the Frankston-Flinders Road
- construction of a new road link from Bayview Road to the east of the Frankston-Flinders Road extending northward to its intersection with the Western Port Highway, and
- construction of a new road link through the BHP Steelworks site to McKirdys Road and then to Western Port Highway.

As part of the evaluation of these options, suitable road alignments and intersection layouts will need to be developed to suit future traffic, together with the defining of any access restructuring and protection of rights of way required.

Major port or industrial development north of Denham Road would be expected to require construction of a new road link to Dandenong-Hastings Road. The existing Access and Service Corridor along Pikes Road is not well located to serve possible future road access needs in this area, given the strategy to limit options for future port development to the coastline south of Iluka Road, and is not considered suitable as a rail corridor.

A proposed extension of McKirdys Road to provide an access to the Old Tyabb Reclamation Area was included in the draft Structure Plan and has been the subject of much discussion. While acknowledging possible difficulties that may be associated with its construction, it has been retained as an option, because a cost benefit study undertaken by the Shire of Hastings in 1990 has shown it to be an economic solution. It involves shorter road distances for travel and construction, has minimal conflict with residential amenity, and approaches to reduce conflicts with current traffic between the BHP mill and wharf are feasible (grade separation, operator driven traffic lights, etc. While it is acknowledged that this is not necessary in the short term, it has been retained as a strategic longer-term approach. It is essential that the development of this route be
undertaken in close consultation with BHP to ensure that conflicts with its operation are minimised.

At present, only the port facilities at Stony Point are connected to the rail line. Possible demand by new port users for access to rail transport can be met by the construction of a spur line to Old Tyabb via an existing railway reservation. Provision of rail access to Crib Point could be provided via the existing Service and Access Corridor or by the creation of a new reserve adjoining Woolleys Road. Provision of rail access to The Bluff or Tyabb coastline north of BHP would require the creation of a new reservation. The existing Service and Access Corridor on Pikes Road is not well located to serve these areas.

A range of possible routes for a standard gauge rail link to Gippsland exist. One such possibility would be to follow the existing SEC easement south from Cranbourne.

5.3.5 Land subdivision, tenure and public reserves

Relevant Objectives
The strategies outlined below respond to the following objectives:

• To maintain land in large holdings suitable for land extensive industries.

• To ensure funding resources are used to acquire public reserves that are of the highest strategic priority and thereby avoid the potential for causing unnecessary hardship to private owners.

Summary of present policy
Present policy ensures land is kept in large parcels suitable for land extensive port-related industries. Port Purposes and Service and Access Corridors are provided for future port facilities.

Preferred strategy
The availability of large sites suitable for industrial development is an important competitive advantage of the Hastings Port Industrial Area. Accordingly, the present subdivision restrictions within the Port Related Uses zone should be maintained. Practical opportunities for new port facilities require access to the coastline and suitable areas of back-up land. The private ownership of the Tyabb coast and rights over the seabed between the coast and deep water channel may prejudice opportunities for new port users, other than for limited opportunities at its northernmost extremity at The Bluff. Any change to the present planning provisions for the East Tyabb area should, however, be subject to discussion and negotiation with BHP Steel Industries to ensure proper regard is given to the company's future development plans and requirements.

The preferred option to facilitate opportunities for possible port development on the Tyabb coastline is for the Government to acquire:

• a port and foreshore reserve along the coastline between the BHP Steel Industries Wharf and the existing port and foreshore reserve at The Bluff; and

• the whole of the Tyabb Reclamation Area apart from the existing BHP Steel Industries Wharf complex and sufficient area to allow BHP to construct an additional berth should it so require.

Should the above preferred option prove to be impractical, the recommended alternative course of action is to preserve the option provided under the Steelworks Act for the Government to acquire half of the Tyabb Reclamation Area.

Given the strategy to preserve options for the possible development of port facilities south of Hastings township, acquisition of the Proposed Port Purposes Reservation between Crib Point and Stony Point and the Access and Service Corridor to Crib Point should be completed. This recommendation has regard to:

• the fact that public acquisition of the Proposed Port Purposes reserve is nearly complete.

• alternative private use of the area for residential purposes would be inappropriate given its proximity to the Crib Point Port Related Uses zone.

Given the strategy to limit future port development to the coast south of Iluka Road, the Proposed Port Purposes reserve north of the Bluff and the Access and Service Corridor which follows Pikes Road is no longer well-located with respect to the retained port-purposes areas and it is recommended that it be no longer retained.

Following an evaluation of the public land values of these two areas, part of the Proposed Port Purposes reserve and only minor parts of the Access and Service Corridor are recommended to remain or become part of the public land estate because of
their nature conservation values. The balance of existing public land holdings not required for port-related purposes could be sold.

The existing Access and Service Corridor connecting the Crib Point Proposed Port Purposes reserve with the Frankston-Flinders Road, does not adjoin residential areas and remains well located to service the retained Port Related Uses zoned areas south of Hastings. It should be retained.

5.3.6 Yaringa subdivision detail

The current subdivision known as Yaringa is currently partly included in a Port Related Uses zone and partly in a Proposed Port Purposes reserve. As outlined previously, the Proposed Port Purposes reserve is no longer to be retained.

After considering submissions received on this area and assessments of the public land values of the area and of the tenure of the lots, it is considered that the northern sector of the subdivision revert to its original permitted subdivision and again be made available for low density residential use (2 ha), subject to controls which limit development to the erection of no more than one dwelling on each existing lot, restrict tree and vegetation clearing and ensure houses are set back at least 100 metres from the boundary of any Port Related Uses zone. The southern sector of the original subdivision is to be retained in public ownership or as Proposed Public reserve, given its identified nature conservation values and abuttal to potential future port-purpose areas.

While acknowledging the recommendation of the Western Port Coastal Villages Strategy that this area has the potential to function as a quality settlement in a bushland setting, it is considered that the northern sector be retained or become part of the surrounding Port Related Uses zone, but with a site specific control acknowledging the current subdivision and use.

The most appropriate road access to the settlement, both now and in the longer term, is considered to be from the north via Whitneys Road.

5.3.7 Cemetery Road estates detail

The Cemetery, Anglers and Burdekin Estates at the southern end of Cemetery Road are of small unserviced blocks. Given the lack of sewerage, the blocks are too small to absorb household effluent and, in any case, given their close proximity to the waters of Western Port, should be required to be sewerised before being able to be fully developed. A number are low lying and are separated from other residential areas by extensive areas of industrial land. Residential development has not been permitted since the late 1960s and the area is presently zoned for port-related uses. It has been difficult for owners of the land to consolidate blocks or dispose of the land.

The Risk Assessment of the ESSO BHP Fractionation Plant and Tank Farm and Proposed Whitemark Site Final Report identified that the Cemetery Road Estate is exposed to risk levels which prohibit new residential development. Some new industrial development may be appropriate provided that it is located towards the western end of the Estate and the additional number of persons employed within the area does not exceed 11.9 persons per hectare.

ESSO has undertaken a range of responses to the Risk Assessment. In particular ESSO has:

- pursued an acquisition of lots to the east of Voyager Street - to expand the present buffer surrounding its plant, and
- undertaken an overall risk management process involving an investment of $40 million over the time frame from 1990 to 1994.

While the 1986 Review of the Statement of Planning Policy No. 1 - Western Port indicated that this area, being part of the area south of Bayview Road, is unsuitable for port-related uses and should be rezoned to provide for marine and general industries, this conclusion is not supported by the current study.

The Cemetery and Anglers Estate is strategically located for port-related uses. The Estate is in close proximity to the Old Tyabb foreshore, which is the preferred location, under the Structure Plan, for new port facilities. The Estate is not suited to new marine service industries or activities requiring a water frontage, given the environmental sensitivity of Hastings Bight.

The strategy adopted for this area is that it remain zoned for port-related uses, and in recognition of the relatively limited potential allotment size and its proximity to the ESSO Fractionation Plant, that port-related service industry be encouraged in the area, rather than major manufacturing industry. It is also acknowledged that for the area's
potential to be realised, the Estates should be actively restructured into a few larger blocks.

The restructure of the Estates will require government assistance. While restructure of subdivisions can in some cases be achieved by co-operation between private owners, in this instance, private restructure of the Estates is unlikely to be successful - given the large number of lots involved, the very fragmented pattern of ownership of the area, the lack of any readily identifiable buyer for the restructured lots at this point in time, and the long history of inactivity in this area.

The Minister for Planning has indicated that the Government is willing to purchase blocks from current owners at the Valuers-General’s valuation.

The current and preferred strategy is for the State Government to acquire all of the blocks in the area (other than those being acquired by adjoining land owners - WAG, ESSO), consolidate them and then make them available for resale for port-related service industry.

The costs to Government of the restructure of the Estates may be partially off-set by the resale of the consolidated blocks as well as:

- the privately-funded acquisition and consolidation of all lots east of Voyager Street by ESSO, and
- the longer term benefit to the Shire of Hastings of acquiring some lots for expansion of the Cemetery.

Also note that the State Government has already acquired a number of blocks for inclusion in the now longer required Port Purposes reserve to the south and east of Beach Drive for inclusion in a Foreshore reserve.

The principles for the restructure program should be to:

- Consolidate the area into large landholdings suitable for port-related uses.
- Maintain flexibility by recognising that the consolidated lots may in the future be resubdivided to meet particular requirements for port-related uses.

Recognise the existing marine engineering works.

- Make use of the existing Cemetery Road access while ensuring a visual buffer is provided to protect the amenity of the Cemetery.
- Assist existing landowners.
- Minimise the extent of road frontage.
- Retain some level of public access to the foreshore areas, and ensure the protection of the foreshore reserve.
- Wherever possible, provide for the retention of the major areas of remnant native vegetation.

The restructure of the estates should be the subject of an Amendment to the Planning Scheme. An indicative restructure plan has been prepared - see Plan 19, but will require further assessment of the most appropriate lot size and the best possible result responding to the principles above. It is expected, however that the existing lots will be restructured to form some three or four lots.

5.4 THE PHYSICAL FRAMEWORK PLANS

A series of physical framework plans have been prepared which translate the above series of issue-based strategies into a geographic context. The plans cover the two main areas of the Port Industrial Area to the north and south of Hastings. They also include more detailed plans of the Yaringa area, the Cemetery Road Estates area, of Callanan Street. Each area is covered by a set of two plans. The first indicates the ‘vision’ or desired final plan, the second, the ‘action plan’ highlights the key actions required to achieve the ‘vision’, given existing conditions and planning controls.

5.5 RECOMMENDED PLANNING SCHEME CONTROLS

Under the Hastings Planning Scheme, approval of major industrial and port-related development requires a planning scheme amendment. In contrast, development within industrial zones, or indeed, within most planning zones, under other planning schemes
PLAN 12
FRAMEWORK PLAN:
THE VISION
- NORTHERN SECTOR

PLAN 13
FRAMEWORK PLAN:
ACTION PLAN
- NORTHERN SECTOR
PLAN 14
FRAMEWORK PLAN:
THE VISION
- SOUTHERN SECTOR

- Port Related
- Primary Road Access Routes
- Rail
- Retained Port Opportunity
- Upgraded Intersection
- Low Density Uses
- Possible Residential Use
- Coastal Reserve

PLAN 15
FRAMEWORK PLAN:
ACTION PLAN
- SOUTHERN SECTOR

- Delete From Port Related Use Zone
- Make Available For Low Density Use
- Retain Port Opportunity
- Complete Land Purchase
- Include Into Temporary Foreshore Reserve
- Retain In Low Density Use
- Upgrade Intersections If Required
- Add To Foreshore Reserve
- Retain For Port Related Use
- * Retain Access Corridor
- * Complete Land Purchase
- Vest In Port Authority
PLAN 16
FRAMEWORK PLAN:
THE VISION
- YARINGA DETAIL

PLAN 17
FRAMEWORK PLAN:
ACTION PLAN
- YARINGA DETAIL

Port Related Use Zone
Nature Conservation Reserve
Coastal Reserve
Retained Port Opportunity
Preferred Road Access
PLAN 18
FRAMEWORK PLAN:
THE VISION
CEMETERY ROAD
ESTATES DETAIL

Coastal Reserve
Port Related
Port Related Service/Support
Industry Focus
Retained
Port Opportunity
Road Access
Cemetery

SCALE
0 METRES
400

PLAN 19
FRAMEWORK PLAN:
ACTION PLAN
CEMETERY ROAD
ESTATES DETAIL

Add To
Port Related Use Zone

Establish 'Proactive' Restructure Program
- Purchase At Valuation
- Restructure to 2 Or 3 Larger Blocks
- Seek Port Related Service Industry Uses

Add To Cemetery

Include In Foreshore Reserve

Restructure To One Lot

Include In Port Purposes Reserve
may be allowed either 'as of right', subject to compliance with conditions or subject to the grant of a permit.

It is considered that the use of planning scheme amendments only be used in the instances where the actual category of land use is proposed to be changed, rather than if a particular development is being proposed which is already consistent with the approved land use.

The Hastings Planning Scheme should be amended to allow port-related development within the Port-related Industrial Area subject to the grant of permit. In most instances it is anticipated that such permit applications subject to public scrutiny. Development proposals would be required to comply with the intent of the objectives, performance criteria and guidelines, and be subject to the approval of a development plan - as set out in this Structure Plan which are intended for inclusion in the detailed provisions of the Planning Scheme.

The Report of the Department of Planning and Housing 'Industrial Planning' in its Review and Administration of Planning Schemes states that:

'The innovative planning policy for Western Port established in 1971 and implemented through the Hastings Planning Scheme is a precedent for policies of this report. The policy protects an area for industries which require port facilities, introduces buffers around towns, keeps land in large sites suitable for land extensive pipelines and the Long Island Gas Fractionation Plant and sets aside land for ports and their transportation corridors', (p. 7).

Where sensitive land uses are not sufficiently separate from industries, amenity and quality of life in the adjacent area may be reduced due to odour dust or noise emissions, the creation of potential hazards or aesthetically. Increased knowledge of health and safety issues has meant that the set back requirements contained in clause 176 of the Hastings Planning Scheme have now been superseded.

Furthermore, it is now acknowledged that performance based schemes, rather than prescriptive, control-based schemes, are more effective in obtaining desired outcomes.

While the basic thrust of the Hastings Planning Scheme should be retained, it is recommended that it be further improved by the incorporation of up to date performance standard mechanisms.
The Minister for Planning’s Projects Steering Committee Recommendations and Project Team Reports August 1993 concluded that there are far too many industrial zones in Victoria. Furthermore, opportunities for more market led development will be aided by a simplified structure of zones, a strengthened role for performance-based standards and ensuring that predominant uses are ‘as of right’. The Department has now prepared a set of draft standard manufacturing zones (March 1994), upon which a final set of recommended zones will be based.

These draft standard zones are:

- **Manufacturing 1 zone.**
  To provide for the development control of general industrial areas.

- **Manufacturing 2 zone.**
  To provide for major industrial areas.

- **Manufacturing 3 zone.**
  A specialised zone providing a buffer between Manufacturing 2 zone and residential areas or other urban zones providing for greater community input into the planning process.

The draft zones include detailed permit and approval guidelines and requirements. The following recommendations for the Hastings Planning Scheme Port Related Uses zones are based on the Department’s draft Manufacturing 2 zone. A copy of the draft standard control is included as Appendix 5.

### 5.5.1 Purpose of the planning control

The Hastings Planning Scheme should be amended to incorporate the principles of the simplified and standardised manufacturing zones prepared by the Department of Planning and Development. However, the purpose of any new manufacturing zone to cover the area of the current Port Related Uses zone is to specifically provide for port-related industrial uses and the storage and distribution of goods and associated facilities, in a manner which does not affect the safety and amenity of local communities, not the environmental values of Western Port.

### 5.5.2 Requirement for a permit

The proposed change to the Planning Scheme does not envisage any ‘as of right’ major industrial use, but advocates the use of a permit process to provide opportunities for the legitimate concerns and interests of residents and affected persons in the future development of the area, as well as the areas highly sensitive natural environment, to be taken into account. The permit process is not, however, intended to preclude port-related industrial use, rather it is intended to ensure that such use is carried out in the best possible manner.

It is noted that the Government’s draft standard manufacturing zones provide for some forms of use and development to be permitted without requiring a permit, including non-'major hazard facilities' meeting defined set backs. The report accompanying the Government’s draft zones, however, acknowledges the appropriateness for some industrial areas to have individual controls. If uses are to be permitted without permit, which is not recommended, a range of conditions (such as set-back from the coast, absence of water or land discharge, etc.) will need to be considered and defined. In particular, any ‘as of right’ use must be consistent with, and provide for the assessment of the issues included in this Structure Plan.

All capital-intensive forms of agriculture, such as those involving major shedding, including poultry farms, and any industrial use that is not demonstrably a port-related industry shall be required to be subject to permit.

### 5.5.3 General guidelines

The Department of Planning and Development’s draft standard Manufacturing 2 zone includes a range of issues that must be considered by the responsible authority prior to deciding on an application for use, a permit for subdivision, or a development plan. These cover such issues as the effect on existing uses, effect of traffic, effect on natural values, interface with non-industrial areas, and so forth, and are mostly appropriate for inclusion in the Port Related Uses zone control. Given the special circumstances of the Hastings Port Industrial Area, a range of additional matters should be considered, or considered in greater detail, and will need to be included in the planning control.

Before deciding on a permit application or whether to approve a development plan, the responsible authority must consider:
• State and regional policies on industry and port development.
• The preservation of options for port development for possible long term future requirements.
• The preservation of the area for industries which depend on or gain significant advantage from the Port of Hastings.
• The protection of the natural and ecological systems of Western Port, its waters and catchment from any detrimental impact, and in particular, the relevant provisions of State Environment Protection Policy No. W-28 (The Waters of Westernport Bay and Catchment) covering the Peninsula and Bay segments.
• The protection of nearby residential areas from any detrimental impacts.
• The visual impact of the proposal.
• The effect of traffic to be generated on roads.
• The proper use and maintenance of any areas of the site not required for the proposed use in the immediate or long term.
• Consistency with the Structure Plan.

5.5.4 Performance standards

The following performance standards are based on the draft standard Manufacturing 2 zone but are supplemented by a number of particular issues arising from the special circumstances of the Hastings Port Industrial Area.

Air Quality
Objective:
That residential areas be protected from potential amenity impacts of any use or development.

Performance Standard:
Any use or development must satisfy the Recommended Buffer Distances For Industrial Residual Air Emissions (as set out in EPA Publication No. AQ 2/86, as revised July 1990) or be accompanied by a report which has satisfied the Environment Protection Authority that an adequate air emission buffer has been provided.

Guidelines:
That the relevant recommended buffer distances set out below are met:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Buffer distance to residential zone (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum refineries</td>
<td>2,000</td>
</tr>
<tr>
<td>Other petroleum or coal products</td>
<td>500</td>
</tr>
<tr>
<td>Storage of petroleum products and crude oil in tanks exceeding 2,000 tonnes capacity:</td>
<td></td>
</tr>
<tr>
<td>(a) with fixed roofs</td>
<td>300</td>
</tr>
<tr>
<td>(b) with floating roofs</td>
<td>100</td>
</tr>
<tr>
<td>Structural or sheet metal products</td>
<td>500</td>
</tr>
<tr>
<td>Iron and steel products in amounts:</td>
<td></td>
</tr>
<tr>
<td>(a) up to 1,000,000 tonnes per year</td>
<td>500</td>
</tr>
<tr>
<td>(b) exceeding 1,000,000 tonnes per year</td>
<td>1,000</td>
</tr>
<tr>
<td>All other industrial operations</td>
<td>as per EPA guideline</td>
</tr>
</tbody>
</table>

Noise
Objective:
Amenity of surrounding areas should not be affected by noise. (Noise may have an impact on amenity, indeed, the impact of noise can sometimes impact further than air emissions.

Performance standard:
The responsible authority must be satisfied that new industrial operations can meet the noise limits provided in the EPA’s Interim Guidelines for Control of Noise from Industry in Country Victoria NJ/89. These interim Guidelines adopt the State Environment Protection Policy (Control of Noise from Commerce Industry and Trade) No. 1 where appropriate, and make special provision for quiet rural areas.
Protection of the environment

Objective:
That proposed industrial development recognise the environmental sensitivity of much of the Western Port shoreline.

Performance standard:
• Buildings or works not requiring a coastal location should be set-back away from the coast.
• Wherever possible, and recognising the type of development appropriate within the port area, the height, scale and colour of structures, the coastline should be designed to minimise visual impact.

Guideline:
• At least 100 metres the from high-water mark should be maintained as a buffer area.
• The use of infrastructure corridors connecting industry and the waters of the port should be encouraged.
• That the design of port development reflect the landscape guidelines outlined in "Western Port: Port Landscape Guidelines Study 1980.

Safety

Objective:
That residential areas be protected from potential hazards arising from any use or development.

Performance standard:
That any use or development requiring a licence under the Dangerous Goods Act must be accompanied by a report which has satisfied the Occupational Health and Safety Authority that the risk to persons in any nearby residential zones will be within acceptable limits. The report shall include reference to proposed measures to ensure all staff responsible for managing and operating proposed facilities are properly trained to international standards.

Guidelines:
Consistent with the findings of the Risk Assessment of the ESSO BHP Fractionation Plant and Tank Farm and Proposed Whitemark Site Final Report (1993):
• The Old Tyabb Reclamation Area could be used for port development, given reasonable development controls: The additional number of workers within this area should not exceed 16.3 persons per hectare. The additional population should be placed toward the north end of the area to retain maximum separation from the source of risk. Note that the standards adopted by the Risk Assessment could potentially allow some 391 people to be employed in this area.
• The Cemetery and Anglers Estate, while exposed to risk levels which prohibit new residential development, could be used for some new industrial development towards the western end of the Estate if the additional number of persons employed within this area does not exceed 11.9 persons per hectare. (The standards adopted by the Risk Assessment could potentially allow some 416 people to be employed within this area).
• The area east of Jeremiahs Road is suitable for industrial use provided that the total number of persons employed does not exceed 18.5 persons per hectare, and no persons are located within 200 metres of Bayview Road. (The standards adopted by the Risk Assessment could potentially allow some 721 persons to be employed in this area).

Town entry

Objective:
Protect the pleasant, open-landscaped visual character of the main entries to Hastings township.

Performance Standard:
Any industrial building fronting the Western Port Highway (Dandenong-Hastings Road) or the Frankston-Flinders Road north of Graydens Road be set back in a manner that does not have an adverse impact on the existing roadside visual character.

Guideline:
That any industrial building be set back 100 metres.
To assist decision-makers to assess whether a proposed development meets the required performance standards, applications will be forwarded to the respective technical agencies (who it is expected will liaise directly with the applicant with respect to their data requirements) who will then provide an assessment of whether the development meets the technical requirements. With respect to assisting the decision-maker assess consistency with the guidelines, the following material is to be provided:

In accordance with the proposed requirements for the draft Manufacturing 2 zone requirements, where a permit is required to use land for a port-related industry it is to be accompanied by a detailed description of:

- The purpose of the use and the types of processes to be utilised.
- The type and quantity of goods to be stored, processed or produced.
- The intended staging of development and maintenance of areas not required for immediate use.
- Whether a Works Approval or Waste Discharge Licence is required from the Environment Protection Authority.
- Whether a licence or approval under the Dangerous Goods Act 1985 is required.
- Details of:
  - noise levels
  - airborne emissions
  - emissions to land and water
  - traffic including the method of transport, quantities and the hours of delivery and dispatch
- Provision, of drainage and utility services.
- The buildings and works to be constructed or carried out, in the form of a development plan

In addition, the application is to include details of:

- the nature of remnant vegetation, or sites of significance, if any, and the measures to be taken to protect such features
- the relationship of the proposed use to the port and/or existing port-related uses.

In accordance with the proposed requirements for the draft Manufacturing 2 zone requirements, a Development Plan is to be required for all buildings and works (other than for those of a minor nature or those required to meet regulatory requirements). The development plan must include:

- Plans drawn to scale which include:
  - The boundaries and dimensions of the site
  - Adjoining roads
  - Relevant ground levels
  - The layout of existing and proposed buildings, fences and works
  - All driveway, car parking and loading areas
  - Proposed landscaping areas
  - All external storage and waste treatment areas
  - Areas not required for immediate use
  - Advertising sign structures.
- Elevation drawings to scale showing the colour and materials of all buildings and works including fences.
- Details of construction of all driveways, car parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, the surfaces to be constructed, site works specification and method of preparing, draining, watering and maintaining the landscaped area.

In addition, the development plan is to show:

- the location of remnant vegetation, or sites of significance, if any
- the proposed transport routes between the site and existing arterial roads or rail lines or a port facility.
5.5.5 Port development and maintenance of port development opportunities

Most port development in the past has been on public land and, consequently, the controls of schemes have been restricted to requiring consistency with a Port Purposes reserve objective. However, given that some potential port development areas are on freehold land and that, given possible port reform, port authorities may not necessarily be public authorities, it is considered appropriate that the planning control include specific reference to port development.

All port development should be subject to permit and environmental effects assessment procedure. Minor utility installation, passive recreation, and minor roads would not require permit subject to meeting the management principles for Coastal reserves defined in the Land Conservation Council's Final Recommendations for the Melbourne District 2, as adopted by the Government.

Performance standards should be included in the controls, using those for the Port Related Uses zone areas as relevant, together with performance standards specifically relevant to the coastal environment.

**Protection of the Environment**

**Objective:**
That proposed port facilities recognise the environmental sensitivity of much of the Western Port shoreline.

**Performance Standard:**
- Disturbance of marine and terrestrial vegetation within the port area should be minimised.
- Emphasis should be placed on the control of sedimentation, especially during the construction of any works or improvements, and pollution from development in the port area.
- Buildings or works not requiring a coastal location should be setback away from the coast.
- Wherever possible, and recognising the type of development appropriate within the port area, the height, scale and colour of structures on the coastline should be designed to minimise visual impact.

- Public access along the coastline should be maintained wherever possible and safe.

**Guidelines:**
- New roads should not be sited along the coast.
- Any major coastal development projects (such as jetties, seawalls, reclamation, and non-maintenance dredging) to be subject to detailed environmental studies prior to commencement of work by the body proposing such development. [This is more relevant to coastal reserves, especially given the Government's port reform preference]
- Wherever possible, structures intersecting the shoreline should be on piles to minimise disruption to coastal processes.
- Dredging and spoil disposal associated with port development must be satisfy the standards set out in the Trial Dredge Protocol Environment Protection Authority (1992).
6.0 IMPLEMENTATION

6.1 KEY RECOMMENDATIONS

The commitment of planning authorities to a Structure Plan helps to ensure coordination and consistency of decisions with overall strategic intent.

All relevant agencies were involved in the preparation of the Structure Plan including PMA, Shire of Hastings, Conservation, Forests and Lands, and VicRoads.

Table 7 indicates the body responsible for implementing each of the key recommendations of the structure plan and also indicates the preferred timing and priority of implementation for each recommendation.

6.2 THE FUNDING OF INFRASTRUCTURE IMPROVEMENTS

No firm costing estimates for the establishment of a new port facility are available, given the absence of any definite development proposals. Very preliminary estimates contained in the Victorian Ports Land Use Plan indicate that the costs of constructing a new wharf may amount to between $30-$40 million.

The Port of Hastings possesses a range of competitive advantages which could provide sufficient transport economies to justify private or joint private and government investment in new port facilities and transport infrastructure. Given the present economic climate and existing spare capacity at the Port of Melbourne, it is very unlikely that the State Government would make a major pre-emptive investment in new facilities at the Port of Hastings.

Federal funding may possibly become available for the construction of a new standard-gauge rail link from Melbourne to Hastings. The rail link is a part of the designated national network but was not included in the One Nation package for infrastructure improvements. The standardisation of the Melbourne to Adelaide railway will necessitate the construction of a new transhipment terminal in Melbourne unless the link to Hastings is standardised.

While not an immediate priority, funding for the duplication of the Dandenong-Hastings Road south of the Cranbourne-Frankston Road may become available if a major development project were to proceed at Hastings.

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Table 7

<table>
<thead>
<tr>
<th>Issue</th>
<th>Responsibility for Implementation</th>
<th>Timing/Priority</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Facilities</td>
<td>Port of Melbourne</td>
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<td></td>
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<tr>
<td></td>
<td>Establised in the Port of Melbourne</td>
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</tr>
<tr>
<td></td>
<td>Steel Industries Wharf complex</td>
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<tr>
<td></td>
<td>The following area should be vested in the control of the Port Authority and continue to be used and made available for port development</td>
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<tr>
<td></td>
<td>The Old Tyabb Reclamation Area (excluding the BHP Steel Industries Wharf complex)</td>
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</tbody>
</table>
| Conservation of the Environment | 1. Development of port facilities should avoid the following areas of particular environmental sensitivity and value: 
- The coast to the north of The Bluff from a point opposite Iluka Road which includes the SEC reserve south of Bungower Road. 
- The Hastings Bight and in particular, the coast between Crib Point Jetty easement and Warringine Creek including Jacks Beach and Sandstone Island. 

2. Areas with possible long-term development potential for port related development should be included within reserves which recognise this fact. In the interim the land should be properly managed to protect environmental values. | Shire of Hastings Department of Conservation Forests and Lands and SEC | The recommendation should be incorporated in the Planning Scheme as part of a general amendment as soon as practical. |
|---|---|---|---|
| Land Transport | 1. The Frankston-Flinders Road/Western Port Highway link to Melbourne should be duplicated. 
2. The rail link to Melbourne should be upgraded to standard gauge as part of the National Rail Grid. 
3. In the longer term, the Frankston-Flinders Road be deviated between Graydens Road and Western Port Highway (Dandenong-Hastings Road) and consideration be given to the future grade separation of the road over the rail. 
4. A new road link should be provided to remove industrial traffic from the township of Hastings (including the Old Tyabb area). 
5. Provision of road access to The Bluff and northern sectors of the East Tyabb coastline. 
6. A new standard gauge rail link to Gippsland should be developed. 
7. Any new subdivision adjoining Watts Road to include a substantial setback as either a plantation reserve and/or service road. | Shire of Hastings, Vic Roads, National Rail Authority, Shire of Hastings, Vic Roads, Public Transport Corporation, Shire of Hastings, Vic Roads and Port of Melbourne Authority, Shire of Hastings, Vic Roads, National Rail Authority, Port of Melbourne Authority and Public Transport Commission, Shire of Hastings, Vic Roads. | The roadworks should be implemented as part of the MoPARS Strategy. |
1. To facilitate opportunities for possible port development on the Tyabb coastline the Government should acquire:
   - A port and foreshore reserve between the BHP Steel Industries Wharf and the existing port and foreshore reserve at The Bluff.
   - The whole of the Tyabb Reclamation Area apart from the BHP Steel Industries Wharf complex and sufficient area to allow BHP to construct an additional berth should it so require.

2. If the above recommendation is impractical the recommended alternative course of action is to preserve the options provided under the Steelworks Act, for the Government to acquire half of the Tyabb Reclamation Area.

3. To preserve options for the possible development of port facilities south of Hastings township, acquisition of the Proposed Port Purposes reserve between Crib Point and Stony Point should be completed.

4. Given the strategy to limit future port development to the coast south of Iluka Road, the Proposed Port Purposes reserve north of the Bluff and the Access and Service Corridor which follows Pikes Road should be sold.

Implementation of this recommendation requires negotiation and resolution of the matter with BHP Steel Industries.

Restructure of the Cemetery and Anglers Estate

1. The Cemetery and Anglers Estate is not suitable for residential use and should be restructured for port related use.

2. Restructure of the subdivisions will require government assistance.

Shire of Hastings and State Government.

A restructure plan should be prepared and exhibited as part of a Planning Scheme Amendment as soon as practical after consultation with affected land owners and resolution of the issue of government funding assistance.

Planning Scheme Controls

1. The Hastings Planning Scheme should be amended to:
   - Allow major port related industrial development without requiring an Amendment to the Planning Scheme.
   - Incorporate up to date performance standards.
   - Upgrade zoning provisions to incorporate the principles of the simplified and standardised zones being prepared by the department of Planning and Development.

Shire of Hastings

A general amendment should be prepared following release of DPD guidelines and new industrial zone provisions in 1994.
While the costs of developing new port facilities or upgrading land transport infrastructure links would be great, the competitive advantages of Western Port for a major new trade have the potential to generate transport savings to more than offset infrastructure costs over a reasonable time frame. Gippsland brown coal exports is an example of a possible new port trade which may warrant investment in new port facilities and land infrastructure. Recent technological advances have the potential to reduce the volume of water in Gippsland brown coal, which would overcome present transportation difficulties and enhance its export potential. With its low sulphur content, Gippsland brown coal may become increasingly attractive to markets in Europe and Japan.

Given the policy of the present State Government to encourage competition between ports, possible demand for new port facilities at the Port of Hastings may be tested by formal advertising for registrations of interest in establishing a privately-funded general cargo wharf at Old Tyabb.

The use of special levies, administered by the local council, to pay for infrastructure improvements is supported in principle. Given that most current landowners are not using the land for port purposes, it is acknowledged that this will be difficult in practise. However, development levies could be applied, and it is suggested that the payment of such levies be a requirement of planning permits for the expansion of existing works or for new works.

6.3 THE FUNDING OF RECOMMENDED RESTRUCTURES AND LAND ACQUISITION

The draft Structure Plan, when discussing those areas no longer required for Proposed Port Purposes reserve north of The Bluff and the Access and Service Corridor along Pikes Road, suggested that they could be disposed of and that 'preferably the proceeds from any sales of public land should be directed to the completion of the acquisition of land at Crib Point and Stony Point and/or the restructure of the Cemetery and Anglers Estates'. While the Department of Finance has since advised that any revenue raised from the sale of government land in the area of the Structure Plan will be required to return to Consolidated Revenue, the principle that such sales be considered as an offset to required acquisitions is still advocated.

The cost of the recommended acquisition and restructuring of the Cemetery Road Estates should also be considerably offset by the proceeds of the sale of the resultant restructured lots.
# SELECTED BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title and Source</th>
</tr>
</thead>
</table>
APPENDIX 1

List of submissions received in response to public exhibition of draft structure plan

<table>
<thead>
<tr>
<th>Sub. No.</th>
<th>Name/Organisation</th>
<th>Type</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Roger Stanley, Crib Point</td>
<td></td>
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<tr>
<td>2</td>
<td>Asset Management Division, Department of Finance</td>
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<tr>
<td>3</td>
<td>Long Island Disadvantaged Land Owners Group</td>
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<tr>
<td>4</td>
<td>Gas and Fuel Corporation of Victoria</td>
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<td>5</td>
<td>Metropolitan South East Region, Vic Roads</td>
<td></td>
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<tr>
<td>6</td>
<td>Crib Point Engineering Pty Ltd</td>
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<td>7</td>
<td>Crib Point Terminal Pty Ltd</td>
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<tr>
<td>8</td>
<td>Hastings Advancement Group</td>
<td></td>
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<tr>
<td>9</td>
<td>E J B. Forrester, Cranbourne</td>
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<tr>
<td>10</td>
<td>Borzecki Enterprises Pty Ltd</td>
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<td>11</td>
<td>Marine Science and Ecology</td>
<td></td>
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<td>12</td>
<td>Stefan Borzecki, Somerville</td>
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<tr>
<td>13</td>
<td>Yaringa Boat Harbour, Western Port Boat Harbour Pty Ltd</td>
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<tr>
<td>14</td>
<td>South Eastern Peninsula Residents Association Inc</td>
<td></td>
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<tr>
<td>15</td>
<td>Chris Watt, Watts Estate Agency, Hastings</td>
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<tr>
<td>16</td>
<td>Mrs. A.M. Swan, Cafton</td>
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<td>17</td>
<td>Port of Hastings, Port of Melbourne Authority</td>
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<tr>
<td>18</td>
<td>Esso Australia Ltd</td>
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<tr>
<td>19</td>
<td>Maunsell Pty Ltd on behalf of Dr A.J. and Mrs J. Bond and National Westminster Bank</td>
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<td>20</td>
<td>W A G. Pipeline Proprietary Limited</td>
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<td>21</td>
<td>Professor Robert and Mrs Anne Porter, Balnarring Beach</td>
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<td>22</td>
<td>David Minton, Artist, Bittern</td>
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<td>23</td>
<td>Westernport and Peninsula Protection Council</td>
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<tr>
<td>24</td>
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<td></td>
</tr>
<tr>
<td>25</td>
<td>Neil Brewster</td>
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</tbody>
</table>

APPENDIX 2

HASTINGS PORT INDUSTRIAL AREA LAND USE STRUCTURE PLAN

SUMMARY OF SUBMISSIONS

The draft Hastings Port Industrial Area Land Use Structure Plan was placed on public exhibition for two months ending 26 April 1994, although later extended until 13th May 1994. It was advertised in the Melbourne Age, with press releases and copies of the report and report summaries sent to a large number and wide range of media outlets including industry media. The Minister launched the report in front of over 90 people from a wide range of groups including parliamentarians, Councillors, industry and interest groups. Coverage was obtained in local press upon release, with follow material also published.

Copies of the report and/or report summaries were forwarded to local and Statewide industry, to commercial and community organisations, municipalities and State government organisations. A special display was erected at the Shire of Hastings' library, and the document was available for viewing at the shire office, local and regional libraries, DPD offices in Melbourne, and the WRPCC offices at Cranbourne where it was also available for sale. A summary brochure was also prepared and widely distributed.

Two hundred copies of the report and 500 copies of the summary brochure were printed and most of these have been distributed.

To date, 24 written submissions have been received. The submissions came from a variety of sources covering a full range of interests and perspectives. Table 1 provides a break down of the source of submissions. A full list of submissions is given in Attachment 1.

TABLE 1: SOURCE OF SUBMISSIONS

<table>
<thead>
<tr>
<th>Submission source</th>
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<tbody>
<tr>
<td>Community Group</td>
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<td>Resident groups</td>
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<tr>
<td>Conservation groups</td>
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<tr>
<td>Government departments</td>
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<td>Individual</td>
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<tr>
<td>Industry</td>
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<tr>
<td>Municipality</td>
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</tr>
<tr>
<td>Non industry businesses</td>
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</tr>
<tr>
<td>Total</td>
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</tr>
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</table>
The submissions covered a wide range of issues, as is indicated in table 2. Some submissions focussed on a particular issue or area, whereas others were more wide ranging.

<table>
<thead>
<tr>
<th>Issue raised</th>
<th>No. of submissions</th>
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<tbody>
<tr>
<td>1. Basic assumptions, general context issues</td>
<td>14</td>
</tr>
<tr>
<td>2. Plan objectives</td>
<td>7</td>
</tr>
<tr>
<td>3. Port requirements, planning, and management issues</td>
<td>10</td>
</tr>
<tr>
<td>4. Infra-structure detail</td>
<td>7</td>
</tr>
<tr>
<td>5. Port Related Use areas</td>
<td>5</td>
</tr>
<tr>
<td>6. Planning zones, performance standards, EES</td>
<td>11</td>
</tr>
<tr>
<td>7. Crib Point detail</td>
<td>10</td>
</tr>
<tr>
<td>8. Long Island, Old Tyabb, Tyabb East detail</td>
<td>8</td>
</tr>
<tr>
<td>9. Yaringa detail</td>
<td>9</td>
</tr>
<tr>
<td>10. Cemetery Estates detail</td>
<td>6</td>
</tr>
<tr>
<td>11. Implementation, funding</td>
<td>10</td>
</tr>
<tr>
<td>12. Misc issues, new information, errors</td>
<td>7</td>
</tr>
</tbody>
</table>

**TABLE 2: LISTING OF ISSUES RAISED**

**SUMMARY OF ISSUES**

The following sections provide a summary of the issues raised in submissions.

1. **Basic assumptions, general context issues**

There was general support to the thrust of the structure plan, that is the protection of opportunities for port and port related development, and of its objectives. Its recommendations and key findings were also generally supported. The desirability of ending uncertainty was strongly noted by some. However, some considered that the plan should be more 'proactive' and braver! That is define measures to actively promote port and port related development rather than merely provide opportunities. Others were concerned that port related development was unlikely in any case - hopes have been raised but actually stagnation and consequently new pathy - GATT developments could reduce need for large industrial sites, and Victorian Ports Land Use Plan saw new requirements met more economically at other existing ports rather than at Hastings. There was a contrary view - ESSO considered its operations at Hastings of national importance and likely to remain so well into the next century.

There was concern that environmental protection should have been given more emphasis; the preferred strategy considered by some to ignore them. The Shapiro report conclusions were suggested as a framework for the plan, and consideration given to all parts of ecosystem to ensure that the bays ecological balance is not compromised by any proposals of the structure plan.

It was also suggested that effort should be put into considering other potential uses, particularly those which might offer new directions for local employment, with a comprehensive economic evaluation and comparison sought. A no port related development option was suggested - as capital intensive low employment industrial development has little local benefit.

2. **Plan objectives**

There was some confusion between the objectives of the study and the objectives recommended for the structure plan. Of those who made comments some were strongly supportive of individual objectives, others suggested amendments to slightly re focus objectives. New objectives suggested included:

- containment of port related industrial use to north of Hastings
- facilitation of the assembly of land into large holdings suitable for land extensive industries
- education of the community about the location and nature of industrial land use
- review of port related use zoned areas - with a view to designate areas for ancillary industrial use
- take into account existing and established development

3. **Port requirements, planning, and management issues**

A range of detailed comment was offered regarding areas designated for port uses. There was support for the establishment of a separate Port of Hastings and for it to have secure (freehold) tenure over its landholdings, possibly including shipping lanes and foreshore areas. Private port development was advocated by some, but most supported the recommended re-acquisition of the BHP reclamation area and public access to foreshore areas unless precluded by safety needs.

The need for additional port land was queried by some, especially over and above the recommended Old Tyabb area. The Victorian Ports Land Use Strategy was quoted as discouraging of the requirement for new port facilities at Hastings, others considered this strategy too negative. It was noted that 65 percent of berth occupancy actually represents 100 percent of capacity.

The interim management of future port land was an issue of interest - is the Department of Finance appropriate, should they be managed as foreshore reserves, or as vacant industrial estates?

The use of conveyor belt systems was raised and open piled structures (rather than dredging and reclamation) advocated, as is presently required. Container cargo operations was suggested as not requiring large areas and thus considered more...
appropriate to remain in Melbourne rather than Hastings. Others considered that less emphasis be on oil cargoes.

There was varying opinion as to what a natural deep water harbour meant. Was it a depth of channel not requiring maintenance dredging? Was it 14.3 m or 19.3 metres? Will future large ships be able to be accommodated?

Some suggested that there be no development until there had been study of oil transport impact on bay and the capacity of the bay to support shipping, as such information considered to form the basis of determining the associated industrial land requirement.

4. Infrastructure detail

Road traffic issues were a focus of interest, although comment was also made on rail linkages.

The desirability to make much greater use of roundabouts on the intersection of feeder roads and main roads was raised by many. There was general support for the recommended Frankston-Flinders Road deviation across Graydens Road Port Related Use zone, the duplication of road link to Dandenong (especially given the future increase in LPG truck traffic), and the interim recommendation for the Marine Pde/Barkley Crescent intersection upgrade and medium term new Bayview Road extension.

There was also support for the creation of a road reserve link to Gippsland - especially given airport proposals. Other recommendations for road, such in the McKirdy and Pikes Road areas, and the suitability or otherwise of road transport into the Crib Point areas.

Comment was made on the provision of possible rail link in the Crib Point access corridor, along the Pikes Road corridor, and the desirability to reserve a corridor for a Gippsland rail link.

5. Port-related Use areas

A range of conflicting comment was offered with respect to the areas to be zoned for port related use. In particular there was divided opinion on the Graydens Road and Cemetery Estate areas, advocated to be rural, service industry, or port related use.

It was noted that parts of area presently zoned and recommended for port related use are remote from services and likely development, or are used for conflicting small block or capital intensive (notably broiler farm) rural uses. The desire of many land owners for rural based lifestyle was stated; others felt that intensive rural uses were inappropriate.

6. Planning zones, performance standards, EES

Opinions offered on required standards ranged from support for status quo standards to obligatory EES processes for all large development. The desirability for stringent performance requirements to be listed (truck noise at over 300 metres) and use of public processes for the consideration of major developments were also raised.

Non planning scheme requirements such as those of OHS, the EPA, and SEPP-W28 were mentioned, and increased monitoring of water quality and seagrass advocated.

With respect to EES requirement comment was made on the Crib Point Terminal development process and it was also suggested that a baywide EES and an EES covering all port related use zones be commissioned - to avoid need for duplication of EES for all proposals and assist in attracting development; others felt all industrial development and certainly any reclamation should be preceded by an EES.

Detailed comments on zoning provisions included that the port related use zone should not allow capital intensive development for non port related uses, although use of existing improvements for non port related uses could be permitted. The desirability of buffer zones (such as open space) between manufacturing and residential areas was suggested. It was also suggested that all recommended port related use areas be assessed against the new manufacturing buffer distances; some existing zoned areas were felt unlikely to meet them.

7. Crib Point detail

The recommendations for the areas south of Hastings drew probably the most comments. Some supported preserving port and port related use options south of Hastings others were strongly opposed. Concern was expressed as to the areas unsuitability for road based transport, others disputed this. Some advocated the acquisition of all required private land as a matter of urgency. Some felt the foreshore areas should be managed and/or reserved as coastal reserves others disagreed - one submission suggested an interim use as holiday accommodation leasehold. Conflicting comment was also made as to the appropriateness of existing permitted uses of the Crib point Terminals site and of the pipeline and its easement.

The possible conflicts between residential (and conservation values) and industrial use was a common theme; conclusions made were that medium density residential development be restricted east of Stony Point Road, that land south of Crib Point not be used for port purposes, and that the Crib Point to Stony Point coastline not be used for road transport based port purposes.

Inconsistencies between the recommendations of various government reports for the area were highlighted.

8. Long Island / Old Tyabb / East Tyabb detail

There appeared to be general support for the development of the recommended Old Tyabb site for port use, although it was considered important to remove traffic from the Old Tyabb residential area, and noted the ESSO may have impact on possible operations.

It was also noted that the development of three berths will require further dredging, reclamation, and destroy existing seagrass beds.

References to Long Island Point were responded to by statements as to the need for the protection of bird sites as well as the possible use of spoil to provide additional habitat.

With respect to the potential sites further north it was noted that BHP's undeveloped land holding on the south-western corner of Pykes and Whitney's Roads held the key to port development in this area, although details of a private port proposal at the Bluff - involving two or more stages involving dredging and reclamation for ferry, liquids and cargo uses - were forwarded. Reference was made to the seagrass beds between BHP wharf and Yaringa.

9. Yaringa detail

There was mostly support for the removal of the Yaringa area from port and port related zones, although it was noted that this would reduce options and flexibility and the new
boundary could be relocated slightly to the south to omit all of the original rural residential subdivision.

It was suggested that land no longer required for port development should be clearly defined with alternative use and management arrangements clearly stated. Some suggested that an assessment of public land values was a necessary precursor to this; there was also support for the area to be made available for rural residential (or resubdivision into 0.4 ha blocks, possibly with higher density subdivision around the existing caravan park and boat harbour area or a mixture of different densities). The retention of a coast reserve of at least 100 metres was advocated as was the notion that the use and management of the land reflect its importance as a buffer and transition zone between the port and other land uses.

10. Cemetery Estates

Submissions regarding this area responded to the broader issues of a fair and efficient process of restructuring as well as to the details of the recommended restructure plan.

The view was expressed that it was unjust to expect land owners to have to amalgamate their land - given history of rates, likely costs compared to land value, and purchase prior permits for ESSO’s operation. It was suggested that the government purchase the land at fair value.

With respect to the suggested proposed restructure plan, amendments included various variations on theme as well as a proposal for a restructure based on smaller blocks, the latter to provide for downstream industry. Greater recognition was advocated for existing ownership trends and future service provision requirements. The desirability for DCNR to assess the areas public land values was also suggested.

11. Implementation, funding

There were comparatively few comments made about the implementation of the plan, with the notable exception of suggestions for the Cemetery Estates area.

The proactive compulsory acquisition by the State of all lots at the Cemetery Estates and in proposed port and access corridor areas, at realistic valuations, was advocated - funding sources suggested included use of existing petrol levy, or gambling revenue. In particular, pro rata property levy’s, negotiation of rates, waiving of stamp duty, government loans, use of Shire resources, were all suggested. Such sources were also suggested for funding infrastructure, as well as use of a special charge against port users.

It was also suggested that the State and / or local government should assemble consolidated development sites - rather than continue the current maintain options approach, with the acquisition of the BHP land west of Whitneys Road also raised - to facilitate development of the north Tyabb site. Further negotiation was also sought over the BHP’s existing reclamation rights.

As a temper to many of the suggestions the Department of Finances stated that it has limited funding and also noted that any revenue raised from sale of Government land returns to Consolidated revenue. There was however support for private infrastructure spending and indeed a proposed private port development detailed.

At a general level there was general agreement that there be a commitment to the final structure plan - one submission suggested that it be implemented by was of an Act of Parliament, another that final decisions be widely advertised including the erection of roadside signage.

12. Miscellaneous issues, new information, errors

A range of other issues were raised. These ranged from comments on oil data, concerns that key references not considered, limitations of the maps, provision of additional background information, correction of detail, concern regarding the level of response to environmental issues, conflicts between government report recommendations, and possible new industries - expanded cemetery facilities including a crematorium.
5.1 PORT AND INDUSTRIAL DEVELOPMENT

Managing environmental effects

P5.1.1 Statement of Planning Policy Number 1 Western Port (as varied) 1976 permits port and port related industrial development which depends on access to deep water on environmentally appropriate sites within a specified area (the area between Hanns Inlet and Watsons Inlet) but such development shall not be permitted elsewhere around Western Port.

P5.1.2 Developers and managers of industrial operations must comply with air, water and solid waste disposal systems specified by the Environment Protection Authority.

P5.1.3 Industrial and port facilities must be located, designed, landscaped and operated in a manner which is compatible with the environment.

P5.1.4 Dredging of new channels shall not be allowed until an assessment of the environmental effects of the dredging and spoil disposal has been conducted and public comment sought.

P5.1.5 Potential damage to Western Port’s ecosystem from oil spills shall be taken into account in any environmental assessment of oil handling facilities.

Retaining land for port and industry

P5.1.6 Under the provisions of Statement of Planning Policy No. 1 Western Port (as varied) 1976, between Hanns Inlet and Watsons Inlet, appropriate areas of land and water will remain available for port development and industries dependent upon access to deep water but any port and industrial development should be carried out in a manner which ensures that the bay’s natural systems are protected.

P5.1.7 Subject to action A5.1.1, the coastline between Hanns Inlet and Watsons Inlet should be used in such a way as to preserve its value for selected port sites for industries which depend upon or gain significant economic advantage from the natural deep water channels of Western Port.

P5.1.8 A flexible approach should be adopted to the allocation of land for various port and industrial uses within the designated port area. Allocations should be examined in the context of changes in shipping operations, technologies, adjacent land uses and in the light of periodic reviews of current port policies.

P5.1.9 In planning and future management of areas for port and industrial purposes, particular attention should be paid to nature conservation, restoration of disturbed areas, retention of recreation values and public access (if safe) along the foreshores.

Option 1

Minimum Development (summary of key elements):

- Direct development of new port facilities to the Old Tyabb reclamation area with the capacity for up to three new berths.
- Limit the opportunities to recommission Crib Point No. 2 berth to cargo that is not reliant on road transport.
- Retain the option of developing the Tyabb area to accommodate possible long term port requirements or the emergence of a major new port trade.
- South of the Hastings township prohibit the development of industries which rely on the transport of goods by large numbers of trucks.
- Rationalise the boundaries of the Port Related Uses zone by rezoning the area north of Bungower Road and east of Dandenong Hastings Road to a farming zone.
- Divest public ownership of:
  - The Proposed Port Purposes and Access and Service Corridor at The Bluff;
  - The Proposed Port Purposes Reserve south of Crib Point, and
  - The Access and Service Corridor and Port Related Uses zone between the Crib Point Terminals Pty Ltd (Shell/Mobil) site and Stony Point Road.

Option 2

Preserve Long Term Options (Summary of key elements):

- Designate as a first priority opportunities for the development of new berths at the Old Tyabb reclamation area.

Preserve the possible development of new port facilities to the south of Hastings township as a long term option.
Option 3  Maximum Development (summary of key elements)

* Confirm as being of equal priority, opportunities for the development of new port facilities at:
  - The Old Tyabb reclamation area.
  - Tyabb north of the BHP Steel Industries wharf complex.
  - The Bluff south of Iluka Road.
  - The coastline between Crib Point and Stony Point.

* Protect coastal areas by:
  - Changing the Port and Foreshore Reserve north of Iluka Road to a Foreshore (Coastal) Reserve;
  - Including the SEC land south of Bungower Road within a Foreshore (Nature Conservation) Reserve;
  - Including the Hastings Bight coastline within a Foreshore (Coastal) Reserve;

* Confirm that development of new port facilities or reclamation of land may be subject to an Environmental Impacts Assessment.

* Enhance strategic public land holdings by completing the acquisition of:
  - The proposed Port Purposes Reserve between Crib Point and Stony Point;
  - The Access and Service Corridor to Crib Point;
APPENDIX 5

Source: Department of Planning and Development, March 1994.

2 MANUFACTURING 2 ZONE

Planning Scheme Map: Marked: M 2

Purposes
To provide for manufacturing industries, the storage and distribution of goods and associated facilities in a manner which does not affect the safety and amenity of local communities.
To promote potentially offensive and potentially hazardous manufacturing industries and storage facilities within the core of the zone.

2-1 Use of Land

2-1.1 Permit not required - Section 1

<table>
<thead>
<tr>
<th>USE</th>
<th>CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td></td>
</tr>
<tr>
<td>Animal Husbandry</td>
<td></td>
</tr>
<tr>
<td>Home Occupation</td>
<td></td>
</tr>
<tr>
<td>Minor Utility Install</td>
<td></td>
</tr>
<tr>
<td>Passive Recreation</td>
<td></td>
</tr>
<tr>
<td>Petrol Station</td>
<td></td>
</tr>
<tr>
<td>Railway</td>
<td></td>
</tr>
<tr>
<td>Road</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>Must not be an Extractive Industry</td>
</tr>
<tr>
<td>Store</td>
<td>Either of the following cases is satisfied: Case 1.</td>
</tr>
<tr>
<td>Warehouse</td>
<td></td>
</tr>
</tbody>
</table>

Case 1:
• The land is located more than 1500 metres from a residential zone (not being a road).
• Must not be a Major Hazard Facility as defined in the National Standard for the Control of Major Hazard Facilities *.
• The use is for a purpose listed in 'Recommended Buffer Distances for Industrial Residual Air Emissions' - publication No. AQ 2/86 (revised July 1990) of the Environment Protection Authority *, and the buffer distance is met as measured from the land to a residential zone (not being a road).

Note to readers: This document will be incorporated with the Planning Scheme

2-1.2 Permit Required - Section 2

<table>
<thead>
<tr>
<th>USE</th>
<th>CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caretakers House</td>
<td></td>
</tr>
<tr>
<td>Major Public Utility Installation</td>
<td></td>
</tr>
<tr>
<td>Petrol Station if the Section 1 conditions are not met</td>
<td></td>
</tr>
<tr>
<td>Store if the Section 1 conditions are not met</td>
<td></td>
</tr>
<tr>
<td>Warehouse if the Section 1 conditions are not met</td>
<td></td>
</tr>
<tr>
<td>Education Centre</td>
<td>Must not be a primary or secondary school</td>
</tr>
<tr>
<td>Industry if the Section 1 conditions are not met</td>
<td>Must not be an Extractive Industry</td>
</tr>
<tr>
<td>Junk Yard</td>
<td>Must not adjoin land reserved for Road - Existing main, or Road - Proposed main</td>
</tr>
<tr>
<td>Office</td>
<td>Floor area must not exceed 500 square metres</td>
</tr>
</tbody>
</table>

(Section 1 Continued next page)
Manufacturing 2 Zone

Permit required (continued)

Peripheral Sales

Sells or hires only party supplies or materials, tools, equipment or machinery for use in industry, commerce, the building or automotive trades, the medical profession, landscape gardening or primary production.

Shop

The gross leasable floor area does not exceed 240 square metres.

Must only sell food for human consumption and other convenience goods.

Any other use not in Section 1 or 3

2-1.3 Prohibited - Section 3

USE

Any use providing habitation including
- a Dwelling (other than a Caretakers House)
- Caravan Park, Gaol, Hostel, Hospital, Institutional Home, Motel and Residential Building.
- Attendance Centre
- Display Home

Extractive Industry
- Pig Raising
- Place of Assembly
- Place of Worship
- Poultry Farming
- Trash and Treasure Market
- Veterinary Clinic

2-1.4 General Conditions

Amenity of the neighbourhood

An Industry, Store or Warehouse must not unreasonably affect the amenity of the neighbourhood in any adverse way by the storage of goods and equipment, the arrival or departure of vehicles, emissions from the site, or in any other way.

Noise - Metropolitan region schemes
Noise emissions must comply with State Environment Protection Policy (Control of Noise from Industry and Trade) No.N.1 except if measured at a Caretakers House or a dwelling within a Manufacturing zone.

2-1.5 Contents of an application for a permit.

An application to use land for an Industry, Store or Warehouse must include:
- The purpose of the use and the types of processes to be utilised.
- The type and quantity of goods to be stored, processed or produced.
- Maintenance of areas not required for immediate use.
- Whether a Works Approval, or Waste Discharge Licence is required from the Environment Protection Authority.
- Whether a licence or approval under the Dangerous Goods Act 1985 is required.

(Clause 2-1.5 continued next page)
2.3 Buildings and works

2.3.1 Development plan

A development plan is required to construct a building or to construct or carry out works for a Section 1 use except if all the following conditions are met:

- The use is an Industry, Store or Warehouse.
- The land is more than 1500 metres from a residential zone.
- The use is proposed for an unspecified operator or business.

The development plan must be prepared in accordance with Clause 2.3.4 and approved to the satisfaction of the responsible authority.

The development must:

- Not start before the development plan is approved.
- Be in accordance with the approved development plan.
- Be maintained to the satisfaction of the responsible authority.

2.3.2 Permit

A permit is required to construct a building or construct or carry out works for a Section 2 use.

An application is exempt from the notice requirements of Section 52(1); the decision requirements of Sections 64(1), (2) and (3) and the appeal rights of Section 82(1) of the Act.

2.3.3 Exempt buildings and works

Clause 2.3 does not apply to:

- The rearrangement, renewal or maintenance of plant if:
  - The area of plant external to existing buildings is not increased.
  - The works are within a defined ‘building and works envelope’ shown in a permit or an approved development plan.
- Any building or works required to be modified in conformity with a direction or licence under the Dangerous Goods Act 1985, or a Waste Discharge Licence, Works Approval or Pollution Abatement Notice, under the Environment Protection Act 1970.
- The alteration of electrical services and plumbing services which do not affect the drainage of other land.
- The minor rearrangement of car parking if the number of vehicle spaces is not diminished.
- The minor internal rearrangement of landscaped areas.
- A temporary shed or structure required for construction purposes.
- A Minor Utility Installation.
- Any works required to be carried out for fire protection under relevant legislation.
- A building or work, used for Agriculture, Animal Husbandry, or Passive recreation, or a strand wire fence to enclose vacant land.

2.3.4 Information to be included in the plan

A development plan or permit application must include:

- A plan drawn to scale which shows:
  - The boundaries and dimensions of the site.
  - Adjoining roads.
  - Relevant ground levels.
  - The layout of existing and proposed buildings, fences and works.
  - All driveway, car parking and loading areas.
  - Proposed landscaping areas.
  - All external storage and waste treatment areas.
  - Areas not required for immediate use.
  - Advertising sign structures.
- Elevation drawings to scale showing the colour and materials of all buildings and works including fences.
- Details of construction of all drainage works, driveways, vehicle parking and loading areas.
- A landscape layout which includes the description of vegetation to be planted, the surfaces to be constructed, site works specification and method of preparing, draining, watering and maintaining the landscaped area.

2.3.5 Approval guidelines

Before deciding on an application or a development plan, the responsible authority must consider:

- When more than 1500 metres from a residential zone:
  - The effect that any potential use of the buildings and works may have on nearby existing industries, stores or warehouses or those industries, store or warehouses which may establish without a permit.
  - The effect that a nearby industry, store, or warehouse or a an industry, store, or warehouse which may establish without a permit may have on any potential use of the buildings and works.
- Any natural and cultural values on or nearby the land
- Streetscape character
- Building siting
- Built form
- Energy efficiency
- Landscape treatment
- Interface with non industrial areas
- Parking and site access
- Loading and service areas
- Outdoor Storage
- Fencing
- Lighting
- Signage

Note to readers: This is a minimal listing which may be superseded as Principles for design of industrial areas are introduced. See the Explanation to the Manufacturing zones for more information.
2.4 Referrals

Applications of the kind listed below must be referred to the authority or person shown in accordance with Section 55 of the Act.

<table>
<thead>
<tr>
<th>KIND OF APPLICATION</th>
<th>REFERRED TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry Store or Warehouse, for a purpose listed in 'Recommended Buffer Distances for Residual Air Emissions' - publication No. AQ 2/86 (revised July 1990) of the Environment Protection Authority.</td>
<td>Environment Protection Authority</td>
</tr>
<tr>
<td>Industry, Store or Warehouse if requiring a licence under the Dangerous Goods (Storage and Handling) Regulations or the Dangerous Goods (Explosives) Regulations.</td>
<td>Department of Business and Employment -Industry Services</td>
</tr>
</tbody>
</table>

Note to readers: See Clause 5 in this section for additional referral requirements for subdivision, and developments requiring a Works Approval or Waste Discharge Licence.

2.5 Advertising signs

Metropolitan region planning schemes
Advertising sign controls are at Clause 18. This zone is in Category 6 of the table at Clause 18-5.

Other Planning Schemes
Advertising controls are in the local section of this scheme.

Note: Other controls may also apply. These can be found under PARTICULAR AREA, DEVELOPMENT AND USE CONTROLS in the State, regional and local sections. Some controls (eg car parking) apply to all zones and others to specific areas or uses.

The local section may also contain additional guidelines for permits and development plans.

END MANUFACTURING 2 ZONE