

Summary of key outcomes:

The EIS has been prepared in accordance with the provisions of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). It also takes into account other relevant Commonwealth and NSW legislation and environmental planning instruments.

The proposal is State significant development and the NSW Minister for Infrastructure and Planning will be the consent authority in respect of approvals under the EP&A Act. The proposal also requires the approval of the Commonwealth Minister for the Environment and Heritage under the EPBC Act.

The Commonwealth Minister for the Environment has agreed to accredit the NSW development assessment process under the EPBC Act. This means that the preparation of a single EIS for the project satisfies the legislative requirements of both the Commonwealth and NSW.

The proposal is designated development and an EIS is required to accompany the development application. The proposal is also integrated development by virtue of the requirement to obtain licences or permits from various State Government agencies.

The proposed Port Botany Expansion is permissible with consent under the Botany Local Environmental Plan 1995 and is consistent with the objectives of the relevant zones which apply to the subject site.

9.1 Introduction

A number of statutory planning controls need to be addressed for the proposed Port Botany Expansion. This chapter reviews Commonwealth, State and local planning legislation and policies to determine what approvals would be required to allow the proposed development to proceed.

As discussed in **Chapter 1 Introduction**, the environmental impact of the proposal would be assessed under the requirements of both Commonwealth and NSW legislation. A summary of the approvals, licences and permits required for the construction and operation of the proposed Port Botany Expansion is provided in **Table 9.1**.

Table 9.1 Summary of Approvals

AUTHORITY	RELEVANT LEGISLATION	APPROVAL
Commonwealth Minister for the Environment and Heritage	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Approval
NSW Minister for Infrastructure and Planning	<i>Environmental Planning and Assessment Act 1979</i>	Development consent
NSW Environment Protection Authority	<i>Protection of the Environment Operations Act 1997</i>	Environment Protection Licence for construction. Terminal operator(s) to obtain environmental protection licence for operation if required.
NSW Fisheries	<i>Fisheries Management Act 1994</i>	Permit under section 205
NSW Roads and Traffic Authority	<i>Roads Act 1993</i>	Approval under section 138
NSW Waterways Authority	<i>Rivers and Foreshores Improvement Act 1948</i>	Permit under Part 3A
NSW WorkCover	<i>Dangerous Goods Act 1975</i>	Terminal operator(s) to obtain Dangerous Goods Licence for operation
Sydney Water	<i>Sydney Water Act 1994</i>	Terminal operator(s) to negotiate Trade Waste Agreement for operation

9.2 Commonwealth Legislation

9.2.1 Environment Protection and Biodiversity Conservation Act 1999

The purpose of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is to ensure that actions likely to cause a significant impact on a matter of national environmental significance undergo a rigorous assessment and approval process.

Under the EPBC Act, an action includes a project, undertaking, development or activity.

An action that “has, will have or is likely to have a significant impact on a matter of national environmental significance” may not be undertaken without prior approval from the Commonwealth Minister for the Environment and Heritage.

The EPBC Act identifies matters of national environmental significance as:

- World Heritage properties;
- Ramsar wetlands of international importance;
- listed threatened species and ecological communities;
- migratory species protected under international agreements;
- Commonwealth marine areas; and
- nuclear actions.

The Administrative Guidelines for the EPBC Act set out criteria intended to assist in determining whether an action requires approval. In particular, the Guidelines contain criteria for determining whether a proposed action is likely to have a “significant impact” on a matter of national environmental significance.

The proposed development was referred to the Commonwealth Minister for the Environment and Heritage, indicating that the proposed development may have a significant impact on one or more of the listed matters of national environmental significance, including:

- listed migratory species due to the potential loss of ecological habitat; and
- listed threatened species.

The referral considered the potential impacts on the aquatic ecology of Towra Point Nature Reserve (a Ramsar wetland) by way of changes to water quality, water currents, wave climates and water depths. Based on hydrodynamic assessment of the proposed dredging and reclamation, it was concluded that these potential impacts would not be significant. This is presented in **Chapter 15 Hydrodynamics and Coastal Processes** and **Appendix H**.

In addition to matters of national environmental significance, section 26 of the EPBC Act provides that actions which may have a significant impact on Commonwealth land must also be referred to the Commonwealth Minister for the Environment and Heritage. This includes development which is located outside Commonwealth land but which may affect the environment within Commonwealth land. The EIS shows that the proposed development would not have a significant impact on Sydney (Kingsford-Smith) Airport which is Commonwealth land, as discussed in **Chapter 15 Hydrodynamics and Coastal Processes**, **Chapter 23 Air Quality**, **Chapter 28 Preliminary Hazard Analysis**, **Chapter 29 Bird Hazard**, **Chapter 30 Operational Aviation Issues** and **Chapter 36 Cumulative Impacts**.

Based on this referral, the Commonwealth Minister for the Environment and Heritage pursuant to section 75 of the EPBC Act has declared that the proposal is a Controlled Action. The controlling provisions were set out by Environment Australia (EA) as follows:

- under Part 3 Division 1:
 - sections 16 and 17B (Wetlands of international importance);
 - sections 20 and 20A (Listed migratory species); and

- under Part 3, Division 2:
 - sections 26 and 27A (Protection of the environment from actions involving Commonwealth land).

The proposed development will therefore require the approval of the Commonwealth Minister for the Environment and Heritage under Part 9 of the EPBC Act.

Under the provisions of section 87(1) of the EPBC Act, the Commonwealth Minister for the Environment and Heritage must determine the appropriate process for assessing a Controlled Action. Upon Sydney Ports Corporation's request, the Commonwealth Minister for the Environment and Heritage has accredited the NSW environmental impact assessment process for the proposed Port Botany Expansion. The assessment is to be undertaken in accordance with the provisions of Part 4 of the EP&A Act. This means that a single EIS for the project, prepared under the provisions of the EP&A Act, will satisfy the assessment requirements of both the Commonwealth and NSW legislation.

9.2.2 Airports Act 1996

The airspace at and around airports is protected under Part 12 of the *Airports Act 1996* and the Airports (Protection of Airspace) Regulations 1996 (APA Regulations).

The protected airspace is the space above two sets of defined surfaces above the ground around an airport namely the:

- OLS; and
- Procedures for Air Navigational Services - Aircraft Operations (PANS-OPS) surface.

The OLS is generally the lowest surface and is designed to provide protection for aircraft flying into or out of the airport when the pilot is flying by sight. The PANS-OPS surface is generally above the OLS and is designed to safeguard an aircraft from collision with obstacles when the aircraft's flight may be guided solely by instruments, in conditions of poor visibility.

The *Airports Act* defines any activity resulting in an intrusion into an airport's protected airspace to be a "**controlled activity**" (section 182), and requires that controlled activities cannot be carried out without approval. The APA Regulations provide for the Department of Transport and Regional Services (DoTARS) or the airport operator to approve applications to carry out controlled activities, and to impose conditions on an approval.

Controlled activities are defined under the *Airports Act* as including the following:

- (a) *constructing a building, or other structure, that intrudes into the prescribed airspace;*
- (b) *altering a building or other structure so as to cause the building or structure to intrude into the prescribed airspace;*
- (c) *any other activity that causes a thing attached to, or in physical contact with, the ground to intrude into the prescribed airspace.*
- (d) *operating a source of artificial light, where:*
 - (i) *the intensity of the light emitted exceeds the level ascertained in accordance with the regulations; and*

- (ii) *the light is capable of blinding or confusing pilots of aircraft operating in the prescribed airspace;*
- (e) *operating prescribed plant, or a prescribed facility, that reflects sunlight, where:*
 - (i) *the intensity of the reflected sunlight exceeds the level ascertained in accordance with the regulations; and*
 - (ii) *the reflected sunlight is capable of blinding pilots of aircraft operating in the prescribed airspace;”*

Under section 183 of the *Airports Act*, it is an offence to carry out a controlled activity without approval.

The APA Regulations differentiate between “*short-term*” (less than three months) and “*long-term*” controlled activities. If the proposed activity is short term (i.e. three months or less), the airport operator (of Sydney Airport, in this case) may approve the application, including PANS-OPS infringements, or may refer the application to DoTARS. If the controlled activity is long term (i.e. more than 3 months), the airport operator may seek further assessment from the Civil Aviation Safety Authority (CASA) and AirServices Australia. The application and assessments are then sent to the Secretary of DoTARS for final assessment and approval. Long term intrusions of the PANS-OPS surface are prohibited.

The proposed Port Botany Expansion has been designed to ensure that all structures, including container cranes, would not penetrate the OLS for Sydney Airport or cause light reflectivity problems to aircraft operating within the prescribed airspace. Therefore, the proposed development would not be a controlled activity and would not require approval from DoTARS under the *Airports Act*. Sydney Ports Corporation has undertaken extensive consultation with the Sydney Airports Corporation Ltd (SACL) and has also consulted with AirServices Australia and DoTARS relating to the interaction of the proposed expansion with Sydney Airport’s airspace. The description of the Sydney Airport protected airspace and the assessment of relevant activities in relation to the protected airspace are discussed in more detail in **Chapter 30 Operational Aviation Issues**.

9.2.3 Quarantine Act 1908

The *Quarantine Act 1908* aims to prevent the introduction or spread of diseases or pests affecting human beings, animals and plants. It outlines measures such as the inspection, exclusion, treatment and disinfection of vessels, installations, persons, goods, animals and plants, which will prevent the introduction or spread of diseases.

Various types of goods would pass through the port during the operation of the proposed development. Provisions of the *Quarantine Act* relating to inspection, exclusion, treatment and disinfection of vessels, installations, persons, goods, animals, plants and waste to prevent the introduction or spread of diseases would be enforced by the Australian Quarantine Inspection Service (AQIS) with the cooperation of the terminal operators. The proposal includes the provision of facilities to enable AQIS to enforce the provisions of the *Quarantine Act*.

9.2.4 Ozone Protection Act 1989

This Act gives effect to the Vienna Convention for Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer. The Act aims to institute a system of control on the

manufacture, import, export distribution and use of substances that deplete the ozone layer. This Act prohibits the manufacture, import and export of certain ozone depleting substances (which are listed in a schedule to the Act) unless a licence (granted by the Commonwealth Minister for the Environment and Heritage) is held. One of the goals of the Act is the phasing out of all ozone depleting substances by 1 January 1996.

Compliance with the *Ozone Protection Act* is enforced by EA, in cooperation with the Australian Federal Police for investigation of breaches of the Act, and with the Australian Customs Service to prohibit imports and exports of ozone depleting substances under Customs regulations.

In general the *Ozone Protection Act* does not control a manufactured product that contains or will use in its operation a scheduled substance. However, the Act prohibits the import and manufacture of certain products which contain or rely upon certain scheduled substances.

The proposed Port Botany Expansion would include air conditioning units for the terminal buildings and for possible cold storage facilities. The terminal operator(s) would need to ensure that the procurement of these air conditioning and refrigeration equipment would comply with the requirements of the *Ozone Protection Act*.

9.2.5 Hazardous Waste (Regulation of Exports and Imports) Act 1989

The object of this Act is to regulate the export, import and transit of hazardous waste to ensure that exported, imported or transited waste is managed in an environmentally sound manner so that human beings and the environment, both within and outside Australia, are protected from the harmful effects of the waste.

During operations, cargo which may be classified as hazardous waste under the provisions of the Act could potentially be handled at the proposed facility.

The Act provides that an inspector monitoring compliance to requirements of the Act (section 46) or gathering evidence of commission of an offence against the Act (section 47) can enter or board the *searchable place*, which includes the proposed terminal facility, with the consent of the terminal operator who is the *relevant authority in relation to the place*. The terminal operator may also be required under section 53 of the Act to provide reasonable assistance to an inspector exercising powers under Part 5 (Administration) of the Act.

9.2.6 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The purpose of this Act is to preserve, and protect from injury or desecration, those areas and objects under threat in Australia and Australian waters which are areas and objects of particular significance to Aborigines in accordance with Aboriginal tradition. The Act enables a local Aboriginal community to grant or refuse consent in writing to the decay or destruction of sites after receipt of an application from the developer.

The proposed works would not impact on sites or items of Aboriginal archaeological significance as described in **Chapter 24 Cultural Heritage** and **Appendix S**.

9.3 State Legislation

9.3.1 Environmental Planning and Assessment Act 1979

In examining the application of the EP&A Act to the proposed Port Botany Expansion project it is necessary to determine a number of issues including:

- whether the project is to be examined under Part 4 or Part 5 of the Act;
- whether the project is State significant;
- whether the project represents integrated development; and
- whether the project represents designated development.

Part 4 or Part 5

The threshold question regarding the application of the EP&A Act to the proposed Port Botany Expansion is whether the proposal is development requiring consent under Part 4 of the EP&A Act or whether the project is an activity requiring consideration under Part 5 of the EP&A Act. An activity under Part 5 explicitly excludes any act, matter or thing for which development consent under Part 4 is required. Thus, Part 5 only applies where the project does not require development consent under an environmental planning instrument.

The discussion in Section 9.6.1 below indicates that the proposed development is permissible only with development consent under the Botany Local Environmental Plan 1995 (LEP). The project site is contained within the City of Botany LGA although there would be works required for the Port Botany Expansion which are located outside the City of Botany Bay LGA in parts of Botany Bay which are not included within any local government area. These are the elements of the dredging of the navigation channel to remove localised shallow portions. However, it is noted that where a project requires development consent and is State significant development, then under section 76A(8) of the EP&A Act if other parts of the project are local development or there are parts of the project which would be subject to Part 5, then the entire project is taken to be State significant development and is to be dealt with under Part 4.

In view of the fact that the project is largely permissible with consent under Part 4 and is State significant development, the entire development will be assessed under Part 4 of the EP&A Act and will require consent from the Minister for Infrastructure and Planning.

State Significance

Under a Ministerial Declaration issued on 29 June 2001 by the then Minister for Planning the project is State significant development under section 76A (7) of the EP&A Act.

The Minister for Infrastructure and Planning is the consent authority for State significant development.

For all State significant development proposals, the Director-General requires the proponent to:

- answer public enquiries about the proposal;
- consult with the communities likely to be affected by the proposal; and
- consult with the Local Council.

Integrated Development

Section 91(1) of the EP&A Act specifies that integrated development is development that requires development consent, and which also requires at least one approval, permit, licence, authority or consent under any of the following legislation:

- *Fisheries Management Act 1994* ss 144, 201, 205;
- *Heritage Act 1977* s 57;
- *Mine Subsidence Compensation Act 1961* s 15;
- *National Parks and Wildlife Act 1974* s 90;
- *Protection of the Environment Operations Act 1997* ss 43, 47, 48, 55, 122;
- *River and Foreshores Improvement Act 1948* Part 3A;
- *Rural Fires Act 1997* s 100B;
- *Roads Act 1993* s 138;
- *Water Act 1912* ss 10, 13A, 18F, 20B, 20CA, 20L, 116, Part 8.

The proposed development requires development consent and a number of the approvals/licences/permits listed in section 91(1) as described in the following sections. The proposal is therefore integrated development.

Designated Development

Section 77A of the EP&A Act states that

“designated development is development that is declared to be designated development by an environmental planning instrument or the regulations.”

Schedule 3 of the EP&A Regulation 2000 lists the types of developments that are declared to be designated development. The list includes:

“Shipping facilities

Wharves or wharf-side facilities at which cargo is loaded onto vessels, or unloaded from vessels, or temporarily stored, at a rate of more than:

- (a) *150 tonnes per day, or 5,000 tonnes per year, for facilities handling goods classified in the Australian Dangerous Goods Code, or*
- (b) *500 tonnes per day or 50,000 tonnes per year.”*

The proposed Port Botany Expansion falls under this definition of shipping facilities as it would involve the loading and unloading of more than 50,000 tonnes per annum. Therefore, the proposed development is designated development.

Section 78A(8) of the EP&A Act states that a DA (in respect of designated development) must be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by the regulations. As such, an EIS is required to be submitted with the DA.

Clauses 71 to 76 of the EP&A Regulation contain details on the requirements for preparation of an EIS. Specifically, clause 72(2) states that:

“For the purpose of this clause, the Director-General may establish guidelines for the preparation of environmental impact statements, in relation to development generally or in relation to any specific kind of development.”

Furthermore, clause 73(1) of the EP&A Regulation specifies that:

“The applicant responsible for preparing an environmental impact statement must consult with the Director-General and, in completing the statement, must have regard to the Director-General’s requirements:

- (a) as to the form and content of the statement, and*
- (b) as to making the statement available for public comment.”*

A consultation process commencing with a PFM was the first step taken towards obtaining the Director-General’s Requirements which were subsequently documented in a communication from PlanningNSW, shown in **Appendix A**. The Director-General has also included comments, issues or requirements for the EIS identified by integrated approval bodies and other agencies and interested parties which should be addressed in the EIS which are also contained in **Appendix A**. A summary of the Director-General’s Requirements and the relevant section of the EIS which gives consideration to these issues is presented in **Chapter 11 Government Consultation** and **Appendix B**.

9.3.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is the primary piece of legislation regulating pollution control and waste disposal in NSW. The POEO Act is administered by the NSW EPA.

The proposed development is a scheduled activity under the POEO Act since various elements of the expansion consist of activities listed under Schedule 1 of the POEO Act. These are:

- “*Dredging works*” being works in which materials of more than 30,000 cubic metres per year are obtained from the bed, banks or foreshores of any waters;
- “*Chemical storage facilities*” that store chemical substances in containers with a total storage capacity exceeding:
 - 20 tonnes of pressurised gas; or
 - 200 tonnes of liquefied gases; or
 - 2,000 tonnes of any chemical substances; and
- “*Waste activities*” being activities which involve the generation or storage of certain types of waste including oils, solvents and quarantine waste.

Therefore, under section 48 of the POEO Act, an Environment Protection Licence (EPL) would be required from the NSW EPA for dredging works during the construction of the proposed development. The terminal operator(s) may also be required to obtain an EPL relating to chemical storage and waste activities during the operation of the new terminal.

9.3.3 Fisheries Management Act 1994

Sections 204 and 205 of the *Fisheries Management Act 1994* (FM Act) provide for the protection of marine vegetation including seagrass and mangroves. The FM Act provides that a permit is required from the Minister for Agriculture and Fisheries under section 205 for the cutting, damage, removal or destruction of marine vegetation.

The proposed development would result in the clearing of mangroves for the creation of tidal flats as part of the enhancement of Penrhyn Estuary as an ecological habitat. The proposal will also involve the removal of about 4 ha of seagrass and the provision of compensatory habitat incorporating transplanting and natural colonisation of seagrass over an area of some 8 ha. A permit under section 205 will therefore be required for the proposed development.

Section 201 of the FM Act provides that a permit is required before carrying out any dredging or reclamation works. However, under the provisions of section 199, Sydney Ports Corporation, being a public authority, is exempted from the need to obtain approval for dredging and reclamation, but must provide written notice to the Minister for Agriculture and Fisheries.

9.3.4 Rivers and Foreshores Improvement Act 1948

The *Rivers and Foreshores Improvement Act 1948* (RFI Act) provides for the protection of riverside land in NSW. Anyone who excavates or removes material from “*protected land*” or does anything likely to interfere with the flow of “*protected waters*” must first obtain a permit under Part 3A of the RFI Act.

A Part 3A permit would be required under the RFI Act for the Port Botany Expansion as the proposal involves the excavation of material from “*protected land*”, including dredging and reclamation for the new terminal and boat ramp on the bed of Botany Bay; and the construction of the road bridges and rail line extension, habitat enhancement works on Penrhyn Estuary, and the development of the public recreation area north of the new terminal on land that is within 40 m of Botany Bay. The Part 3A permit would be required from the Waterways Authority which is responsible for administering the RFI Act for works within Botany Bay (east of Captain Cook Bridge).

9.3.5 Roads Act 1993

Under section 138 of the *Roads Act 1993*, consent is required to:

- a) erect a structure or carry out a work in, on or over a public road, or
- b) dig up or disturb the surface of a public road, or
- c) remove or interfere with a structure work or tree on a public road, or
- d) pump water onto a public road from any land adjoining the road, or
- e) connect a road (whether public or private) to a classified road.”

The proposed development will require approval from the NSW RTA for the proposed road works associated with the development under section 138 of the Roads Act.

9.3.6 Heritage Act 1977

The purpose of the *Heritage Act 1977* is to ensure the environmental heritage of NSW is adequately identified and conserved. The *Heritage Act* is concerned with all aspects of conservation ranging from the most basic protection against damage and demolition to restoration and enhancement.

Section 139 specifically provides protection for any item classed as a relic. A relic is defined as “*any deposit object or material evidence –*

- (a) *which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and*
- (b) *which is 50 or more years old.”*

Section 139 prohibits disturbance of a relic unless an excavation permit is obtained from the Heritage Council. In practice, excavation permits are required only for relics which according to their assessed heritage significance warrant this form of documentation and control.

Section 148 requires that the discovery of a previously unknown relic be reported to the Heritage Council within a reasonable time of its discovery.

The remains of the former Government Jetty are the only known heritage item existing in the project area. This structure was built in 1880 but was partially demolished in 1970. The significance of the Government Pier lies in its association with the Government’s first attempt at fostering trade and creating port infrastructure within Botany Bay.

An examination of historical maps and documents also showed the location of the Sir Joseph Banks Hotel Jetty, built in front of the Sir Joseph Banks Pavilion in 1847, and Dent’s Boatyard Jetty west of the Government Jetty. These jetties were likely to have been removed in the early to mid-1860’s and any remains would be buried under the previous foreshore reclamation work in this part of Botany Bay.

The remains of any other structures, if they survived up until the period of reclamation, would now be buried beneath the foreshore reclamation work.

While none of these items are listed on the State Heritage Register or the State Heritage Inventory maintained by the NSW Heritage Office, the Government Pier and any physical evidence relating to the Sir Joseph Banks Hotel Jetty, Dent’s Boatyard Jetty, and any associated cultural deposits would be considered “*relics*” under the Heritage Act.

The remains of the Government Pier are located in the project area. These remains, above and below water, and associated cultural deposits, would be conserved as part of the early history of Government regulation and development of port infrastructure in Botany Bay.

The general location of the Sir Joseph Banks Hotel Jetty and bath and Dent’s Boatyard Jetty remains would be regarded as potential archaeological sites. Should dredging or excavation works in the channel between the new terminal and Foreshore Beach be undertaken in the proximity of the former jetty locations, an excavation permit under section 140 will be applied for from the NSW Heritage Office.

The results of a historic site survey carried out as part of the scientific investigations for this proposal are summarised in **Chapter 24 Cultural Heritage** and presented in **Appendix S**.

9.3.7 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) provides the basis for the legal protection of flora and fauna in NSW. The NPW Act requires a licence to harm or pick protected and threatened species, except where development consent has been granted under the EP&A Act. The *Threatened Species Conservation Act 1995* (TSC Act) has amended the NPW Act to incorporate requirements regarding the protection of “*threatened species, populations and ecological communities, and their habitats,*” including the preparation of a Species Impact Statement (SIS) where “*there is likely to be a significant effect*” on these biota or their habitats.

An assessment of the potential impacts of the proposed development to aquatic and terrestrial ecology was undertaken as part of the EIS. The results are summarised in **Chapter 19 Aquatic Ecology** and **Chapter 20 Terrestrial Ecology** and provided in full **Appendix N** and **Appendix O**, respectively. The assessment showed that mangroves and planted shrubland would be removed but additional saltmarsh would be created as part of the Penrhyn Estuary habitat enhancement. There would be a disturbance in the feeding and roosting of shorebirds and seabirds visiting Penrhyn Estuary, but as an ameliorative measure the existing area of feeding and roosting habitat would be substantially enlarged and secured from disturbance; and about 4 ha of seagrass would be removed due to dredging and reclamation but compensatory habitat would be created incorporating transplanting and natural seagrass colonisation in the longer term.

The NPW Act also provides the basis for the legal protection and management of Aboriginal sites within NSW. The implementation of the Aboriginal heritage provisions of the NPW Act is the responsibility of the NSW National Parks and Wildlife Service (NPWS). Section 90 of the NPW Act requires consent from the Director-General of NPWS to destroy, damage or deface an Aboriginal relic.

An Aboriginal heritage assessment has been undertaken to fully assess the potential impacts of the proposed Port Botany Expansion on Aboriginal heritage. This assessment, summarised in **Chapter 24 Cultural Heritage** and provided in full in **Appendix S** found no Aboriginal sites recorded as occurring in the Port Botany Expansion area and assessed the potential for submerged Aboriginal sites as negligible.

9.3.8 Threatened Species Conservation Act 1995

The TSC Act requires that a SIS be prepared for a development proposal that is likely to significantly affect threatened species, populations or ecological communities or their habitats. Planning aspects of the TSC Act are implemented through the EP&A Act. Section 5A of the EP&A Act sets out an eight-part test to determine whether there is likely to be a significant effect and whether a SIS is required.

Eight-part tests carried out as part of the terrestrial ecology assessment found that there may be a significant impact on threatened species and ecological communities listed under the TSC Act and the EPBC Act, and therefore a SIS has been prepared. The SIS is provided in **Appendix O** and summarised in **Chapter 20 Terrestrial Ecology**.

Eight-part tests carried out as part of the marine ecology assessment found that there would be no significant impact on threatened species and ecological communities listed under the TSC Act, the FM Act and the EPBC Act, and therefore a SIS would not be required. Details of the assessment are provided in **Appendix N** and summarised in **Chapter 19 Aquatic Ecology**.

Section 79B(3) of the EP&A Act provides that in a development where a Minister is the consent authority (as in the case of the proposed Port Botany Expansion), the concurrence of the Director-General of the NPWS in respect of the SIS is not required. Instead the Minister is required to formally consult with the Minister for the Environment (the Minister who administers the TSC Act), prior to granting consent.

9.3.9 Water Management Act 2000

The *Water Management Act 2000* (WM Act) provides for the integrated and sustainable management of the State's waters. Among other matters, the WM Act has provisions for environmental protection that would require approvals for activities that impact upon water. These provisions would replace the RFI Act permits with controlled activity approvals in 'waterfront land' which includes the beds, banks (where applicable) and foreshores of rivers, estuarine and coastal water bodies. However, the provisions of Part 3A of the RFI Act still apply.

9.3.10 Dangerous Goods Act 1975

The *Dangerous Goods Act 1975* (DG Act) provides a licensing scheme covering both the premises where substances classified as Dangerous Goods are kept, and also those who transport them. The DG Act and the Dangerous Goods (General) Regulation 1999 is administered by NSW WorkCover.

The terminal operator(s) would be required to obtain a Licence to Keep Dangerous Goods from NSW WorkCover under the DG Act for the storage and handling of licensable quantities of dangerous goods (e.g. onsite diesel fuel supply where the tank has a capacity greater than 50,000 L).

The DG Act does not apply to the transport of dangerous goods by road or rail as these are dealt with in the *Road and Rail Transport (Dangerous Goods) Act 1997* which is discussed below.

9.3.11 Road and Rail Transport (Dangerous Goods) Act 1997

The purpose of the *Road and Rail Transport (Dangerous Goods) Act 1997* is "to regulate the transport of dangerous goods by road and rail in order to promote public safety and protect property and the environment." It re-enacts in most part the Commonwealth's *Road Transport Reform (Dangerous Goods) Act 1995*.

The transport of dangerous goods involves the importing, loading, consigning, marking and placarding of goods, and driving of vehicles.

The Act provides for the appointment of a "Competent Authority" for its administration. The NSW EPA and NSW WorkCover are the appointed "Competent Authorities". The EPA's role relates to on-road and on-rail aspects of the transport of dangerous goods, while WorkCover regulates other aspects such as loading, unloading, labelling, placarding and packaging. Sydney Ports Corporation administers Part 11 of the Dangerous Goods (General) Regulation 1999 which regulates the movement of dangerous goods in port areas. This is administered under the port safety operating licence and applies to the port terminals.

The proposed Port Botany Expansion incorporates design features and management systems for the on-site storage and transport of dangerous goods, including the transfer of dangerous goods between water, road and rail vessels. These are described in **Chapter 6 Terminal Operations**.

9.3.12 Soil Conservation Act 1938

The *Soil Conservation Act 1938* (SC Act) and amendments provide, amongst other matters, for the conservation of soil and farm water resources and for the mitigation of erosion within NSW. In relation to the SC Act, the EIS for the proposed Port Botany Expansion addresses issues on soil erosion, sedimentation and land degradation. These issues are covered in **Chapter 18** *Geology, Soils and Geotechnical*.

9.3.13 Sydney Water Act 1994

The *Sydney Water Act 1994* (SW Act) established Sydney Water Corporation, a State owned corporation, to provide the supply of water and the disposal of wastewater in Sydney and other regions.

Once operational, the Port Botany Expansion would generate wastewater mainly from domestic water use, housekeeping and from maintenance areas. The terminal operator(s) would discharge trade waste to the sewer after applying for a Trade Waste Agreement with Sydney Water. Under section 49 of the SW Act, it is an offence to discharge any trade waste into Sydney Water's sewerage system without its written agreement.

The Trade Wastewater Agreement may be negotiated with Sydney Water after development consent has been obtained for the proposed development. It may include acceptance standards which specify the maximum levels of substances that may be present in trade waste discharged to sewer.

The assessment of the volume and quality of the wastewater that would be generated by the proposal and the recommended management and disposal measures, including trade waste disposal, are presented in **Chapter 33** *Water and Wastewater*.

9.3.14 Ports Corporatisation and Waterways Management Act 1995

This Act established statutory State Owned Corporations to operate the State's port facilities in the major ports. Waterways management functions and other marine safety functions at commercial port facilities of the State that are not managed by a Port Corporation are undertaken by the NSW Waterways Authority on behalf of the Minister for Transport Services. Sydney Ports Corporation was established under this Act and manages Port Botany.

However, since the abolition of the Marine Ministerial Holding Corporation (MMHC) in June 2000, the Waterways Authority is also responsible for the appropriate development and usage of port wetland areas and other maritime assets particularly in Botany Bay, Sydney Harbour, Newcastle Harbour and Port Kembla and is taken for all purposes to be the successor of the former MSB, of each MSB subsidiary and of the MMHC. The exception being in respect of assets, rights and liabilities transferred under the *Ports Corporatisation and Waterways Management Act 1995*.

9.4 State Environmental Planning Policies

State environmental planning policies (SEPPs) address issues of significance for environmental planning for the State and the policy can apply to the whole State or such part of the State as described in the policy. SEPPs can be considered as guidelines for specific issues, such as traffic generation, hazardous developments and protection of coastal wetlands. SEPPs may confer additional development requirements to streamline the planning system or make it more flexible.

The relevant SEPPs that apply to the proposed development are discussed below.

9.4.1 State Environmental Planning Policy No. 11 – Traffic Generating Developments (SEPP 11)

SEPP 11 requires the consent authority, before determining a DA, to consult with and to take into consideration in determining the application any representations of the Department of Main Roads, the Police Department (Traffic Branch) or the RTA if the development represents “*Traffic Generating Development*”.

SEPP 11 applies to the proposed Port Botany Expansion as it would fall under the type of development described in subclause (j) of Schedule 1:

“(j) transport terminals, bulk stores, container depots or liquid fuel depots or the enlargement or extension of any existing transport terminal, bulk store, container depot or liquid fuel depot by increasing by more than 8,000 square metres the area of land or the gross floor area of buildings used for that purpose;”

The RTA has been consulted and has provided representations in respect of the proposed development. Potential traffic impacts associated with the proposal are discussed in **Chapter 21 Traffic and Transportation** and a full traffic assessment is contained in **Appendix P**.

9.4.2 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 provides definitions for “*hazardous industry*”, “*hazardous storage establishment*”, “*offensive industry*” and “*offensive storage establishment*”. The definitions enable decisions to approve or refuse a development to be based on the merit of the proposal. SEPP 33 requires rigorous scrutiny of any proposed activity that has the potential to conflict with surrounding land uses, in terms of risks to people, property or the environment, by requiring the consent authority to take into account factors such as:

- current guidelines or circulars published by DUAP (now PlanningNSW);
- consultations with public authorities;
- any feasible alternatives to the carrying out of the development;
- the reasons for choosing the development; and
- any future use of the land surrounding the development.

The proposed Port Botany Expansion would fall under the scope of SEPP 33 as port operations could be defined as a “*potentially hazardous industry*.” The policy defines “*potentially hazardous industry*” as

“... a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

(a) to human health, life or property; or

*(b) to the biophysical environment,
and includes a hazardous industry and a hazardous storage establishment.”*

It is expected that the proposed development would involve handling and storage of a range of hazardous goods during the operations stage. While locational, technical or operational controls would be incorporated in the proposed development, there remains offsite risk to people, property or the environment by way of loss of containment or spills of hazardous goods during the normal port operations.

Applications to carry out potentially hazardous development need to be advertised for public comment and must be supported by a Preliminary Hazard Analysis (PHA). The PHA must be conducted in accordance with PlanningNSW's *Hazardous Industry Planning Advisory Paper No. 6, Guidelines for Hazard Analysis*. The primary purpose of the PHA is to ensure that the proposed location is appropriate for a facility of this type in terms of the risks imposed upon surrounding land uses. Should such risks exceed the criteria of acceptability, even in the presence of controls, the development may be classified as “*hazardous industry*”.

The proposed development is a “*potentially hazardous industry*” under the provisions of SEPP 33 and therefore a PHA has been undertaken which is presented in **Appendix W** and summarised in **Chapter 28 Preliminary Hazard Analysis**. The findings of the PHA show that the proposed development would satisfy PlanningNSW's risk criteria, i.e. the level of risk involved is acceptable and the proposal is not a hazardous industry.

9.4.3 State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

The objective of SEPP 55 is to provide for a coordinated State-wide planning approach to the remediation of contaminated land. SEPP 55 aims to promote the remediation of contaminated land with the objective of reducing the risk of harm to human health or other aspects of the environment. The policy aims to achieve this in part by “*specifying certain considerations that are relevant in determining development applications in general.*” Section 7 of the policy specifies that a consent authority must not consent to the carrying out of a development on land unless:

- “a) it has considered whether the land is contaminated, and*
- b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.”*

Previous studies have shown that the areas to be dredged and reclaimed were uncontaminated and contained only low to very low concentrations of a range of heavy metals, petroleum hydrocarbons and organic pollutants. However, Penrhyn Estuary sediments were found to be contaminated with semi-volatile chlorinated hydrocarbons, mercury and chromium, transported from drains into the upper end of the Estuary which acts as a sediment trap. These areas will not be dredged. However, mangroves would be removed and new intertidal and saltmarsh flats created to enhance the area as a wading bird ecological habitat. The proposed works would include careful placement of material at low water level and allowing this to settle to

achieve the desired bird wading environment. Larger mangroves with extensive root systems would be cut down in a way that would minimise the disturbance of sediments. It is not anticipated that the works would result in the remobilisation of contaminated sediments. On the basis of this assessment, the areas proposed for development of the new terminal are considered suitable for the intended use and remediation is not required.

Details on the proposed dredging and reclamation activities and an assessment of contamination from these activities are discussed in more in detail in **Chapter 8 Construction** and **Chapter 31 Ecotoxicology and Human Health Risk** respectively.

9.4.4 Draft State Environmental Planning Policy No. 66 – Integration of Landuse and Transport (Draft SEPP 66)

Draft SEPP 66 provides a framework for State Government agencies, councils and developers to integrate land use and transport planning at the regional and local levels. It aims to

“ensure that urban structure, building forms, land use locations, development designs, subdivision and street layouts help achieve the following planning objectives:

- a) *improving accessibility to housing, employment and services by walking, cycling, and public transport,*
- b) *improving the choice of transport and reducing dependence solely on cars for travel purposes,*
- c) *moderating growth in the demand for travel and the distances travelled, especially by car,*
- d) *supporting the efficient and viable operation of public transport services, and*
- e) *providing for the efficient movement of freight.”*

The draft policy applies to the proposed Port Botany Expansion because:

- the policy covers Botany Bay (section 5); and
- the proposed development has a gross floor space of more than 1,000sqm (section 7).

The policy states that in considering the transport implications of a proposed development, the accessibility of the site by a range of transport modes and the promotion of alternatives to travel by car should be assessed.

A vital component to complement the increased cargo handling capacity, to be realised with the expansion of Port Botany, is the provision of improved transport access to the port and the efficient movement of freight to and from the port mainly by way of an existing dedicated rail line connecting to intermodal terminals. The proposed transport arrangements for the new terminal are described in **Chapter 21 Traffic and Transportation** and are designed to increase the proportion of container freight which would be moved by rail from the current level of 25% to a minimum of 40%. This would translate to a reduced reliance on truck movements to and from the port area and help prevent traffic congestion.

Public transport accessibility is available via Sydney Buses operating from the City to Port Botany (routes 309, L09 and X09) or La Perouse (route 391). Route 309, L09 and X09 stop at points along Botany Road and Bumborah Point Road about 400m from the P&O Ports terminal gates and about 700 m from the Patrick Stevedores terminal gates. Route 391 provides a connection between Port Botany and the city via Matraville,

Hillsdale, Kingsford, Kensington, Randwick and Darlinghurst in approximately 50 minutes. Routes 309 and L09 connect the site to Circular Quay and Redfern respectively via Banksmeadow, Botany, Mascot, Rosebery, Alexandria, in approximately 40 minutes. Buses operate reasonably regularly but they can take up to an hour to provide connections around shift changeover times. From the port workers' point of view, travel by public bus is a less attractive option compared to private vehicle because of lengthy bus routes, frequent stops and the distance from the existing terminals to the bus stops.

The site is also located within walking and cycling distance of surrounding residential development such as Philip Bay, Chifley and Hillsdale. However, there is a lack of adequate pedestrian and cycle paths in the area and the existing traffic environment is considered unfriendly to these alternative modes. As the port precinct expands, the opportunity exists for State and local governments to provide improved pedestrian and cycle networks. These networks would link to cycle paths and pedestrian paths, which also connect to Sir Joseph Banks Park, being created by the proposed development. The terminal operators could also encourage bicycle use by providing shower and change facilities.

Based on the foregoing, it is considered that that the proposed development is generally consistent with the objectives of draft SEPP 66.

9.5 Regional Environmental Plans

Regional Environmental Plans (REPs) are intended to provide a framework in which the local and State governments can manage planning and action for a certain region within the State.

There are no current REPs which apply to the project site. However, Sydney Regional Environmental Plan No. 17 (REP 17) is relevant as it relates to the conservation of wetlands in the nearby Kurnell Peninsula.

REP 17 repeals Sydney REP No. 3 Kurnell Peninsula and Interim Development Order No. 33 Shire of Sutherland. REP 17 seeks to protect the peninsula's natural environment, in particular the wetlands, while facilitating compatible development. Its application extends from Kurnell Peninsula to adjacent waterways.

Sydney Ports Corporation has considered the potential impacts of the proposed Port Botany Expansion on the foreshores of the entire Bay, including the Towra Point Nature Reserve, located on the north-facing shore of Kurnell Peninsula. As part of the EIS, a hydrodynamic study has been conducted to assess the potential impacts from dredging and reclamation and increased shipping movements. The hydrodynamics study found that the dredging and reclamation for the new terminal would not change swell wave heights in Botany Bay and changes in wave directions would essentially have no effect on the foreshores of the Bay. The proposed Port Botany Expansion would therefore have negligible impact on the sensitive habitats of Kurnell Peninsula. Discussion of these matters is contained in **Chapter 15 Hydrodynamics and Coastal Processes** and **Chapter 19 Aquatic Ecology**.

9.6 Local Planning Controls

9.6.1 Botany Local Environmental Plan 1995

The proposed Port Botany Expansion is predominantly located within the boundaries of the City of Botany Bay LGA. (A portion of the Bay west of Molineux Point proposed for dredging to level some high spots within the existing navigation channel is located beyond the City of Botany Bay LGA boundary as shown in

Figure 2.3.) Land use planning within the City of Botany Bay LGA is governed by the provisions of Botany LEP.

The zoning of the subject site is shown in **Figure 9.1** and is described as follows:

- the area in and around the existing Port Botany facility is zoned 5(a) – Special Uses – “Port”;
- an area along the foreshore of Botany Bay adjacent to Port Botany is referred to as a “deferred area” on the LEP 1995 map; and
- the area within Botany Bay is unzoned on the LEP map.

Area zoned 5(a) – Special Uses – Port

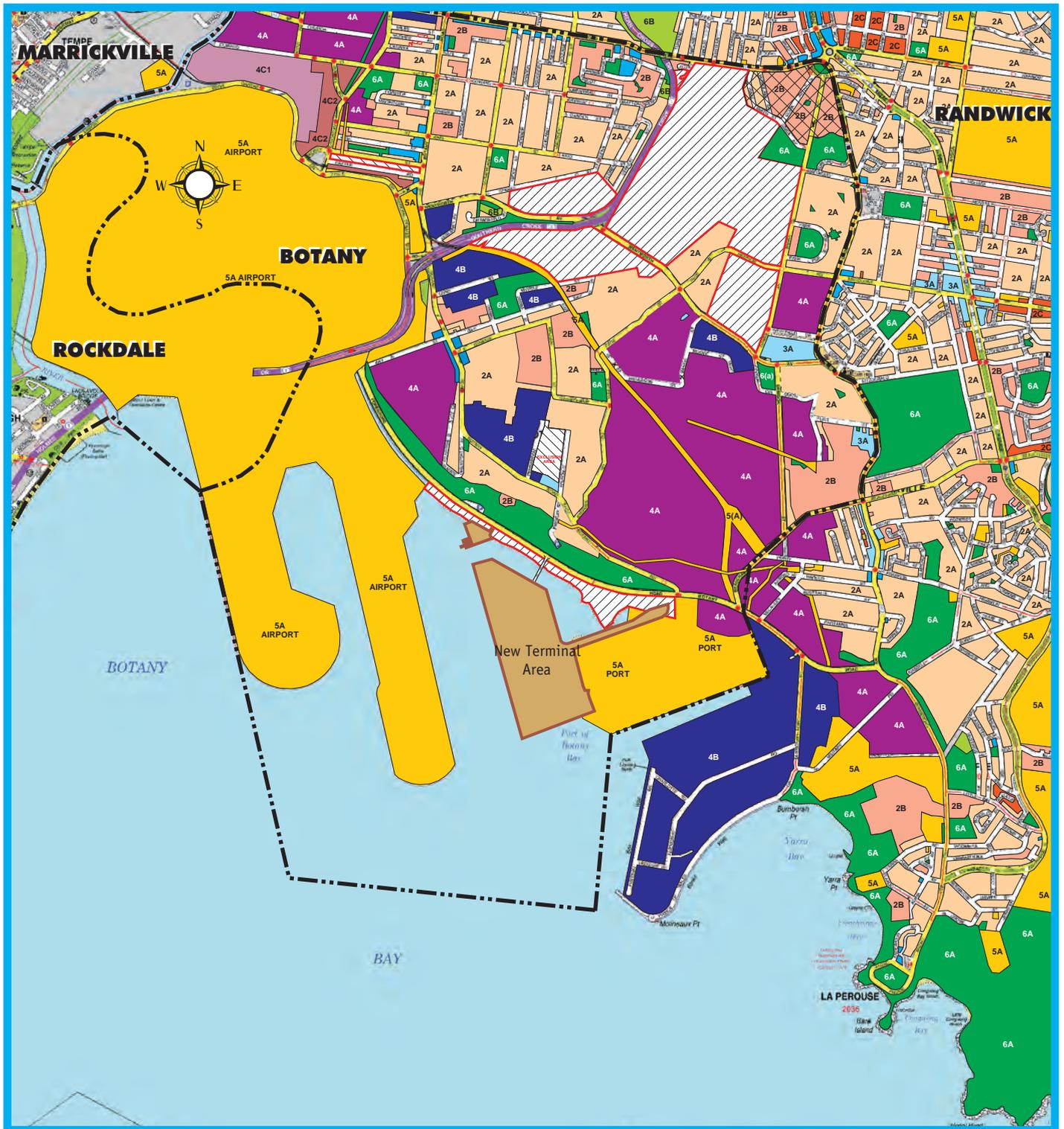
LEP 1995 states the objectives of Zone 5(a) Special Uses as follows:

- a) The primary objective is to ensure the orderly use of land identified for Sydney (Kingsford-Smith) Airport, Port Botany and the Botany-Sydenham goods railway line or which is reserved and proposed to be acquired for arterial roads or widening of arterial roads; and*
- b) The secondary objective is to encourage energy efficiency and energy conservation in all forms of development permissible within the zone.”*

The development control table adopted by clause 10 of the Botany LEP provides that the following development may be carried out only with development consent:

“Development for the purpose of the particular land use indicated by lettering on the map, including land uses ordinarily incidental or ancillary to the particular land use indicated by lettering on the map; carparks; childcare centres; community facilities; identified land uses; recreational areas; recreation facilities; roads; subdivisions; utility installations.”

In the LEP map, the area is identified as "5(a) - Port". The proposed development is properly characterised as development for the purposes of a port and hence is the land use indicated by lettering on the LEP map. Therefore, the proposed development, as development for the purposes of a port, is permissible with consent. In addition, the proposed development is fully consistent with the primary objective of the 5(a) zone.



Source 1: Botany Local Environment Plan 1995,
 Council File ST/4/33, Dept File R91/01472
 Source 2: Randwick Local Environment Plan 1998,
 Council File T-19-170, Dept File R96/00140

Zonings **Figure 9.1**

0 250 1500m

Botany Council Zoning

- 2A Residential "A"
- 2B Residential "B"
- 3A General Business
- 4A Industrial General "A"
- 4B Mixed Industrial "B"
- 4C1 Industrial Special Airport Related "C1"
- 4C2 Industrial Special Airport Related Restricted "C2"
- 5A Special Uses
- 6A Recreation Existing "A"
- 6B Recreation Private "B"
- Excluded Area
- Heritage Conservation
- Deferred Area

Randwick Council Zoning

- 2A Residential A
- 2B Residential B
- 2C Residential C
- 3A General Business
- 3B Local Business
- 4A Industrial
- 4B Port Botany
- 5A Special Uses
- 6A Open Space
- 6B Private Open Space
- 8 National Park

--- Council Boundary

Deferred Area

In respect of the area along the foreshore of Botany Bay adjacent to Port Botany, referred to as a “deferred area” on the LEP map (**Figure 9.1**), the provisions of previous environmental planning instruments are the relevant documents which control development on that land. The relevant instrument in this area is Interim Development Order No. 21 (IDO 21).

The provisions of IDO 21 show that the relevant land is zoned open space. Permissible uses within the open space zone include “*utility installations (other than gas holders or generating works).*” IDO 21 adopts the *Environmental Planning and Assessment Model Provisions 1970*. The Model Provisions define utility installations as follows:

“Utility installation means a building or work intended for use by a public utility undertaking but does not include a building designed wholly or principally as administrative or business premises or as a showroom.”

A “public utility undertaking” is defined in the Model Provisions as follows:

“Public utility undertaking means any of the following undertakings carried on or permitted or suffered to be carried on by or by authority of any Government Department or under the authority of or in pursuance of any Commonwealth or State Act, that is to say:

- *railway, road transport, water transport, air transport, wharf or river undertaking,*
- *undertakings for the supply of water, hydraulic power, electricity or gas or the provisions of sewerage or drainage services.”*

In addition, clause 2 of the Model Provisions extends what is meant by “*public utility undertakings.*” Clause 2 states:

“Notwithstanding the provisions of the interim development order, but subject to any express conditions contained therein or the context or subject-matter otherwise requiring, the following may be carried out:

- (4) *The carrying out by persons carrying out public utility undertakings, being wharf, harbour or river undertakings, on land comprised in their undertakings, of any development required for the purpose of shipping or in connection with the embarking, loading, discharging or transport of passengers, livestock or goods at a wharf or harbour or the movement of traffic by a railway forming part of the undertaking, including the construction, reconstruction, alteration, maintenance and repair of ways, buildings, works and plant, except:*
 - (a) *the construction of bridges, the erection of any other buildings and the reconstruction or alteration, so as materially to affect the design or external appearance thereof, of bridges or of buildings,*
 - (b) *the formation or alteration of any means of access to a road.”*

The proposed Port Botany Expansion, as development for the purposes of a port, is a public utility undertaking in that it involves wharf and harbour undertakings for the purposes of shipping. As such, the proposed development is permissible under IDO 21 although by virtue of clause 2 of the Model Provisions adopted in IDO 21, only parts of the development require consent. However, the operation of section 76A(8)

of the EP&A Act brings those aspects of the development permissible without consent within the requirement to obtain development consent.

Unzoned Areas

Some parts of the proposed development area are within the boundaries of the Botany LGA but are not zoned on the LEP map. In respect of these areas, clause 19 of LEP 1995 applies. Clause 19 states:

- “(1) This clause applies to all land to which this plan applies shown unzoned on the map.*
- (2) Development for any purpose of any land to which this clause applies may be carried out with the consent of the Council provided the Council is of the opinion that the development:*
- (a) is compatible with the nature of development permissible on neighbouring land and those development standards applicable to development on neighbourhood land, and*
 - (b) is consistent with the objectives of this plan and the objectives of zoning applying to neighbouring land.*
- (3) Notwithstanding subclause (2), the development of any land to which this clause applies by an authority for the purposes of the construction, installation or maintenance of roads and utility installations (other than railways, water or air transport, wharf or river undertakings, gas holders and generating works) or for any purpose ordinarily incidental or ancillary to those purposes may be carried out without the consent of Council.”*

The unzoned area is adjacent to land which is zoned 5(a) – Special Uses – “Port”. The proposed Port Botany Expansion is consistent with the nature of development permissible within the 5(a) zone and with the development standards applying to the land. It is also consistent with the objectives of the 5(a) zone as described above. The proposed Port Botany Expansion is therefore permissible with consent within the unzoned area.

The proposed Port Botany Expansion is therefore permissible with consent within all zones under the environmental planning instruments.

9.6.2 Development Control Plans

Development activity within the City of Botany Bay is also controlled through Development Control Plans (DCPs). These plans assist in the control of land uses and specific activities within the City of Botany Bay by providing more specific controls and guidelines for urban development. Councils are authorised by section 72 of the EP&A Act to prepare development control plans (DCPs) which generally conform to the provisions of the LEP or draft LEP.

DCPs are not legally binding, however, the objectives of DCPs should be taken into consideration by the consent authority when considering a proposed development to which DCPs apply.

DCPs that have been adopted by Council which are relevant to the proposed Port Botany Expansion are described below. The relevant DCP requirements are shown in **Table 9.2** which also shows how these requirements are addressed by the proposal.

- *Off-street Parking DCP*

The plan aims to provide adequate off-street parking for new and existing developments within the City of Botany Bay. It contains specific objectives for the development of industrial areas. Aside from off-street parking, the plan looks at issues of safety of vehicular access, landscaping and onsite manoeuvrability. The DCP specifies that proposals associated with road transport, terminals or container depots should be assessed on merit.

- *DCP No. 29 - Waste Minimisation and Management Guidelines*

The plan aims to reduce the demand for waste disposal. It requires applicants to specify waste by type and volume, and to nominate reuse and recycling potential. Specifically, applicants for industrial construction, addition and/or alteration need to submit a Waste Management Plan, or provide equivalent information.

- *Energy Efficiency DCP*

The DCP outlines guidelines to promote energy efficient designs and development. It details the minimum energy performance requirements for commercial and industrial development, including new buildings, alterations and additions. The DCP requires the proposal to provide an Energy Efficiency Report or equivalent information.

- *Access DCP*

The plan guides and encourages designers and developers in the provision of adequate access to all developments for all persons within the Botany LGA.

- *DCP No. 24 - Notification of Development Applications*

The plan sets out the requirements and procedures for notifying landowners and/or occupiers that may be affected by, or are situated within the vicinity of, a property that is the subject of a development application. It also provides details on the notification requirements of a development application to certain State Government Departments, public authorities and other organisations for comment and/or concurrence.

Table 9.2 Compliance with City of Botany Bay Council DCPs

DEVELOPMENT CONTROL PLAN REQUIREMENTS	ADDRESSED BY PROPOSAL
Off-Street Parking	
The dimensions of parking spaces and access ways are to comply with those specified.	The dimension of the parking spaces would comply with the DCP requirements. The design would be in accordance with the <i>Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Commercial vehicle facilities)</i> , AS 2890.1 - 1993 and AS 2890.2 - 1989.
The number of parking spaces for Road Transport Terminals and Container Depots will be assessed on merit.	Sufficient number of parking spaces would be provided to accommodate truck deliveries and pick-ups, and vehicles of employee and visitors. The number of employee car parking spaces would be adequate to handle volumes during shift changeover periods. Details about the number of parking spaces are provided in Chapter 6 Terminal Operations .

DEVELOPMENT CONTROL PLAN REQUIREMENTS	ADDRESSED BY PROPOSAL
<p>Design requirements for:</p> <ul style="list-style-type: none"> ▪ Pavements ▪ Vehicle access and movement ▪ Landscaping ▪ Entry/exit conditions ▪ Reversing ▪ Headroom 	<p>The design elements addressing internal traffic movements are provided in Chapter 6 Terminal Operations.</p>
Waste Minimisation and Management Guidelines	
<p>All applications for building and land developments should be accompanied by a Waste Management Plan that specifies waste by type and volume.</p>	<p>The waste types likely to be generated during construction and operation of the new terminal have been identified and presented in Chapter 34 Waste which includes an outline of a Waste Management Plan.</p>
Energy Efficiency	
<p>An Energy Efficiency Report is required for all industrial developments over \$250,000 where non-renewable energy is used for heating, cooling, ventilating and lighting the building or running appliances. The report will verify that appropriate energy conservation measures shall be applied to the development. The issues to be addressed in the report include:</p> <ul style="list-style-type: none"> ▪ solar access; ▪ building form and construction; ▪ heating, air conditioning and ventilation; ▪ lighting; ▪ water usage; and ▪ appliances. 	<p>The premises within the proposed development would be designed in accordance with energy efficiency principles, including:</p> <ul style="list-style-type: none"> ▪ maximising the benefits of solar energy through appropriate orientation; ▪ maximising the use of building materials from renewable/sustainable sources; ▪ the use of natural ventilation as much as possible; ▪ ensuring that extent of lighting would be relevant to the use of the area; ▪ the use of water efficient devices; and ▪ the use of energy efficient appliances. <p>Further details of energy efficiency measures to be adopted for the proposed development are provided in Chapter 35 Energy.</p>
<p>Council may require an Energy Efficiency Compliance Report within 15 months of the occupation of the building.</p>	<p>Specific information on buildings and other ancillary port facilities would be provided by the future operator(s) of the new terminal and would be the subject of separate application/s.</p>
Access DCP	
<p>Provision of adequate access to development for all persons within the Botany LGA, specifically:</p> <ul style="list-style-type: none"> ▪ car parking; ▪ entrances and doorways; ▪ ramps; ▪ paths and walkways; ▪ internal paths of travel; and ▪ signage 	<p>The premises in the new terminal would be designed in accordance with the Building Code of Australia and AS 1428.1-1993 <i>Design for Access and Mobility, Part 1: General Access Requirements for Access – Buildings</i> and would incorporate the minimum required disabled access features, such as wheelchair usable entrances, ramps, walkways sanitary facilities and lifts.</p> <p>The office buildings would be provided with even lighting and adequate internal paths of travel.</p> <p>The access to and premises in the public recreation areas would incorporate wheelchair usable entrances, ramps, walkways, kerb ramps and sanitary facilities</p> <p>Car parking spaces in the new terminal and public recreations areas would be designed in accordance with AS 2890.1-1993 <i>Off-Street Car Parking</i> at a minimum rate of one per 100 spaces or part thereof.</p> <p>Appropriate signage indicating access for people with disabilities would be provided in all new facilities.</p>

DEVELOPMENT CONTROL PLAN REQUIREMENTS	ADDRESSED BY PROPOSAL
DCP No 24 Notification of Development Applications	
Notification of landowners who may be affected by the proposal.	Sydney Ports Corporation has conducted community consultation as part of the preparation of this EIS. In addition, in accordance with section 79 of the EP&A Act, the development application and EIS will be publicly exhibited for a period of not less than 30 days.

9.7 Conclusion

The proposed Port Botany Expansion has been assessed as a controlled action under the EPBC Act and would require approval from the Commonwealth Minister for the Environment and Heritage under Part 9 of the Act.

The Commonwealth Minister for the Environment and Heritage has also accredited the NSW assessment process as an appropriate assessment process under section 87(4) of the EPBC Act. This means that the preparation of a single EIS for the project satisfies the legislative requirements for assessment of the proposal under both the Commonwealth and NSW legislation.

The proposed development has been declared State significant under the provisions of section 76A(7)(b) of the EP&A Act and therefore the consent authority would be the Minister for Infrastructure and Planning.

The proposed development is a designated development as it falls under Schedule 3 of the EP&A Act.

The proposed development is also integrated development as certain approvals/licences/permits would be required from other regulatory authorities for construction of the proposed Port Botany Expansion. These are:

- Environmental Protection Licence under the *Protection of the Environment Operations Act 1997* from the EPA;
- Part 3A permit under the *Rivers and Foreshores Improvement Act 1948* from NSW Waterways Authority for works relating to the seabed, foreshore, drains and channels;
- permit under section 205 of the *Fisheries Management Act 1994* from NSW Fisheries for the removal of marine vegetation; and
- permit under section 138 of the *Roads Act 1993* from the RTA for works relating to public roads.

Additional approvals, licences or permits required for the operation of the proposed Port Botany Expansion are:

- a Licence to keep Dangerous Goods from NSW WorkCover under the *Dangerous Goods Act 1975*; and
- a Trade Waste Agreement with Sydney Water under the *Sydney Water Act 1994*.

The proposed Port Botany Expansion is permissible with consent under the Botany LEP 1995 and is consistent with the objectives of the relevant zones which apply to the subject site.

Summary of key outcomes:

The proposed Port Botany Expansion is consistent with a range of Commonwealth international environmental treaties and agreements and State policies relating to transport, urban development and environment and resource management. It is also the key component in the infrastructure needed to manage growth in container trade in NSW.

10.1 Commonwealth International Environmental Treaties and Agreements

The following international environmental treaties and agreements have been identified as relevant to the proposed Port Botany Expansion.

10.1.1 Migratory Species

The following international agreements relate to the protection of international migratory species:

- CAMBA - The *Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment* (CAMBA) provides for the protection of native species of birds which migrate between Australia and China. The Agreement prohibits the taking of migratory birds and their eggs except in circumstances where doing so will protect persons or property, where traditionally they have been hunted for food, clothing or cultural purposes, or if they are to be used for scientific, educational or propagative purposes.
- JAMBA - The *Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment* (JAMBA) provides for the protection of native species of birds which migrate between Australia and Japan.
- Bonn Convention - The *Convention on the Conservation of Migratory Species of Wild Animals*, also known as the Bonn Convention, aims to ensure that migratory species of wild animals are conserved and protected from becoming endangered, and that research relating to migratory species should be promoted.

The species listed in these agreements are incorporated in the Commonwealth EPBC Act (refer to **Chapter 9 Statutory Planning**).

The proposed Port Botany Expansion supports the objectives of these agreements through habitat enhancement works in Penrhyn Estuary that would result in an ecological area of approximately 27 ha including the creation of significant additional shorebird feeding and roosting habitat. This habitat would be designed to suit the needs of migratory shorebird species listed under these international agreements which currently frequent Penrhyn Estuary. The aim of the enhancement works would be to attract as many, and potentially a greater number of, migratory shorebird species using the Estuary at present.

Further details of the proposed ecological enhancement works at Penrhyn Estuary are provided in **Chapter 7 Public Recreation and Ecological Plan**, and **Chapter 20 Terrestrial Ecology**.

10.1.2 Ramsar Convention

The *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, commonly referred to as the Ramsar Convention, aims to promote the conservation of wetlands and their flora and fauna by establishing nature reserves and designating suitable wetlands for inclusion on a List of Wetlands of International Importance.

The site for the Port Botany Expansion is located approximately 5 km north of the Towra Point Nature Reserve, a Ramsar wetland, on the southern side of Botany Bay. The hydrodynamics and coastal processes

study (refer to **Chapter 15** *Hydrodynamics and Coastal Processes*) shows that there would be no significant changes to water currents, wave climates and water depths arising from the proposal on Towra Point Nature Reserve. The proposed Port Botany Expansion would therefore not result in any adverse effect on the aquatic ecology of Towra Point Nature Reserve.

The terms of this treaty are given effect through the provisions of the EPBC Act.

10.1.3 CITES

The *Convention on the International Trade in Endangered Species of Wild Fauna and Flora*, also referred to as CITES, seeks to protect certain endangered species from over-exploitation by means of a system of import/export permits.

The terms of this treaty are given effect by Part 13A of the EPBC Act. The Wildlife Permits and Enforcement Section of EA is responsible for the coordination of enforcement matters. Most investigations are undertaken by the Australian Customs Service or the Australian Federal Police.

10.1.4 Vienna Convention for the Protection of the Ozone Layer

The Vienna Convention for the Protection of the Ozone Layer treaty aims to protect human health and the environment against adverse effects resulting from modifications of the ozone layer.

The terms of this treaty are given effect by the *Commonwealth Ozone Protection Act 1989* (refer to **Chapter 9** *Statutory Planning*).

The proposed Port Botany Expansion would include air conditioning units for the terminal buildings and for possible cold storage facilities. The terminal operator(s) would ensure that the procurement of these air conditioning and refrigeration equipment would comply with the requirements of the *Ozone Protection Act*.

10.1.5 Basel Convention

The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* seeks to address the international community's concern about the worldwide production of hazardous wastes by strictly regulating the transboundary movements of such wastes and requiring signatories to ensure that such wastes are managed and disposed of in an environmentally sound manner.

The terms of this treaty are given effect by the *Commonwealth Hazardous Waste (Regulation of Exports and Imports) Act 1989* (refer to **Chapter 9** *Statutory Planning*).

During operations, cargo classified as hazardous waste under the provisions of the Act could potentially be handled at the proposed Port Botany Expansion. Inspections under the Act would be undertaken by the Australian Customs Service with assistance from the new terminal operator(s) where required.

10.2 State Planning Initiatives

10.2.1 Strategic Planning for Botany Bay

On 3rd September 2002 the then Minister for Planning announced that in recognition of the need to undertake urban planning in an integrated and holistic manner within the Botany Bay catchment, PlanningNSW would commence the preparation of an environmental study of the entire Botany Bay catchment. A key element of this study would include a regional blueprint to guide all future land use on the Kurnell Peninsula and its surrounding catchment. This announcement followed the adoption of the recommendations of the Healthy Rivers Commission Inquiry into the Georges River and Botany Bay systems by the NSW Government, which called for the coordination of regional planning in Botany Bay and its catchment to protect the long term health of the Bay (refer to Section 10.4.2).

Since the Minister's announcement, PlanningNSW has been developing strategic planning guidelines to provide a framework for State and Local Government land use decision making in the Botany Bay region. The development of these guidelines has been informed by the collection of environmental data on the existing health of the Bay which will allow government authorities to have a better understanding of the cumulative impacts of developments in the region. The information obtained through the development of these strategic planning guidelines will be used by PlanningNSW in the consideration and assessment of the proposed Port Botany Expansion.

The approach adopted by Sydney Ports Corporation to the environmental assessment of the proposed Port Botany Expansion is consistent with the need to protect the long term health of Botany Bay as embodied in the recommendations of the Healthy Rivers Commission (refer to Section 10.4.2) and the strategic planning guidelines being developed by PlanningNSW for the Botany Bay region. This has been achieved by the following:

- from the outset, the proposal has sought to balance the economic, social and environmental requirements of the local community, the Botany Bay region, and the State;
- the planning and environmental assessment for the proposal has incorporated an extensive consultation process with the community, industry and the different levels of government; and
- a holistic Bay-wide assessment approach has been taken to the assessment of potential impacts associated with the proposal including development of a Bay-wide predictive hydrodynamic model.

10.2.2 Shaping Our Cities

The *Shaping Our Cities* strategic document (DUAP 1998) provides the broad framework for planning priorities in the Greater Metropolitan Region of Sydney, Newcastle, Wollongong and the Central Coast. The strategy aims to create a city that will provide:

- an enhanced environment for healthy living, recreation and a sustainable ecology;
- attractive, safe and affordable neighbourhoods meeting people's housing needs;
- a robust economy that can provide employment and a high quality of life for all people; and
- viable transport systems and urban structures with equitable access to jobs, services and leisure.

To achieve these aims, the strategy outlines a number of key planning principles to be applied by State agencies and local governments. These include:

- identify and create opportunities for employment and business growth in locations that support access by public transport and minimise conflict with other uses;
- enhance opportunities for walking, cycling and using public transport and contain the growth of travel demand in all land use and development decisions;
- improve the design and quality of the urban environment by requiring good architecture, protecting our built heritage and building a well located, safe and useable public domain; and
- manage the planning system efficiently, provide for consultation and encourage investment, job creation and business confidence.

One of the major challenges described in *Shaping Our Cities* is that the number of vehicle trips being made in Sydney is increasing. This includes freight trips, which are also increasing as a result of economic growth. Planning strategies aimed at managing travel demand and influencing transport choice include locating industrial developments near good access to major road and rail networks for freight movement.

The strategy outlines measures for improving road-based freight management (*Shaping Our Cities*, p. 27). These include:

- increasing the amount of freight carried by rail;
- developing an efficient metropolitan freight network comprised of inter-regional routes and linkages between major industrial belts, ports and airports;
- encouraging freight generators into appropriate transport corridors and where possible, locations with a choice of road and rail access; and
- giving priority to freight on select routes and directing through-freight movements away from residential and community areas.

The strategy recognises that the Sydney region's increasingly diverse economy is helping it withstand the rigours of a more globally competitive business environment. The planning directions adopted by the strategy aim to provide certainty for business, facilitate innovation and readily adapt to economic change with consistency and transparency. Accordingly, this strategy is focused on:

- building on the region's strengths to attract international business;
- a well located and adequate supply of land and buildings for economic activity;
- timely and coordinated infrastructure for economic development;
- linking environmental sustainability to economic development; and
- an integrated approval process that enhances certainty for investment and is responsive to business opportunities.

The proposed Port Botany Expansion is consistent with the objectives of the *Shaping Our Cities* strategy, as it would:

- provide additional sea port capacity to accommodate significant anticipated growth in container trade and to avert congestion in port infrastructure;
- enhance the ability of business in Sydney to efficiently access import and export markets, thereby boosting Sydney's economic competitiveness and ability to attract international business;
- create opportunities for employment and business growth by consolidating the majority of Sydney's container trade in a central location which is close to markets and is compatible with existing land uses;
- encourage the greater use of rail (from the current 25% to a minimum of 40% mode share) by providing improved rail facilities;
- encourage freight generators into appropriate transport corridors, with a choice of road and rail access;
- assist in achieving air quality improvements through the greater share of rail for freight transport and reduced reliance on road transport; and
- incorporate environmental sustainability objectives in the design and operation of the new terminal across a number of areas, including the provision of additional port facilities close to the Sydney market to reduce environmental impacts associated with additional travel distances, and the preservation and enhancement of Penrhyn Estuary as an ecological habitat.

10.2.3 Botany Bay Regional Policy Guidelines

The *Botany Bay Regional Policy Guidelines* (DUAP 1992) recognise the strategic importance of the Port Botany area and seek to promote Port Botany as the State's main petrochemical and container port. The guidelines contain a State Government commitment to maintain and increase the economic and employment significance of the region (Botany Bay) by supporting the expansion of Port Botany and attraction of new industry.

The relevant objectives of the guidelines include:

- promote economic and employment growth in the region by facilitating, within environmental constraints, the major employment areas and attracting new industries/businesses to the region;
- maintain the role of Port Botany as the main bulk goods port and to facilitate its expansion within environmentally acceptable limits;
- encourage greater use of rail in the transportation of bulk goods and to encourage port related development to locate within, or adjacent to, the port area; and
- maximise use of rail and other non-road based means for transporting containerised goods to and from Port Botany and minimise impact of heavy vehicles on the community.

The proposed Port Botany Expansion is consistent with the above objectives as it would considerably boost container handling capacity at Port Botany. This is expected to maintain and enhance Sydney's position as a major shipping port, thereby continuing to stimulate business activity in the general metropolitan area. The

proposal would directly spur the establishment or expansion of port related activities like cargo storage and delivery and brokerage services.

The proposal would also be expected to provide a significant number of direct and indirect employment opportunities during both construction and operation. It has been noted by the Property Council of Australia in its discussion paper *Initiative for Sydney* (November 2002) that jobs will need to be created if Sydney is to keep pace with employment demands. The paper identified the Port Botany region as one of the non-CBD employment regions which will need a 25% increase in available jobs. The proposed Port Botany Expansion would contribute to the creation of jobs through a projected 413 direct and flow-on (full-time equivalent) jobs during the peak impact year of construction by 2007, and about 3,700 direct and about 5,400 flow-on (full-time equivalent) jobs by 2024-25 (EconSearch 2003).

With respect to the objectives related to increasing the use of rail for freight movement, the proposal includes the establishment of a rail facility within the new container terminal area. This will be achieved by extending the existing Botany Freight Rail Line, thereby maximising the use of the existing freight rail network.

The extension of the rail line would create the opportunity for increased use of rail for freight movement and would encourage the share of goods carried by rail to increase from the current 25% to a minimum of 40%, thereby reducing the reliance on heavy vehicles and their impact on the community.

10.2.4 Port Botany Land Use Safety Study

The *Port Botany Land Use Safety Study* (DUAP 1996) provides a strategic land use safety framework for future developments in Port Botany and surrounding areas. The study was undertaken in liaison with Sydney Ports Corporation and in consultation with representatives of local councils, the community and industry.

The study included:

- auditing the facilities in the port area;
- modelling of possible incident scenarios;
- estimating the effect of major incidents and their likelihood of occurrence; and
- the development of strategic recommendations arising out of the analysis.

The key findings of the study include the following:

- cumulative risk from operations on Sydney Ports Corporation land is within acceptable limits, measured against national and international criteria, and no residential areas are affected; this excludes the transportation of dangerous goods to and from the port area;
- further expansions of bulk liquid facilities in the port area may be accommodated with appropriate safety control, without significantly increasing the cumulative risk, but the intensification of storage and handling of toxic compressed or liquefied gases is inappropriate; and
- assessment of new proposals will need to have particular regard to risk interactions between sites.

The study's recommendations which are relevant to the Port Botany Expansion and the corresponding elements of the proposal that demonstrate compliance to the recommendations are provided in **Table 10.1**.

Table 10.1 Consideration of Port Botany Land Use Safety Study

STUDY RECOMMENDATION	PROPOSED ACTION / COMPLIANCE	EIS CHAPTER
(R1) Future developments in the port area should undergo early risk assessment and comprehensive environmental impact processes to conclusively demonstrate that they will not contribute to any increase in cumulative risks (based on the modelling conducted for the Study), and that there will not be any propagation of risks to neighbouring facilities.	A Preliminary Hazard Analysis (PHA) has been conducted for the Port Botany Expansion. The assessment indicates that the proposal would not significantly contribute to the increase in cumulative risks and would not be propagating risks to neighbouring facilities.	28
(R1.2) Proposals for expansion of Port facilities should be subjected to the seven-stage assessment process under the EP&A Act and demonstrate compliance with relevant criteria.	The EIS being prepared for the proposal complies with the assessment process of the EP&A Act.	1
(R2) Development controls should be put in place to ensure there is no significant increase in the number of people exposed to risk. (R2.2) New development in the vicinity of the port should be generally port related or associated activities.	The Port Botany Expansion is port related development and would be compatible with neighbouring port related land uses and would not significantly increase the number of people exposed to unacceptable risk.	14, 28
(R3.4) Restrictions on roadside parking and queuing of heavy vehicles in the port area should be strictly enforced to reduce likelihood of traffic obstructions causing dangerous goods transport accidents.	The traffic study assesses the projected traffic generation of the proposed Port Botany Expansion, including potential roadside parking and queuing impacts. The proposal incorporates parking/queuing facilities onsite to prevent roadside parking and offsite queuing.	21
(R3.8) Container handling procedures for volatile and toxic dangerous goods should be reviewed by Sydney Ports Corporation and the container terminal operators should minimise the time these materials spend on the port. Procedures should ensure that containers are appropriately marked, segregated and protected from damage during loading, unloading, storage and transport operations.	The operators of the new terminal would be required to implement safe procedures for the handling and storage of dangerous goods, consistent with relevant legislation, standards and guidelines.	28, 32
(R4.2) Port emergency and fire prevention / protection systems and procedures should be kept up to date as new development proposals progress.	The operators of the new terminal would be required to install and implement up-to-date fire prevention/protection systems and procedures in accordance with all relevant standards.	32
(R5) Port users should adopt community right-to-know principles to ensure the community is adequately informed about port activities, associated risks and safety measures that are adopted.	Consultation has been undertaken as part of the EIS preparation. Additionally, Sydney Ports Corporation is an active participant in many community and business forums which are used to provide information on port activities, risks and developments.	11, 12

10.2.5 City South Strategy

The *City South Strategy* (DUAP 1998) recognises the need to accommodate Port Botany's future growth. It also addresses transport issues related to port activity. An objective of the strategy is to reduce heavy traffic. The strategy identifies that increasing the number of containers transported per truck and increasing the share of containers moved to and from the Port by rail would assist with meeting this objective.

The proposed Port Botany Expansion is consistent with these objectives as it will encourage increased use of rail, and improvements in efficiency will increase the number of containers transported per truck.

10.3 State Transport and Urban Development Initiatives

10.3.1 Action for Transport 2010

Action for Transport 2010 is the NSW Government's plan for the future of transport in Sydney (Department of Transport 1998). It is based on linking transport infrastructure with population growth, improving transport infrastructure for rail, buses and vehicles and concentrating employment in primary and secondary centres.

The twelve-point action plan in *Action for Transport* calls for:

- getting the best out of the existing and proposed transport system ;
- improving air quality;
- reducing car dependency;
- meeting the needs of future urban growth;
- getting more people on public transport;
- safeguarding the environment;
- making space for cyclists and walkers;
- preventing accidents and saving lives;
- making freight more competitive; and
- giving the community value for money.

In regard to making freight more competitive, the NSW Government recognises the need for road freight and rail haulage to be integrated to provide seamless road, rail and port interchanges. In 1998, less than 15% of freight movements in Sydney (25% in NSW) were by rail. The NSW Government wants to increase the percentage of freight transported by rail significantly over the next 10 years. To assist in achieving this goal, a freight strategy is currently being prepared.

Major initiatives to make freight more competitive include:

- creating a priority rail freight track through Sydney;
- creating and enhancing existing intermodal terminals;
- upgrading of Port Botany rail freight facilities; and
- increasing the use of high capacity freight trains.

The proposed Port Botany Expansion addresses the policy requirements of *Action for Transport* by:

- significantly increasing the percentage of freight transported by rail to and from Port Botany from the current 25% to a minimum of 40%;

- upgrading of port transport infrastructure including improved rail access to allow for container trade growth;
- providing rail exchange facilities to cater for the use of high capacity freight trains; and
- using a dedicated rail freight track for efficient movements to and from the port.

10.3.2 NSW Freight Strategy

The *NSW Freight Strategy*, currently being prepared by the Transport Co-ordination Authority, has five guiding principles:

- provide the infrastructure needed to support the efficient movement of freight to meet the economic, social and regional needs of the community;
- develop land use plans that recognise the future needs of freight transport;
- retain the long term ownership of the ports, roads and rail track infrastructure to support freight movement throughout NSW;
- maximise the geographic advantage of NSW ports and exploit potential economies of scale; and
- encourage and give NSW port corporations the commercial freedom to compete for business.

A key aim of this strategy, as noted in *Action for Transport 2010*, is to significantly increase the amount of freight transported by rail over the next ten years, from 15% (in 1998) of total NSW freight movement.

The proposed Port Botany Expansion is consistent with the guiding principles of the *NSW Freight Strategy* by:

- developing new rail infrastructure to support freight;
- supporting a shift from road to rail based movement of containers to and from Port Botany from the current 25% to a minimum of 40%;
- designing the proposal to accommodate future transport needs;
- expanding the existing container handling facilities in Sydney to cater for increased trade;
- supporting the efficient movement of freight in a location which is close to the Sydney market which is the main destination for import cargo received at Port Botany and maximising the geographic advantage of Port Botany (as most import containers travel within 40 km of the port); and
- providing the opportunity to exploit potential economies of scale at Port Botany.

10.4 State Environmental and Resource Management Initiatives

10.4.1 Action for Air

In 1998, the NSW Government released *Action for Air: The NSW Government's 25-Year Air Quality Management Plan* (EPA 1998) which provides the strategic framework for improving air quality in the Greater Metropolitan Regions of NSW.

One of the primary objectives of *Action for Air* is to integrate air quality goals and urban transport planning and improve management of freight transport. Specific objectives include:

- a shift from private cars to public transport, cycling or walking;
- smoother flows of traffic and reduced congestion, including road-based public transport;
- reduced need for travel;
- reduced length of trips travelled by vehicles;
- increased occupancy of cars and public transport carriers; and
- better planning and management of freight movement across all transport modes.

The proposed Port Botany Expansion supports the objectives contained in *Action for Air* by:

- assisting in reducing the growth in vehicle kilometres travelled by creating a container terminal close to the Sydney market which is the main destination for import cargo received at Port Botany (around 80% of containers have origins or destinations within the greater Sydney area);
- facilitating more efficient use of roads through increased truck utilisation and better transport planning, such as use of B-doubles and backloading of trucks;
- avoid contributing to road congestion by distributing port traffic over the day to avoid concentrating traffic during peak hours; and
- facilitating improved management of container freight by reducing the reliance on trucks and increasing the modal share of rail at Port Botany (from the current 25% to a minimum of 40%).

10.4.2 Healthy Rivers Commission

In September 2001, the Healthy Rivers Commission of NSW (HRC) released the Independent Inquiry into the Georges River-Botany Bay System (HRC 2001). This Inquiry is part of the NSW Government's *Water Reform Program*. The Commission's role is to assist the community to identify appropriate long term river and bay health goals and the management strategies required to achieve them. The Commission's definition of river and bay health encompasses socio-economic and ecological factors.

In the *Independent Inquiry into the Georges River – Botany Bay System*, the HRC identified the management of Botany Bay as one of the issues that require urgent attention. The Inquiry recognised the Bay as a very complex system, in terms of the terrestrial and aquatic ecosystems, and also the political and administrative arrangements.

The need for an integrated decision-making framework to deal with this complexity and for strategies to sustain the competing interests of industry, commercial activity, and resident communities was highlighted by HRC. In particular, it was noted that the assessment for, and decision on, major projects such as the expansion of Port Botany should be undertaken within the whole-of-bay context.

The Inquiry has provided a series of specific recommendations for the Georges River-Botany Bay system. The State Government's response to the Inquiry is contained in the Statement of Intent (SOI) for the Georges River-Botany Bay System and represents the government's commitment to integrate the strategies and actions required to achieve improved administrative, social and economic outcomes for the river and bay

system. Sydney Ports Corporation plays a key role in the implementation of some of the strategies incorporated in the SOI, particularly those pertaining to Botany Bay.

Table 10.2 lists the Inquiry’s recommendations relevant to the proposal and describes how Sydney Ports Corporation has considered these recommendations for the proposed Port Botany Expansion.

Table 10.2 Consideration of Healthy Rivers Commission Recommendations

CATEGORY	REFERENCE	RECOMMENDATION	PORT BOTANY EXPANSION	EIS CHAPTER
Storm-water and Sewage	WM 2 & WM3	Integrated stormwater management at the local level, and Stormwater management by public owners	An integrated stormwater management system, including a first flush system would be installed, maintained and monitored during operation of the Port Botany Expansion to minimise stormwater pollution. Stormwater would be reused where possible.	16
Botany Bay	BM 1	Integrated management framework for Botany Bay	A broad-ranging stakeholder involvement plan was implemented during the preparation of the EIS. The plan integrated consultation with government agencies, businesses, transport interests, environmental and recreational groups, indigenous communities and the wider community. Various mechanisms were provided to gather the issues and concerns of stakeholders. A marine and coastal processes study is included in the EIS. The study includes a predictive scientific hydrodynamic model, which treats the Bay as a whole, and assesses impacts of the Port Botany Expansion on a Bay-wide basis.	11, 12 15
Botany Bay	BM 2	Accountability for “resource management” within Botany Bay	The recommended arrangements for accountability for “resource management” within Botany Bay separate user interests from the assessment procedure. In the case of the proposed Port Botany Expansion, the EPA would be required to issue a licence for dredging activities and NSW Fisheries for the removal of mangroves and transplanting of seagrass, under relevant legislation as described in Chapter 9 Statutory Planning . The EPA and NSW Fisheries have statutory obligations to fully assess proposals affecting the environment of Botany Bay prior to granting a permit or licence. By conducting an extensive environmental impact assessment supported by scientific and engineering investigations, Sydney Ports Corporation would be complying with the assessment requirements of the EPA and NSW Fisheries as described in the Director-General’s Requirements for the Port Botany Expansion.	9
Botany Bay	BM 3	Assessment procedures for activities within Botany Bay and surrounds	The EIS includes an assessment of cumulative impacts relating to land use, marine and coastal processes, surface hydrology, groundwater, risk, contamination, marine ecology, terrestrial ecology, road and rail traffic, noise, air quality, visual amenity, social and economic aspects, and others.	Part F

CATEGORY	REFERENCE	RECOMMENDATION	PORT BOTANY EXPANSION	EIS CHAPTER
Botany Bay	BM 4	Protection of lands on the Kurnell Peninsula	The marine and coastal processes study shows that the proposed Port Botany Expansion would not result in any adverse effects on lands on the Kurnell Peninsula.	15
Botany Bay	BM 5	Protection and management of the southern shores	The marine and coastal processes study shows that the proposed Port Botany Expansion would result in minor changes to long shore sediment transport rates on the southern shores of Botany Bay. The impact of these changes would be negligible.	15
Botany Bay	BM 7	Management of Botany Aquifer, northern shores	<p>A groundwater study is provided in the EIS. The study includes a predictive scientific groundwater model, which assesses the impacts of the proposed Port Botany Expansion on the Botany Aquifer.</p> <p>The results of the numerical groundwater modelling demonstrate that the proposed terminal reclamation would have no effect on groundwater levels on the landward side of the present shoreline, and on the direction of flow or the natural migration of contaminants already present in the groundwater north of the site. Minimal changes in groundwater levels would occur due to the proposed beach nourishment works and construction of the boat ramp and parking area.</p> <p>The proposed development would not contribute to existing groundwater contamination with the implementation of standard mitigation measures. Therefore, the proposed development would not affect groundwater dependent ecosystems or increase the risk of exposure of local landowners or groundwater users to contaminated groundwater.</p>	17
River corridors	RC 1	Protection of urban streams	The Port Botany Expansion would have no upstream impact and would not result in the removal of vegetation along rivers, natural channels or artificial channels.	16, 20
River corridors	NA 5	Provision of “offsets” and “trade-offs”	Sydney Ports Corporation proposes to create additional intertidal flats and saltmarsh in Penrhyn Estuary to enhance the area as an ecological habitat. Sydney Ports would also remove seagrass from dredging and reclamation areas and would create suitable habitat in which to transplant this and additional areas for further colonisation.	19,20
River and bay health objectives	RHO 1	<p>Environmental values</p> <p>The HRC report has listed protection of visual character; protection of aquatic and riparian ecosystems; protection of human consumers of cooked fish, shellfish and crustaceans; protection of primary contact recreation; and protection of secondary contact</p>	<p><i>Visual Character</i></p> <p>The findings of the visual impact assessment show that the Port Botany Expansion would not constitute a significant visual intrusion to the existing landscape from most viewing locations due to the existing industrial, transport and port related land uses in this part of Botany Bay. The main visual impact would be from Foreshore Beach.</p> <p><i>Aquatic and Riparian Ecosystems</i></p> <p>The findings of the marine ecology study show that the Port Botany Expansion would not result in the</p>	<p>25</p> <p>19</p>

CATEGORY	REFERENCE	RECOMMENDATION	PORT BOTANY EXPANSION	EIS CHAPTER
		recreation as <i>environmental values</i> applicable to Botany Bay	<p>degradation of aquatic and riparian ecosystems, except where these would be permanently displaced by dredging and reclamation works. Impacts would be mitigated and offset by the enhancement of Penrhyn Estuary as an ecological habitat, the transplanting of seagrass to suitable locations and the use of rubble walls and piles for the terminal construction which would provide aquatic habitat.</p> <p><i>Human Consumers</i></p> <p>The findings of the ecotoxicology and human health risk assessment show that the Port Botany Expansion would not result in an increased risk to human consumers of cooked fish, shellfish and crustaceans from the project area.</p> <p><i>Primary Contact Recreation</i></p> <p>The findings of the ecotoxicology and human health risk assessment show that the Port Botany Expansion would not significantly alter the existing primary recreation values of the project area, although public access to Penrhyn Estuary would be restricted to assist in the protection of this area as ecological habitat for migratory shorebirds. Swimming would also be restricted along the eastern portion of Foreshore Beach for public safety and to protect seagrass in this location.</p> <p><i>Secondary Contact Recreation</i></p> <p>The findings of the ecotoxicology and human health risk assessment show that the Port Botany Expansion would not diminish the existing secondary contact recreation values of the project area. The proposed works would include relocating the existing boat ramp off Penrhyn Road to a location off Foreshore Road north of the new terminal. The facility would be provided with a car park, enclosed fish cleaning facilities and amenities. However, Penrhyn Estuary and the tidal channel would be restricted to recreational boating and fishing for reasons of safety and ecological protection.</p>	31 31 31, 7
River and bay health objectives	RHO 3	River flow objectives This objective is designed to maintain natural flow regimes in natural and artificial channels in the Georges River-Botany Bay system.	The proposed Port Botany Expansion would not alter the natural flow regimes of existing stormwater channels which discharge to Botany Bay. The channels in proximity to the proposed development include the Mill Stream, Floodvale Drain and Springvale Drain.	16
River and bay health objectives	RHO 4	Water quality objectives	<p>The ANZECC 2000 <i>Australian Water Quality Guidelines for Fresh and Marine Waters</i> would be adopted as the appropriate criteria for ambient water quality within the Bay.</p> <p>The Port Botany Expansion would have a first flush system integrated into its site stormwater management to prevent initial runoff that may</p>	16

CATEGORY	REFERENCE	RECOMMENDATION	PORT BOTANY EXPANSION	EIS CHAPTER
			contain pollutants from the terminal surfaces from discharging to the sea. The first flush system would also act as a spill containment measure.	
River and bay health objectives	RHO 5	River and bay health data	<p>During the preparation of the EIS information on the existing health of Botany Bay has been collected, particularly in the areas which may be affected by the proposed Port Botany Expansion. This includes information on water quality, sediment quality, and ecosystem health. The information is presented in the EIS.</p> <p>During the construction and operational phases of the proposed development, environmental management plans would be implemented which would include sampling and monitoring activities to measure any potential impacts of the development on the health of Botany Bay.</p>	16, 19

10.4.3 The Tide is Turning

The Tide is Turning (Colman and Hopkins 2002) report presents an outline of an integrated environmental strategy for Botany Bay in response to the recorded expectations of the community. The report incorporates the results of the Botany Bay Program (BBP) and the submissions made during the exhibition period of the previous BBP report *Turning the Tide*, which was released for public comment on 9 July 2001.

The BBP was initiated by the Southern Sydney Regional Organisation of Councils and was funded by the Natural Heritage Trust under the Coast and Clean Seas Program. The Program's aim is to develop "a framework for the integrated planning of the Botany Bay catchment." The report has been designed to complement the recommendations of the HRC *Independent Inquiry into the Georges River – Botany Bay System* and the work of the Southern Sydney Catchment Management Board in developing a catchment management plan.

The strategy presented in the report is designed to achieve sustainable development of Botany Bay and its tributaries whilst recognising the Bay's various roles as:

- the city's and nation's premier entry and departure point for air travellers;
- the State's leading seaport for container and bulk liquid trades;
- a nationally-recognised focus for industrial activity, production, and research and development;
- a focus for aquatic and other forms of recreation, serving a catchment population of around 2 million people;
- a rich and diverse ecosystem incorporating significant terrestrial and aquatic habitats including those protected under international treaties;
- a setting for the custodial efforts of the traditional owners;
- a setting for suburban housing and related urban uses;

- the “birthplace of modern Australia”; and
- an educational resource.

The vision for the future presented in the report is of a Botany Bay which has achieved a reputation as the cleanest bay in the nation; where the quality and dynamics of the natural environment are respected and matched by a high quality built environment; where maritime, industrial, port and air transport infrastructure is designed, built and maintained to the highest environmental standards; where the Bay’s potential for tourism, sport and aquatic recreation is recognised and supported; and where indigenous as well as post-colonial culture and heritage are fully respected by all stakeholders.

Sydney Ports Corporation recognises the importance of maintaining and improving the environmental qualities of the Bay and its surrounds. The proposed Port Botany Expansion would be designed, built and maintained to the highest environmental standards.

The EIS includes an assessment of impacts relating to land use, marine and coastal processes, surface hydrology, groundwater, contamination, marine ecology, terrestrial ecology, road and rail traffic, noise, risk, air quality, visual amenity, social and economic aspects. A comprehensive regime of environmental management and mitigation measures would be implemented by Sydney Ports Corporation to minimise the impact of the proposed Port Botany Expansion on the environment, and where possible, improve the environmental qualities of Botany Bay and surrounds including the enhancement of Penrhyn Estuary as an ecological habitat. Environmental management measures are summarised in **Chapter 38 Environmental Management and Monitoring**.

Sydney Ports Corporation also recognises the recreational importance of Botany Bay and would include facilities to maintain access to the bay for these activities as part of the proposal (**Chapter 7 Public Recreation and Ecological Plan**).

A broad-ranging stakeholder involvement program was implemented during the preparation of the EIS. The program included consultation with government agencies, businesses, transport interests, environmental and recreational groups, indigenous communities and the wider community. Various mechanisms were provided to gather the issues and concerns of stakeholders as described in **Chapter 11 Government Consultation** and **Chapter 12 Community Consultation**. A heritage assessment was also conducted to assess the impacts of the proposal on Aboriginal and European heritage (**Chapter 24 Cultural Heritage**).

10.4.4 Southern Sydney Draft Catchment Management Blueprint

The Southern Sydney draft Catchment Management Blueprint provides a strategic direction for natural resource and environmental management for the next ten years. It covers the area extending along the coast line from South Head to north of Cronulla, including Sydney’s eastern beaches and their catchments, Botany Bay and its estuaries, and the catchments of Cooks and Georges Rivers, including Woronora River. The draft blueprint therefore applies to the proposed Port Botany Expansion.

The design of the draft blueprint was guided by the following objectives:

- remediation and protection of terrestrial and aquatic environments to ecologically sustainable levels;
- management of urban and rural areas with economic, social and physical infrastructures that promote sustainable communities with good quality of life;

- management of the area by participation of the whole community, including the Aboriginal people;
- recognition and “appropriate preservation” of the area’s cultural heritage; and
- integration and coordination of all spheres of government, business and the community.

The draft blueprint contains catchment targets that set out measurable minimum levels that must be achieved for each component (land, vegetation, water) of the natural environment. The targets for coastal and the aquatic-marine/estuarine environments which are relevant to the proposed Port Botany Expansion include:

- no clearing of coastal Endangered Ecological Communities;
- application of no net loss principle to other ecological communities;
- application of no net loss principle to all aquatic-marine and estuarine habitats; and
- by 2012, measurable increase in area of significant habitats, improvement in overall quality of all habitats, and increase in connectivity within and between all habitats.

Management targets and actions relevant to the Port Botany Expansion are addressed in **Table 10.3**.

Table 10.3 Consideration of the Southern Sydney Draft Catchment Management Blueprint

MANAGEMENT TARGETS/ACTIONS	PROPOSED ACTION / COMPLIANCE	EIS CHAPTER
<p>By 2012, no further degradation from cumulative impacts of development; specifically controlling noxious aquatic organisms.</p>	<p>The current national management system for ballast water discharge would address the risks posed by ballast water from international ports and the transfer of pests between Australian ports. All vessels would be required to report to the Australian Quarantine and Inspection Service (AQIS) their intended ballast water discharge plan prior to entering into Australian waters.</p> <p>Container ships would not usually discharge ballast water in Botany Bay, thus it would be unlikely that the operation of Port Botany Expansion would result in the introduction of marine pests.</p>	<p>19</p>
<p>By 2012, development of strategies to maximise the natural values for all watercourses, specifically:</p> <ul style="list-style-type: none"> - determining and managing the interaction of surface and groundwater for the Botany Bay basin; and - managing stormwater quality and flows at source. 	<p>A groundwater study is provided in the EIS. The study includes a predictive scientific groundwater model, which assesses the impacts of the proposed Port Botany Expansion on the Botany Aquifer.</p> <p>The results of the numerical groundwater modelling demonstrate that the proposed terminal reclamation would have no effect on groundwater levels on the landward side of the present shoreline. The proposed public area improvement works and boat ramp construction would have minimal effect on groundwater levels. There would be no effect on the direction of flow or the natural migration of contaminants already present in the groundwater north of the site.</p>	<p>17</p>

MANAGEMENT TARGETS/ACTIONS	PROPOSED ACTION / COMPLIANCE	EIS CHAPTER
	<p>The proposed development would not contribute to existing groundwater contamination with the implementation of standard mitigation measures. Therefore, the proposed development would not affect groundwater dependent ecosystems or increase the risk of exposure of local landowners or groundwater users to contaminated groundwater.</p> <p>Stormwater runoff from the new terminal would be controlled and managed both during the construction and operational phases. A first flush system would be installed, maintained and monitored during operation of the Port Botany Expansion to minimise stormwater pollution. Stormwater would be reused where possible.</p> <p>The proposal would have no upstream impact on rivers and creeks draining into the immediate project area.</p> <p>The ANZECC 2000 <i>Australian Water Quality Guidelines for Fresh and Marine Waters</i> would be adopted as the appropriate criteria for water quality within the Bay.</p>	16
By 2006, putting programs and planning in place to ensure a measurable net annual increase in adequate buffer/riparian zone along waterways, watercourses and wetlands.	<p>The proposal includes the enhancement of Penrhyn Estuary as an ecological habitat, specifically the creation of intertidal flats, saltmarsh areas and related buffer areas to support migratory shorebirds using Penrhyn Estuary.</p> <p>The proposal also includes extensive restoration, enhancement and reinstatement of foreshore dune areas along the foreshore corridor behind Foreshore Beach.</p> <p>The proposal would not impact buffer/riparian zones along watercourses in catchment areas to the north of the proposed new terminal.</p>	7, 19, 20
By 2006, achieving the control and mitigation of sediment input into aquatic systems.	<p>Sediment and litter removal devices would be installed for the treatment of stormwater from Floodvale and Springvale Drains prior to their discharge into Penrhyn Estuary (subject to detailed flooding studies). This would reduce the existing sediment load into the Penrhyn Estuary aquatic ecosystem.</p> <p>During dredging and reclamation, turbidity and siltation would be controlled and managed through the use of silt curtains and filling techniques that would move and discharge dredged material underwater at sea bed level.</p> <p>Stormwater pollution would be managed through soil erosion and stormwater control structures during construction and through an onsite first flush system during operation.</p>	8,16
<p>Applying the No Net Loss Principle to all developments in respect to:</p> <ul style="list-style-type: none"> - biodiversity and habitat extent and quality; - ecological connectivity; and - water quality. 	The proposal includes the creation of suitable habitat for colonisation or transplanting of seagrass over approximately 8 ha along Foreshore Beach and in Penrhyn Estuary. This is designed to compensate for about 4 ha of existing seagrass which would be affected by the proposal.	7,16,19, 31

MANAGEMENT TARGETS/ACTIONS	PROPOSED ACTION / COMPLIANCE	EIS CHAPTER
	<p>Mangroves in Penrhyn Estuary would be removed to prevent colonisation in the Estuary and to maximise habitat for shorebirds and saltmarsh.</p> <p>The proposal also includes extensive restoration, enhancement and reinstatement of foreshore dune areas along the foreshore corridor behind Foreshore Beach which would enhance ecological connectivity.</p> <p>The loss of soft sediment habitats from dredging would be replaced with rocky reef habitat formed by the sloping rubble walls of the new terminal. This would provide valuable habitat for fish and other marine organisms.</p> <p>No changes in existing water or sediment contaminant concentrations would be expected in Botany Bay, outside the confined area of Penrhyn Estuary, due to the Port Botany Expansion.</p> <p>The new terminal's stormwater management system would minimise contaminated runoff discharging into Botany Bay through a first flush and wastewater capture and treatment system.</p>	

10.4.5 NSW State Rivers and Estuaries Policy

The NSW State Rivers and Estuaries Policy was adopted in 1992 to encourage sustainable development of the natural resources of the State's rivers, estuaries, wetlands and adjacent river plains. The policy commits the NSW Government to report on the condition of the State's major river and estuary systems and the actions underway to halt degradation of these systems.

The proposed Port Botany Expansion is consistent with this policy by designing dredging and reclamation activities and subsequent port operations to minimise the potential impacts on the estuarine environment and prevent the degradation of the estuarine environment.

To help preserve water quality and protect the coastal environment, soil and water management structures and a first flush system would be installed, maintained and monitored during construction and operation to minimise stormwater pollution. Stormwater would be reused where possible.

The rock embankment to be used for reclamation would enhance aquatic ecology by providing a rocky reef marine environment. Shorebird feeding and roosting habitat would be enhanced with the proposed creation of additional saltmarsh at Penrhyn Estuary.

10.4.6 NSW Wetlands Management Policy

The NSW Wetlands Management Policy is a State Government policy that aims to halt, and where possible, reverse the loss of wetland vegetation, declining water quality, declining natural productivity, declining natural flood mitigation, and loss of biological diversity. The policy also encourages projects and activities which would restore the quality of the State's wetlands.

The NSW Wetlands Management Policy is one of the component policies of the NSW State Rivers and Estuaries Policy.

The foreshore of Penrhyn Estuary falls under the category of “*estuarine wetland*” recognised by the policy. Therefore, the policy applies to the proposed Port Botany Expansion in so far as certain activities would affect Penrhyn Estuary. The proposed development, specifically the configuration of the reclamation area to preserve as much of the foreshore as possible and the enhancement of Penrhyn Estuary as an ecological habitat, promotes the objective of the policy to halt, and where possible, reverse the loss of wetland vegetation and loss of biological diversity. The ecological enhancement works at Penrhyn Estuary would require the removal of mangroves to create new intertidal and saltmarsh flats that would enhance the area as a wading bird habitat.

Furthermore, the proposed Port Botany Expansion would have no impact on the Towra Point wetlands or any other wetlands in the Bay. These studies are contained in **Appendix N** and summarised in **Chapter 19 Aquatic Ecology**.

10.4.7 NSW Estuary Management Policy

The Estuary Management Policy was developed in 1992 in recognition of the ecological, social and economic importance of the State’s estuaries and the concern about their long term degradation. The policy is part of a range of catchment management policies and deals with the assessment of all estuarine uses, conflict resolution and sustainable management, including remedial works where appropriate.

The general goal of the Estuary Management Policy is to achieve an integrated, balanced, responsible and ecologically sustainable use of the State's estuaries which form a key component of coastal catchments. Specific objectives include:

- long term protection of estuarine habitats and ecosystems, including maintenance of the necessary hydraulic regime in each estuary;
- conservation of intertidal, aquatic and wildlife habitats;
- conservation of the aesthetic values of estuaries and wetlands;
- prevention of further estuary degradation;
- repair of damage to the estuarine environment; and
- sustainable use of estuarine resources, including commercial uses and recreational uses as appropriate.

The policy is implemented through the preparation and implementation of Estuary Management Plans. The process involves public participation in all stages. It includes the conduct of Estuary Processes and Estuary Management Studies to understand baseline conditions and trends for the various physical, chemical and biological estuarine processes and interactions between them and between other land and water uses. Management objectives, options and impacts on the estuary are defined in the Estuary Management Study which then leads to the development of an Estuary Management Plan.

Local councils establish an Estuary Management Committee to oversee the development and implementation of an Estuary Management Plan. The NSW Government provides financial and technical assistance to help local councils achieve these goals.

The estuary management process has not been commenced for Botany Bay. However, Sydney Ports Corporation has addressed the objectives of this policy by:

- conducting a marine and coastal processes study, including modelling, to assess whether the proposal would modify the hydrodynamic processes and interactions in Botany Bay;
- conducting surface water and groundwater studies to assess the potential impacts of the new terminal to surface flow regimes, groundwater levels and water quality;
- conducting detailed terrestrial and marine ecology assessments to identify biological processes and interactions potentially affected by the proposal;
- conducting detailed ecotoxicological and human health risk assessments to identify any impacts on the ecology of the area or human health as a result of the proposal;
- conducting surface water and groundwater studies to assess the potential impacts of the new terminal to flow regimes, water quality and
- recommending mitigation measures to manage the potential environmental impacts of the proposal.

The relevant findings from the above studies are presented in **Chapter 15** *Hydrodynamics and Coastal Processes*, **Chapter 16** *Hydrology and Water Quality*, **Chapter 17** *Groundwater*, **Chapter 19** *Aquatic Ecology* and **Chapter 31** *Ecotoxicology and Human Health Risk*. A summary of the mitigation measures is presented in **Chapter 37** *Compilation of Mitigation Measures*.

10.4.8 Coastline Hazard Policy

The NSW Government has developed a Coastline Hazard Policy to assist Local Government in providing measures to deal with threats to existing and proposed coastline development from oceanic processes, to ensure any protection gives priority to the well being of the public beach amenity and to ensure sound future management of the coastline. Proposed developments along beachfront areas should consider the objectives of the policy which include:

- to reduce the adverse impact of coastal processes on existing public and private assets;
- to ensure the continued improvement and maintenance of the recreational amenity of beaches; and
- to ensure that, through informed and balanced management, any new development adjacent to the coastline does not adversely affect the coastline and is not itself threatened by coastal hazards.

A hydrodynamics and coastal processes study is included in the EIS (**Chapter 15** and **Appendix H**). The study includes a predictive scientific hydrodynamic model, which treats the Bay as a whole, and assesses impacts of the Port Botany Expansion on a Bay-wide basis including public and private assets. The study shows minimal impacts.

Sydney Ports Corporation also recognises the recreational importance of beaches, particularly Foreshore Beach. The proposal has been designed to preserve and enhance as much of Foreshore Beach as practicable, and to improve access to the area. The enhancement of the beach coastal and public areas is described in **Chapter 7** *Public Recreation and Ecological Plan*.

10.4.9 Interim Southern Sydney Regional Strategic Plan

The Interim Southern Sydney Regional Strategic Plan (SSRSP) provides the perspective of key natural resource and environmental management concerns within the wider area of Botany Bay. The focus of the Interim SSRSP is the identification of Key Regional Priority Issues (or Threatening Processes) and Key Result Areas, which identify the outcomes desired by stakeholders or needed to achieve ecologically sustainable development. The aim is to guide investment into integrated natural resource and environmental management (NREM) to achieve sustainability.

Key regional priority issues are those NREM issues and threatening processes or pressures that have and are causing the often severe environmental degradation and problems in the Region. These have been identified as follows:

- lack of integrated natural resource management;
- poor water quality, contaminated sediments and loss of wetlands;
- declining quality and quantity of urban bushland, remnant and other vegetation;
- air quality - greenhouse gases, climate change, sea level rise;
- changes and loss in ecosystem and species diversity, loss of fishery habitats;
- loss of cultural and natural heritage;
- land degradation;
- waste and litter;
- urban development and urban practices;
- depletion of natural resources;
- coastal dunes, foreshore and beach structure issues; and
- depletion of water resources, altered flow regimes and loss of good quality groundwater.

The SSRSP calls for greater resource sharing and inter-agency cooperation concerning environmental issues between State agencies, local government, Aboriginal people, Regional Organisations of Councils, Catchment Management Committees, the Community and other stakeholders.

Sydney Ports Corporation is addressing these issues by actively engaging with stakeholders to determine those issues which are of key concern to the community and government agencies. Sydney Ports Corporation is also seeking to design the proposed Port Botany Expansion to meet the highest environmental standards so as to minimise environmental impacts and maintain or enhance recreational and environmental opportunities in the areas surrounding the port.

The issues identified in the plan are similar to those contained in the HRC report and the Southern Sydney draft Catchment Management Blueprint which are addressed in **Table 10.2** and **Table 10.3**. Further details are discussed in the relevant EIS chapters.

Summary of key outcomes:

In preparing this EIS, the requirements of the Director-General of Planning NSW were sought and consultation with statutory authorities undertaken. This consultation included a Planning Focus Meeting and key government stakeholder briefings, presentations and workshops. A summary of the Director-General's requirements is provided in this chapter, together with a reference to the relevant section of the EIS in which these requirements are addressed.

11.1 Formal Procedures for Consultation

This EIS has been prepared in accordance with Part 4 of the EP&A Act and the EP&A Regulation 2000. In preparing this EIS, the requirements of the Director-General of the NSW Department of Planning (PlanningNSW) were sought as required by Clause 73 of the EP&A Regulation 2000. Each of the matters raised by the Director-General for consideration in the EIS is outlined in **Table 11.1**, together with the relevant section of the EIS which addresses that matter. An unabridged copy of the Director-General’s Requirements can be found in **Appendix A**.

Table 11.1 PlanningNSW Director-General’s Requirements

MATTER	LOCATION IN EIS	
	Chapter	Appendix
Description of the Proposal		
Include a detailed description of the proposal, clearly identifying those components of the proposal for which approval is being sought, and those components of the proposal that would be the subject of future development applications.	1, 6, 7, 8	-
Strategic Justification		
Justify the need for the proposal, taking into account any relevant trends in international, national, and state trade, transport, and logistics; the forecast growth in seaborne trade; and all the relevant State documents. Include a detailed assessment of the range of alternatives available in NSW to accommodate this forecast growth, demonstrating that the proposed expansion of Port Botany is the best alternative available.	4, 5	D
Inquiry Recommendations		
Consider the proposal against the recommendations in the Healthy Rivers Commission’s final report on the Independent Inquiry into the Georges River-Botany Bay System, and if necessary, justify any inconsistencies between the proposal and these recommendations.	10	-
Statutory Instruments		
Assess the proposal against the relevant provisions in State Environmental Planning Policy No. 11- Traffic Generating Developments, State Environmental Planning Policy No. 33- Hazardous and Offensive Development, State Environmental Planning Policy No. 55- Remediation of Land, draft State Environmental Planning Policy No. 66- Integrated Land Use & Transport; Botany Local Environmental Plan 1995.	9	-
Key Issues		
Assess the following potential impacts of the proposal during construction and operation, and describe what measures would be implemented to manage, mitigate, or off-set these potential impacts:		
<ul style="list-style-type: none"> Traffic and Transport, on land, water, and air, identifying any infrastructure upgrades that would be required to support the proposal 	21	P
<ul style="list-style-type: none"> Hydrological 	15, 16	H, I
<ul style="list-style-type: none"> Flora and Fauna, both terrestrial and aquatic, particularly on critical habitats, threatened species, populations, or ecological communities 	19, 20	N, O
<ul style="list-style-type: none"> Noise and vibration 	22	Q
<ul style="list-style-type: none"> Soil and groundwater quality 	17, 18	L, M

MATTER	LOCATION IN EIS	
	Chapter	Appendix
<ul style="list-style-type: none"> Surface water quality 	16	J, K
<ul style="list-style-type: none"> Air quality 	23	R
<ul style="list-style-type: none"> Hazards and risks including: <ul style="list-style-type: none"> Preliminary Hazard Analysis of the proposal prepared in accordance with PlanningNSW's <i>Hazardous Industry Planning Advisory Paper No. 6: Guidelines for Hazard Analysis and Multilevel Risk Assessment Guidelines</i>; Potential impacts associated with storing and handling of dangerous goods on site, and transporting dangerous goods to and from the site; and Demonstration that the proposal is consistent with the <i>Port Botany Land Use Safety Study</i> (DUAP 1996). 	28	W
<ul style="list-style-type: none"> Visual 	25	T
<ul style="list-style-type: none"> Heritage 	24	S
<ul style="list-style-type: none"> Waste Management 	34	-
<ul style="list-style-type: none"> Utilities and services 	6, 8, 33, 35	K, BB
<ul style="list-style-type: none"> Social and economic, particularly on the recreational use of the northern part of Botany Bay. 	26, 27	U, V
<ul style="list-style-type: none"> Assess the potential cumulative impacts associated with the proposal and the proposed upgrade of Patrick Stevedores container terminal at Port Botany, and the ground access needs of Sydney Airport. Include an assessment of the potential offsite impacts of the proposal, particularly on the wider Botany Bay system and the surrounding local government areas 	36	-
Environmental Management		
Describe how the environmental performance of the proposal would be monitored and managed during construction and future operations.	37	-
Consultation		
Consult with the relevant local, State, and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS	11, 12	C

In addition to the above, clause 72 of the EP&A Regulation 2000 lists the matters which are to be included in the contents of an EIS. These matters together with the relevant chapters of the EIS which give consideration to the issues, are summarised in **Table 11.2**.

Table 11.2 Statutory Requirements for EIS

MATTER	REFERENCE IN EIS
Summary of EIS	Executive Summary
Objectives of activity	Chapter 1
Alternatives	Chapter 5
Consequences of not proceeding	Chapter 5
Description of proposal	Part C
Description of environment	Part F

MATTER	REFERENCE IN EIS
Analysis of impacts	Part F
Safeguard measures	Part F & Part G
ESD principles	Chapter 39
Summary of safeguards	Chapter 37
Approvals required	Chapter 1 and Chapter 9

11.2 Consultation with Statutory Authorities

11.2.1 Planning Focus Meeting

A Planning Focus Meeting (PFM) was held on 18 December 2001 in order to provide an outline of the proposal to relevant authorities.

Representatives of the following organisations attended the PFM:

- Aircservices Australia;
- City of Botany Bay Council;
- Civil Aviation Safety Authority;
- Environment Australia;
- Healthy Rivers Commission;
- Kogarah City Council;
- NSW Department of Land and Water Conservation;
- NSW Environment Protection Authority;
- NSW Fisheries;
- NSW Heritage Office;
- NSW National Parks and Wildlife Service;
- NSW Roads and Traffic Authority;
- PlanningNSW;
- Rail Infrastructure Corporation;
- Randwick City Council;
- Southern Sydney Regional Organisation of Councils;
- Sydney Airport Corporation Ltd;
- Transport NSW; and
- Waterways Authority.

As requested by the local community and supported by Sydney Ports Corporation, PlanningNSW held an additional PFM for community representatives on 5 February 2002 as described in **Chapter 12 Community Consultation**.

A full list of the requirements of the Commonwealth and NSW government authorities as provided in writing to the Director-General of PlanningNSW are presented in **Appendix A**. A summary of these requirements and the relevant section of the EIS which gives consideration to these issues is presented in **Appendix B**.

Ongoing consultation with government authorities was undertaken during the preparation of this EIS in order to further clarify issues raised at the PFM or provided in written submissions to the Director-General of PlanningNSW.

11.2.2 Government Stakeholder Meetings

A number of government stakeholder meetings were held during the preparation of the EIS to discuss the preliminary findings of specialist studies. In particular, two workshops were held to discuss the hydrodynamics, groundwater and public realm design studies. These meetings provided an opportunity for the relevant government agencies to provide feedback on the approach adopted during the preparation of the specialist studies and a mechanism to ensure that issues were being adequately addressed in the EIS.

The findings of the hydrodynamic modelling undertaken by Lawson and Treloar (**Appendix H**) were discussed at the first meeting. Organisations attending this meeting, held in October 2002, included:

- City of Botany Bay Council;
- NSW Department of Land and Water Conservation;
- NSW Environment Protection Authority;
- NSW National Parks and Wildlife Service;
- PlanningNSW;
- Randwick City Council;
- Sydney Airport Corporation Ltd;
- Waterways Authority;
- Lawson and Treloar;
- URS; and
- Sydney Ports Corporation.

The findings of the groundwater modelling and the public realm design studies were discussed at the second meeting. Organisations attending this meeting, held in December 2002, included:

- City of Botany Bay Council;
- NSW Department of Land and Water Conservation;
- NSW Fisheries;
- PlanningNSW;
- Randwick City Council;
- Sydney Airport Corporation Ltd;
- Waterways Authority;
- accessUTS;
- URS; and
- Sydney Ports Corporation.

11.2.3 Public Realm Workshops

Sydney Ports Corporation held two planning workshops to generate and assess options for the areas of public open space affected by the proposed Port Botany Expansion.

The approach was to work with relevant government authorities in workshop situations to generate and evaluate public open space options, for community assessment and input. Government authorities that participated in the workshops included:

- City of Botany Bay and Randwick City Councils;
- Environment Australia;
- Environment Protection Authority;
- NSW Fisheries;
- NSW National Parks and Wildlife Service;
- Southern Sydney Regional Organisation of Councils;
- Sydney Airport Corporation Ltd;
- Waterways Authority; and
- Sydney Ports Corporation

An interdisciplinary team of Sydney Ports Corporation's internal and external specialists also participated in the workshops. Specialisations included urban design, landscape architecture, visual impact assessment, social impact assessment, environmental management and engineering.

The first workshop was held on 12 September 2002. The objectives of the workshop were to:

- present and explain the current concept layout for the proposed Port Botany Expansion;
- develop a long term "community" desirable future (20-30 years) for the public open space areas;
- identify the desired outcomes to meet the long term desirable future for the public open space areas [desired outcomes are shorter term goals (5-10 years) to achieve the longer term desirable future (20-30 years)]; and
- identify practical ideas for the public open space areas.

The interdisciplinary team of Sydney Ports Corporation's internal and external specialists used the material developed at the first workshop to prepare for the second workshop.

The second workshop was held on 17 October 2002. The objectives of the workshop were to:

- present the options developed from the material produced at the first workshop;
- confirm that the options presented were the options that needed to be evaluated;
- evaluate the options, using a planning balance sheet;
- agree on the evaluation of options as a group; and
- identify shortlisted options.

The workshops identified two distinct precincts in the public open space adjacent to the proposed development. These are the Penrhyn Estuary precinct and the Foreshore Beach precinct.

Based on the outcomes of the two workshops, Sydney Ports Corporation assessed the shortlisted options and selected a preferred option with the following emphasis in each precinct:

- an emphasis on nature for the Penrhyn Estuary precinct with a focus on limiting disturbance to shorebirds by excluding dog walking and providing limited access to the public; and
- an emphasis on nature for the Foreshore Beach precinct with a focus on maintaining and enhancing the current environment and recreational activities as much as possible. This would include a new boat ramp and carpark, improvements in access to the area, a pedestrian walkway and cyclepath, sympathetic landscaping and an increase in the area of public open space at the northwestern end of

Foreshore Beach. Details of the open space plan are provided in **Chapter 7** *Public Recreation and Ecological Plan* and in **Appendix E**.

Summary of key outcomes:

Key stakeholders with interest in the proposed Port Botany Expansion were identified at the beginning of the EIS process and updated throughout the preparation of the EIS. The population of interest was identified as the residents and businesses of: the local Port Botany community; Randwick and Botany Bay LGAs; and the greater Botany Bay Region. Local environmental groups and recreational users of Foreshore Beach, Penrhyn Estuary and Botany Bay were also identified as key stakeholders with an interest in the proposal.

The primary aim of the community involvement program was to provide information to the public about the proposed development and obtain responses which would be addressed and incorporated during the preparation of the EIS. Involvement with the community comprised a range of consultation tools (e.g. focus groups, briefings, telephone information lines, e-mail, website and newsletters).

Key issues relating to the proposal raised by the community include: alternative sites for the new terminal; the impact on recreational use of Foreshore Beach; traffic and transportation impacts; hydrodynamic and water quality impacts; noise, air and visual impacts; heritage, terrestrial and aquatic ecology impacts; and economic and social impacts

12.1 Overview

The consultation strategy for this EIS was designed to encourage community involvement during preparation of the EIS and foster interaction between the community and the EIS Project Team. The process included a level of flexibility to accommodate ongoing community consultation and involvement activities.

The overall objective of the community involvement process was to ensure clear, two-way communication by listening, recording and responding to issues as they arose.

Specific objectives were to:

- disseminate information about the proposed Port Botany Expansion and the EIS process to key stakeholders and the surrounding community;
- increase community and stakeholder awareness and understanding of the project, the EIS and the associated planning process;
- ensure stakeholders and members of the community were provided with opportunities through the consultation process to communicate feedback and identify issues so that they could be included in the development proposal;
- identify community and stakeholder issues and views;
- facilitate information exchange between the study team and the community to enable joint understanding of issues raised; and
- conform to relevant NSW and Commonwealth legislation.

Sydney Ports Corporation will continue to be involved in discussions with stakeholders following lodgement of the EIS and will provide opportunities for public feedback and contribution during the EIS exhibition phase.

12.2 Key Stakeholders

Key stakeholders were identified taking into account the proposed location, surrounding land and waterbody users, existing Sydney Ports Corporation stakeholder relationships, community structures and organisations in the local and regional vicinity and advice from community organisations.

The population of direct interest was identified as the residents and businesses of the local Port Botany community, Randwick and Botany Bay LGAs, and the greater Botany Bay Region. Local environmental groups and recreational users of Foreshore Beach, Penrhyn Estuary and Botany Bay were also identified as key stakeholders with a direct interest in the proposal. Industry stakeholders having a direct interest in the proposal included port tenants, service providers, cargo owners and industry associations.

12.3 Community Involvement Program

The community involvement program involved the following elements:

- community PFM;
- focus group sessions;
- project newsletters;
- public response mechanisms (e.g. telephone information lines and fax number, e-mail, reply paid address, feedback forms)
- Sydney Ports Corporation website;
- stakeholder briefings and presentations; and
- advertorials and media releases.

Each of these elements is discussed in more detail below. The level of community participation in each of the elements is discussed in more detail in **Appendix C**.

12.3.1 Planning Focus Meeting

In addition to the PFM held on 18 December 2001 for relevant authorities, a second PFM was held on 5 February 2002 in order to provide an outline of the proposal to community groups and provide them with an opportunity to respond with concerns/issues formally to PlanningNSW.

Representatives of the following community organisations attended the PFM:

- Bizwatch;
- Botany and Eastern Region Environment Protection Agency (BEREPA);
- Botany Business Enterprise Centre (BBEC);
- Botany Main Street Program; and
- La Perouse Precinct Committee.

12.3.2 Focus Groups

Two rounds of focus group sessions were held during the EIS preparation phase to provide stakeholders with an opportunity to discuss specific interests.

Invitations were issued to key community representatives, who were identified through existing community networks, and expanding on stakeholder information evening invitations.

The first round of four focus groups (held with environmental, local community, fishing and boating and foreshore beach user groups) was held in the early stage of the EIS preparation phase. The purpose of the these sessions was to identify/understand:

- community structure and values potentially impacted by the proposal;

- community views and issues regarding the proposal;
- opportunities arising from the proposal; and
- mitigation measures and enhancement opportunities to be considered for the proposal.

Feedback received from the community in these sessions contributed to the identification of key issues raised during the consultation process.

The second round of three focus groups, with the same groups, was held towards the end of the EIS preparation phase, when the proposal had been further developed and potential impacts and mitigative measures had been identified. The purpose of these sessions was to:

- present stakeholder representatives with further information about the proposal, the public open space plan, the identified social impacts and associated mitigative measures and enhancement opportunities; and
- receive feedback from stakeholders on the proposal, the public open space plan, the identified social impacts and associated mitigative measures and enhancement opportunities.

12.3.3 Stakeholder Briefings and Presentations

Sydney Ports Corporation presented the Port Botany Expansion proposal to numerous community and industry stakeholders, including local business, environment and fishing groups, and shipping and stevedore industry representatives. These presentations were held during the EIS preparation to provide information on the proposal, the EIS process, and to enable stakeholders to discuss their views and issues. Question and answer sessions were held during the presentations, providing attendees with an opportunity to raise issues, ask questions on EIS studies or to obtain further information.

Details of these presentations are provided in **Appendix C**.

12.3.4 Project Newsletters

Four newsletters were produced during the EIS preparation phase. Newsletters contained information about the proposal, the EIS process, specialist studies, the Foreshore Beach/Penrhyn Estuary open space plan and details of the public response mechanisms.

Newsletters were issued to homes and businesses in the area surrounding Port Botany in February 2002, June 2002, October 2002 and April 2003. Copies of the newsletters are provided in **Appendix C**.

Approximately 13,000 copies of Newsletter 1 were letterboxed to the following suburbs: Banksmeadow, Botany, Port Botany, La Perouse, Matraville, Phillip Bay and Mascot. Newsletter 1 provided an introduction to the project, outlined the needs and benefits of the project and provided contact details for the community.

Approximately 15,000 copies of Newsletter 2 were letterboxed to the following suburbs: Banksmeadow, Botany, Port Botany, La Perouse, Matraville, Phillip Bay, Mascot, Kurnell, Kyeemagh and Taren Point. Approximately 3,000 copies were distributed to local council chambers, council libraries and the Marrickville Metro Shopping Centre. Newsletter 2 outlined the EIS process, the studies undertaken for the EIS, consultation and involvement, and information on how to make a submission.

In August 2002, 600 copies of both Newsletter 1 and 2 were distributed to Pagewood, following a request from City of Botany Bay Council.

Approximately 16,000 copies of Newsletter 3 were letterboxed to the following suburbs: Banksmeadow, Botany, Port Botany, La Perouse, Matraville, Phillip Bay, Mascot, Kurnell, Kyeemagh, Taren Point and Pagewood. Approximately 3,000 copies were distributed to local council chambers, council libraries and the Marrickville Metro Shopping Centre. Two hundred and ten copies were posted or e-mailed to all contacts on the community database at the time. A feedback form was attached to Newsletter 3 (refer to Section 12.3.5). Newsletter 3 described the proposed concept layout, outlined the planning framework for Botany Bay and the progression of EIS investigations and consultation activities.

Approximately 19,000 copies of Newsletter 4 were distributed in the Botany area, including 16,000 letterboxed and 3,000 distributed to Botany, Randwick, and Marrickville Councils. Newsletters were also distributed to council libraries and the Marrickville Metro Shopping Centre. Newsletter 4 outlined proposed design features to enhance the conservation values of the Penrhyn Estuary and the recreational facilities of Foreshore Beach, EIS progress and other port developments.

PDF copies of the newsletters which could be downloaded were available on the Sydney Ports Corporation website or provided on request. Additionally, each newsletter was mailed to those people listed in the EIS community database.

12.3.5 Public Response Mechanisms

Telephone Information Lines

A freecall telephone information line was established and maintained throughout the EIS process to provide information and to address comments and issues raised.

The information line was an important communication tool as it encouraged the involvement of stakeholders who may otherwise have been reluctant to make a written submission or participate in community information forums.

During the consultation process, 95 calls were received on the telephone line. An answering machine was activated after hours or during times when the line was unattended.

Fax Number

A fax number was publicised to allow members of the community to make comments or inquiries in relation to the proposal via fax.

Two fax submissions were received during the preparation of the EIS.

E-mail Address

A dedicated e-mail address was established to allow members of the community to make submissions or inquires in relation to the proposal via email.

Sixty email submissions were received during the preparation of the EIS.

Reply Paid Address

A reply paid address was established to allow members of the community to make comments or inquire in relation to the proposal via post.

Nine written submissions were received during the preparation of the EIS.

Newsletter 3 Feedback Form

A feedback form was attached to Newsletter 3. The purpose of the feedback form was to allow members of the community to make comments on the proposed concept layout which was discussed in the newsletter, in particular relating to the recreation and water management/ecological areas.

One hundred and thirteen feedback forms were received. The majority of respondents used the feedback forms to provide general comments on the proposal.

12.3.6 Sydney Ports Corporation Website

Throughout the EIS preparation phase, the Sydney Ports Corporation website provided details of the proposal, including electronic copies of newsletters, media releases, images and the First Port Future Port brochure. The website also provided details of the public response mechanisms (telephone and fax numbers, e-mail address, stakeholder information evenings).

12.3.7 Advertorials and Media Releases

Updates on the proposal were included in regular Sydney Ports Corporation advertorials in the Southern Courier and the St George & Sutherland Shire Leader for the months of June/July, August, September, October, and November/December 2002 and February, March, April, May and June 2003. Advertorials contained information about the proposal, progress to date and details of the public response mechanisms.

Media releases were issued to provide further timely information on the proposal's progress and related issues.

Copies of the advertorials are contained in **Appendix C**.

12.4 Key Issues Raised by the Community

Key issues relating to the proposal that were identified by the community are presented in **Table 12.1**.

Table 12.1 Key Issues Raised by the Community

ISSUE	COMMENTS	LOCATION IN EIS	
		Chapter	Appendix
Alternative sites for a new container handling facility	The consideration of alternative sites for a new container handling facility was supported. Suggested locations included Port Kembla, Newcastle, Sydney Harbour and other locations within Botany Bay.	5	-
Impact on recreational use of Foreshore Beach	Comments relating to Foreshore Beach were primarily based on the potential loss of part or all of the beach through the proposed expansion. The various uses of Foreshore Beach were emphasised, as was the value that it has to the local community. A number of suggestions were made for improvements to the area.	6, 7, 26	U
Cumulative impacts	Cumulative impact of the various industrial ventures around Botany Bay was considered to be a significant issue. People commented that they felt that the Bay could not sustain any further development and that the cumulative impact needs to be addressed by the State Government.	36	-
Traffic impacts on local roads	The increased cargo handling capacity of an expanded port was an issue amongst local residents with respect to the potential for an increase in trucks on local roads. Despite the increased modal share of cargo travelling by rail, the issue of more trucks using Botany Road and other local roads was raised. Suggestions were made about the enforcement of specific routes and times for container truck movement.	21	P
Impact on the boat ramp at Penrhyn Estuary	The importance of the boat ramp was emphasised, as were concerns about its existing condition. A number of locations for a new boat ramp were suggested.	7, 26	U
Hydrodynamic impacts of dredging and reclamation work	The potential for further loss of beach and wetlands in various parts of the Bay was the main focus of this issue. The impact that the development of the Parallel Runway has had on hydrodynamic conditions in Botany Bay was mentioned, as was the perception that the proposed expansion would have similar negative impacts despite scientific investigations and mitigative measures.	15	H
Noise impacts	Local residents raised the issue of an increase in operational noise from an expanded port, as they felt that the existing noise level is a problem. Sources of problematic noise included container movements (particularly when a container is dropped), ships' horns, and port vehicles' reversing alarms.	22	Q
Visual impacts	The visual impact of more port facilities on the local area was raised. This issue was often raised by people whose homes have a vista of the Bay and/or the Port. The visual impact of the proposal on recreational users of Foreshore Beach was also considered to be an issue.	25	T
Impact on the ecology of Penrhyn Estuary	The specific issue of preservation of the existing bird habitat, flushing, water pollution, and public access to the area was raised as well as the broader issue of how	15, 16, 19, 20	H, I, N, O

ISSUE	COMMENTS	LOCATION IN EIS	
		Chapter	Appendix
	the proposal would affect Penrhyn Estuary. A number of suggestions were made for improvements to this area.		
Community consultation	Some community members asked for details about consultation activities. There were a range of comments questioning whether the views of the community would be heard by the State Government.	12	C
Environmental management	Appropriate management of the ecologically sensitive areas around the Bay and Penrhyn Estuary was emphasised.	19, 20, 38	O
Water Pollution	Comments were made about the current water quality issues related to pollutants flowing into the Bay from the catchment, unrelated to port activity. The potential for the proposal to affect water quality in Botany Bay and Penrhyn Estuary, through disturbance to contaminated sediments on the Bay floor was raised.	16, 17, 31	J, L, AA
Social impacts	The impact of the proposal on the amenity of the community was raised by some residents. This included the issue of overdevelopment in the area and health risks.	26	U
Opposed (no further comments)	A number of responses which simply stated opposition to the proposal were received.	-	-
Statutory planning	Some people had questions about how the EIS fitted in with other pieces of legislation, or about the requirements of the EIS.	9	-
Aquatic flora and fauna	Some responses focused on the impact of the proposal on fish stock, and it was requested that this impact be addressed in the EIS.	19	N
Hazard and Risk	Hazards and risks such as the possibility of an accident due to the storage and/or transportation of dangerous goods were also raised.	6, 28, 32	W
Project needs and objectives	The view was expressed that the port is not currently being used to full capacity, and that an expansion is not needed.	4	D
EIS timing	There were many inquiries about when the EIS would be completed and on public exhibition.	-	-
Air pollution	The potential for air pollution in the local Botany area to be increased was felt to be an issue as a result of the port expansion, by emissions from an increased number of cars, trucks and ships in the area.	23	R
Birds	The impact of the proposal on the bird life in Penrhyn Estuary and across Botany Bay was felt to be an important issue. The Estuary is a shorebird habitat and community members felt that this habitat should be preserved if the expansion goes ahead.	20	O
Impact of the Botany Freight Rail Line	Some community members raised the issue of how the increased number of train movements on the freight rail line as a result of the expansion would affect them, through noise and vibration impacts.	21, 22	P, Q

ISSUE	COMMENTS	LOCATION IN EIS	
		Chapter	Appendix
Property flooding	There was a view that the reclamation work required for the expansion may cause flooding of properties in the Botany area.	16, 17	I, L
Terrestrial flora and fauna	How the proposal may affect the flora and fauna in the Foreshore Beach dunes and other areas near the port was raised.	20	O
Property values	It was felt by some community members that the proposal may have a negative impact on the value of properties in the surrounding area.	26	U
Freight movements	Some people wanted more information about the amount of freight movements through the port and by what method this freight leaves the port.	21	P
Heritage and Archaeology	Some people commented that they believed that Botany Bay is a site of significant heritage value, and that this should be considered in the EIS. There was also interest in whether indigenous heritage would be considered in the EIS.	24	S
Interference with airport operations	Two key issues in this area were that the expansion of the port may cause more planes to fly over Kurnell; and that it may increase the risk of bird strike.	29, 30	X, Y
Economic impact	The justification of the proposal on economic grounds was requested.	4, 27	D, V
Botany Bay Planning framework	There was some interest about how the proposal is affected by the Botany Bay Planning Framework.	10	-
Enfield proposal	There was some interest in the connection between the two proposals.	2	-
Port employment	There was interest in how many jobs would be created by the proposal.	26, 27	U, V

Summary of key outcomes:

Issues identified by the relevant statutory authorities together with members of the community that were given a high priority rating were: the need for the project; alternative locations; aquatic ecology impacts; appropriate consultation; cumulative impacts; ecotoxicology and human health risk; hydrodynamic and coastal process impacts around the Bay; noise impacts; public open space and amenity; surface hydrology and water quality impacts; and traffic impacts.

The EIS has therefore given particular emphasis to the assessment of the high priority issues identified by stakeholders, whilst ensuring that all other issues are covered thoroughly.

13.1 Issues Identification

13.1.1 Methodology

Consultation with each of the relevant statutory authorities together with members of the community, and a review of previous studies undertaken within the study area, provided the foundation for the identification of issues relating to the Port Botany Expansion.

13.1.2 The Issues

Key issues relating to the proposal that were identified by the community are listed alphabetically in **Table 13.1**.

Table 13.1 Issues Identified by the Community

ASPECT	ISSUE
Environment	Cumulative impacts Bay-wide impacts Groundwater Surface hydrology Terrestrial ecology
Social	Human health risk Noise impacts Property values Public open space and amenity Traffic impacts Visual impacts
Project Justification	Alternatives Need for the project

Key issues relating to the proposal that were identified by the statutory authorities and the review of previous studies are listed alphabetically in **Table 13.2**.

Table 13.2 Issues Identified by the Statutory Authorities and Review of Previous Studies

ASPECT	ISSUE
Environment	Air quality Aquatic ecology Bird hazard Cumulative effects Energy Groundwater Hydrodynamics and coastal processes Surface hydrology and water quality Terrestrial ecology Utilities and services Waste management
Social	Consultation Ecotoxicology and human health risk Hazards and risk Heritage Noise impacts Public open space and amenity Traffic impacts Visual impacts
Economic	Employment
Project Justification	Alternatives Need for the project

13.2 Prioritisation of Issues

The assessment of issues needs to recognise that the higher the significance of a particular attribute and the potential for adverse environmental impact, the higher the degree of analysis required.

Where a significant risk of potentially detrimental impact was identified or an issue of significant concern to the community was raised, the attribute or issue was allocated a higher priority for assessment as it would be of greatest concern to the proponent and the wider community.

Key issues and a measure of priority are presented in **Table 13.3**. Prioritisation has been based on a low (L), medium (M) or high (H) rating, and considers only the potential for impact or the level of concern for this issue expressed by the community and statutory authorities. It does not include an assessment of whether safeguards can be introduced or the effectiveness of those safeguards. These matters are discussed in **Part F** of this EIS.

Table 13.3 Prioritisation of Issues

ASPECT	ISSUE	PRIORITY
Environment	Aquatic ecology	H
	Cumulative effects	H
	Hydrodynamics and coastal processes	H
	Surface hydrology and water quality	H
	Terrestrial ecology	H
	Air quality	M
	Bird hazard	M
	Groundwater	M
	Energy	L
	Utilities and services	L
	Waste management	L
Social	Consultation	H
	Ecotoxicology and human health risk	H
	Noise impacts	H
	Public open space and amenity	H
	Traffic impacts	H
	Hazards and risk	H
	Social impacts (including property values)	M
	Visual impacts	M
	Heritage	M
Economic	Employment	L
Project Justification	Alternatives	H
	Need for the project	H