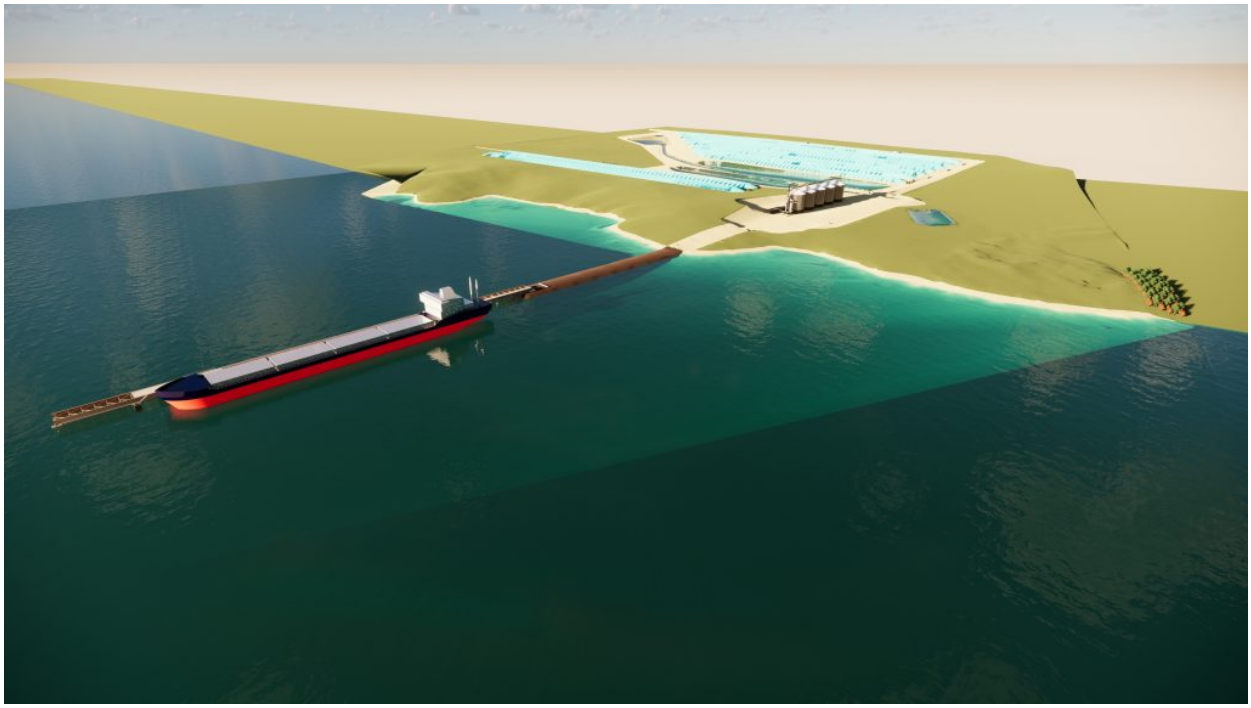
AMENDMENT TO THE ASSESSMENT REPORT

FOR THE
AMENDMENT TO THE PUBLIC ENVIRONMENTAL REPORT
PORT SPENCER GRAIN EXPORT FACILITY, EYRE PENINSULA

JULY 2020



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Executive Summary

The original proposal for the 'Port Spencer (Sheep Hill) Deep Water Port Facility – Stage 1' by Centrex Metals Ltd was approved by the Governor in 2012 after undergoing a Public Environmental Report (PER) process under the Major Development provisions of the *Development Act 1993*.

The development site provides naturally deep water (i.e. 20m depth) within 500m of the shoreline, enabling access for Panamax or Cape class vessels with no requirement for dredging. The proposal was for the development of a multi-user bulk commodity port, with the primary focus on the export of iron ore and grain, but was not constructed. At the time, Free Eyre Limited was the preferred grain supplier and were involved in assessing the potential for a grain export facility.

The new owner and proponent for the approved Port Spencer port project - Peninsula Ports Pty Ltd (a subsidiary of Free Eyre Ltd), is now proposing to develop a modified port facility for the export of grain only, as the export of iron ore is no longer proposed. Peninsula Ports now seeks to vary the current development authorisation to enable a differently designed port facility to be constructed - the 'Port Spencer Grain Export Facility'. Total capital expenditure is $150 million.

The modified proposal now provides expanded facilities for the receival, storage, handling and shipping of grain. The modified design comprises a different jetty structure for the berthing of Panamax vessels, with no need to cater for Cape size vessels. The bulk of the grain storage would be in bunkers, with some silo storage near the jetty. A truck marshalling area has now been included. The capacity of the port remains unchanged at up to 1 million tonnes of grain. Site access would be via an upgraded Lipson Cove Road, instead of via Swaffers Road.

The proposed changes were assessed under an amendment process, in accordance with Section 47 of the *Development Act 1993*. Accordingly, an Amendment to the Public Environmental Report (APER) was prepared by the proponent, including a review of the original PER, that discusses the environmental, social and economic implications of the modified port design.

The APER underwent public exhibition from 16 January to 21 February 2020. Six (6) submissions were received. The APER was also referred to the District Council of Tumby Bay and relevant State Government agencies for comment.

Submissions received during the public exhibition process were generally not supportive of the modified proposal, but were in favour of an alternative multi-user port at Cape Hardy (subject of a previous development authorisation). The main concern was that a grain only port would not deliver the full range of strategic and economic benefits to the region that a port capable of accommodating a range of commodities would (including the potential for container shipping).

Economic viability was also queried, given the competition from ports at Port Lincoln and Thevenard, the new grain export port at Lucky Bay and the approved port at Cape Hardy. In particular, the viability of the Cape Hardy proposal (and full range of regional benefits) could be affected by the Port Spencer facility competing for the same grain catchment market.

Additional concerns related to the erosion of local amenity, recreational, tourism and environmental values of the nearby Lipson Cove, the Lipson Island Conservation Park and Rogers Beach (including the use of Lipson Cove Road for grain truck access to the site).

The comments received from District Council of Tumby Bay reflected the community concerns expressed, along with the potential implications of a change to current truck movements to and from the port facility, and the potential financial impact on Council for upgrading and maintaining local roads associated with the transportation of grain to the facility and return.

State Government agencies, such as the EPA and the Department for Environment and Water, raised initial concerns with the revised design, primarily the replacement of a 240m long section of open jetty with a solid causeway structure. Whilst this change would enable the proponent to reuse rock material from the excavation of the headland for the silo and jetty construction platform, it would result in an increase in seagrass loss and a greater effect on local sand movement (including additional maintenance requirements) than that originally proposed.

Following the public consultation period, the proponent submitted a Response Document which provided additional information related to the causeway design, regional road upgrade funding and an amended layout plan that achieved better noise mitigation and stormwater management.

Given that a port facility is an approved use, the modified proposal has been assessed in the context of comparing the changes to the type and extent of impacts now predicted with those that were assessed for the approved development.

It is acknowledged that many of the potential environmental impacts associated with the modified design were previously considered with the approved development, though the introduction of a causeway structure into the jetty design and the relocation of the site access route to Lipson Cove Road are notable departures.

The modified proposal is a reduced development that is focussed on grain only export facilities, compared to the original proposal for a multi-user port facility (Stage 1 which as approved and Stage 2 proposed).

It would meet the immediate needs of grain producers for an alternative port that provides direct delivery, especially due to the loss of the regional rail transport network and the need for price competition in the grain export market.

The substantial reduction in jetty piling works, the avoidance of marine based construction methods and reduced shipping movements (with the majority of impacts concentrated around the peak harvest season, rather than all year round) mitigate potential environmental impacts. Environmental management, mitigation and monitoring strategies during construction will also assist in appropriately managing these impacts.

The modified proposal would not however deliver the full range of strategic and economic benefits of the original proposal. Whilst the modified design to incorporate a causeway into the jetty/wharf structure allows for a shorter construction period (and re-use of excavated on-site materials), it is recognised that the causeway would result in an increased loss of seagrass and reef habitat, which will need to be compensated for through an appropriate Significant Environmental Benefit under the *Native Vegetation Act 1991*. Sediment monitoring and sand management requirements would also need to be strengthened to maintain local beaches.

On balance, the modified design is considered appropriate. A port facility has previously been assessed as being an appropriate use for the site, noting also that a similar causeway / jetty design has been approved for the Cape Hardy port proposal. The proponent has appropriately considered the environmental, social and economic impacts of the modified proposal for a grain export port facility on the east coast of Eyre Peninsula. In assessing the proposal against the predicted impacts of the original approved development, the relevant planning polices and relevant legislation, the proposal is supportable and should be approved subject to revised conditions.

1 Introduction

This Amendment to the Assessment Report (AAR) assesses the environmental, social and economic impacts of a modified port proposal for the export of grain by Peninsula Ports Pty Ltd (the proponent). The 'Port Spencer Grain Export Facility' proposal is located on the east coast of Eyre Peninsula (South Australia), approximately 210km in a direct line north-west of Adelaide, 70km north-east of Port Lincoln and 21 km north-east of Tumby Bay.

The original proposal for the 'Port Spencer (Sheep Hill) Deep Water Port Facility – Stage 1' by Centrex Metals Ltd was approved in 2012 after undergoing a Public Environmental Report (PER) process under the Major Development provisions of the *Development Act 1993*. The proposed site provides naturally deep water (i.e. 20 metres depth) within 500 m of the shoreline, enabling access for Panamax or Cape class vessels with no requirement for dredging. The proposal was for the development of a multi-user bulk commodity port, with the primary focus on the export of iron ore and grain, but did not proceed due to a substantial down-turn in the mining sector. At the time, Free Eyre Limited was the preferred grain supplier and were involved in assessing the potential for a grain export facility.

In mid-2019 the site and associated development approval was sold to Peninsula Ports (a subsidiary company of Free Eyre Ltd), which now intends to develop a port facility for the export of grain only, based on a modified port design to that which was approved. The modified proposal comprises a different jetty structure for the berthing of Panamax vessels, but would no longer cater for Cape size vessels. The jetty would be a linear (i.e. straight) design, rather that T-shaped. The design of the land based receival, storage and handling areas have been reconfigured to exclude ore facilities and to improve the efficiency of grain facilities. The bulk of the grain storage would be in bunkers, with some silo storage near the jetty. A truck marshalling area has now been included. The capacity of the port remains the same, being up to 1 million tonnes of grain. Site access would be via an upgraded Lipson Cove Road, instead of via Swaffers Road. The estimated total capital expenditure for the development is $150 million.

A current major development authorisation applies to the site for the original proposal. In order to construct the revised proposal, the authorisation would need to be varied. To enable a decision to be made as to whether to approve the modified port design, the delegate of the Governor (being the Minister for Planning), needs to consider a valid PER and Assessment Report. Given the changed nature of the proposal and elapsed time since the original proposal was first assessed, the original PER and Assessment Report had to be reviewed.

2 Background

2.1 The Major Development Process

The original 'Sheep Hill' Deep Water Port Facility proposal was declared a Major Development on 6 January 2011, pursuant to Section 46 of the *Development Act 1993*. Guidelines for the preparation of a Public Environmental Report (PER) were released by the then Development Assessment Commission on 1 June 2011. Pursuant to Section 46C of the Act, the proponent prepared the PER (i.e. in accordance with the Guidelines), which was released for public consultation on 9 March 2012. In response to the PER, a total of 13 formal submissions were received from the public and State Government agencies. The District Council of Tumby Bay submitted a letter of support for the proposal. The proponent subsequently prepared a Response Document that addressed the matters raised in submissions.

The Minister for Planning prepared an Assessment Report (dated December 2012) that addressed the potential environmental, social and economic impacts of the proposal (including having regard to the planning provisions of the Planning Strategy and relevant Development Plan). The proposal was approved by the Governor on 20 December 2012. At the same time, the Governor delegated decision making powers to vary the development authorisation to the Minister for Planning. The Minister for Planning has used these powers to grant extensions of time to the construction date.

A copy of the current development authorisation is provided in Appendix 2.

It should be noted that, whilst substantial on-site works have not commenced, the approval does not automatically lapse. A major development authorisation can only be cancelled by the Governor.

In response to a request from the proponent to vary the current development authorisation, the proposed modified design was considered in the context of the original Guidelines. It was noted the proposal includes no new components or significant changes to the scope of facilities proposed. A review of the Guidelines found that issues associated with grain export facilities were adequately addressed. No changes were required to the Guidelines.

Given the period of time that has elapsed since the original assessment was undertaken and the changed focus of the proposal, the proponent was advised that an Amendment to the PER process was required (including formal consultation).

Pursuant to Section 47 of the *Development Act 1993*, a PER can be amended by a proponent at any time to take account of an alteration to the original proposal. If the Minister considers that a proposed amendment would significantly affect the substance of the original PER, the amendment must not be made before interested persons have been invited, by public advertisement, to make written submissions on the amendment.

The Act also requires the amendment to be referred to the local Council and, as the proposal involves a prescribed activity as defined by the *Environment Protection Act 1993*, to the Environment Protection Authority (EPA) for review and any comment. Additionally, if more than five years have elapsed since the public consultation of the original proposal, the documentation must be formally reviewed as part of this process.

The proponent prepared an Amendment to the Public Environmental Report (APER) that was released for public consultation on 16 January for a five-week period. The APER:

- Describes the modified proposal and its effects compared to the approved proposal.
- States the reasons for the proposed modified design.
- Describes the additional stakeholder engagement undertaken
- Describes changes to planning and environmental legislation and policies
- Provides details on the amendments and the changed environmental effects.
- Updates the original project documentation, including new conceptual layouts and revised environmental assessment reports.

A public meeting was not conducted during the consultation period, noting that a port facility is still proposed on the same land and the potential impacts were considered to be similar. The addition of a causeway structure in the jetty design and the transport of grain using a different access route (with a consequential effect on local roads and residents) could be considered in the assessment. The nature of the proposal, the site / existing environment and potential effects of the development were also well understood by the community, due to the previous approval process.

In accordance with the requirements of the *Development Act 1993*, in preparing this AAR the Minister must take into account:

- the proponent's APER and the original PER (where relevant);
- any submissions made in respect of the APER by members of the public;
- any comments provided by relevant State Government agencies and the Council;
- the proponent's response to these submissions and comments within the Response Document; and
- other comments or matters that the Minister considers appropriate.

It should be noted that the existing *Environment Protection and Biodiversity Conservation Act 1999* approval has been transferred from Centrex to Peninsula Ports by the Commonwealth government through a deed of transfer executed by both parties, with the relevant minister approving the transfer. A revised Southern Right Whale Management Plan has been prepared to reflect the implications of the modified proposal.

3 Approved Development

The original proposal by Centrex was to establish a multi-user deep-water export port (Port Spencer), primarily for the direct shipment of hematite from the company's mines on Eyre Peninsula (initially from the Wilgerup mine near Lock). Refer to Figure 1.

The facility was to accommodate Cape class vessels and be suitable for the export of 2 million tonnes of iron ore and 1 million tonnes of grain per annum. Ore would be transported from the mine in B-Double trucks using the Birdseye Highway to Rudall, then an upgraded Balumbah-Linnard Road to the Lincoln Highway.

The original proposal anticipated 12 Cape Class (167,000 tonne average) or 27 Panamax (74,000t) ore shipments per year and 8 Panamax (62,500t) grain shipments, assuming 0.5 million tonnes of grain would initially be exported

Access to the Port from the Lincoln Highway would be via an upgraded Swaffers Road.

The project involved a capital investment of around $250 million and was to employ a peak construction workforce of around 200 people. Approximately 70 people would have been employed long-term, comprising 30 staff to operate the port and 40 people employed by the operators of the grain and hematite operations on-site.

The key components of the project included a 515m long jetty (including enclosed conveyors and ship loaders), hematite and grain storage areas (sheds and silos/bunkers), haul road and infrastructure access corridor from the Lincoln Highway using an upgraded Swaffers Road (5 km in length), light vehicle access via an upgraded Lipson Cove Road and a new public access road to Rogers Beach. Refer to Figure 1 for the layout plan of the approved development.

Stage 2 included the processing of magnetite and included a processing plant near the mines (and slurry pipeline to the Port). Additional storage areas and a small desalination plant were to be developed at the Port. This would increase export volumes up to 20 million tonnes of iron ore per annum. Sites could also be established for the export of minerals by other companies or for the export of rural products, such as grain (possibly including rail access).

3.1 Overview of the Proposed Modified Development

The modified proposal seeks to establish a port for the export of grain only, with no capacity or intention for the export of iron ore (especially as the port would no longer accommodate Cape sized vessels). Refer to Figure 2. The proponent considers that using the port for both commodities would be incompatible, especially due to the risk of grain contamination from mining products. However, potential remains to develop a multi-user port facility in the future for other agricultural commodities that are compatible, based on the availability of land adjoining the site and upgrades to the jetty and wharf.

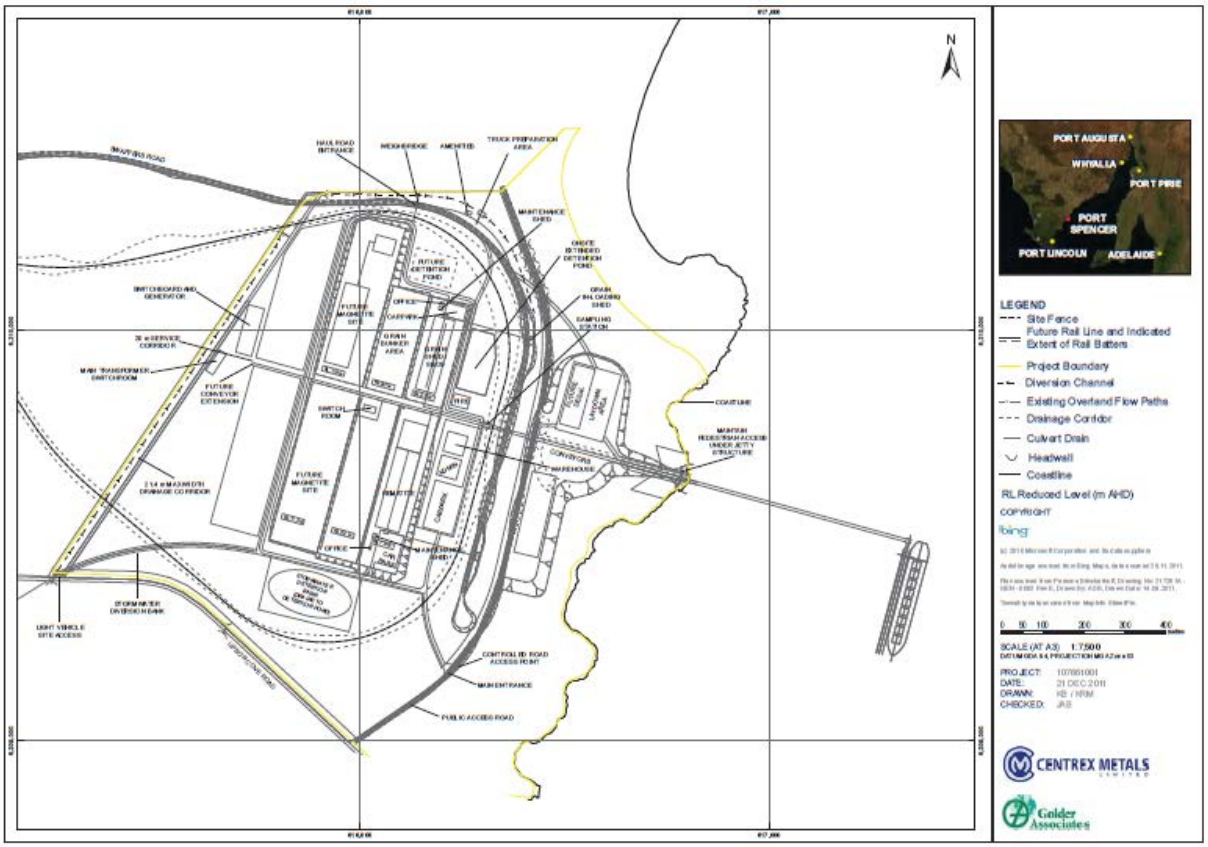

Figure 1: Original port facility design by Centrex (Source: Original PER).

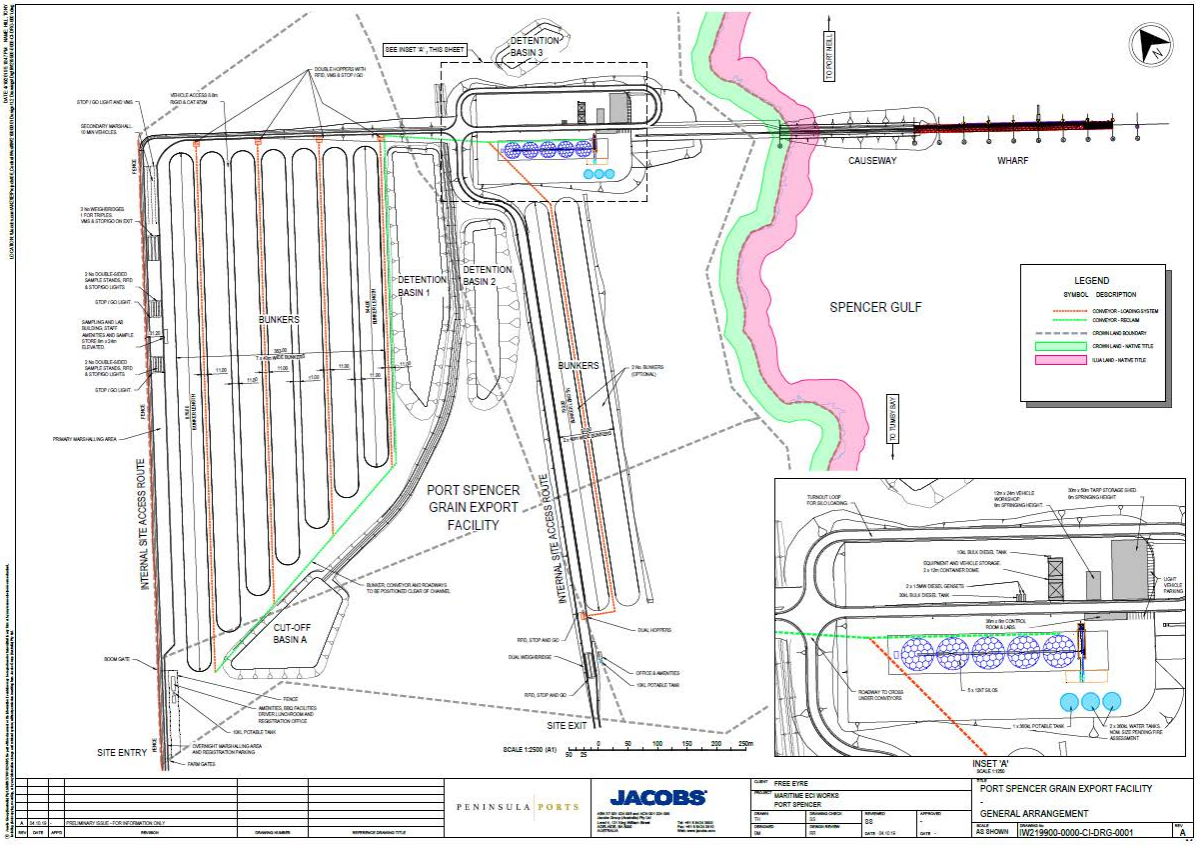

Figure 2: Modified layout plan as lodged (Source: APER; Section 9)

The modified proposal removes the mining related component (i.e. facilities for the receival, storage and export of iron ore) and seeks to reconfigure the site for efficient grain receival, storage, handling and export. The facility would still have a capacity of up to 1 million tonnes of grain.

During the redesign phase, three main options were considered for the wharf:

- Modular wharf constructed using marine plant (including the use of floating and jack up barges for pile driving combined with heavy lift ships and modular structure sections).
- Modular wharf constructed via an incremental launch method (no marine base construction).
- A combination of causeway and jetty structure.

Due to weather related risks (i.e. based on wind, wave and rain data), land based techniques were selected as the lowest schedule, cost, safety and environmental risk methods. Of the land based construction techniques, keeping a majority of jetty assembly activity on land rather than over water further reduced risk, with incremental launching the lowest risk method. By using this method the only works completed over the water relate to piling and installing the crosshead members, which is done without the need for significant structural welding or painting over the water.

During this phase it became clear to the proponent that a significant quantity of rock needed to be excavated from the silo and wharf structure assembly area (i.e. approximately 200,000m^3 of cut and fill works), with a significant portion of that rock becoming surplus to requirements if only used for the on-site roads and other paved surfaces (bunkers etc.). The availability of surplus rock enabled consideration of replacement of part of the jetty structure with a causeway. Constructing a 240m long causeway would create efficiencies through a faster build time, and be operational by the 2021 harvest season.

As a grain only export facility, the maximum ship size required to be accommodated at the port has reduced from Cape Class to Panamax. The expected number of ship movements would also reduce.

The modified proposal anticipates up to 30 ship movements per year, comprising a combination of Handysize and Panamax vessels (33,000t).

The use of Panamax vessels means that a straight jetty structure is now proposed rather than a straight main jetty with a berthing wharf perpendicular to the main jetty. The PER states that Panamax vessels are becoming slightly larger (up to 90,000t), due to a recent widening of the Panama Canal. These vessels are larger in beam (not length) so can also berth at the modified wharf.

The removal of iron ore related infrastructure from the project allows for a significantly higher rate of grain receivals during harvest and greater on-site grain storage capability, which reduces the reliance on up-country grain storage, and the resultant double handling of grain prior to export. The reconfiguration of the project would allow most grain shipments to occur during the harvest season, resulting in logistical efficiencies for the industry.

The modified proposal accommodates this capability through:

- Provision of dedicated truck marshalling areas at the site entry and following weighing for improved traffic management on site. This includes a marshalling area prior to the site gate (but contained within the subject land) for vehicles arriving prior to opening hours.
- An increase in sampling stations from one to eight.
- An increase in weighbridge stations from one to three on entry, and additional two on exit.
- An increase in grain loading points from one grain in-ground hopper to up to eight in-ground hoppers at bunkers and two at the silos.
- An increase in on-site grain storage capacity from 60kT to approximately 860kT (comprising at least 800kT in bunkers and up to 60kT in silo storage).

The Response Document subsequently lodged by the proponent proposes a modified alignment of the bunkers, in response to air quality concerns raised by the EPA and the Tumby Bay Council. Truck unloading and dust source locations are now distributed more broadly cross the site to ensure emission standards can be met. Stormwater management features have also been modified in response to EPA concerns. Refer to Figure 3 for the revised layout.

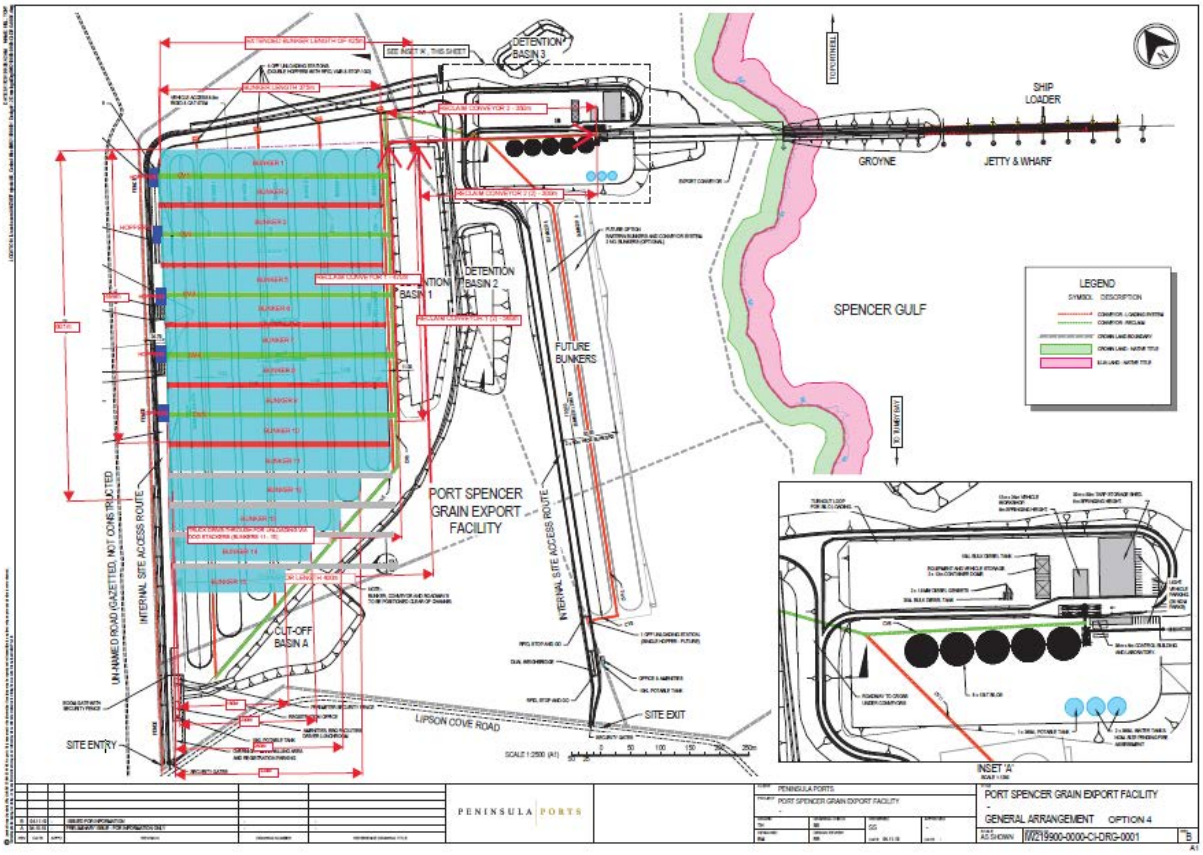

Figure 3: Revised modified layout plan for more efficient dust minimisation and stormwater management (Source: Response Document; Attachment 3)

Site access is now proposed via Lipson Cove Road, rather than Swaffers Road. The APER assessed Lipson Cove Road as providing safer turning conditions to and from the Lincoln Highway (with better sight lines). Site entry and exit points would be approximately 760m apart, minimising localised traffic impacts on Lipson Cove Road.

Other components include a site administration/office building (for 20-30 personnel) and associated amenities, maintenance workshops and tarpaulin storage sheds. The site facilities are also proposed to be shared with the Barngarla Determination Aboriginal Corporation as a base for a future Aboriginal Ranger programme.

A detailed comparison of the modified proposal with the approved development is provided in Table 1 overleaf.

Table 1: Comparison of the modified proposal with the approved development components.

Modified Proposal	Approved Proposal
600m long straight wharf (causeway + jetty) constructed in a SE direction from the coast, designed to cater to Panamax vessels. Vessels berthed bow into the predominant swells, rather than beam to the swells. 360m long jetty extends from the end of a 240m long causeway structure. Total number of piles = 18.	515m long jetty, with a 345m x 55m wharf at 90 degrees to the main jetty ('T-shaped' design), designed for Cape size and Panamax vessels. Total jetty length = 570m Total number of piles = 184.
Industrial ship loader, with an approximate loading capacity of 2,000 tonnes per hour (t/h) of grain.	Ship loader, with an approximate loading capacity of 1,400 t/h of grain and 5,000 t/h of iron ore.
5.6km access route from the Lincoln Highway, via Lipson Cove Road.	5km access route from the Lincoln Highway, generally following the alignment of Swaffers Road.
The bulk of the storage to comprise up to nine bunkers. Some silo storage (up to 60,000 tonnes) for blending, buffer storage, in-stream sampling and fumigation (if required) immediately prior to export. Maximum height of the silos = 35m and maximum height of the silo facility will be approximately 45m.	Grain storage options, being: • Grain storage shed (capacity of 60,000t); or • Three 20,000t grain storage silos; or • One bunker style grain storage area (capacity of approximately 60,000t). Maximum height of silos = 20m
Grain in-loading to primarily occur at the bunkers. In-loading options include: • Truck directly to bunker and dump to Drive Over Grid (DOG) stacker (not preferred) • Truck to in-ground road hoppers and stack via conveyor and travelling stacker (preferred). •	Grain in-loading shed.
Enclosed grain conveyors - whenever practical to install and operate.	Enclosed conveyor galleries for grain in-loading and out-loading conveyor.
Truck marshalling area.	No truck marshalling area.

3.2 Infrastructure Requirements and Availability

The site is relatively undeveloped and has no established infrastructure, especially sewer and high voltage power and mains water supplies.

The original proposal required the construction of a spur line to the site from the existing 132kV Eyre Peninsula power transmission line. The existing transmission line also needed to be upgraded to meet demand for the full port development, including ore processing facilities and a desalination plant (i.e. the need for 80MW over 5 years of operation and up to 200-250MW after 7 years). Initially, Stage 1 required 5MW of electricity that was to be provided by an on-site diesel generator and approximately 1ML of water per day during construction, decreasing to 0.25ML during operation. This would be supplied via a new water pipe line (mains connection) from the SA Water network. Long-term demand was to be supplied by a desalination plant. A 135ML on-site stormwater detention / retention pond would provide a non-potable water supply (for dust and fire suppression). Sewage and effluent was to be dealt with by an approved waste control system.

The modified proposal would use two 1.5MW diesel generators for on-site power generation. A 30,000 litre bulk diesel fuel tank would be installed for power generation, plus a 10,000 litre bulk diesel fuel for site machinery and equipment. Each tank would have 110% self-bunding capacity.

Chemical storage is required for fumigants (e.g. Methyl Bromide and Phosphene) and general chemicals for laboratory and office needs. Potable water supplies would be met by water purchase (i.e. tankered in and stored on site), treatment of on-site captured water or a combination of both. Fire water needs would be met via on-site capture, with dedicated fire water storage tanks provided.

Water is not required for process or dust mitigation measures (i.e. stockpile watering), so the operational water needs are limited to wash-down water only and can be met through the captured site run-off. Construction water demands (mainly for dust suppression) are similar to the approved development (i.e. 1ML/day) and are intended to be met via drilling a brackish bore on the site (or excavating a sump in the location of the stormwater detention basin). Fresh water would be required for concrete production.

The modified proposal has a reduced infrastructure requirement.

3.3 Construction Staging and Operation Management

A key objective of the proponent is to have the port facility available to grain growers for the 2021 harvest season. The modified proposal would be built in one continuous stage over a 10-month period, starting with site mobilisation and earthworks.

The construction platform for the silos and jetty module assembly area would require substantial blasting to lower the level of the coastal headland. Excavated material would be transported to a site south of the cutting for crushing and stockpiling (refer to Figure 4). The grain silos and bunker storages would be built first, followed by the causeway and jetty.

Construction activities may require both day and night shifts to operate for the duration of construction. Drilling and blasting would be limited to day works only. Crushing, welding and piling activities may be required to operate on day and night shift. All other activities would be accommodated in day shift only.

The APER (Section 4.3) provides a detailed description of each works phase.

Road works associated with Lipson Cove Road would need to be completed prior to major construction works commencing, with other road works completed before operation of the Port.

Screening vegetation would need to be planted during construction (depending upon start time and suitable planting conditions), with adequate site preparation and weed/rabbit controls.

All stockpiles and exposed surfaces would need to be stabilised (such as through wetting down, mulching, use of a cover crop or revegetation). A weather monitoring station would need to be established before earthworks commenced (especially for managing for dust and noise emissions).

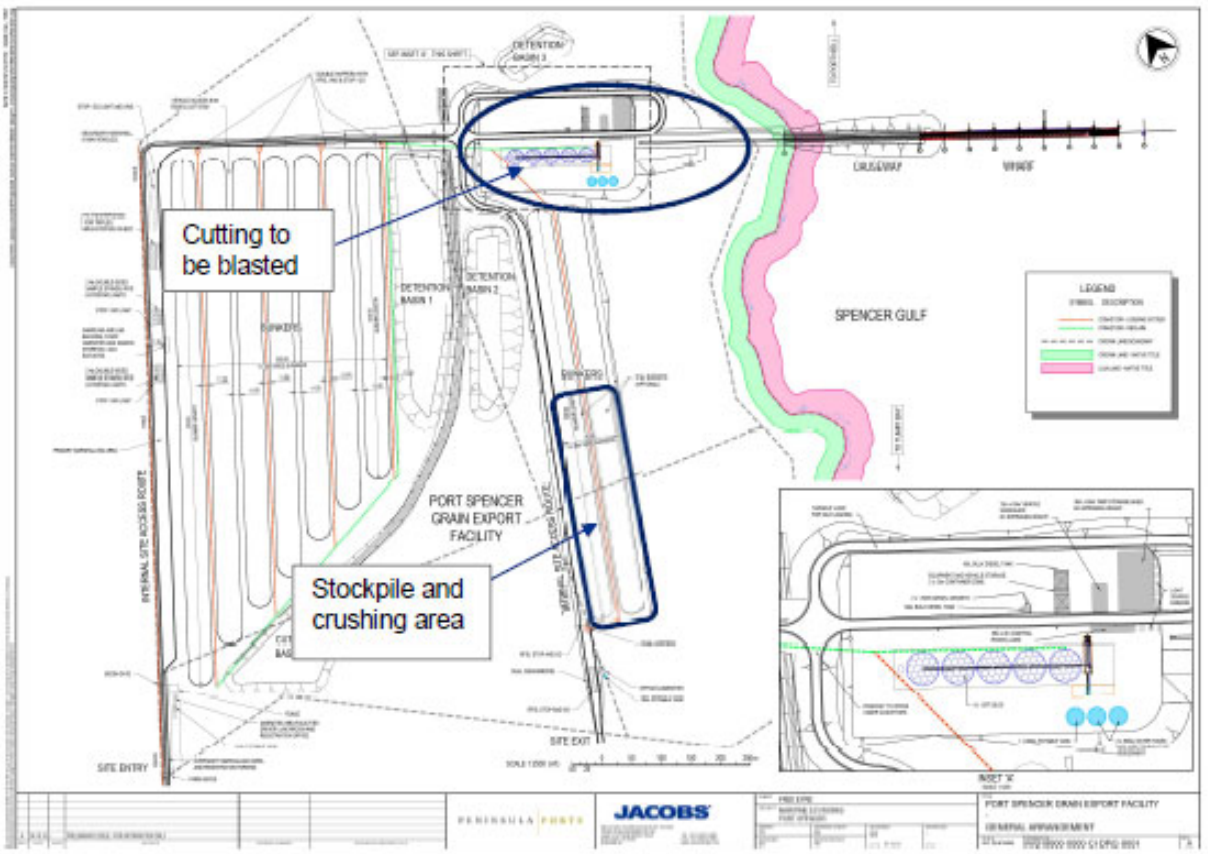

Figure 4: Location of blasting and crushing / stockpiling areas (Source: APER Vol. 1)

Site construction activities would be conducted and controlled through a Construction Environmental Management Plan (CEMP), which covers a range of strategies proposed to minimise environmental impacts. An Operational Environmental Management Plan (OEMP) would address post construction impacts.

The APER (Section 6.2) describes the environmental framework that would be implemented, including environmentally responsible work practices to minimise adverse environmental impacts and responsibility and reporting requirements for environmental management throughout the project. The APER (Section 6.3) also details mitigation measures that would be implemented, compared with those that would have been applied for the approved development.

A draft CEMP is provided in the APER (Volume 4; Appendix B).

The APER (Section 6.2.2) states that a hierarchy of environmental management documentation would be prepared for the construction phase, including:

- Traffic Management Plan
- Fire Management Plan

- Civils and Earthworks – Construction and Environmental Management Plan (EMP), including:
  - Emergency Management Plan
  - Blast Management Plan
  - Construction Noise and Vibration Management Plan
  - Soil, Erosion, Drainage and Water Quality Management Plan (SEDMP)
  - Air Quality Management Plan
- Jetty construction – Construction EMP, including:
  - Biosecurity Management sub-Plan
  - Abrasive Blasting and Painting Control Sub-Plan
  - Pile Installation Environmental Sub-Plan
  - Marine Fauna Management Sub-Plan
  - Spill Response Sub-Plan
  - Concrete and Grouting Management Sub-Plan
  - Maintenance and Refuelling Sub-Plan
  - Waste Management Sub-Plan
  - Marine Debris and Working over Water Sub-Plan
  - Environmental Nuisance Management Sub-Plan
- Silos construction – Construction EMP (refer to Appendix B for draft)
- Export Conveyor and Shiploader construction – Construction EMP

The hierarchy of environmental management documentation that would be prepared for operational phase include:

- Operational EMP, including:
  - Management and Monitoring Plan for Rogers Beach, prepared in consultation with the District Council of Tumby Bay.
  - Beach Monitoring and Management Plan.
  - Weed and Pest Management and Monitoring Plan
  - Air Quality Management and Monitoring Plan
  - Emergency Response Plan.
  - Fire Management Plan

These are considered a comprehensive range of construction and operational management plans to manage potential impacts, over both the short and long-term.

3.4 Aboriginal Heritage and Native Title Commitments

The proponent has acknowledged that the traditional Barngarla name for Lipson Cove is Boodloo and is engaging constructively with the Barngarla Determination Aboriginal Corporation (BDAC) Board regarding the modified proposal. There is expected to be no change to heritage impacts and a physical inspection of the site would still be undertaken in consultation with the Traditional Owners prior to construction. In addition, the following mitigations are proposed:

- Infrastructure will be located as far south as reasonably practicable, to avoid known heritage sites (especially at Rogers Beach).
- Re-vegetation of a buffer area at the northern end of the site to enhance the protection of known heritage sites. Additionally, revegetation along the coastal ridgeline between the silos and Lipson Cove Road to restore parts of the dreaming storyline / historical walking trails to pre-European condition. Over time Peninsula Ports will work with the Traditional Owners and Council to expand this revegetation approach towards Lipson Cove to improve the amenity and value of the campgrounds there.
- Heritage monitoring officers to be used for the duration of the construction phase.
- Cultural awareness training for all personnel.

- Ongoing employment of a Traditional Owner Land Management Officer at the site. Subject to agreement with Council, this role could support the ongoing management by Council of Lipson Cove (Boodloo) and Rogers Beach.
- Use of the site facilities to enable the Traditional Owners to establish a Ranger Base for any future Ranger Programme that may come into existence along this coast line.

3.5 Site Description

The development site is located off Lipson Cove Road and comprises the following land parcels:

Lot/Plan	Street / Road	Suburb/ Locality	Hundred	Title
Allotment 23	Lipson Cove Rd	Lipson	Yaranyacka	CT 6037/404
Allotment 24	Lipson Cove Rd	Lipson	Yaranyacka	CT 6066/698
Section 386	Lipson Cove Rd	Lipson	Yaranyacka	CT 6037/404
Section 387	Lipson Cove Rd	Lipson	Yaranyacka	CT 6066/698

The causeway / jetty also crosses over a small portion of Crown land (coastal reserve) – Allotment 25 (CR 6029/386).

Figure 5: Site tenure (Source: APER Vol. 2)

The proposed development is to be located on vacant land that is highly modified due to previous vegetation clearance for agriculture. Only the coastal edge has strips of remnant native vegetation.

The port site is located within the Spencer Gulf on a relatively remote part of the Eyre Peninsula coastline, where the coastal profile is dominated by rocky headlands and sandy beaches. A rocky reef extends 50 - 70 metres either side of the headland that is the site of the proposed causeway / jetty. Tides vary, but generally are two metres, excepting at neap (or dodge) tides when tidal movement ceases for 24 hours at 14 day intervals.

Wave height is typically 1.0 metres in the gulf with higher waves having been recorded at 1.8 metres. The Port site is protected from strong swells. However, the Eyre Peninsula can experience high winds that affect wave height. The largest waves at the site are generated by winds from the south-east with the largest wave height being 3.6 metres (which is not a common occurrence).

3.6 Locality Description

The proposal is located within the District Council of Tumby Bay. Tumby Bay is the main service centre for the area. Agriculture is the main industry and means of employment. Other significant economic sources are tourism, fishing, aquaculture and mining.

Tumby Bay and Port Neill are the nearest towns to the site being 21km south-west and 20km north-east respectively. The Sir Joseph Banks Group of islands is 22km south of the proposed site, with the northern boundary of the Sir Joseph Banks Group Marine Park being 5km away.

The area that surrounds the project is undulating and comprises rounded hills to the north, west and south of the site with an elevation of approximately 50 metres, with a series of valleys in between. The land rises along the coastline on the eastern side, where rocky outcrops occur either side of the headland sloping down to sandy beaches. Rogers Beach, which contains a small sand dune area, is to the north of the site and Lipson Cove Beach and Lipson Island to the south. Lipson Island is located in the Lipson Island Conservation Park. Lipson Island is a low lying island with extensive areas of bare rock and some sandy areas.

Lipson Island has significant value as a bird rookery for a number of listed threatened species under the *National Parks and Wildlife Act 1972* and the *Environment Protection and Biodiversity Conservation Act 1999*. It is also a nesting site for the little Penguin, as well as other nesting birds (e.g. the Black-faced Cormorant, Silver Gull and Crested Tern). Migratory birds also use the island. These birds are also preyed upon by raptor species, including the White-bellied Sea-eagle and Eastern Osprey. The only introduced species are the Rock Pigeon and the Common Starling. Lipson Island supports no significant flora.

The headland where the proposed causeway / jetty will be located rises from the coastline to approximately 25 metres AHD. To the west of the headland the land slopes down towards a valley where the centre of the proposal will be located. This area is approximately 10 metres AHD and from there it rises to Swaffers Road where the uplift is continuous, until it reaches a high point at the Coast Road intersection.

The immediate area has a number of small rural holdings. This land has been modified through agricultural and pastoral land uses, and largely devoid of native vegetation. Wheat cultivation occurs over most of the area, with less than half the site lying fallow. There are no significant trees present and remnant native vegetation is restricted to the coastal zone. There is no built infrastructure, except for a small telecommunications tower / hut (which will not be affected).

4 Consultation on Amended PER

4.1 Community

In accordance with the requirements of the Major Development process, the Proponent prepared an Amendment to the PER, which was placed on public exhibition from 16 January to 21 February 2020.

The document was made available online and copies were provided for inspection at offices of the Department of Planning, Transport & Infrastructure and the Tumby Bay and Port Lincoln Councils.

Details of the public consultation process were advertised in *The Eyre Peninsula Tribune, the Port Lincoln Times* and *The Advertiser* newspapers.

During this period, six (6) formal submissions were received, including from the Tumby Bay Residents and Ratepayers Association and Regional Development Australia Whyalla and Eyre Peninsula Inc. (refer to the proponent's Response document for details).

The main issues raised in public submissions are summarised below in Table 2:

Table 2: Issues raised in public submissions.

ISSUE / CONCERN	DETAIL
COASTAL / MARINE ENVIRONMENT	• Inclusion of a causeway and causeway construction impacts, especially seagrass loss (and the adequacy of compensation via an SEB offset) and turbidity. • Long-term impacts of the causeway, especially on sand movement (which could affect nearby beaches and the historic wreck near Lipson Island). Seagrass wrack accumulation and ongoing seagrass loss (especially from sand management) were also concerns. • Data used in generating the sediment transfer model does not reflect the actual circumstances in the area. Sand movements at Lipson Cove are well documented and show seasonal variations in the order of 1-1.5 metres depending on prevailing climatic conditions. Such movements are responsible for the periodic exposure of the wreck of the Three Sisters vessel. • Impacts on coastal fauna and marine mammals (particularly Southern Right Whales), especially from disturbance and light pollution. • Impacts on the Lipson Island Conservation Park, especially modified sand movements and disturbance to fauna (such as the Little Penguin). • Effect of grain spillage and dust, especially on water quality. • Potential spread of marine pests. • Impact of a waste discharge (e.g. spill or ballast water). • Impact of the port exclusion zone on the boundary of the Marine Park.
TRAFFIC / ROADS	• Impact of grain transport traffic on the regional road network, especially local Council roads. • The use of Lipson Cove Road for site access rather than Swaffers Road, especially upgrade requirements (including land acquisition and effect on existing infrastructure) and road safety implications for local traffic and visitors to Lipson Cove. • Costs to upgrade and maintain Lipson Cove Road.

SOCIAL IMPACTS	• No mention of the 'Eyes on Eyre' proposal by the Council for improving recreational facilities at Lipson Cove. • Implications for fund raising by the Lipson Progress Association. • Impact on the recreational and tourism values of Lipson Cove (especially amenity). • Effect on the landscape quality of the coast from the causeway structure. • Need to provide public access to the camping spots at Rogers Beach. No information provided on the actual location of the access roadway alluded to nor to the ownership of the roadway and its maintenance. • Impact of light pollution on nearby residents and visitors to Lipson Cove and Rogers Beach. • Impact of blasting and rock crushing activities, especially on nearby residences. • Impact of accommodating construction work force, especially on Tumby Bay
AIR QUALITY	• The mitigation of grain dust (i.e. fugitive dust) is a critical environmental factor, given the sensitivity of the marine environment. • Will the design of the conveyor and grain loading facility ensure fugitive dust will be ALARA through the use of negative air pressures with the handling system? • Environmental and health impacts from diesel exhaust pollution from the on-site generators. • Modelling did not use on-site meteorological measurements.
NOISE	• Impact on nearby residents, visitors to Lipson Cove and Rogers Beach and wildlife of noise from the facility (including the on-site generators). • Noise from safety reversing beepers on construction equipment and wheeled loaders. • Level of noise and vibration from a fully laden triple and an empty truck as it passes each resident on Lipson Cove Road has not been determined. • Infrasound emissions from the facility do not appear to have been assessed.
USE OF CHEMICALS / FUMIGANTS	• Potential impact on surrounding farms, especially to ensure clean grain certification. • Chemical nature of the fumigants and risk of accidental release to the health and safety of staff or those adjacent to the facility. • Need to correctly identify the grain storage fumigant that is proposed to be used on site. • Need a full listing of chemicals to be used on the site together with their Material Safety Data Sheets.
FIRE RISK	• Fire risk, especially for local residents and visitors. • Grain dust in silos can be highly combustible. • Need for prevention strategies inclusive of access to water (mains water?) for the purpose of fire fighting.

ECONOMICS	• The economic modelling is based upon an expected 1M tonne delivery to Pt Spencer. Given the tonnage Viterra receives at the Port Lincoln port, the 800K capacity at the Lucky Bay port and the proposed 1M tonne capacity at the Cape Hardy port, with an existing grain catchment of around 2.7M tonnes, is there enough grain produced to warrant a another stand-alone grain export facility and would it be viable. • The economic analysis of the viability of the proposal should also include a detailed examination of the non-competitive aspects of the Government regulations applicable to Viterra, which imposes a significant cost disadvantage. • If the grain option was not considered viable as part of the original proposal, what has changed that makes it viable now? • The assumption that the current situation is an inefficient supply chain appears not to be supported by the recent review and experience over the last harvest with road transport to Port Lincoln able to replace the demise of the dated rail system. • For a cost saving of $10M it would appear that the chosen method of construction of the wharf facility incorporating a causeway is high questionable on both economic and environmental grounds. • The suggested sale of the excess rock (crushed) from headland excavation appears to be a viable option, given the prospect of a local contractor(s) being interested in such a proposition.

It should be noted most of the issues raised were also raised on the original PER (excluding those related to deleted components associated with iron ore, the desalination plant and the workers village). However, since the time when the original proposal was approved, the Cape Hardy Port proposal by Iron Road has also been approved. Thus, the strategic implications of the modified proposal have now been raised, especially given the loss of mineral export potential.

A key issue raised by the community is the need for a single commodity only port facility on eastern Eyre Peninsula in the context of a multiple commodity port having been approved nearby at Cape Hardy, which may deliver greater regional benefits. In particular, whether two ports within close proximity would be viable due to competition for the same grain export market. The preference is for an economically sustainable multi-user port to be established in the Region, especially with the potential to meet the needs of a range of commodities (including hydrogen).

In addition, the establishment of a single, regional port only at Cape Hardy would avoid impacts on the recreational, tourism and environmental values of Lipson Cove and nearby Conservation Park.

4.2 District Council of Tumby Bay

The District Council of Tumby Bay considered the modified proposal in relation to the potential impacts on Council infrastructure, local owners and occupiers of land and the wider community.

Key points from Council's comments are as follows:

- A grain only port does not provide the regional benefits of a multi-use port – need further analysis on the ability to export other commodities in the future.
- The effect on the port if the export of significant additional quantities of mineral exports leads to the development of additional ports that have the ability to export grain as a secondary commodity.
- Mineral commodities are transported to the port by defined routes that can be readily identified for upgrading, but grain is substantially different, with diffuse production over a

very large land area. Traditionally, there has been some aggregation of grain in up-country storages, before being carried by train or truck along identified routes to port facilities.

- Amendment from a piled jetty structure to a causeway results in significant change to the potential ecological impacts.
- Public access along coastal Crown land should be preserved to the maximum extent possible, including the provision of a coastal access route.
- Noise – need acoustic modelling of the final design, prior to construction and verification of the acoustic performance of the facility once in operation.
- Air quality - an appropriate management regime needs to be implemented to ensure operational measures meet the relevant criteria for dust emission (i.e. PM_{10} and $PM_{2.5}$) and deposition at sensitive receiver SR1.
- Seek to have input into the development of a Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP).

The main concern for Council is the potential impact of grain transport to the port, given the significant changes that have occurred since the original assessment was undertaken, including:

- Closure of the rail network and the movement of grain now occurring via road.
- Construction of the grain export facility at Lucky Bay.
- Changes in configuration of the fleet deployed to the freight task (i.e. larger vehicles).
- Changes in the location and size of up-country storages.
- Changes in the volume of on-farm storage.

Council considered the cumulative effect of these changes to be significant, and which required a more detailed analysis of the implications of the proposal, especially the impact on roads not currently used for the transport of grain (i.e. east-west links).

Council is concerned the project would have a deleterious impact on the condition of the Council road network, resulting in substantial additional capital and operational costs to upgrade, maintain and replace its infrastructure.

Council concludes that it does not support the proposal until the traffic implications are resolved, including further analysis to confirm the impact on Council infrastructure and relevant agreements for upgrade and maintenance of infrastructure to their satisfaction.

4.3 State Government Agencies

4.3.1 Environment Protection Authority (EPA)

The EPA considered that the proposed inclusion of the causeway structure would increase impacts on the marine environmental when compared to the previously approved proposal, due to the direct footprint of the structure and the effects of turbidity and smothering of marine habitats during construction. The causeway could also affect natural sand movement and seagrass wrack accumulation and would need ongoing maintenance to minimise impacts.

In particular, the EPA questioned whether the modified proposal adopts all reasonable and practicable measures to prevent or minimise environmental harm, taking account of the potential impacts and the cost and availability of alternative technologies.

In addition, it was considered the APER did not reflect that there would be a greater loss of marine habitat and would result in twice the impact on the marine environment as the original design. The EPA indicated the Response Document would need to include a revised risk

assessment, especially to address the potential indirect loss of seagrass due to turbidity during construction.

Other comments included:

- A tributary that flows through the site could be exposed to contaminated run-off and it was recommended that all upstream flows outside the site be diverted around the site. There should be zero site run-off to the marine environment. Plans need to show all flow paths, pollution prevention measures (including treatment to remove pollutants from stormwater) and all stormwater infrastructure, including detention/attenuation basins.
- All fuels and chemicals must be stored in bunded areas in accordance with the EPA Guideline Bunding and Spill Management. All bunding details and locations need to be indicated in the Response Document.
- Air dispersion modelling needs to include a comparative assessment of the meteorological year used in the model against the 2009 dataset (either locally obtained or derived using an appropriate model).
- The predicted maximum ground level concentrations of $PM_{2.5}$, PM_{10}, TSP deposition and methyl bromide at the nearest sensitive receiver are significant. The proposed reduction in operating hours and the use of wind direction to determine operational activities are insufficient and more needs to be done to mitigate emissions at the source (i.e. through real time monitoring and response or through re-engineering and remodelling).

4.3.2 Department for Environment & Water (DEW)

The DEW considered that the proposed inclusion of a causeway structure would have a greater impact on the near-shore and marine environment than the original open jetty design.

The justification for the design change to reduce costs should be considered against the increased impacts on the environment. A significantly greater impact on seagrass during the initial construction of the causeway would result, including subsequent sedimentation and potential management of future sedimentation (such as dredging operations, if required).

DEW considered that the impact of sediment accumulation against the causeway on the intertidal and benthic environment does not appear to have been adequately addressed, including the potential extent of the accumulation footprint over time, triggers for removal (if necessary), removal methodology, impact of removal on coastal environments etc. There also appeared to be an error in the sediment modelling.

The Native Vegetation Council would expect an appropriate level of monitoring and reporting to be undertaken to confirm the full extent and degree of impacts on seagrass. The final determination of the full extent of impacts will potentially substantially change the required SEB. Other comments included:

- The ability of a silt curtain to effectively contain construction sediment for a development of this scale and in the required depths.
- Potential accumulation of wrack against the causeway and around the near-shore environment.
- Silver gull populations are a serious management issue for the ecology of local native species (particularly nesting sea and shorebirds) and should be monitored so management can be initiated if needed.

- A number of EPBC listed shorebird species roost/breed nearby on beaches (including Hooded Plovers), so access by staff and contractors to these areas will need to be well managed.

4.3.3 Department of Planning, Transport & Infrastructure - Transport Assessment (DPTI – TA)

DPTI – TA advised it supported the proposal and the proposed road network improvements detailed in the Traffic Impact Assessment. In particular, the proposed upgrade of the Lincoln Highway/Lipson Cove Road would need to be undertaken to the satisfaction of DPTI, with all costs being borne by the proponent.

In the event that Restricted Access Vehicles (including oversize and over mass components) are proposed to be utilised, the proponent must ensure that all necessary approvals/permits are obtained from the National Heavy Vehicle Regulator.

A copy of the Marine Operations Plan (Operations Marine and Shipping Plan) needs to be included in the proponent's Response Document.

In addition, DPTI's Property Section would need to issue a construction licence followed by a long term lease with the proponent, for land held by the Minister for Transport, Infrastructure and Local Government (i.e. the seabed affected by the causeway / jetty structure). This process includes addressing Native Title issues.

4.3.4 Primary Industries and Regions South Australia (PIRSA)

PIRSA provided comments in relation to:

- The cumulative risks for regional fishing and aquaculture (related to access, navigational safety and biosecurity) as result of additional port facilities and associated vessel movements in this section of coastal waters.
- Observed changes to regional port capacity and demand since the original approval, and the potential business consequences (for port operators, clients and end-users) of an additional port in this new context (especially given the support for the nearby Cape Hardy multi-use port).
- The need for the Construction and Operational Environmental Management and Monitoring Plans to include a Biosecurity Plan with a marine pest component (covering prevention, surveillance and monitoring, and response). These plans should be developed in consultation with PIRSA and the Eyre Peninsula Natural Resources Management Board [now the Eyre Peninsula Landscape Board].

4.3.5 Department for the Premier & Cabinet - Aboriginal Affairs & Reconciliation (DPC - AAR)

DPC – AAR provided advice on the requirements of the *Aboriginal Heritage Act 1998*, especially the need to periodically check the Central Archive of Aboriginal Heritage for any new listings for the site and the protocols to follow if a potential site is discovered during construction.

4.4 Proponent's Response Document

The proponent was provided with all submissions received and commenced a process of review and further work.
Following a review of the initial Response Document by the EPA and DEW, the proponent provided further information related to construction cost and scheduling implications of the causeway design approach compared with the original open jetty design. Additional information was also provided on the causeway design and construction methodology, including mitigation measures to address construction impacts (especially turbidity using 'bubble curtains'). After a review of the revised document, the agencies were satisfied the modified design was acceptable. However, adequate mitigation measures must be implemented to minimise turbidity during construction, including 'real time' water quality monitoring and response actions. The proponent provided the additional information in the Response document.

Additional details in relation to impact assessments and engagement have been appended to the Response Document, including:

- Roads Impacts Discussion Paper that addresses the regional implications of establishing a port on the east coast of Eyre Peninsula, particularly the closure of the rail network and the change of freight traffic movements from N-S to E-W (including potential road upgrade and maintenance needs).
- Future ranger program that outlines the proposed indigenous ranger project with the Barngarla Determination Aboriginal Corporation (i.e. as part of the ILUA), including the employment of a Land Management Officer at the Port.
- Revised site layout plan to reduce the concentration of dust sources and to improve stormwater management (refer to Figure 3).
- Marine Operations Plan (MAROPS) that addresses port operating procedures and impact management, including risks to the marine environment and waste and pollution management measures).
- Project Management Plan for construction.
- Southern Right Whale Management Plan.

In regard to the impact of traffic and the effect on local Council roads, the proponent clarified that it has presented to the District Councils of Tumby Bay, Cleve and Lower Eyre Peninsula a proposed Road Maintenance Fund mechanism, which could directly support Council road maintenance issues.

Peninsula Ports remains committed to continuing the engagement with local Councils on Eyre Peninsula regarding regional transport issues. It should be noted the Eyre Peninsula Local Government Association (EPLGA) has prepared a Freight Strategy that seeks to address regional implications, including the closure of the rail network and each of the local port proposals.

It is considered that the finalised Response Document satisfactorily addressed all comments and concerns raised in public, Council and government agency submissions related to the modified proposal.

5 Assessment of the Main Issues

5.1 Introduction

The assessment section of this report outlines the previously assessed potential impacts of the approved development (as detailed in the 2012 Assessment Report) and how such impacts differ from the modified proposal.

The previous assessment considered that the construction of a deep water port facility would establish an industrial land-use on a stretch of the coast that is predominantly natural/pristine in character (apart from the coastal towns of Tumby Bay, Port Neill and Cowell). This would impose a level of human disturbance and activity on an area that is relatively undisturbed and quiet. The jetty structure (as associated vessel movements) would be a permanent, prominent feature of the coastal landscape. Vessel movements and loading activities will be a long-term disturbance factor for the coastal and marine environment, with the greatest environmental risk being the potential for a fuel/oil spill. Increased activity (especially noise, vehicle movements and light spill at night) would affect the amenity and recreational value of the nearby Lipson Cove.

These concerns are still valid. However, the focus on a grain only export facility now reduces the magnitude of impacts due to the removal of iron ore export activities, which substantially reduces the overall level of transport of commodities to the facility and the level of shipping movements to/from the port. Whilst the total footprint of the land-based facilities remains the same, it is no longer planned to develop a rail line, iron ore slurry pipeline (i.e. from a previously proposed processing plant close to the prospective mines), slurry processing facility or desalination plant. In addition, a construction workers village located at Tumby Bay will not be required.

The deletion of these components substantially reduces the overall impacts on the land, the environment and the community. However, the scaled back proposal would also result in reduced economic and employment benefits compared to the original proposal (including the stimulus to the mining industry in the region).

The most substantive changes to the approved development are:

- The modified jetty / wharf design, which now includes a causeway that extends 240m seaward from the coastal headland that would have an additional impact on coastal ecosystems and coastal processes.
- Land based construction of the jetty / wharf to minimise activities in the marine environment (including substantially reduced piling and use of construction vessels).
- The use of Lipson Cove Road for site access (i.e. rather than Swaffers Road), which would affect different residents and have a greater impact on local and tourist traffic.
- Safer access off the Lincoln Highway would be provided through an intersection upgrade.
- No transport impacts from the delivery of iron ore, whilst impacts from the transport of grain would be similar, but changes have occurred due to the nature of grain transport (i.e. larger vehicles) and closure of the rail line to Port Lincoln (which may result in more grain being directed to Port Spencer).
- Reduced number of vessels movements and the use of smaller vessels during operation, which would result in less impacts on the marine environment (especially risks to Southern Right Whales).
- Changed visual impact due to the imposition of a causeway on the coast, but less vessel movements (with no anchoring / queuing of vessels offshore).
- Reduced employment and economic benefits (especially no longer being a multi-user facility).

It is considered that the APER provided a comprehensive description of the modified proposal, including a review of any changes that may have occurred to the character of the receiving environment and surrounding land since the time the original PER was prepared. Most of the baseline studies conducted for the original PER were considered still valid for assessment purposes (i.e. due to little change in site characteristics over time). Additional investigations have been undertaken to predict the potential impacts that could arise from the modified proposal, including revised assessments for traffic, air quality, visual effects and marine sediment transport.

The APER (Section 6.3) also satisfactorily detailed the modified mitigation measures that would be implemented to avoid, minimise and manage any adverse effects from the development (if approved). Suitable monitoring programs would be established to measure the effectiveness of mitigation measures. A draft Construction EMP has been provided in the APER (Volume 4).

There would be no or minimal change to the following impacts addressed in the original PER and Assessment Report, which do not need be further assessed in this AAR:

- Terrestrial ecology - noting a survey using the Bushland Assessment Method was undertaken to enable a revised estimated Significant Environmental Benefit (SEB) to be calculated for the modified project layout and the changes to the calculation of the SEB which were introduced by the Native Vegetation Regulations 2017.
- Generation of waste sources.
- Groundwater.
- Ecology and conservation status of the Lipson Cove Conservation Park.
- Heritage and Native Title - noting the Barngarla Determination Aboriginal Corporation (BDAC) is now the legally recognised corporate entity for dealing with all Native Title and Aboriginal cultural heritage issues related to the project.
- Climate change and greenhouse gas emissions.
- Weeds and pests.
- Accidental spills / leaks - noting the impacts of grain spillage were predicted to be similar to those of other grain ports (e.g. Wallaroo, Port Pirie and Port Lincoln) and unlikely to result in unacceptable environmental effects, given accidental spills would be readily minimised and mitigated.

5.2 Need for the Modified Proposal

The need for a deep water port facility on eastern Eyre Peninsula is a critical requirement for the region's economy, which would benefit from the establishment of an alternative grain storage and shipment facility. The original assessment considered the proposed site to be strategically located and on a part of the coast that had not been identified as being important for conservation (i.e. avoids marine protected areas, although the values of the nearby Lipson Island Conservation Park are acknowledged) or aquaculture/fishing (i.e. avoids existing or prospective Aquaculture Zones). In particular, the location provides access to sufficiently deep water relatively close to the shore to provide shipping access that is not tide dependent (and does not require dredging).

The proponent seeks to modify the approved development due to the change in demand for an export port that has occurred in the time since the original proposal was approved. Due to a substantial down-turn in the iron ore market, there is no longer a need for facilities for the export of this commodity as plans for new mines on Eyre Peninsula have not proceeded.

A port for the export of grain is now proposed.

The proponent considers there are operational benefits in having grain only facilities, especially to avoid cross-contamination and potential delays or conflict with the scheduling of vessel loading.

Furthermore, the proponent states there are no ports in Australia where grain and iron ore are exported over the same wharf. In addition, the proposed expanded storage facilities for grain precludes ore storage facilities due to a lack of sufficient available land (although additional land could potentially be secured). The proponent's business case revolves around grain export.

As per the initial justification for an alternative grain export port to that at Port Lincoln, grain producers in the region (especially in Central Eyre Peninsula) would benefit from a more accessible port with lower freight costs (and times) and reduce 'upstream' grain storage (i.e. double handling). A new grain port would introduce greater market competition and drive down costs. In addition, the reduction in grain-related freight traffic through Port Lincoln (and shorter trips through reduced driver fatigue) have positive road safety implications where existing traffic is diverted to other ports.

The APER provided a rationale and justification for the modified proposal, in particular from an economic (market demand and financial viability) and environmental perspective, including reasons for the proposed design changes.

Concerns raised in public and Council submissions on the APER questioned whether it was strategically beneficial or economically viable to have two approved port developments proceed within close proximity of each other.

Whilst the approved Cape Hardy Port project is primarily focussed on the export of iron ore, it is proposed to remain a multi-user port that could also accommodate the export of grain. The company has recently announced that it is proposing to modify the design of the project, with stage 1 to comprise a shorter jetty / wharf for grain loading, which would be extended to the full length for ore loading in the future. Other commodities could also be exported, including hydrogen fuel, which is being promoted as a new growth industry in the State (and benefit from recent investments in renewable energy and electricity transmission within the region).

Peninsula Ports is fully in support of multi commodity ports and considers that Cape Hardy and Port Spencer could comprise a ports precinct for the region.

The AAR concludes that the modified proposal, based on a revised business model, would deliver a much-needed deep water port for the export of grain. A key benefit is the ability for primary producers to directly deliver grain to the port, which avoids the need to access remote country grain storages. Growers within the immediate catchment area of the port would also benefit from reduced transport distances, resulting in reduced travel times and costs. A key justification of the modified proposal is that it would provide an alternative port, which would increase competition in the market and incentivise port operators to lower costs.

Whilst the targeted grower catchment area overlaps to some degree with those for the ports at Port Lincoln, Thevenard and Lucky Bay, market forces would balance out where grain is directed to. It is noted that, if the establishment of a port at Cape Hardy proceeds for a grain export facility, this would introduce even greater competition in the region. Discussion as to whether a larger multi-user port at Cape Hardy should proceed in preference to Port Spencer is a matter beyond the scope of this AAR and is best addressed by market forces. The focus of this AAR is to determine the nature of any impacts resulting from the proposed design changes, whether those impacts can be suitably managed and, on that basis, should support be provided.

5.3 Environmental Issues

The original Assessment Report considered that an industrial type of development such as a port facility has the potential to have a number of impacts on the surrounding environment including:

- Effects from construction activities, especially land disturbance from earthworks (vegetation clearance, soil erosion and dust), destruction and disturbance of terrestrial/marine habitat and fauna species, noise and increased heavy vehicle traffic.
- The establishment of a site on the coast in a rural landscape where there will be a high level of human activity and potential disturbance (i.e. compared with the current levels).
- The establishment of a prominent visual feature on the landscape (especially the jetty structure on the coast).
- Risk of pollution (especially fuel/oil spills from vessels).
- The introduction and/or spread of pest or nuisance plants and animals (particularly marine pest species).
- Disruption to local farming communities during construction and operation.
- Reduced amenity and recreational/tourism values of coast (especially local beaches).

The establishment of an export port would also lead to regular shipping movements to and from the facility. Vessels accessing the port would increase the volume of current shipping traffic moving into the Spencer Gulf, using the existing shipping channel.

The original assessment concluded that these impacts would not cause a substantial effect on the environment and could be adequately minimised and mitigated. During operation, the jetty and berthed vessels could lead to a minor loss of habitat (or loss of condition) from shading, increased sedimentation, altered hydrodynamic conditions and noise. Regular use of the area by large vessels would also present a potential risk of a substantial fuel/oil spill. The introduction of regular shipping activities by vessels from foreign ports would present a risk of marine pest species becoming established. The previous assessment also recognised the need to protect the environmental and recreational values of the nearby Rogers Beach and Lipson Cove / Lipson Island, particularly from any effect of the jetty on coastal processes (especially the natural movement of sand).

The provision of key port infrastructure, the strategic advantages, the economic benefits of the proposal and the capacity to adequately manage impacts were considered to outweigh the risk of any detrimental effects.

It should be noted the nature and condition of the receiving environment has not changed since the time the original PER was prepared. The locality is still in a relatively natural/pristine state and generally free from human disturbance. Public access is limited, due to most of the coast being private land used for farming and absence of public roads that lead to the coast. The area is generally quiet, apart from farming activities. In close proximity to the site, Lipson Cove has the same level of use for recreation (including semi-formal camping) and tourism.

The most substantive change to the impact on the environment is the proposed causeway that replaces the shore-based part of the jetty structure.

The APER evaluated the effects of the original proposal with the modified proposal and concluded there would be a comparable impact on the marine environment. In particular, natural coastal processes would not be unduly affected, although sand transfer may be required based on periodic monitoring. It is clear that there would be a differential impact. The localised loss of seagrass and effect on sand loss / build-up due to the causeway would be greater than for the approved development and would require a higher level of compensation (i.e. through a terrestrial SEB) and ongoing management. The reduction of impacts from less piling, avoidance of marine based construction activities and less shipping movements during operation are unlikely to outweigh the direct causeway impacts to a substantive degree.

5.3.1 Modified Jetty Design

The local marine environment includes sub-tidal and benthic communities, comprising habitat and species typically found along eastern Eyre Peninsula and the lower Spencer Gulf. These communities are relatively natural/pristine, with no marine pest species recorded. Offshore, the sandy substrate supports seagrass communities dominated by *Posidonia angustifolia* and *P. sinuosa* (Tapeweed). Closer to shore, these seagrass beds are mixed with *Amphibolus antartica* (Wireweed). Around the headlands, shallow sub-tidal rocky reefs support macroalgae communities. Offshore vegetation communities are considered to be typical of those found along eastern Eyre Peninsula.

The approved jetty structure (comprising an open jetty structure, with a 20m long causeway abutment approximately 570m long) required the minor clearance of seagrass and microalgae communities around the piling footings, with the original PER conservatively estimating that 4,702m^2 of seagrass meadow habitat and 1,930m^2 of rocky reef habitat would be affected during construction. Additional (temporary) impacts could also have resulted from increased turbidity from pile driving and drilling activities (that would have been minimised through the use of silt curtains) and from scouring around the pilings. Off-sets for marine vegetation clearance would have been achieved through a terrestrial SEB, due to difficulties with conserving or revegetating marine communities. A total SEB terrestrial off-set area of 5.35 hectares was calculated. Such minor levels of clearance were considered not to have a significant effect on marine ecosystems and would be adequately compensated for.

Underwater noise during construction from pile driving (pulsed sound/shock waves from impact and vibration) and pile drilling (continuous sound) has the potential to result in mortality or injury to some fish up to 500m from the source (especially reef fish). The PER predicted this localised impact would have no effects at the population level.

Marine mammals may be more sensitive due to their use of underwater noise for communication and echolocation, so piling could result in physical injury or behavioural changes to marine mammals within close range of the source (i.e. up to 30m, 50m and 25m respectively). In particular, Southern Right Whales are transient in the region and piling could temporarily affect distribution, migration and behavioural patterns during the construction period. Other marine mammals (especially pinnipeds and cetaceans) are likely to avoid the site during construction periods. This was expected to have a minor effect on populations as the site does not provide critical habitat for marine mammals.

Pile driving impacts on marine mammals were to be addressed in a Construction Environmental Management and Monitoring Plan (CEMMP).

During operation, the main impact would be disturbance from shipping activities (mainly during loading operations), especially when the port reached continuous use. This level of activity was likely to deter sensitive species from using the local area, resulting in a minor loss of potential feeding habitat. The PER also considered that the potential for negative impacts on the marine environment from artificial lighting associated with the jetty would be low and localised. Due to the occurrence of a number of transient threatened species in the area, it was considered that monitoring of the wider environment should be undertaken to detect any impacts on marine fauna (via Environmental Management and Monitoring Plans).

The modified port design now proposes a combination of a causeway (approximately 240m long) and jetty structure (approximately 370m long) for the berthing and loading of vessels. The proponent has chosen to incorporate a causeway as a means to utilise surplus rock material from the excavation of the coastal headland to create a flat construction platform down to the level of the jetty.

A substantial proportion of excavated rock would be used for paved surfaces (especially for the bunkers) and on-site roads, with excess material used in the causeway (with the volume dictating the length of the causeway). This provided an opportunity to reduce the jetty construction cost and to avoid the disposal of waste material (or stockpiling of material to potentially be sold as crushed rock product). The replacement of part of the jetty with a causeway would also reduce construction times, which would allow the facility to be operational earlier (and provide an alternative freight option following the recent closure of the regional rail network).

It should be noted the original design also involved a substantial amount of rock excavation to create a construction platform, with the use of some material on-site and the disposal of surplus material. The platform would also have been used for the assembly of jetty sections that would then be manoeuvred out onto installed piles (i.e. an 'end-over-end' construction method). The approved development required the headland to be lowered by 20 metres from the highest point. The modified proposal would remove rock to a depth of 10-12 metres, further reducing impacts.

It should be noted that the modified design is comparable to the approved port design at Cape Hardy, which also incorporates a substantial causeway into the jetty design. This causeway is around 400m long and includes a tug boat harbour and material/module offloading facility. It would also result in a substantial localised loss of seagrass and reef communities, which would be compensated for through a terrestrial SEB.

Construction Impacts on Benthic Communities

Whilst the modified proposal results in a greater amount of seagrass impact, the APER notes that the total area of impact on the benthic environment is less than half of that for the original proposal, primarily due to a significant reduction of the jetty footprint (i.e. removal of the wharf component). The modified footprint is estimated to total 24,682m^2, compared to the original footprint of 54, 541m^2 (which included 47,480m^2 of sandy substrate that would not be significantly impacted).

The APER (Section 6) included a qualitative risk assessment to compare the modified proposal with the original design, based on the proposed impact minimisation, management and monitoring measures that would be implemented. The original PER determined the environmental risk associated with the marine infrastructure footprint to be 'Moderate'. The APER applied the same risk assessment framework (matrix) to the modified proposal and determined the residual risk rating to also be 'Moderate'. This was mainly based on the reduced jetty size, substantially less piling and no marine based construction activities.

However, the seaward end of the jetty affects bare sandy substrate that has a very low ecological value (especially when compared to seagrass habitat). The effects of an open jetty were mainly attributed to the shading of benthic communities, which would have had a minimal impact on seagrass health. In particular, the original proposal involved minimal disturbance of seagrass (primarily from piling), whereas the modified design would result in a causeway being constructed over a substantial area of benthic habitat (refer to Figure 6). Thus it is considered that, whilst the footprint of the modified proposal is around half of the original design, the impact of the causeway would outweigh any reduction of the area affected, with a resultant increased impact.

The APER (Appendix A; Section 3.11) estimated that the construction of the causeway and jetty (including a 5.5m buffer either side of the infrastructure) would affect approximately

4,106m^2 of nearshore rocky reef habitat and 11,108m^2 of seagrass habitat. This would primarily result from causeway construction. The original open jetty design would have affected approximately 2359m^2 of nearshore rocky reef habitat and 4,702m^2 of seagrass habitat. This estimate also includes the impact from marine construction methods, such as the use of jack-up barges that would temporarily sit on the seafloor.

The APER (Section 1.4.1) stated that, whilst using a causeway increases the area of seagrass that is impacted, it does create additional rocky reef habitat on the structure that could off-set the increased seagrass loss. This assessment considers that the creation of rocky reef habitat cannot adequately compensate or equate for the loss of higher value seagrass habitat.

The modified design would have a substantially greater impact on benthic communities, especially due to the permanent loss of seagrass and rocky reef habitat within the footprint of the causeway. It would add to the long-term incremental loss of seagrass in the Gulf. It is noted however, the benthic habitat affected is relatively common and widespread in the region. Small reductions of habitat availability can affect local biodiversity, but would have a minimal overall effect on habitat and population numbers within the Lower Spencer Gulf (especially given the site does not provide critical habitat for any species of conservation significance).

Figure 6: Benthic habitat affected by the construction footprint (Source: APER; Vol.2).

Construction Methodology

The original proposal was to employ an 'end-over-end' construction method where jetty sections would be assembled on a land based platform and progressively added to the end of the previously installed section. The original jetty design would have required the installation of 184 piles to support the jetty and wharf platforms, using floating and jack up barges for pile driving and heavy lift ships to assist with manoeuvring the modular platform sections into place. A combination of marine based and land based construction techniques would be used.

The modified proposal now includes a new element – the construction of a causeway that replaces one third of the original jetty at the landward end. The causeway would be constructed of rock of varying sizes (fill and rock armour) that would be placed on the seabed using excavators. Construction would take approximately four (4) months. This could potentially result in a substantially greater risk of generating suspended sediments and turbidity that the original design.

From the end of the causeway, the modified design proposes using 'incremental launching' of jetty sections, with a heavy lift crane at the end of the jetty to manoeuvre each section onto installed piles. This approach is considered to involve the safest methods and lowest schedule, cost and environmental risks (i.e. based on a detailed assessment of weather and sea conditions). The only works completed over the water relate to piling (18 piles) and installing the crosshead members, which is done without the need for significant structural welding or painting over the water. Larger spans between piles would also be used – 42m bents compared to 18m bents for the original design.

The APER (Appendix A; Section 3.11) stated that construction would be managed to minimise indirect impacts (i.e. increased turbidity or sediment deposition) on surrounding benthic habitats. Key management measures to achieve this would include:

- Sediment curtains used to manage the dispersion of suspended sediments, where appropriate (i.e. in relation to water depths and wave action).
- Construction materials to be selected and collected in a manner that fines and smaller rocks are screened out to minimise the dispersion of fines within the marine environment.
- Placement of rock armouring material undertaken in a controlled manner through placement with an excavator (as opposed to the uncontrolled tipping of materials using trucks).

The Response Document provided additional information on the use of 'bubble curtains' as an additional measure to minimise turbidity during construction of the causeway, especially in deeper water where silt curtains are not as effective.

The reduction in the number of piles to be installed substantially reduces the underwater noise and vibration risk to marine mammals, which the APER considered to be a significant reduction of the overall impact of the modified design. It is noted, however, that the original proposal was likely to have a minimal effect during piling, due to the transient nature of the occurrence of marine species, their ability to avoid the area during construction and the proposed management of impacts (such as the implementation of safety zones, avoiding piling when whales are present, soft start-up of piling activities and the use of bubble curtains to reduce the transmission of noise / vibration).

Impact on Coastal Processes

The original PER considered that an open jetty structure would have minimal effect on coastal processes, particularly due to the site being located within the relatively sheltered embayment of the Spencer Gulf and not subject to any substantial longshore drift of sand. The only impact would have been due to vessels moored parallel to the coast, which could reduce local wave heights on the lee side of the vessel and lead to a minor increase in sand deposition and less erosion. Sediment transport modelling predicted the change in the sea bed level in the lee of the vessel could range from 3-5cm/year of sand deposition.

Rogers Beach was expected to have an insignificant change in net erosion rates (i.e. up to 35cm less sand on the beach over a 50-year period), whilst the small pocket beach immediately south of the jetty could experience reduced erosion rates (i.e. up to 30cm more sand on the beach

over a 50-year period). The extra volume of sand on the beach was considered to be small compared to expected natural variation in erosion and accretion cycles. A Beach Profile Monitoring and Sediment Management Plan was required to be implemented to determine whether the port had any effect on sand movement and would require mitigation.

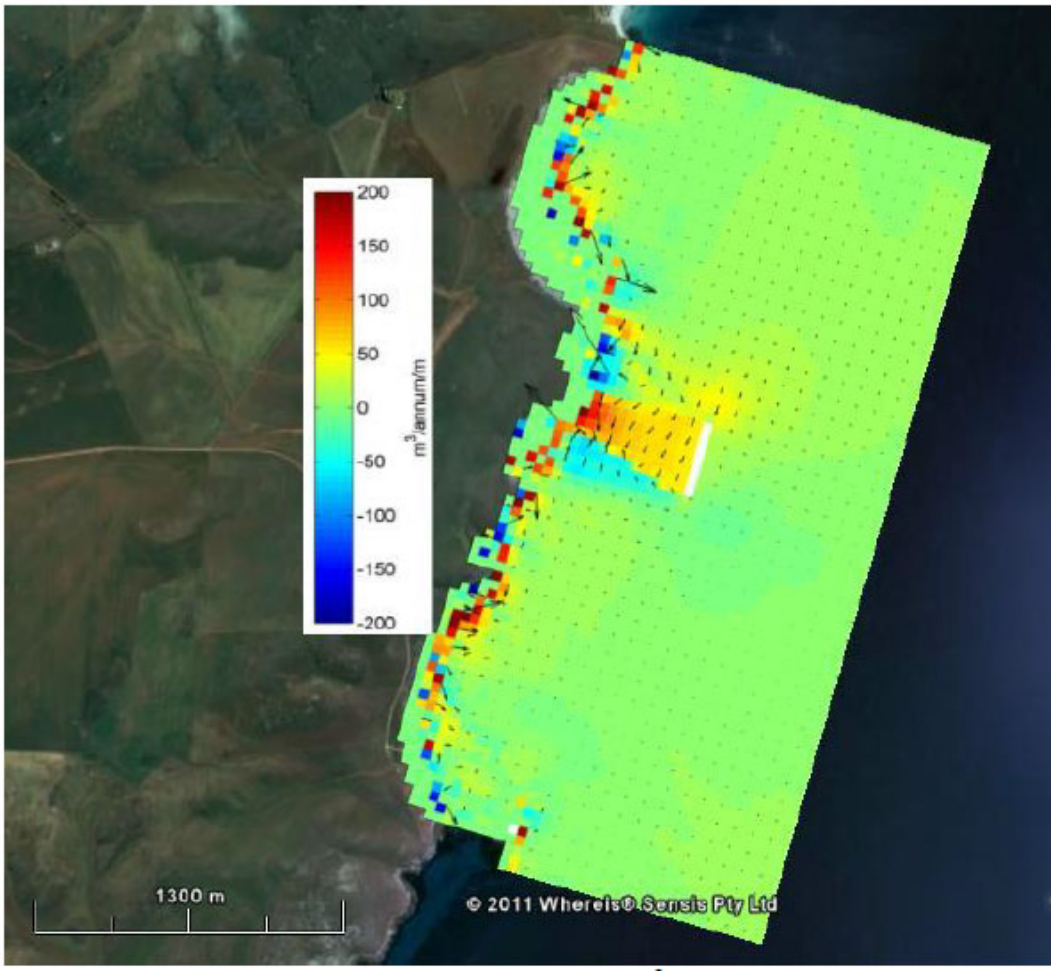

Figure 7: Original modelling of net sediment flux rates (m3/annum/m) due to the presence of a vessel at the jetty (Source: Original PER; Appendix L).

The presence of the causeway on the coast would introduce a solid structure that would affect local hydrodynamic conditions (i.e. water movement patterns and wave action), which would influence sediment transport and the accumulation of seagrass wrack. The APER (Appendix A; Section 3.11) stated that the causeway is likely to result in a change in the nearshore sediment transport adjacent to the structure, with chronic accretion to the south-west and erosion to the north east that could be addressed by intermittent sand transfer from south to north (as determined by a beach profile monitoring programme). The sediment transport and coastal processes modelling study (Volume 3; Appendix D) estimated it would result in:

- Sediment accretion over a broad area of approximately 150,000m^2 of seabed on the southern side of the structure at a rate of 1-2cm/year (50cm – 1.0m in 50 years), but up to 4cm/yr (2.0m in 50 years) in localised areas.
- Erosion over a broad area of approximately 80,000m^2 on the northern side of the structure at a rate of 1-2cm/yr (50cm – 1.0m in 50 years), but up to 3cm/yr (1.5m in 50 years) in places.

The modelling also indicated that Rogers Beach to the north would experience a small increase in post-development erosion of up to 0.05cm/yr (25cm in 50 years). The pocket beach to the

south shows predicted post-development accretion of between 1-4cm/yr (i.e. 0.5-2.0m in 50 years) in places. Refer to Figure 7.

The changes in hydrodynamics, waves and consequently the sediment transport regime, decrease with distance from the development and are expected to be negligible around Lipson Cove and Lipson Island. Additionally, Lipson cove is south of the development in a northward moving sediment transport regime. While the change in sediment transport and coastal processes is likely to impact nearshore benthic habitats, the significance of these impacts are determined to be moderate in the context of the extent of the wider benthic habitats within the Spencer Gulf.

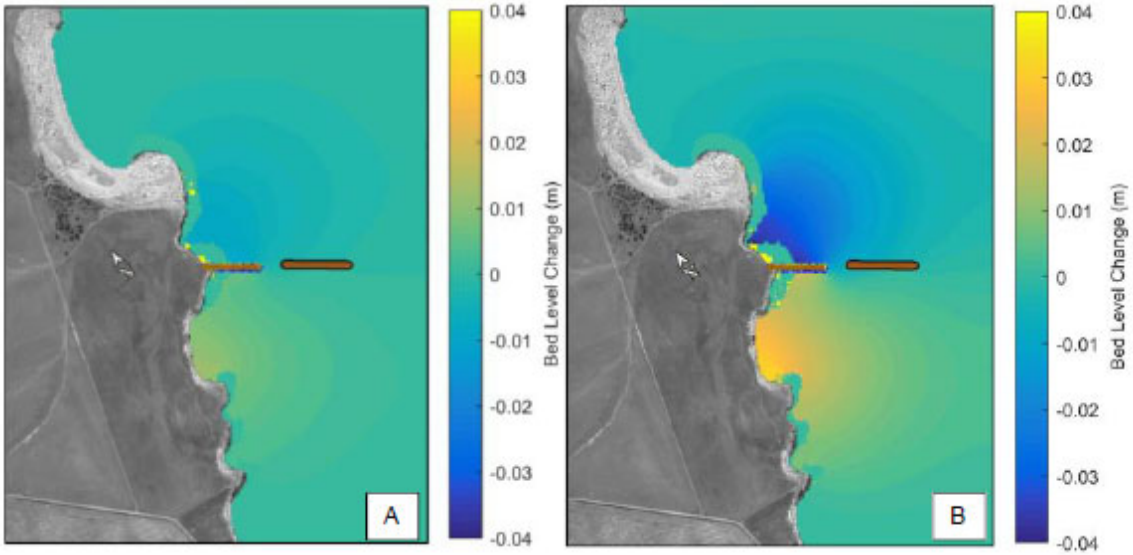

Figure 8: Difference in annual sediment accumulation and erosion patterns between baseline and post development scenarios for a grain size of (A) 0.3mm and (B) 0.13 mm. Positive values indicate increased accumulation and negative values indicate increased erosion due to the presence of the development, including ship (Source: APER; Vol. 2).

The Response Document (Section 2.2.1) further considered the matter, stating that the level of sediment build up for the modified proposal would be less than the level originally modelled for the Cape Size vessels associated with the approved development. This improvement is stated as being due to the shielding effect that the vessels would have had of the wave action at the site. Sediments are only mobile at this site due to wave action as the tidal velocity is low. Hence the impacts of vessels on blocking sediment movement was predicted to be greater than the impact of the causeway. The modelling confirmed that the only mechanism for sediment transfer is through wave action mobilising sediment and then tidal movement allowing lateral movement.

The APER (Appendix A; Section 3.12) proposed to undertake monitoring and management, comprising:

- Annual monitoring of sand transfer from the southern to the northern side of the structure to ensure the coastal environment is protected (noting that in this relatively benign environment, sand transfer is likely to be required infrequently).
- Monitoring locations to be defined on the northern side of the proposed structure and the southern end of the beach to the north (some 500m). Trigger levels for remediation actions should be defined in line with acceptable levels of shoreline erosion or ecological considerations. It is important to note that sediment transport rates are relatively low at this site, which means sand transfer to mimic the current sediment transport regime once the structure has been built will be relatively infrequent.

In summary, the APER (Appendix A; Section 3.12) stated the modified proposal would have a similar level of effect on the movement of sediment as the original design. This AAR considers that a causeway structure would potentially have a greater long-term effect on coastal processes than an open jetty structure and the effects of which, whilst not significant, would require ongoing monitoring and management.

Whilst the near shore waters would be protected by a Cape sized vessel, the open nature of a jetty would still enable the movement of sand along the coast. In addition, the relatively infrequent nature of ship movements would not have had a permanent effect. Whereas, a causeway permanently imposes a solid structure on the coast that would impede any northward movement of sand until sand build up reached the end of the structure. However, the results do show that the overall impact of the causeway would not be substantial over time and could be suitably managed through maintenance dredging.

Marine Pests

The original assessment identified there were no marine pest species found at the site and clarified that the record of the listed marine pest Asian Mussel was false. It concluded the low level of disturbance of the seabed during jetty construction would have had limited potential for marine pest species to become established.

The introduction of marine pests would be of greater risk during operation, via ballast water or bio-fouling from shipping, which could be adequately managed through compliance with all Australian Quarantine & Inspection Service (AQIS) requirements for shipping and ballast management. The biosecurity risk was predicted to be low.

The main differences for the modified proposal are the introduction of the rock causeway and the reduced number of vessel movements. Whilst the APER considered the causeway would provide potential reef habitat, it could also be colonised by introduced marine pest species (especially during the initial years of operation until native communities become established).

The deletion of iron ore export shipping would reduce the number and frequency of vessels visiting the port, which would lessen the risk of marine pest introduction. The proposed 'end-over-end' construction of the jetty, where sections are incrementally launched from the shore, means the use of marine plant for construction is not required. This further reduces the risk of pest introduction from vessels, primarily from bio-fouling.

Ballast water management procedures would still be implemented for incoming vessels in compliance with national requirements (and international standards), so that water exchange would occur as per the *Biosecurity Act 2015* and Australian Ballast Water Requirements (2017). Emergency response plans would be implemented in the event that a pest species is detected through monitoring.

5.3.2 Risk Spill or Fauna Collision from Vessels

The main issues associated with a port and associated shipping lane are the risks of a fuel/oil spill and collision with marine mammals. The species most at risk from vessel strike, due to their likelihood of regular occurrence, were considered to be the Southern Right Whale, Bottlenose Dolphin and Common Dolphin.

The modified proposal could involve a lower number and frequency of vessel movements due to the deletion of iron ore related shipping. Large Cape size vessels would no longer be visiting the port. Shipping activities would also be concentrated around the harvest period, but would

still occur all year round. The approved development anticipated 12 Cape Class (167,000 tonne capacity) or 27 Panamax (74,000 t) ore shipments a year, plus 8 Panamax grain shipments (assuming 0.5 million tonnes of grain would initially be exported).

The modified proposal anticipates up to 30 ship movements per year comprising a combination of Handysize and Panamax vessels. This would result in a reduction from 35 Panamax vessel visits to 30 visits. However, if Cape sized vessels were only used for iron ore export, the number of vessels visiting the approved development would total 20 ships. Whilst the potential reduction in vessel movements is marginal, the use of smaller vessels is likely to reduce the risk of a collision with a marine mammal due to greater manoeuvrability.

5.3.3 Rogers Beach and Lipson Cove

Rogers Beach is located immediately north of the causeway / jetty site and comprises a small beach and dune system, with a small swamp behind the dunes that is the discharge point for drainage from the local catchment. The beach is relatively natural/pristine and supports a pair of Hooded Plovers, which is a nationally threatened bird species. The dunes also contain sites of Aboriginal heritage significance. The beach is used for public recreation, but at low levels, due to public access not being clearly defined or well known.

The original design proposed a new access road to the beach. The previous assessment considered this would result in greater public access and use of the beach that could increase the level of human disturbance. In addition, an exclusion zone would need to be established around the beach during construction to prevent access by workers. A Management and Monitoring Plan (especially to address access, camping, environmental protection, erosion, weeds / pests, rubbish and the need for educational signage) and a Beach Profile Monitoring and Sediment Management Plan were required to be prepared and implemented.

Lipson Cove and Lipson Island are located 1km south of the site (1.5km from the causeway / jetty) and comprise a natural sandy beach between rocky headlands, with a small intertidal island. Lipson Island is a designated Conservation Park due to its value as a bird rookery / roosting and breeding site, especially for several species of conservation significance (including the threatened Little Penguin).

The original assessment concluded that Lipson Cove and Lipson Island would not be directly affected by the proposal, although being within close proximity of the site means the area may be affected by disturbance during construction and operation. The previous assessment also considered it unlikely that the conservation value of Lipson Island (and status of the Conservation Park) would be detrimentally affected in the long term by the proposal, except if a substantial oil spill was not adequately controlled.

Contingencies for the control and mitigation of any spill needed to be put in place. In particular, a spill kit may need to be stationed at Lipson Cove for ready deployment in the event of a spill to protect the island. A monitoring program would also need to be prepared and implemented to measure any detrimental impact the port facility on associated terrestrial and marine ecosystems is minimised. Improved data collection would also help to identify any potential impacts on the Sanctuary Zone of the Sir Joseph Banks Group Marine Park.

In regard to sand movement due to the effect of the causeway, the main risk to Rogers Beach is from a potential long-term loss of sand, whilst the risk to Lipson Cove is a build-up of sand, further impacting on benthic habitat or the Three Sisters Shipwreck. The sediment modelling in the APER indicated that sand management would be required for Rogers Beach, whereas Lipson Cove is a sufficient distance away to not be affected.

Recreation and Tourism Values

A key issue raised by the local community, the RDAWEP and the Tumby Bay Council was the effect of the modified proposal on the use and enjoyment of Lipson Cove for recreation and tourism. In particular, visitors who camp at Lipson Cove using the formalised sites provided by Council. Rogers Beach is visited to a lesser degree and mainly by locals for informal camping (i.e. due to no formal access). Lipson Cove is promoted as one of the areas key tourist spots and has been listed as one of Australia's Top 100 beaches. It has been identified as a site for improved camping facilities in the 'Eyes on Eyre – A Wayfinding and Coastal Access and Camping Options Project – Regional Findings (2018) report by the EPLGA, RDAWEP and NREP.

The main effects from both the approved development and the modified proposal is the visual impact of the port infrastructure (particularly from the jetty and vessels) and noise from port activities. This would result in a reduced amenity value, due to the loss of a relatively quiet and pristine coastal landscape. The original assessment considered the economic benefits of a port facility to the region would outweigh the loss of local tourism, recreation and landscape values from travel and visitation. For the modified proposal the visual effects would be similar to the approved development, although the causeway would be a more prominent feature than a full open jetty structure. The level of disturbance from port operations would be most prominent during the peak harvest period.

A more substantial difference with the modified proposal is the use of Lipson Cove Road as the main access route, rather than Swaffers Road. The peak harvest period coincides with the peak visitation period for Lipson Cove, so tourist traffic would experience a higher level of road congestion due to constant flow of grain trucks to / from the port. This, coupled with the loss of amenity, may deter visitation to Lipson Cove over time.

Public access to Rogers Beach is still proposed to be maintained, but via a walking path over the conveyors. This would not enable vehicle access and would limit informal camping opportunities at the beach. It should be noted that vehicle access in the past has been over private land at the discretion of the owner. Thus, no formal access is currently provided to Rogers Beach. The beach can be accessed via the coastal reserve (Crown land).

The APER proposes to reduce the visual impact of the port facility from Lipson Cove through the use of screen plantings along the coastal headland in the south-eastern corner of the site. The APER (Section 6.3.6) also states that and rehabilitation of undisturbed areas of the site located within the fallow paddock (i.e. to the north of the site near Rogers Beach and south of the silos) will be undertaken as part of the ILUA negotiated for the site. Under this agreement, resources will be provided to support native vegetation management in the vicinity of Rogers Beach.

Environmental Values

The Lipson Island Conservation Park provides important habitat for coastal bird species, especially as a stronghold for the Little Penguin. The surrounding bay is also occasionally visited by Southern Right Whales.

The main effect on species using the island and surrounding waters would be from disturbance during construction and from port activities during operation (including light pollution). In addition, the port could attract pest species (especially pigeons, foxes, rats and feral cats) or native species that could affect local populations, with the greatest threat being predation of eggs or chicks.

The DEW advised that Silver gull populations are a serious management issue for the ecology of local native species (particularly nesting sea and shorebirds) and should be monitored so management can be initiated (if needed). The effects of the modified proposal are expected to be similar to the approved development, although the new grain bunker storages could potentially attract greater numbers of pigeons and seagulls (i.e. if not controlled).

The APER (Section 6.3.7) proposes to manage potential impacts on Lipson Island through general control measures at the site relating to noise, construction, air and marine management measures. The port would be designed to have focussed low level light will limit potential light impacts and light pollution would be monitored in the vicinity of Lipson Island during operation to determine if further mitigation would be needed. Grain storage and handling facilities have been designed to minimise spillage or open access to grain and the site would be maintained in a clean manner.

A Silver Gull Management Plan would be included with a Weed and Pest Management Plan.

Ranger Programme

A key initiative being proposed by Peninsula Ports is the establishment of a future Aboriginal Ranger programme, in conjunction with the Barngarla Determination Aboriginal Corporation, for undertaking land management and coastal rehabilitation activities (especially revegetation). The port would provide an operational base for the programme. The programme would assist in managing and monitoring environmental impacts on the site (including protecting Rogers Beach) and could be extended to Lipson Cove and Lipson Island.

The AAR concludes that the most substantial change related to the modified proposal is the replacement of one third of the open jetty (landward end) with a 240m long rock causeway structure. It is considered the local impacts from a substantially greater loss of seagrass would outweigh the reduction of impacts from piling activities, the avoidance of marine-based construction activities and less vessel movements.

The modified proposal would have a greater impact on the local marine environment when compared with the original proposal. The regional impact on the Gulf would be similar to the original proposal (i.e. negligible), but would result in a loss of local habitat and contribute to a long-term incremental loss of seagrass habitat in the Spencer Gulf.

A Significant Environmental Benefit (SEB) offset under the *Native Vegetation Act 1991* (typically a financial payment) is available to compensate for seagrass loss, although noting it is likely to be used to provide benefits to the terrestrial environment in the region. The Act does allow for alternative compensation measures, such as the funding of research on the coastal and marine environment, which could be explored. The proposed Ranger Programme could also provide environmental benefits for the locality, especially further oversight of Rogers Beach (and possibly Lipson Cove and Lipson Island) and coastal revegetation plans.

The causeway design was adopted to reduce construction costs and construction times, improving the financial viability of the project. Pre-assembled jetty sections were also chosen to reduce construction times and minimise disturbance impacts from machinery use. Noting that a similar port design has been approved for the Cape Hardy port development, along with the established mitigation and monitoring requirements that are able to be implemented, the proposed causeway design is considered an acceptable modification. The potential benefits of the port to grain growers is also noted, particularly given the implications of the recent rail closure.

Impacts on the coastal and marine environment can be adequately managed through the development and implementation of Environmental Management Plans for the construction and operational phases.

5.4 Traffic and Site Access

The approved development involved the transport of both iron ore and grain to the port using road trains and B-double vehicles. Ore was to be sourced from the prospective Wilgerup mine site (north-west of the port) using a dedicated transport route, via the Murdinga - Melonga Road, the Birdseye Highway, the Balumbah - Kinnard Road and the Lincoln Highway. Grain traffic would originate from farms throughout the region using local and main roads (but no dedicated route). An upgraded Swaffers Road was to be used as the main site access point, with a secondary access point from Lipson Cove Road for minor traffic sources (i.e. light vehicles and staff vehicles). The intersection of Swaffers Road and the Lincoln Highway was to be upgraded to ensure safe and efficient traffic movements.

Figure 9: Local roads in the vicinity of the site

The original PER estimated approximately 70 heavy vehicles (140 movements per day) would be required to deliver ore to the site, which would equate to a truck passing any particular point along the route every 10 minutes, being a continuous procession of trucks along the route, 24 hours per day and 7 days per week. A further 40 vehicles/day were expected to transport grain to the site.

The original proposal involved the transport of iron ore from specific mine sites using dedicated trucks along designated routes. Thus, the proponent would have been responsible for truck movements and the condition of the nominated roads. Deeds of Agreement were to be entered into with Councils for road upgrades, including associated Road Maintenance and Monitoring Agreements (which are a requirement of the current approval). For the modified proposal, grain would be delivered to the port by individual growers and trucking contractors using their own preferred transport routes, such that these movements are less controlled.

5.4.1 Regional Transport Implications

In order to address the 'upstream' impacts of the proposal, the APER considered the likely source and volume of grain transport traffic that could utilise the port, including modelling. The Traffic Impact Assessment (Volume 3; Appendix B) considered the following post-development scenarios:

- Trip Redistribution from Port Lincoln to Port Spencer (and Lucky Bay) via sealed road network with **Uniform** Trip Generation (during the 8-week harvest).
- Trip Redistribution from Port Lincoln to Port Spencer (and Lucky Bay) via sealed road network with **Peak** Trip Generation (during the 8-week harvest).
- Trip Redistribution from Port Lincoln to Port Spencer (and Lucky Bay) with **Peak** Trip Generation (during the 8-week harvest), **and** east-west trip redistribution via other unsealed council routes, such that 100% is via other east-west unsealed council routes or 50% is via other unsealed council routes and 50% is via Bratten Way.

The scenarios also noted the following significant changes that have recently occurred within the wider Eyre Peninsula road network:

- Closure of the regional railway line in June 2019, which has resulted in significant increases of freight vehicles on the road network transporting grain to existing export ports (predominately to Port Lincoln). Silo storages associated with the rail have also closed.
- The new export port at Lucky Bay that was expected to receive first harvest revivals for the 2019/2020 harvest season.

The proponent's assessment concluded that road upgrades would not be required from a capacity viewpoint, although a number of turning and other road improvements to improve road safety would need to be considered for Lipson Cove Road and its intersection with the Lincoln Highway. Further discussion would also need to be undertaken with the Department of Planning, Transport and Infrastructure during the detailed design phase to reach agreement on the scope of potential improvements, particularly providing acceleration lanes for heavy vehicles on Lincoln Highway. The APER also considered that, ultimately the impacts to the regional road network from grain trucks is not the responsibility of the proponent.

The assessment did recognise that road network improvements beyond those directly related to Lipson Cove Road may be required, but cannot be solely attributed to the modified proposal due to the numerous other recent changes across the region. In particular, the east-west movements across one or a combination of the Bratten Way and several other unsealed Council roads connecting the Tod and Lincoln Highways.

In consultation with a Technical Working Group of the Eyre Peninsula Local Government Association convened by Peninsula Ports, concerns have been raised about the impact on the local roads and a strong preference for a new strategic, sealed east-west route has been expressed. Due to the unknowns surrounding future driver behaviour and changes in the east-west grain commodity route transport preferences, the assessment recommended that the unsealed Council roads between Tod Highway and Lincoln Highway be monitored for future east-west freight volume increases during the seasonal harvest period to inform any new future strategic east-west freight link upgrades, as recommended in the *2019 Regional Transport Strategy* (SMEC, 2019) for Eyre Peninsula.

The implications for the regional road network was a key concern raised in the submission by the Tumby Bay Council, especially the impact on local roads not currently used for the transport of grain (i.e. east-west links). It considered the project could have a deleterious

impact on the condition of Council roads and cause it to incur substantial additional capital and operational costs in the upgrade, maintenance and replacement of its infrastructure. The Response Document (Attachment 1) details a proposed Road Maintenance Fund for Council roads (i.e. based on a levy applied to each truck delivery or tonnage of grain delivered) that would help assist with any additional maintenance costs due to changed transport patterns.

The proponent has also been engaging with state and federal governments to seek investment support for a strategic east-west freight route.

DPTI's approach is that the Port's impact will be in redistributing traffic as opposed to generating additional volume. The actual volume and nature of traffic generated by the Port facility should however be properly monitored, and that if changes in traffic volumes on individual roads are of such significance, the relevant road authority will need to manage within their current responsibilities and this may be a catalyst for lodgement of additional justifiable funding requests from the respective road authorities. Any considerations (which are external to the scope of the AAR) for future freight road links or ownership would require strategic and detailed justifications against other relevant road network and classification criteria / guidelines.

In effect in the interim the need for any road upgrades should continue to be monitored by Local Government for local roads and the State Government for the Lincoln Highway. The proponent should also monitor truck volumes using the port via receivals records, including the origin of grain deliveries.

In addition, the State's funding agreement with the South Australian Freight Council (SAFC) includes a proportion of project related funding. DPTI advised that the SAFC will be applying such funding to a regional freight study that will include Eyre Peninsula to identify regional freight and supply chain issues, including a long-term program of required infrastructure upgrades across the region. The study would include consultation with industry stakeholders and Local Government.

The information and data collected from proponent traffic and vehicle monitoring can be used to inform strategic guidance for future network development, maintenance and potential future funding strategies. Existing road funding sources, such as the Special Local Roads Program, also continue as an opportunity for local Council road funding.

From a regional perspective, the APER considers the port is expected to remove a proportion of the forecast traffic congestion from Port Lincoln (in conjunction with Lucky Bay) by offering an alternate grain receivals site and an alternate export port for the Eyre Peninsula. This would disperse the traffic impact on the existing road freight network. It would also potentially reduce the amount of vehicle kilometres grain has to travel (and the associated economic, road safety and environmental benefits).

5.4.2 Site Access Route

The APER (Volume 3; Appendix B) included a revised Traffic Impact Assessment to identify the impacts of the modified proposal and to compare them with the approved development.

It found that, rather than a continuous flow of trucks (i.e. 365 days/yr), a higher peak volume of traffic would travel to the site, with most impacts limited to the eight-week harvest period (up to 17 hour days and 7 days per week). This is primarily due to on-site grain storage capacity being increased from 60,000 tonnes to 860,000 tonnes to enable direct delivery of grain by growers. Trucks transporting grain are likely to be AB Triple Road Trains and B-Double combinations. The number of trucks using the Lipson Cove Road could peak at 430 trucks per

day (i.e. one freight vehicle entering or exiting the site every 2 minutes) and average 230 trucks/day, compared with up to 110 trucks/day for the delivery of ore and grain as originally proposed. Staff vehicle numbers would double during the peak period to 60 cars per day.

This represents a substantial increase in traffic impacts during a much shorter, but concentrated period. However, outside the harvest season, the traffic impact is expected to be significantly reduced as the site is not expected to receive any grain for storage onsite, but may accept grain from external storages for direct loading onto vessels as required to meet shipping exports.

Direct traffic impacts would now affect residents and road users along Lipson Cove Road, rather than Swaffers Road. The main impacts for residents (and possibly visitors to Lipson Cove) would be from noise and vibration. The sealing of this section of road should address the potential for dust impacts. Road congestion would also substantially increase during the peak season, coinciding with the local harvest and the tourist season. Road safety may also be affected and would need to be monitored and if required, more active measures adopted (such as by reducing the current 100km speed limit).

During construction, the duration of traffic would be half that of the approved development (i.e. a construction period of 10 months compared to 24 months) and the majority of the much smaller work force would be transported to the site by buses. Traffic for the delivery of materials would be slightly greater, with up to 25 heavy vehicle (19 commercial vehicles and 6 over-dimensional vehicles) and 68 light vehicle movements per day during the peak period. The smaller scale of the proposed development would require less over-sized and heavy materials deliveries. By using rock excavated from the site for the causeway structure, there is no longer the need to transport excess material from the site.

Separate Traffic Management Plans (TMP) would be developed for the construction and operation of the site, once details of the construction and operational phases are finalised.

For the modified proposal, site access is now proposed to be off Lipson Cove Road, which is a local Council road (20m wide road reserve) and is unsealed. The road has a speed limit of 100km/h and the section from the Lincoln Highway to South Coast Road is currently gazetted as a Grain Commodity Route for both B-doubles and Road Trains. Grain trucks accessing the port would utilise the intersection of the Lincoln Highway and Lipson Cove Road. The APER (Section 6.3.10) stated that Lipson Cove Road would be sealed from the junction with the Lincoln Highway through to the two site access points. This would occur prior to the commencement of construction.

The proponent considers Lipson Cove Road to be a preferable site access route to Swaffers Road due to better sight lines along the Lincoln Highway for improved road safety. In addition, the proposed intersection upgrade works would affect less land, allow for easier construction and provide a more straight forward engineering solution. The original AR identified the intersection of Lincoln Highway and Swaffers Road as having a sharp (almost) hairpin left hand turn off the Highway with steep batters on each side of the road. There is also a drainage line (and small swamp area) on the northern side of Swaffers Road, influencing the design parameters for any corner upgrade (requiring significant fill and engineering).

The Department of Planning, Transport & Infrastructure (Transport Assessment) raised no concerns with the relocation of the site access route to Lipson Cove Road. The District Council of Tumby raised concerns about the impact on existing users of the road, particularly tourists and locals travelling to Lipson Cove (especially congestion and safety during peak periods)

For the operational phase different site access points would be established during construction, with separate entry and exit points. Heavy vehicle queueing areas (waiting bays) would be provided on-site to avoid trucks queuing on Lipson Cove Road**.** Junction and road upgrades would be undertaken, comprising new intersections with basic left and right turn treatments along Lipson Cove Road. The intersection of the Lincoln Highway and Lipson Cove Road would be upgraded with full chanellised left and right turn treatments (in line with the CHL and CHR treatments in Figure 11). Whilst detailed designs have not yet been provided, the APER included the following conceptual designs for intersections:

Figure 10 Example of treatments for the entry (L) and exit (R) points

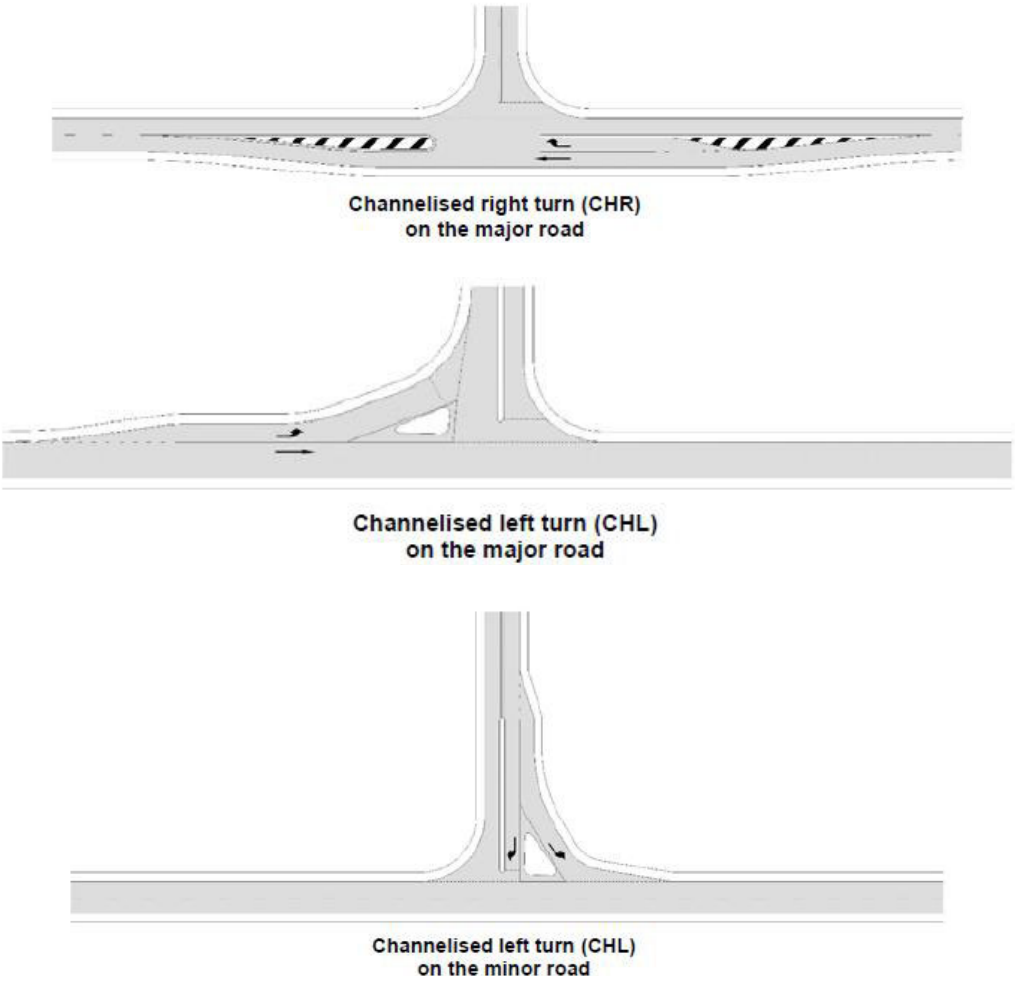

Figure 11: Examples of treatments for the Lincoln Highway - Lipson Cove Road intersection

The Department of Planning, Transport & Infrastructure (Transport Assessment) advised it supports (in principle) the proposed road upgrades detailed in the Traffic Impact Assessment.

The upgrade of the Lincoln Highway/Lipson Cove Road would need to be undertaken to the satisfaction of DPTI, with all costs being borne by the proponent. The site entry and exit points from and to Lipson Cove Road and the proposed sealing of Lipson Cove Road would need to be undertaken to the satisfaction of the District Council of Tumby Bay, with all costs

being borne by the proponent.· The proposed upgrade would need to be designed and constructed in accordance with Austroads Guides/Australian Standards and should occur prior to construction commencing to safely manage the traffic impacts for the construction and operational phases of the proposal.

No conceptual designs have been provided for the upgrade of Lipson Cove Road at this stage. The Response Document (Section 2.2.2) clarified that the existing road reserve is unlikely to need widening. Thus, adjoining land would not be affected. Road upgrading works would need to consider the effect on existing infrastructure (i.e. water pipeline and communication cables). Deeds of Agreement would need to be entered into with the District Council of Tumby Bay for the upgrade of Lipson Cove Road, including an associated Road Maintenance and Monitoring Agreement. All works would be undertaken at the cost of the proponent.

Localised vegetation trimming may need to be undertaken to improve sight lines along Lipson Cove Road. The original assessment also identified that road upgrades required for transport or road safety purposes could necessitate the removal, trimming or disturbance (including the effects of changed drainage patterns) of native vegetation, for which the requirements of the *Native Vegetation Act 1991* (including an SEB off-set) may apply.

The AAR concludes that the overall traffic effects of the modified proposal would be similar to those associated with the grain component of the approved development, and would largely involve a redistribution of existing traffic movement, as opposed to generating significantly more annual traffic. However, it is noted that during the peak harvest period there would be greater traffic volumes, due to expanded grain storage capacity.

The origin and transport routes of grain trucks using the port would still be collectively determined by the preferences of farmers and haulage companies. With the closure of the railway network, it is more likely that a greater level of road haulage will be directed away from Port Lincoln and up-country storages (with localised movement patterns changing as a result).

Whilst the proponent would not be directly responsible for mitigating the impacts of changes to regional transport patterns (such as road upgrades and maintenance), it has committed to being part of a Local and State Government approach to addressing the strategic implications of the rail closure and the establishment of additional port facilities on Eyre Peninsula. In addition, the proposed Road Maintenance Fund for Council roads could help assist with any additional maintenance costs. Ongoing monitoring and review of the road traffic and movements generated by the new port by relevant road authorities will also enable a greater level of granularity and understanding to be developed on impacts and where additional funding or other management measures need to be implemented.

The modified proposal now redirects grain traffic from Swaffers Road to Lipson Cove Road for access to the site from the Lincoln Highway. These directly impacted road and intersection upgrades would need to be undertaken at the proponent's cost and to the satisfaction of the relevant road authorities to ensure road safety and transport efficiency. The required upgrades and ongoing maintenance can be managed through the implementation of Traffic Management Plans (including design standards), with funding of all costs by the proponent and construction design and delivery requirements (and maintenance where required) secured via appropriate Deeds executed with the District Council of Tumby Bay and DPTI.

Traffic volumes on Lipson Cove Road would reach a substantially higher peak, but would be concentrated around the harvest season. This would periodically affect the amenity of a small number of nearby residents due to noise, vibration and traffic congestion. Increased (local) traffic volumes would also affect travellers to Lipson Cove (especially tourists), which may reduce

visitation. Road safety impacts from mixing heavy vehicles with commuter vehicles, especially during peak summer holiday periods would need to be monitored and mitigated if necessary.

5.5 Effects on the Community

5.5.1 Local Residents

There are approximately 10 residences within a 5km radius of the site that are associated with farming properties used predominantly for cropping and grazing.

The proposal is unlikely to affect the farming activities of local landowners, although disruption may occur during busy periods (such as harvesting) due to traffic impacts from the development on local roads. The rural vistas would now include port related infrastructure, although grain storage and handling facilities are an accepted part of the agricultural landscape. The relatively quiet nature of the area would now be subject to noise from port operations and grain transport, although modelled noise emissions would meet EPA standards at the closest residences.

The APER (Section 4.3) states that, in order to meet construction timeframes, 24 hour construction is proposed. Construction activities may require both day and night shifts to operate for the duration of construction. Blasting and drilling would be limited to day-time works only. Crushing (subject to productivity requirements), welding and piling activities may be required to operate on day and night shift.

Compared to the approved development, a similar number of residents could be affected during construction and operation. However, the changed access route will relocate impacts from Swaffers Road to residents along Lipson Cove Road. Three rural properties have direct access points from Lipson Cove Road, which is the same number for Swaffers Road.

Figure 12: Rural properties (circled) in the vicinity of the site

5.5.2 Public Access to the Coast and Recreation / Tourism

Public access to the coast is gained via Lipson Cove Road, which is an unsealed road. Access to Rogers Beach is via a vehicular track that crosses private land (the subject site) and Crown land (coastal reserve). Pedestrian access along the coast is generally unobstructed along the coastal reserve. Lipson Cove Road is proposed to be sealed by the proponent so that it could be used as the site access route for grain deliveries. The establishment of the port would replace the current informal access with a formal pathway, including a pedestrian crossing over the causeway and conveyor. Whilst removing vehicular access to Rogers Beach would restrict current camping activities, it could lead to an improvement of the environment due to less intense visitation and use.

Lipson Cove (and the Lipson Island Conservation Park) is a scenically attractive area and a relatively popular attraction for tourists and visitors, especially for sight-seeing, bird watching, fishing and camping. In particular, it is a favourite holiday destination for local residents and the wider Eyre Peninsula community. The Lipson Cove area has some limited visitor facilities, including toilets and a semi-formal camping area. Similar to the approved development, there is likely to be a visual impact of the Port on the Lipson Cove area and, together with the effects from Port operations, would reduce the natural coastal amenity value of the area. This may decrease the attractiveness and enjoyment of the area for visitors. However, the port would not affect camping and recreational activities (such as fishing and snorkelling). Whilst the sealing of Lipson Cove Road would provide improved access and road safety, it is also acknowledged that the road would be more frequently used by heavy vehicles during the peak harvest period.

The AAR concludes that the effects of the modified proposal on the community would be similar to those associated with the approved development, except for the change of access route. Residents along Lipson Cove Road would now experience greater impacts from grain transport traffic during the peak period, especially from noise. Traffic noise and road congestion could also affect the amenity of visitors to Lipson Cove, especially the camping experience.

5.6 Economic Impact and Employment

The original proposal required an investment of $250M AUD (CAPEX) to establish the port facility, whereas the modified proposal requires an investment of $150M (excluding 'fit out costs', especially the electronic grain monitoring system).

The modified proposal would require a construction workforce of 150 (at its peak), compared to 200 workers for the original proposal. Workers would no longer be accommodated in a purpose built workers village at Tumby Bay (which included fly-in fly-out operations at the airport), but would use existing accommodation options in nearby towns. Consequently, the smaller-scaled modified proposal would not deliver the same magnitude of direct and flow-on economic benefits as the approved development. Notwithstanding the removal of iron ore related components, the strategic and economic benefits of another deep water port on Eyre Peninsula would be realised.

The development would create employment opportunities for local workers and tradespeople. Similarly, training positions (e.g. apprenticeships) would also be open to locally based applicants to increase local capacity and skill sets. Local suppliers would mainly be used during construction and operations (i.e. where their services and skills are competitive).

The APER (Section 2) states that export capacity on the Eyre Peninsula is constrained between December and April, when grain prices are at their highest (counter season for international markets). Further, a lack of grain handling competition and an inefficient supply chain, particularly

with the closure of the rail lines, means there is significant scope to provide economic benefits to grain growers through a suitable export alternative.

Approximately 1.6 million tonnes of grain grown on the Eyre Peninsula could be 'freight advantaged' using the Port Spencer facility, due to its closer proximity for growers compared to Port Lincoln or Thevenard. In addition, there may be less reliance on up-country storage facilities over time, which could reduce the amount of 'double handling' of grain (and deliver further potential cost reductions).

The APER considers that the current low economic returns for grain growers on the Eyre Peninsula are driven by lack of a domestic market and the monopoly supply chain currently present in the region. As a result, grain prices have historically generally been lower relative to other regions in Australia. A grain production target zone of approximately 1.6 million tonnes of grain is predicted to be freight advantaged by up to $10 per tonne (average $3.50 per tonne) as compared to Port Lincoln or Thevenard. Increased competition could realise a further $10-$15/ton increase across the Eyre Peninsula's growing region (subject to a range of factors which ultimately determine the price a grower is paid).

Based on an assumed one million tonnes of grain exported through Port Spencer, the annual grower freight savings may be in the order of $3.5 -$5M p.a. Ultimately, an increase in the price for grain of $27 - $40M p.a. could be realised (assuming a 2.7 Mt harvest and competitive pressure between the supply chain operator(s) and exporters to capture supply. The APER recognises that the economic assumptions are theoretical in nature, difficult to predict and may or may not be ultimately realised.

The AAR concludes that the scaled back modified port proposal would not deliver the same level of economic benefits to the region as the approved development, but may improve the economic benefits to grain growers. In particular, it would no longer be a multi-user facility, so would only provide a strategic advantage for the grain industry. There is limited opportunity to expand the port to cater for other industries. However, by focussing the business case on grain only export, a port proposal is now able to proceed and deliver potential cost savings and increased prices for grain growers.

5.7 Visual Amenity

The original assessment considered the visual effects of a port proposal on the landscape to be one of the most significant environmental impacts on the locality. An industrial type development would be established in a rural area, along a part of the coastline that is devoid of development and relatively natural/pristine. The APER (Volume 3; Appendix J) included a new visual assessment, using revised photomontages generated from visually prominent locations around the site that were previously used (i.e. Lipson Cove and Rogers Beach). The visual assessment concluded that:

- The use and development of the site has the potential for a high level of visual impact, which has already been approved.
- The modified proposal is similar in use, scale and proposed infrastructure to that of the approved development.
- The change to the visual impact would be negligible - low for most viewers.

Figure 13: View from Lipson Cove Road (SW of the site)

Figure 14: View from Lipson Cove Beach (south of the site)

Landscape character impacts would be greatest from Lipson Cove (and to a lesser degree Rogers Beach), which would have reduced amenity value and consequently, potentially reduced tourism and recreational values.

The jetty (and berthed ships) would have been the most prominent feature when viewed from this location, as the land based infrastructure would have been naturally screened by the coastal headland. The jetty would also be very noticeable at night, due to lighting of the facility and from vessels. There are 10 farming residences within a 5km radius of the site whose visual amenity would have been affected to some degree, either by direct view or when working or travelling around the area. Natural topography and existing vegetation around properties and along roadsides would have provided some screening.

Figure 15: View from Rogers Beach (north of the site)

The original assessment concluded that the proponent provided a number of design measures to mitigate visibility impacts, such as the planting of screening vegetation along Lipson Cove Road (i.e. along the southern site boundary), low level lighting (domed/focused) at the Port, structures coloured in earthen tones and infrastructure built behind the headland, all of which would provide adequate mitigation as far as is practicable. In addition, grain silos were recognised as being relatively common in rural locations and are generally an acceptable part of a rural landscape in wheat growing communities.

For the modified proposal the visual effects would be similar to the approved development, although the causeway would be a more prominent feature than a full open jetty structure. The berthing of smaller Panamax vessels would not be as visually prominent, now that large Cape sized vessels would not be used for iron ore export.

There would also be no regular offshore parking of vessels.

To minimise visual effects, the following measures are proposed:

- Colour and texture of facilities visibility - usage of sea blue or an earth tone paint colour for most facilities.
- Night-time lighting of facilities visibility - domed focussed low-level lighting to be used.
- Re-vegetation along the eastern boundary of the site to screen views from Lipson Cove Beach.

The AAR concludes that the visual impact of the modified proposal would be similar to the approved development. Whilst the causeway structure would be more visually prominent than an open jetty, the original T-shaped jetty design included a wharf at the end of the jetty where large Cape sized vessels would moor parallel to the coast. The modified proposal also avoids having vessels moored offshore waiting to access the port, which would have increased the on-water impacts on the coastal seascape. Views from Lipson Cove can be screened using revegetation around the SE corner of the site (and potentially around Lipson Cove). A Revegetation Plan would need to be prepared.

5.8 Stormwater Management

The gentle valley within which the proposal is located, drains through the site and discharges to Rogers Beach, where water would pond in the vegetated clay basin behind the dunes/beach. Due to the agricultural use of the land, most rainfall and run-off would generally soak into the permeable soils or be taken up by crops/pasture. Only during heavy or prolonged rainfall events would surface flows be generated that would discharge to the marine environment.

The original assessment considered that the establishment of large areas of hard surfaces and fuel/chemical storages had the potential to substantially increase the amount of run-off and contaminants discharged to the marine environment, if not appropriately managed. A chemical or fuel leak or spill could also find its way into the local drainage system. The assessment concluded the proposed stormwater management strategy would have provided adequate measures to maintain the natural hydrology and to ensure any contaminated run-off does not affect marine water quality.

The modified proposal would establish similarly large areas of hard surfaces from which substantial volumes of runoff would be generated, including silos/bunkers, office buildings/carparks and internal roads. In addition, the sealing of Lipson Cove Road could generate substantial volumes of run-off (potentially contaminated from grain transport trucks) that would need to be managed.

Volumes of run-off discharged to the marine environment should not exceed those that occur naturally (i.e. maintained to pre-development levels). The proposal would also affect local drainage patterns, requiring the site to be engineered to divert run-off around the site to suitable collection or discharge points. Run-off and drainage within the site would need to be managed separately.

The APER (Section 4.2.4.3) describes the proposed approach to stormwater management, including the following key principals for managing runoff:

- Zero discharge of site runoff to the marine environment.
- Offsite runoff continues to discharge to Rogers Beach, but quantity is not increased.
- Existing drainage flows diverted around the site towards Rogers Beach.
- Low velocity design where possible.
- Detained site runoff is to be reused on site.

Rather than divert the tributary flow path that runs through the site, the existing drainage line would be retained along a modified pathway. Thus, less run-off would need to be detained. Detention storage capacity would be reduced from 136ML to 65ML, with site run-off to be captured in three

detention basins. There is also less need for the use of captured stormwater, as water is not required for ore processing nor dust control for ore stockpiles. Revised hydrological calculations for the site identified that less run-off would be generated for the site now and in future due to reduced rainfall predictions.

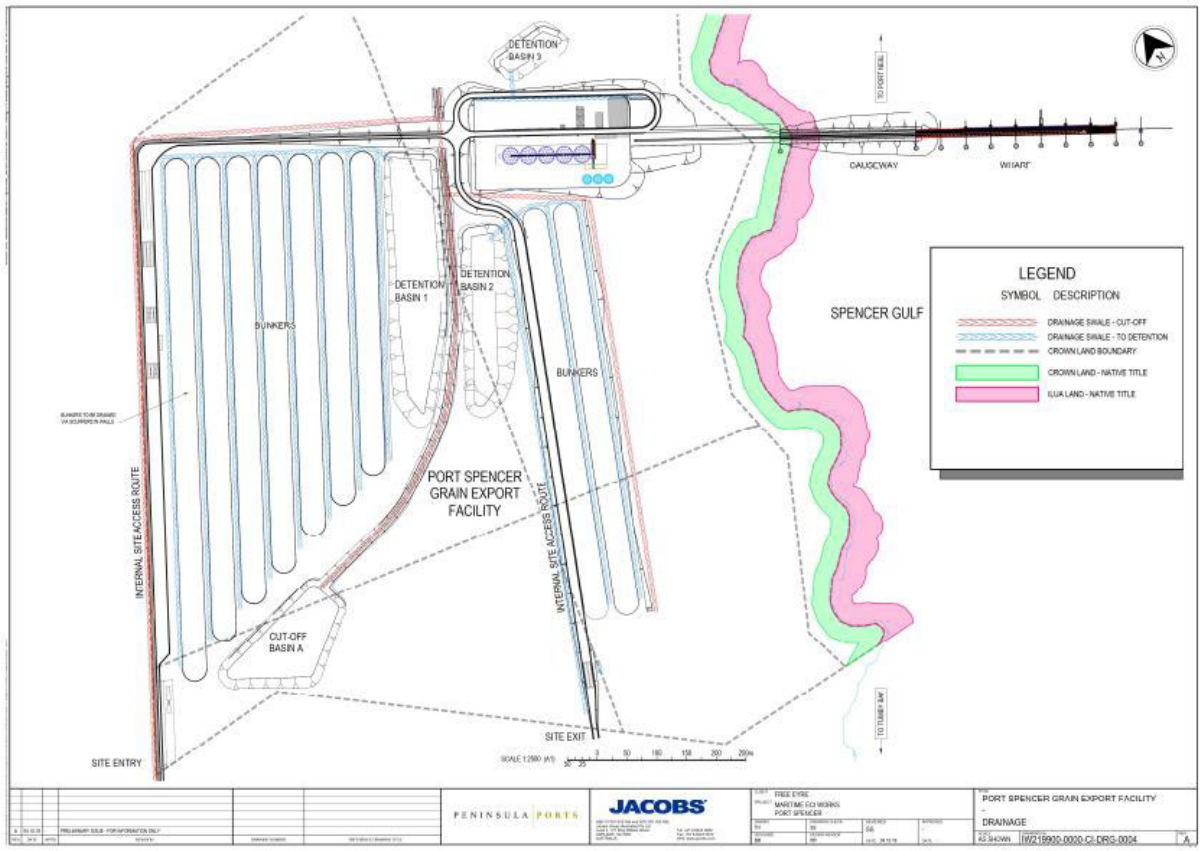

Figure 16: Conceptual stormwater management design

The EPA raised an issue that the existing tributary flow path retained through the site could be exposed to contaminated run-off. It recommended that all upstream flows outside the site be diverted around the site or the proponent detail how flows would be protected from contamination from site activities. The RD now provides a revised site layout plan to improve stormwater management (refer to Figure 4 in this AAR).

Stormwater management would also be addressed in a Soil Erosion and Drainage Management Plan (SEDMP) for the construction stage, including permanent drainage treatment measures. Potential contamination of stormwater, such as from a build-up of pollutants or an accidental spill, would also need to be addressed (including monitoring and management strategies).

The AAR concludes that the revised layout design would enable stormwater to be suitably managed so that volumes of run-off would be maintained to pre-development levels and to ensure any contaminated run-off does not affect marine water quality. A Soil Erosion and Drainage Management Plan (SEDMP) would need to be prepared and implemented for the construction and operational stages, especially to ensure compliance with the Environment Protection (Water Quality) Policy 2015. An Advisory Note is proposed to ensure the proponent is aware of their obligations to comply with relevant environment protection policies.

5.9 Air Quality and Noise

Air emissions from the modified proposal would change due to the removal of iron ore storage / handling activities and the reconfiguration of the site layout plan to include a substantial area of bunker storage (and a corresponding increase in grain handling).

Activities that generate dust emissions would comprise:

- Unloading of grain from trucks during the harvest season, which would be the largest contributor to overall dust emission rates at the site.
- Conveying and handling of the grain.
- Loading of grain into ships.
- Wind erosion from grain storage bunkers.

The amount of dust generated from grain handling facilities is dependent on the type of grain being handled, grain quality, moisture content, the design and operation of the handling infrastructure (conveyors, reclaimers, etc.), and the extent and efficiency of dust mitigation equipment. The dust generated and released from grain comprises approximately 70% organic material.

Exhaust gas emissions would be generated by the diesel power generators and from the exhausts of trucks delivering grain, especially when idling in the marshalling lanes.

Emissions of methyl bromide would occur on completion of fumigation of grain in a silo, when the gas from the silo is released to the atmosphere.

The APER (Volume 3; Appendix H) included a new air quality assessment that was undertaken to identify the potential dust impact on the region surrounding the site. The study involved the collation of a dust emissions inventory for operations at the port, meteorological modelling and air dispersion modelling of dust emissions. The potential impact of the methyl bromide emissions, resulting from the occasional fumigation of the silos, was also assessed.

The assessment methodology was carried out in accordance with the SA EPA 'Ambient air quality assessment' guidelines (EPA, 2016b). The predicted ground level concentrations (GLCs) for PM_{10}, $PM_{2.5}$ and methyl bromide at sensitive receptor (i.e. resident) locations beyond the site boundary were compared with the criteria set out in the South Australia *Environment Protection (Air Quality) Policy (2016a)*. The predicted dust deposition levels were compared with criteria provided by the NSW Environment Protection Authority (NSW EPA, 2017).

5.9.1 Dust Emissions

The assessment determined that the highest potential dust impact is expected for the nearest sensitive receptor to the site, located approximately 450m north of the boundary. For the assessment of the 24 hour average PM_{10} and $PM_{2.5}$, exceedances of the Environment Protection Policy (EPP) criteria were predicted at this receptor. Analysis of the model results indicated that the exceedances occurred only during the harvest period and during low wind conditions in the evening hours, typically between 6pm and 10pm, and with southerly winds blowing dust from the site towards sensitive receptor Site 1.

Subsequent dispersion modelling demonstrated that the exceedances could be adequately managed by the proponent by temporarily restricting the operational hours for truck unloading during the harvest period. Mitigation options include implementing restrictions based on forecast meteorological conditions, real-time wind monitoring, and/or ambient dust monitoring, as part of an overall dust management plan.

The dust deposition results predicted conformance with the NSW EPA criterion at all sensitive receptor sites, except at Site 1, for which the result was equal to the criterion. The model results of the scenario with restricted operating hours during harvest demonstrated compliance with the dust deposition criterion. Exceedances of the $PM_{2.5}$ annual average EPP criteria were also predicted by the model for the closest sensitive receptor site.

The EPA submission on the APER considered that the proposed approach of reducing operating hours and the use of wind direction to determine operational activities was insufficient and more needed to be done to mitigate emissions at the source (i.e. through real time monitoring and response or through re-engineering and remodelling).

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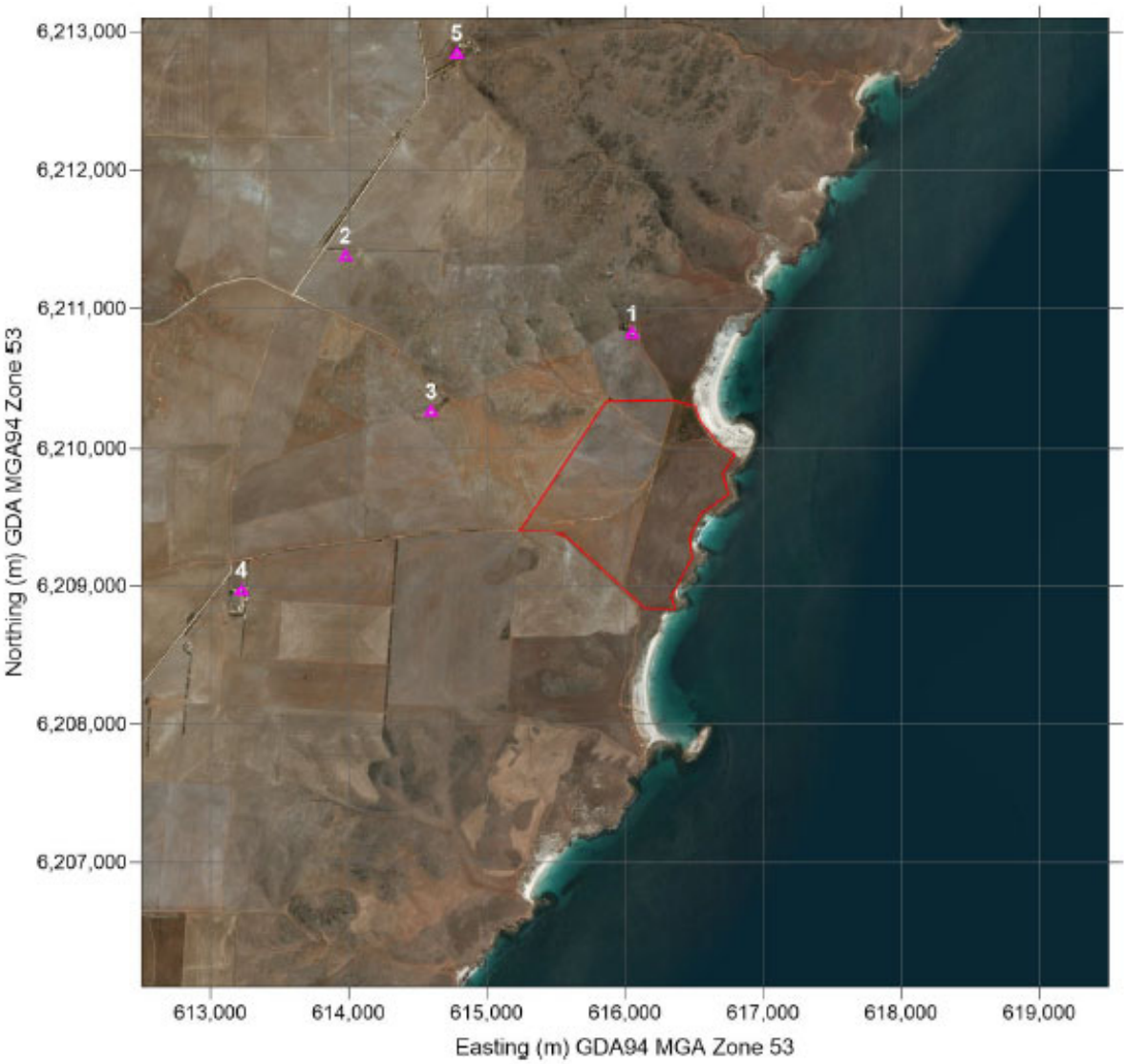

Figure 17: Sites of existing sensitive receivers (i.e. residents).

The Response Document (Section 2.1.5) further considered engineering controls that could feasibly be implemented, resulting in a proposed re-alignment of the bunkers so the truck receival points are spread out along the western side of the site (i.e. rather than being concentrated at the northern end). The modified alignment now distributes the truck unloading and dust source locations more broadly cross the site to further address air emission impacts. The proponent considers that revised modelling is expected to indicate that EPA standards would be met. If the re-modelling is unable to demonstrate a clear reduction in air quality parameters at the closest sensitive receivers under normal operating conditions, the proponent would implement a stricter air quality monitoring system (i.e. as part of the Operational Environmental Management Plan).

Revised air quality modelling would need to be undertaken for the final design to verify the facility would meet the EPA air quality policy or whether an air quality monitoring system would need to be implemented.

5.9.2 Silo Fumigation

For methyl bromide emissions, modelling predicted no exceedances of the EPP criterion. Fumigation of the grain silos would be undertaken in accordance with the AFAS methyl bromide fumigation standard (DAWR, 2015), which requires monitoring of the methyl bromide concentration during the fumigation process. Due to the uncertainty in the emission rate of methyl bromide from the grain silo on venting to atmosphere after fumigation, a detailed monitoring and management plan would need to be prepared and implemented for the venting of the silo gas following fumigation to ensure the EPP criterion is not exceeded.

5.9.3 Noise

The approved development involved the continuous delivery and handling of iron ore (and grain during the harvest period) and the loading of vessels (i.e. 24 hour operation for 365 days/yr). Initially, ore would have been delivered to the port using trucks and then via a slurry pipeline in the long-term (i.e. when multiple mines and a processing plant became operational). All ore and grain in-loading activities were to occur within fully enclosed buildings (sheds) On-site generators (total capacity 3MW) would provide power for the operations, until a transmission line provided long-term connection to the grid.

The changed layout plan and the seasonal nature of grain deliveries associated with the modified proposal would result in differences in operational and traffic noise impacts compared with the approved development.

This would result in an increase in the number of locations where grain in-loading and reclamation activities occur and also in the number of trucks circulating the site at a given time, with noise generating activities now primarily limited to the 8-week harvest period and a 17 hour day operation (i.e. from 6am – 11pm).

Ship loading would operate 24 hours per day and 7 days per week, with approximately 20 ships expected per annum and taking around 2 days to load each ship. Outside of these times, operations on-site are expected to be minimal, and confined to normal operating hours of 9:00am to 5:00pm.

On-site generators (total capacity 3MW) would provide power for the operations. The proposed generator type is containerised, having inherent acoustic treatment. Traffic noise would now affect residents along Lipson Cove Road, rather than Swaffers Road.

The modified proposal has been designed to provide significant distances between most noise sources and noise-sensitive receivers and a range of acoustic measures have been adopted for noise sources (such as enclosed conveyors and baffles on truck unloading hoppers).

The nearest noise sensitive receivers to the site comprise isolated rural dwellings to the north and west of the site, at a distance of approximately 600 metres and 1 kilometre from the site boundary. The nearest dwellings to the Lipson Cove Road access route are approximately 200 metres from the road alignment.

The APER (Volume 3; Appendix I) included a revised noise assessment and revised noise modelling for two scenarios – manual grain handling and automated handling, so that the

worst-case conditions could be identified (i.e. as the level of automation able to be accommodated in the final design was not confirmed). The noise criteria adopted for the assessments were derived from the Environment Protection (Noise) Policy 2007 and the 2007 and 2016 Road Traffic Noise Guidelines (DTEI / DPTI).

The operational noise criteria included a 5dB(A) penalty, due to a modulating characteristic associated with the dominance of truck movements in comparison to other sources. Automated grain reclamation and ship-loading will be dominated by constant mechanical equipment so do not attract a penalty. Nonetheless, a 5dB(A) penalty was applied consistency, simplicity and conservatism. This effectively reduced the goal noise levels to 47dB(A) (day) and 40dB(A) (night).

The assessment concluded that the highest predicted noise levels at the nearest dwellings would be 50dB(A) during the day and 45dB(A) at night (including a 5dB(A) penalty where applicable), thereby achieving the day-time and night-time criteria of 52dB(A) and 45dB(A) respectively applicable under the *Environment Protection (Noise) Policy 2007*.

The predicted noise levels accounted for the highest level of concurrent activity expected at the facility coinciding with weather conditions that are most conducive to noise propagation. It was considered the modified proposal would not unreasonably interfere with the amenity and minimises adverse impacts on the locality,

It should be noted the EPA raised no concerns with the noise modelling and assessment in the APER, provided the mitigation measures proposed are fully implemented.

The AAR concludes that air quality impacts of the modified proposal would be different overall and of lesser impact to those associated with the approved development, primarily due to the deletion of ore storage and handling activities. The substantially increased delivery rate and storage capacity for grain would result in a concentration of impacts during the peak harvest period, including higher levels of grain dust emissions (especially during handling). There are only two nearby residents (i.e. sensitive receivers) that could potentially be affected during worst case conditions, with the most significant impact being noise from grain delivery trucks.

The proposed design and mitigation measures would need to be fully implemented to ensure compliance with the EPA *Environment Protection (Air Quality) Policy 2016*, for dust and fumigant emissions, and the *Environment Protection (Noise) Policy 2007*, for noise emission from operational plant and trucks, in order to minimise noise intrusion on nearby residences. The air and noise emission modelling should be verified for the final detailed designs. An Advisory Note is proposed to remind the Applicant of their obligation to construct and operate the development in accordance with relevant environment protection policies.

6 State Planning Policy Framework

The assessment of a Major Development principally occurs against the required documentation, in this case an Amendment to the PER. In addition, consideration is also given to the relevant volume of the Planning Strategy and Council Development Plan. For the modified proposal, the local Development Plan no longer applies to those components of the development seaward of the high water mark (i.e. causeway / jetty), which are now within the jurisdiction of the Planning and Design Code (Phase 1), rather than the planning policies of the Land Not within a Council Area (Coastal Waters) Development Plan (LNWCA) used in the original assessment.

6.1 Planning Strategy

The District Council of Tumby Bay area and the subject site is located within the area covered by the Eyre and Western Region Plan (2012), a volume of the Planning Strategy for South Australia. This Plan sets out broad strategies, policies and directions for the region and is used to guide future land use and development within the region. For development in coastal and sensitive areas, an appropriate balance is sought between environment protection, economic development and utilising the region's natural competitive advantages to support jobs and investment.

The State Planning Policies (SPPs) came into effect on 23 May 2019, as an instrument of the *Planning, Development and Infrastructure Act 2016* (PDI Act). The SPPs are the highest order policy document in South Australia's land use planning system. They outline matters of importance to the State in land use planning and development, including strategic priorities that encourage the growth of healthy regional economies through new land uses and the adoption of emerging technologies.

The following SPPs are considered relevant for this proposal:

> *SPP 13 – Coastal Environment: OBJ To protect and enhance the coastal and marine environment and ensure that development is not at risk from coastal hazards.*
>
> *SPP 14 – Water Security and Quality: OBJ Water is one of South Australia's most valuable natural resources. Access to a safe and reliable water supply is essential to support our communities and our diverse economy. Our water dependent ecosystems also rely on access to water so that they can continue to provide cultural, aesthetic, amenity, recreational and tourism benefits. It is therefore vital that we continue to protect and plan for our water now and into the future.*

Pursuant to the PDI Act, Regional Plans must reflect the SPPs. Regional Plans, including the Eyre and Western Region Plan have yet to be updated since the SPPs came into effect. As such the existing Plan remains relevant for this proposal. The current Regional Plan will apply until such a time as the new Regional Plans are prepared an adopted.

The PDI Act also requires that an APER includes an assessment against any relevant SPPs. As the original PER was prepared prior to the SPPs coming into effect (and the transitional arrangements specify that assessment of declared Major Developments yet to be decided will continue pursuant to the Development Act), assessment against the SPPs is not required for this proposal. Notwithstanding, it is noted that the existing Eyre and Western Region Plan remains broadly consistent with the SPPs considered relevant for this proposal.

The original (approved) proposal was assessed against the current Eyre and Western Region Plan and was found to satisfy the relevant planning strategies, primarily through the establishment of a port and export facility to support the development of mineral production and agricultural

production in the region. The development of a mineral and grain export facility or 'hub' would have provided improved infrastructure and associated support services for the future expansion of these industries.

Whilst the modified proposal would no longer provide facilities to support the mining industry, it would still provide strategic infrastructure for the benefit of the grain industry. On balance, although it would have a different impact on the adjacent marine environment, with the implementation of specific management plans the modified proposal is still not considered to be significantly at variance with the principles of the Eyre and Western Region Plan.

Relevant principles and policies of the Region Plan are contained in Appendix 1.

6.2 Tumby Bay District Council Development Plan

The proposed modified development lies within the boundaries of two development planning areas:

- Tumby Bay District Council Development Plan (consolidated 6 March 2018); and
- Planning and Design Code (Phase 1) Out of Councils – Coastal Waters Zone (enacted 1 July 2019).

The onshore elements of the proposal are within the Primary Production Zone and the Coastal Conservation Zone of the Tumby Bay District Council Development Plan and the offshore elements are within the Coastal Waters Zone of the Planning and Design Code (Phase 1) Out of Councils area.

It should be noted that the assessment of a Major Development proposal only has to have regard to the policies of the Development Plan and Planning and Design Code, unlike a standard development application that has to be in general accordance with the policies (especially for the Zone). This is primarily because major development proposals are generally not anticipated by Development Plans, due to the nature, scale and complexity of such proposals.

The proposal has been considered in the context of the planning policies contained within the current Tumby Bay District Council Development Plan and the Planning and Design Code (Phase 1) Out of Councils – Coastal Waters Zone.

The original (approved) proposal was assessed against the planning policies contained within the current Tumby Bay District Council Development Plan (Consolidated 13 January 2011) and the Land Not within a Council Area (Coastal Waters) Development Plan (Consolidated 31 March 2011). Since that time, the Tumby Bay District Council Development Plan has undergone the following amendments:

- Coastal Zone replaced with Coastal Conservation Zone and boundary altered over less of the subject land.
- General Farming Zone replaced with Primary Production Zone (and boundaries altered over subject land, commensurate with change to Coastal Conservation Zone boundary).
- Additional policy added, including Bulk Handling and Storage Facilities.

The Coastal Conservation Zone maintains the general intent of the previous Coastal Zone. The Desired Character of the Primary Production Zone generally replicates that of the General Farming Zone, with (new) reference made to the accommodation of wind farms and associated infrastructure. However, the objectives no longer seek to *protect rural support infrastructure for the bulk handling and transportation of farm commodities located near Port Neill*. A new policy seeks to avoid development within 500m of a National Park, Conservation Park, Wilderness Protection Area or significant stands of native vegetation if increasing, or resulting in the spread of pest plants.

Other changes have been made due to the conversion of the Development Plan to the 'Better Development Plan', with policy modules and standardisation from the State Planning Policy Library.

The APER (Section 3.1 and Appendix A) provides a comparative analysis of the modified proposal with the approved development in regard to their consistency with the respective planning policies. Relevant policies and principles of the Tumby Bay District Council Development Plan are contained in Appendix 1.

The assessment of the original proposal concluded that, on balance, whilst at variance with a number of zone and Council wide policies, the proposed development – which required a coastal location and did not significantly impact on the continuation of farming on adjoining land – sufficient merit to warrant approval. Measures were to be implemented to minimise (as far as is practical) the impacts of noise, traffic, disturbance and visual intrusion.

In relation to policies that relate to industrial development, economic development and community benefit, the original proposal was considered to be consistent on the basis that it would generate economic and community/social benefits, through creation of employment and increased investment/spending in the region. In broad terms, the original proposal is also considered to be consistent with policies relating to the appearance of buildings and structures, infrastructure provision, bushfire protection measures, landscaping, traffic, parking and public access.

The original (approved) proposal would introduce a port and jetty facility into the Coastal Waters and Coastal Zones, where development of the type proposed was not specifically envisaged. Whilst the proposal was consistent with a number of the Zone policies which relate to coastal hazards and design requirements, the impacts of the proposal would need to be carefully managed so not to offend those policies that seek the protection and enhancement of a sensitive environment.

The modified proposal would generally result in similar impacts as the approved development, which would be mitigated and managed in a consistent manner. With the deletion of the iron ore related components, the modified proposal achieves a greater level of consistency with the desired character of the Primary Production Zone.

6.3 Planning and Design Code (Phase 1) – Out of Councils

The Planning and Design Code (Phase 1) Out of Councils – Coastal Waters Zone (enacted 1 July 2019) now sets out the planning policies ('rules') for development undertaken within the new zones.

The desired outcomes of the Coastal Waters Zone are to protect and enhance the marine environment and ensure that development is undertaken in a manner that minimises harm on the marine environment (both inside and outside the zone). The Coastal Waters overlay aims to enhance the natural coastal environment, provide for natural coastal processes and recognise current and future coastal hazards. It should be noted the provisions of the new Coastal Waters Zone are similar in nature and intent to the provisions of the former LNWCA Coastal Waters Development Plan.

Relevant provisions for the components of the development proposed for construction and location in the Out of Councils area are contained in Appendix 1.

Performance assessment requirements of the Code include that marinas and on water structures are sited and designed to facilitate water circulation and exchange; and that bulk handling and storage facilities are designed to minimise risks of adverse air quality and noise impacts on sensitive land uses. The modified proposal may not be considered to 'enhance the natural coastal environment', given the new jetty design incorporates a solid causeway structure that would inhibit water circulation / exchange and interrupt nearshore coastal flows / processes to some degree. However, with the implementation of specific management plans, prepared in consultation with relevant

agencies, it is considered that these impacts can be successfully managed. It is important to note that a port facility in the subject location has previously been approved, prior to the enactment of the Code, and that such facilities require a coastal location (and modification to this landform and the adjacent intertidal and marine environment).

7 Conclusion

The Amendment to the Assessment Report (AAR) has assessed the key changes of the modified Port Spencer deep water port proposal against the impacts identified in the original Assessment Report for the approved development. This assessment has also considered any changes made to the planning policies in the District Council of Tumby Bay Development Plan, State Government legislation and policy, and relevant industry guidelines and standards, and has had regard to submissions received from the public, Council and State Agencies.

The AAR concludes that the modified proposal, based on a revised business model, would support the establishment of a deep water port for the export of grain. A key benefit is the ability for primary producers to directly deliver grain to the port, which avoids reliance on up country grain storages. Growers within the immediate catchment area of the port would benefit from reduced transport distances, resulting in shorter travel and turnaround times and their associated costs.

A key justification of the modified proposal is that it would provide an alternative port to encourage increased competition in the market, which could lead to downward pressure on receival / handling charges and increased prices offered to grain producers.

The most substantial change related to the modified proposal is the replacement of one third of the open jetty (landward end) with a 240m long rock causeway structure. This would have a greater impact on benthic communities, especially due to the permanent loss of seagrass and rocky reef habitat. It is noted, however, the habitat affected is relatively common and widespread in the region. The relatively small reduction of habitat would have a minimal overall effect on habitat and population numbers within the Lower Spencer Gulf (especially given the site does not provide critical habitat for any species of conservation significance). Although, it would add to the long-term incremental loss of seagrass in the Gulf.

The localised loss of seagrass and effect on sand loss / build-up due to the causeway would be greater than for the approved development and would require a higher level of compensation (i.e. through a Significant Environmental Benefit offset under the *Native Vegetation Act 1991*) and ongoing management. There would be a reduction of impacts from substantially less piling required, avoidance of marine based construction activities and potentially less shipping movements (using smaller vessels) during operation.

Noting that a similar port design has been approved for the Cape Hardy port development, along with the established mitigation and monitoring requirements that are able to be implemented, the proposed causeway design is considered an acceptable modification. Impacts on the coastal and marine environment can be adequately managed through the implementation of Environmental Management Plans for the construction and operational phases.

The other substantial change related to the modified proposal is the redirection of grain traffic from Swaffers Road to Lipson Cove Road for access to the site from the Lincoln Highway. Traffic volumes on Lipson Cove Road would reach a substantially higher peak, but would be concentrated around the harvest season. This would periodically affect the amenity of a small number of nearby residents due to noise, vibration and traffic congestion. Traffic congestion would also affect travellers to Lipson Cove (especially tourists), which may reduce visitation. Road and intersection upgrades would still need to be undertaken to the satisfaction of the relevant road authorities, especially to ensure road safety. This would need to be in accordance with Traffic Management Plans (including

design standards), with funding secured via appropriate Deeds executed with the District Council of Tumby Bay and DPTI.

The potential traffic implication of the modified proposal would be similar to those associated with the grain component of the approved development – with the origin and transport routes of grain trucks using the port dictated by the preferences of farmers and haulage companies. However, with the closure of the railway network, a greater level of trucking may be directed away from Port Lincoln and up-country storages. Whilst the proponent is not completely responsible for mitigating the impacts of changes to regional transport patterns (such as road upgrades and maintenance), it has committed to being part of a Local and State Government approach to addressing the strategic implications of the rail closure and the establishment of additional port facilities on Eyre Peninsula. **In addition, the proposed Road Maintenance Fund for Council roads could help assist with any additional maintenance costs.** .

The AAR concludes that, on balance, the modified proposal is worthy of approval subject to a range of revised conditions (as set out in the next section).

8 Recommendations

The following recommendations represent a revision of those recommendations made in the original Assessment Report and have been changed to reflect the deletion of iron ore related components from the proposal. They have also been updated to reflect the current approach to making recommendations in major development assessment reports (including update references to legislation and policies). In particular, the 'Reserved Matters' have been converted into conditions that need to be met prior to the commencement of construction.

Should a variation to the development authorisation be granted it is recommended that the approval be based on the following revised requirements –

9 Conditions

9.1 Planning Conditions

General

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, proposed modified Major Development shall be undertaken generally in accordance with the plans and documents identified below:

    a) Amendment to the Public Environmental Report – Port Spencer Grain Export Facility, prepared by Jacobs Group (Australia) Pty Ltd for Peninsula Ports Pty Ltd, dated November 2019.
    b) Response Document, Amendment to the Public Environmental Report – Port Spencer Grain Export Facility, prepared by ProManage Australia Pty Ltd for Peninsula Ports Pty Ltd, dated 17 June 2020.

2. For the purposes of Section 48(11)(b) of the *Development Act 1993*, the proponent shall commence the development by substantial work on the site of the development within two (2) years of the date of this authorisation, failing which the authorisation may be cancelled.

3. The proponent shall have materially completed the development within five (5) years of the date of this authorisation, failing which an extension of time may be sought from the Minister or the authorisation may be cancelled.

4. Should the project cease during the period between the commencement of earthworks and final completion, the proponent shall undertake all necessary steps to reinstate the land and make good to its pre-development condition.

Prior to the Commencement of Construction Works

The following information shall be submitted to the Minister for Planning, prior to the commencement of construction works at each individual stage:

5. Building Rules compliance, following assessment and certification by a private certifier, the District Council of Tumby Bay or by a person determined by the Minister for Planning, as complying with the provisions of the Building Rules (or the Building Rules as modified according to criteria prescribed by the Development Regulations 2008). For the purposes of this condition 'building work' does not include plant and equipment or temporary buildings that are not permanently attached to the land (refer to relevant Advisory Notes below).

The following information shall be submitted for further assessment and approval by the Minister for Planning, prior to the commencement of construction works at each individual stage:

6. Final detailed plans for all buildings and structures on site and within the marine environment of each component of the development (including site plans, floor plans, elevations, cross-sections, details of any cut and fill, finishes and colours, landscaping and car parking configuration) and other relevant specifications.

7. Final plans, drawings, specifications, financial, construction delivery and maintenance arrangements for road upgrades to the intersection of the Lincoln Highway and Lipson Cove Road (and other associated works), including relevant approvals and Deeds of Agreement with road authorities, prepared to the reasonable satisfaction of the Department of Planning, Transport and Infrastructure and the District Council of Tumby Bay.

8. Final plans, drawings, specifications, financial and maintenance arrangements for road upgrades for Lipson Cove Road (and other associated works), including Deeds of Agreement with the road authority, prepared to the reasonable satisfaction of the District Council of Tumby Bay.

9. Detailed engineering designs for the jetty, associated structures and all other structures sought to be constructed on or over land owned by the Crown shall be prepared and independently certified by a registered engineer, to the satisfaction of the Department for Planning, Transport and Infrastructure. A certificate as to the structural soundness of each proposed structure shall be submitted to the Department for Planning, Transport and Infrastructure prior to the commencement of construction of the relevant structure.

10. A Construction Environmental Management Plan (CEMP), prepared in consultation with and to the reasonable satisfaction of the Department for Planning, Transport and Infrastructure and the District Council of Tumby Bay. The CEMP must identify measures to manage and monitor (at a minimum) the following matters:

    (a) sequencing of development (including construction timelines for works on site, as well as periods and hours of construction);
    (b) occupational health and safety;
    (c) traffic and road maintenance for the duration of any site works and construction activities;
    (d) noise and vibration;
    (e) air quality, especially the impact of dust on the receiving environment;
    (f) soils, sediment and stockpiles (including prevention of soil contamination);
    (g) stormwater runoff from structures, roads, hard stand areas, material stockpile areas etc.;
    (h) surface water and groundwater (including prevention of groundwater contamination);
    (i) impacts on the marine environment (especially turbidity, vibration and noise);
    (j) coastal erosion and remediation (where required);
    (k) terrestrial and marine native flora and native fauna, in particular the Southern Right Whale;
    (l) vegetation clearance (including any Significant Environmental Benefit offset requirements);
    (m) pest plants, animals and pathogens (including biosecurity risks)
    (n) visual impacts (including lighting);
    (o) waste management for all waste streams and overall site clean-up;

(p) use and storage of chemicals, oil, construction-related hazardous substances and other materials that have the potential to contaminate the environment (including proposed emergency responses);
(q) site contamination and remediation (where required);
(r) Aboriginal Heritage sites to ensure compliance with the *Aboriginal Heritage Act 1988*;
(s) fire risk and emergency planning;
(t) impacts on adjacent landowners;
(u) site security, fencing and safety (including the management of public access); and
(v) public and agency communication, including a community complaints strategy regarding the above matters by way of a community complaints register and management procedure.

During Construction Works and Prior to Operation of the Development

The following information shall be submitted for further assessment and approval by the Minister for Planning, during construction and prior to the operation of the development:

11. An Operational Environmental Management and Monitoring Plan (OEMMP), prepared in consultation with and to the reasonable satisfaction of the Department for Planning, Transport and Infrastructure and the District Council of Tumby Bay. The OEMMP must identify measures to manage and monitor (at a minimum) the following matters:

    (a) traffic management and road maintenance;
    (b) operational noise (such as from machinery and ship loading equipment), including a monitoring program to ascertain the effectiveness of noise control measures);
    (c) air quality management, in particular dust and fumigants;
    (d) cumulative impacts of noise and light spill on the receiving environment;
    (e) site contamination;
    (f) stormwater run-off for all hard surfaces associated with the development;
    (g) surface water management;
    (h) waste management (for all waste streams) to ensure compliance with the Environment Protection (Waste to Resources) Policy 2010;
    (i) wastewater collection and treatment to comply with the general obligations of the Environment Protection (Water Quality) Policy 2015 and the SA Health On-site Wastewater Systems Code (April 2013);
    (j) emergency response and evacuation procedures;
    (k) Aboriginal heritage;
    (l) chemical, oil, hazardous substances and fuel use and storage (including management/emergency response plans);
    (m) safe shipping activities and navigation;
    (n) impacts on the terrestrial, coastal and marine environment, including impacts on sea grass and marine fauna (especially Southern Right Whales), pest plant and animal species and nuisance native species;
    (o) sand erosion / build-up and seagrass wrack build-up in the nearshore environment;
    (p) coastal hazards;
    (q) visual impacts (including lighting);
    (r) revegetation and landscaping;
    (s) ongoing sustainability initiatives;
    (t) public safety;
    (u) impacts on adjacent land users; and
    (v) public and agency communication, including a community complaints strategy regarding the above matters by way of a community complaints register and management procedure.

12. The OEMMP shall be actively monitored by the proponent and the relevant authorities to ensure compliance with predicted impacts and shall be formally reviewed at regular intervals, and updated as necessary, in particular when a significant change in project scope and/or performance is detected. In addition, parts of the OEMMP would need to be revised or superseded by the EPA licencing process or the Department of Planning, Transport and Infrastructure port operating agreement process.

13. A Management and Monitoring Plan for Rogers Beach, prepared in consultation with the District Council of Tumby Bay and to the reasonable satisfaction of the Department for Environment and Water.

14. A Beach Profile and Sediment Management Plan, prepared in consultation with and to the reasonable satisfaction of the Department for Environment and Water and the Coast Protection Board.

15. An Air Quality Monitoring and Management Plan for all noise, dust / particulate and fumigant sources, prepared in consultation with and to the reasonable satisfaction of the Environment Protection Authority. The Plan should include revised modelling to verify that final designs comply with relevant environment protection policies.

16. Details of the Road Maintenance Fund Framework for Council roads, prepared in consultation with the Department of Planning, Transport and Infrastructure and the Eyre Peninsula Local Government Association.

The development shall be constructed in accordance with the following conditions:

17. Transport routes for the delivery of construction materials shall be selected to the reasonable satisfaction of the District Council of Tumby Bay and the Department of Planning, Transport & Infrastructure.

18. Vegetation screening and landscaping shall be planted and established prior to operation commencing at the site (or during the first favourable growing season), and when established must be maintained in good health and condition at all times.

19. All external lighting, including car parking areas and buildings, shall be designed and constructed to conform with Australian Standards and must be located, directed and shielded, and of such limited intensity, as far as reasonably practicable, that no unreasonable nuisance is caused to any person beyond the boundary of the site.

20. Council, utility or state agency maintained infrastructure that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications as applicable. All costs associated with these works shall be met by the proponent.

21. All stormwater design and construction shall be in accordance with Australian Standards and recognised engineering best practice to ensure that stormwater does not adversely affect any adjoining property, public road or the marine environment. Water-sensitive urban design measures and practices shall be adopted, including stormwater capture and reuse.

22. All liquids or chemical substances that have the ability to cause environmental harm must be stored within a bunded compound that has a capacity of at least 120% of the volume of the largest container, in accordance with the EPA 'Bunding and Spill Management Guidelines' (2016).

23. The proponent shall provide satisfactory oil spill and firefighting facilities and ensure that contingencies are in place prior to operation of the port, having regard to the South Australian Marne Spill Contingency Action Plan and the *Pollution of Waters by Oil and Noxious Substances Act 1987*.

24. Appropriate navigational aids shall be erected in prominent locations, in consultation with the Department of Planning, Transport & Infrastructure, prior to use of the facility for shipping purposes.

25. The District Council of Tumby Bay shall be given seven days notice by the proponent, prior to the commencement of works associated with the construction and operation of the development, and be provided with the contact details for the person responsible for coordinating the works and ongoing operation covered by this approval.

During Operation of the Development

26. Operations on the site shall be undertaken in accordance with all plans and details submitted as part of the Major Development Application, and where provided (and endorsed by the Minister for Planning where required) in accordance with conditions 6 - 24 as listed above.

27. The development and the site shall be maintained in a serviceable condition and operated in an orderly and tidy manner at all times.

28. Recycled water (wastewater, greywater and stormwater) must be stored separately from the potable water supply storage.

29. Should operations at the site be temporarily suspended due to unforeseen circumstances, an Interim Care and Maintenance Plan shall be developed and relevant government agencies be notified of the nature of the suspension and measures in place to limit impact of the unplanned closure. Should the temporary suspension extend beyond two years, a full Decommissioning and Rehabilitation Plan shall be prepared.

30. Unless otherwise specifically provided for in these conditions or otherwise agreed to in writing, all costs necessary for compliance with these conditions shall be met by the proponent.

Advisory Notes

1. Pursuant to Development Regulation 64, the proponent is advised that the District Council of Tumby Bay or private certifier conducting a Building Rules assessment must:

   (a) provide to the Minister a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in questions; and

   (b) to the extent that may be relevant and appropriate:
      i. issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
      ii. assign a classification of the building under these regulations; and
      iii. ensure that the appropriate levy has been paid under the Construction Industry Training Fund Act 1993.

   Regulation 64 of the Development Regulations 2008 provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Planning.

2. The District Council of Tumby Bay or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this development

authorisation (including any Conditions or Advisory Notes that apply in relation to this development authorisation).

3. Construction of each component of the development may commence only after a Building Rules assessment and certification has been undertaken in relation to that component and has been issued by the District Council of Tumby Bay or Accredited Professional, and the Minister for Planning has received a copy of the relevant certification documentation.

4. The proponent's Construction Environmental Management Plan and Operational Environmental Management and Monitoring Plan should be prepared taking into consideration, and with explicit reference to:

   (a) Relevant *Environment Protection Act 1993* policies and guidance documents, including but not limited to:

      i. the Environment Protection (Air Quality) Policy 2016;
      ii. the Environment Protection (Noise) Policy 2007;
      iii. the Environment Protection (Water Quality) Policy 2015;
      iv. the Environment Protection Authority Code of Practice for Materials Handling on Wharves 2007 (updated 2017);
      v. the Environment Protection (Waste to Resources) Policy 2010;
      vi. the Environment Protection Authority Bunding and Spill Management Guideline 2016;
      vii. Environment Protection Authority Handbooks for Pollution Avoidance;
      viii. the Environment Protection Authority Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry 1999;
      ix. the Environment Protection Authority Code of Practice for Vessel and Facility Management (marine and inland waters) 2008 (revised 2019);
      x. the Environment Protection Authority guideline 'Construction environmental management plan (CEMP) 2019'; and
      xi. any other legislative requirements, Guidelines and Australian Standards requiring compliance.

   (b) In relation to construction of the causeway, the EPA will expect the proponent to:

      i. provide hydrodynamic modelling of turbidity/suspended solids generation as a result of the construction of the causeway. This information will then need to be coupled with a review of predicted impacts on benthic communities in the receiving environment. The applicant will need to address potential impacts by identifying effective mitigation measures, including how these will be implemented, when and how their effectiveness will be monitored and managed to reduce risk;
      ii. provide a detailed outline of the construction methods and plant and equipment that will be used and how such methods, plant/equipment are linked to the turbidity/sediment modelling; and
      iii. design and implement a water quality monitoring program to assess the risk from turbidity generated by the construction of the causeway. This plan will need to take regular turbidity monitoring from multiple locations including up and down current inshore/offshore and areas considered to be background (unaffected by the construction activities). The applicant will need to develop a background turbidity baseline to enable the EPA to provide a turbidity threshold that will need to be followed. This baseline monitoring will need to encompass enough samples from throughout the seasons and weather conditions relevant to the proposed construction period. (This will allow the EPA to understand what is natural turbidity and

what is caused by the construction activities.) This would need to be linked to the calibration and use of the hydrodynamic model discussed above.

(c) Address the impacts on the Southern right whale through the implementation of a Southern Right Whale Management and Monitoring Plan, approved by the Australian Government Department of Agriculture, Water and the Environment. In particular, the timing and scheduling of construction activities should be in accordance with the Plan.

5. The proponent's Construction Environment Management Plan and Operational Environment Management and Monitoring Plan should be prepared taking into consideration, and with explicit reference to the proponent's sub-plans, including:

    - Traffic Management Plan.
    - Fire Management Plan.
    - Emergency Response Plan.
    - Blast Management Plan.
    - Construction Noise and Vibration Management Plan.
    - Soil, Erosion, Drainage and Water Quality Management Plan (SEDMP).
    - Air Quality Management Plan.
    - Biosecurity Management sub-Plan.
    - Marine Fauna Management Plan.
    - Spill Response Plan.
    - Waste Management Plan.
    - Weed and Pest Management and Monitoring Plan.

6. The following activities in relation to the components of the development hereby approved and/or requiring future approval will require licences under the *Environment Protection Act 1993*:

    - Bulk Shipping Facilities: the conduct of facilities for bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any wharf or wharf side facility (including sea-port grain terminals), being facilities handling or capable of handling these materials into or from vessels at a rate exceeding 100 tonnes per day (triggers 7(1) of Schedule 1, *Environmental Protection Act 1993*).

7. Should any future dredging be required during the operational phase of the development, a licence will be required under the *Environment Protection Act 1993* and a separate development application under the *Planning, Development and Infrastructure Act 2016* may be required (subject to the volume proposed to be dredged).

8. All works and activities will need to be undertaken in accordance with the General Environmental Duty as defined in Part 4, section 25(1) of the Environmental Protection Act 1993 (which requires that a person must not undertake any activity which pollutes, or may pollute the environment, without taking all reasonable and practical measures to prevent or minimise harm to the environment), relevant Environment Protection Policies made under Part 5 of the *Environment Protection Act 1993*, the Australian New Zealand Environment Conservation Council (ANZECC) Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand and other relevant publications and guidelines.

9. Pursuant to the *Harbors and Navigation Act 1993*, the proponent will need to enter into a Development Deed incorporating a construction licence and lease over the marine assets with the Minister for Transport, Infrastructure and Local Government over adjacent and subjacent land on terms acceptable to the Minister prior to the commencement of construction. Such agreement will require completion of the works to the satisfaction of the Minister, at which time the responsibility and control of the area will be transferred so as to

minimise the Minister's ongoing responsibilities. It should be noted a Deed / MOA for tenure requirements will also be required between the proponent, the District Council of Tumby Bay, the Minister for Transport, Infrastructure and Local Government and the Minister for Environment.

10. Prior to the use of the facility, pursuant to the *Harbors and Navigation Act 1993*, the proponent would need to apply to the Minister for Transport, Infrastructure and Local Government to have the harbor defined (and gazetted) as a 'Port', and the proponent will be required to enter into a Port Operating Agreement with the Minister for Transport, Infrastructure and Local Government. The Port may be a compulsory pilotage area. Pilotage of loaded Cape sized vessels drafts greater than 16m on outward journey will be compulsory. Due to the intention of the Port to be available for use as a multi-user facility, it is likely that the proponent will be subject to the *Maritime Services (Access) Act 2000* allowing for third party access.

11. The proponent will need to ensure all Native Title clearances under the South Australian and Commonwealth Native Title Acts have been obtained, prior to any tenure, legislative changes to the *Harbors and Navigation Act 1993* (and associated Regulations) or Port Operating Agreement being issued.

12. The proponent is advised that appropriate navigational aids will be required to be erected in appropriate locations, or existing navigation marks may need to be re-located, in consultation with the Department of Planning, Transport and Infrastructure, prior to commencement of operations at the new terminal (as required under the *Marine and Harbors Act 1993*).

13. The proponent is advised that the Commonwealth *Navigation Act 2012* and Marine Orders Part 63 makes the provision of position reports mandatory for the following vessels:
    - foreign vessels from the arrival at its first port in Australia until its departure from its final port in Australia; and
    - all regulated Australian vessels while in a Modernised Australian Ship Tracking and Reporting System (MASTREP) area.

    Masters are strongly encouraged to report to MASTREP voluntarily even where it is not mandated.

14. Access and ongoing land tenure arrangements over the Crown land is to be negotiated and approved by the Minister for Environment and Water.

15. In accordance with the *National Heavy Vehicle Law (South Australia) Act 2013*, the proponent will need to apply to the National Heavy Vehicle regulator for the use of Restricted Access Vehicles on public roads, where access for such vehicle is currently not available. This might include such things as construction equipment and vehicles carrying large indivisible construction materials. This might also include access for vehicles such as Road Trains or Performance Based Standards (PBS) vehicles to transport commodities to and from the Port as part of regular operations.

16. An important initial step, as outlined in the Heavy Vehicle Access Framework, is to have an assessment of the site access route undertaken by an Authorised Route Assessor, at the proponent's cost. This process will identify any upgrades required for Lipson Cove Road and the Lincoln Highway to make the route safe and suitable for the type of vehicle access requested. As part of the approval/s, the proponent will be required to prepare a list of final transport infrastructure improvement needs upon completion of a full route assessment. If this is necessary, the list should identify the scope, timing and estimated cost of the required improvements.

17. The proponent is reminded of its obligation under the *Aboriginal Heritage Act 1988* whereby any "clearance" work, which may require permission to disturb, damage or destroy

Aboriginal Sites, must be undertaken with the full authorisation of the Minister for Aboriginal Affairs and reconciliation, according to section 23 of the Act.

18. The proponent, and all agents, employees and contractors, such as construction crew, is reminded of the need to be conversant with the provisions of the *Aboriginal Heritage Act 1988*, particularly the requirement to immediately contact the Department of Aboriginal Affairs and Reconciliation in the event that archaeological items (especially skeletal material) are uncovered during earthmoving.

19. The proponent is reminded of its obligations under the *Native Vegetation Act 1991* and the Native Vegetation Regulations 2017 whereby any native vegetation clearance must be undertaken in accordance with a management plan that has been approved by the Native Vegetation Council that results in a significant environmental benefit on the property where the development is being undertaken, or a payment is made into the Native Vegetation Fund of an amount considered by the Native Vegetation Council to be sufficient to achieve a significant environmental benefit in the manner contemplated by section 21(6) of the Act, prior to any clearance occurring.

20. Prior to any foreign vessels being allowed into the port, the proponent will need to consult with the Department of Planning, Transport and Infrastructure (Marine Operations) to address any requirements of the Australian Quarantine Inspection Service (AQIS) and Australian Customs Service.

21. The wastewater treatment system shall be designed by the proponent to ensure that the general obligations of the *Environment Protection (Water Quality) Policy 2015* and the SA Health On-site Wastewater Systems Code (April 2013*)* are met, and to ensure that effluent does not overflow or escape from drains, pipes, sumps, tanks, storage/treatment basins into any watercourse, or into stormwater drains which do not drain into the effluent collections, treatment and disposal system, except where the effluent complies with criteria in the above Policy.

22. Should the proponent wish to vary the Major Development or any of the components of the Major Development, an application to the Minister for Planning must be submitted, provided that the development application variation remains within the ambit of the Amendment to the Public Environmental Report and the Amendment to the Assessment Report referred to in this development authorisation. If an application variation involves substantial changes to the proposal, pursuant to section 47 of the *Development Act 1993*, the proponent may be required to prepare an amended Public Environmental Report for public inspection and purchase. An amended Assessment Report may also be required to assess any new issues not covered by the amended Assessment Report and the decision made pursuant to section 48 of the Act.

23. The Minister has a specific power to require testing, monitoring and auditing under section 48C of the *Development Act 1993*.

10 Glossary

Development Act	*Development Act 1993* (and associated Regulations 2008)
AAR	Amendment to the Assessment Report
AHD	Australian Height Datum
APER	Amendment to the Public Environmental Report
AR	Assessment Report
DEW	Department for Environment and Water
DPTI	Department of Planning, Transport and Infrastructure
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP Act	*Environment Protection Act 1993*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPLGA	Eyre Peninsula Local Government Association
EPP	Environment Protection Policy
ILUA	Indigenous Land Use Agreement
kV	kilovolt
ML	megalitre (1 million litres)
Mt	megatonne (1 million tonnes)
PDI Act	*Planning, Development and Infrastructure Act 2016* (and associated Regulations)
PER	Public Environmental Report
PIRSA	Primary Industry and Regions, SA
RDAWEP	Regional Development Authority – Whyalla and Eyre Peninsula
SEB	Significant Environmental Benefit
SEDMP	Soil Erosion and Drainage Management Plan

11 Appendix 1

11.1 Minister for Planning as the Relevant Authority

Section 48(5) of the *Development Act 1993* requires that before the Minister for Planning considers a proposal that has been declared a Major Development, the Minister must have regard to (amongst other things) the provisions of the appropriate Development Plan and the Development Regulations, the Building Rules, the Planning Strategy, the *Environment Protection Act 1993*, and any other matters considered relevant.

In respect of applications being assessed as Major Developments under the Act, the appropriate Development Plan and Planning Strategy are those current at the time of the decision, as Section 53 of the Act does not apply to the Major Development provisions of the Act.

11.2 Planning Strategy

The subject site is located within the area covered by the Eyre and Western Region Plan (2012), a volume of the Planning Strategy for South Australia, which sets out strategies, policies and directions for the region and is used to guide future land use and development within the region.

Principles and policies of the region plan relevant to the proposal include:

- Principle 1: Recognise, protect and restore the region's environmental assets.
- Principle 4: Protect and build on the region's strategic infrastructure.
- Principle 5: Protect and strengthen the economic potential of the region's primary production land.

- Policy 1.8: Protect coasts, dunes, estuaries and marine areas of conservation, landscape value and environmental significance by limiting development in these areas. In limited circumstances development may require such a location—such as development of state significance—in which case the social and economic benefits must be demonstrated to outweigh the adverse environmental and amenity impacts.
- Policy 4.1: Infrastructure development should be consolidated to limit unnecessary duplication of services and resources and to reduce the impact on the surrounding environment, economy and community.

The 'Economic Development Map (C2)' identified the Port Spencer site as a location for a potential port.

11.3 Development Plan / Planning and Design Code

11.3.1 Tumby Bay (DC) Development Plan

The Major Development has been against the relevant provisions of the District Council of Tumby Bay Development Plan Consolidated 6 March 2018.

COUNCIL WIDE PROVISIONS

Relevant Council Wide provisions include the following:

Bulk Handling and Storage facilities

Objectives

5. *Facilities for the bulk handling and storage of agricultural and other commodities sited and designed to minimise adverse impacts on the landscape and on and from surrounding land uses.*

Principles

1. *Facilities for the handling, storage and dispatch of commodities in bulk should be:*
   (a) located in bulk handling, industry or primary production type zones
   (b) sited, designed and operated to minimise risks of contamination to the environment and adverse impacts on nearby sensitive land uses and from surrounding land uses.

2. *Development of facilities for the handling, transportation and storage of bulk commodities should have:*
   (a) areas set aside on the site of the development for the marshalling and manoeuvring of vehicles attending the site
   (b) roadways and parking areas surfaced in a manner sufficient to control dust emissions from the site
   (c) vehicle circulation between activity areas contained within the site and without the need to use public roads
   (d) landscaping, using locally indigenous plant species, established within the site for the purpose of providing shade and shelter, and to assist with screening and dust filtration
   (e) a buffer area for the establishment of dense landscaping adjacent road frontages
   (f) security fencing around the perimeter of the site.
3. *Temporary bunkers for storage should not compromise the efficient circulation and parking of vehicles within the site.*
4. *Access to and from the site should be designed to allow simultaneous movement of vehicles entering and exiting in a forward direction to minimise interference to other traffic using adjacent public roads.*

Coastal Areas

Objectives

1. *The protection and enhancement of the natural coastal environment, including environmentally important features of coastal areas such as mangroves, wetlands, sand dunes, cliff-tops, native vegetation, wildlife habitat, shore and estuarine areas.*
2. *Protection of the physical and economic resources of the coast from inappropriate development.*
3. *Preservation of areas of high landscape and amenity value including stands of vegetation, shores, exposed cliffs, headlands, islands and hill tops, and areas which form an attractive background to urban and tourist areas.*
4. *Development that maintains and/or enhances public access to coastal areas with minimal impact on the environment and amenity.*
5. *Development only undertaken on land which is not subject to or that can be protected from coastal hazards including inundation by storm tides or combined storm tides and stormwater, coastal erosion or sand drift, and probable sea level rise.*
6. *Development that can accommodate anticipated changes in sea level due to natural subsidence and probable climate change during the first 100 years of the development.*

Principles

1. *Development should be compatible with the coastal environment in terms of built-form, appearance and landscaping including the use of walls and low pitched roofs of non-reflective texture and natural earth colours.*
2. *The coast should be protected from development that would adversely affect the marine and onshore coastal environment, whether by pollution, erosion, damage or depletion of physical or biological resources, interference with natural coastal processes or any other means.*

3. *Development should not be located in delicate or environmentally-sensitive coastal features such as sand dunes, cliff-tops, wetlands or substantially intact strata of native vegetation.*

4. *Development should not be undertaken where it will create or aggravate coastal erosion, or where it will require coast protection works which cause or aggravate coastal erosion.*

5. *Development should be designed so that solid/fluid wastes and stormwater runoff is disposed of in a manner that will not cause pollution or other detrimental impacts on the marine and onshore environment of coastal areas.*

9. *Development should maintain or enhance public access to and along the foreshore.*

10. *Other than small-scale infill development in a predominantly urban zone, development adjacent to the coast should not be undertaken unless it has, or incorporates an existing or proposed public reserve, not including a road or erosion buffer, of at least 50 metres width between the development and the landward toe of the frontal dune or the top edge of an escarpment. If an existing reserve is less than 50 metres wide, the development should incorporate an appropriate width of reserve to achieve a total 50 metres wide reserve.*

13. *Where a development such as a marina creates new areas of waterfront, provision should be made for public access to, and recreational use of, the waterfront and the water.*

16. *Development and its site should be protected against the standard sea-flood risk level which is defined as the 1 in 100 year average return interval flood extreme sea level (tide, stormwater and associated wave effects combined), plus an allowance for land subsidence for 50 years at that site.*

17. *Commercial, industrial, tourism or residential development, and associated roads and parking areas should be protected from sea level rise by ensuring all of the following apply:*
    (a) site levels are at least 0.3 metres above the standard sea-flood risk level
    (b) building floor levels are at least 0.55 metres above the standard sea-flood risk level
    (c) there are practical measures available to protect the development against a further sea level rise of 0.7 metres above the minimum site level required by part (a).

18. *Buildings to be sited over tidal water or which are not capable of being raised or protected by flood protection measures in future, should have a floor level of at least 1.25 metres above the standard sea-flood risk level.*

19. *Development that requires protection measures against coastal erosion, sea or stormwater flooding, sand drift or the management of other coastal processes at the time of development, or in the future, should only be undertaken if all of the following apply:*
    (a) the measures themselves will not have an adverse effect on coastal ecology, processes, conservation, public access and amenity.
    (b) the measures do not nor will not require community resources, including land, to be committed.
    (c) the risk of failure of measures such as sand management, levee banks, flood gates, valves or stormwater pumping, is acceptable relative to the potential hazard resulting from their failure.
    (d) binding agreements are in place to cover future construction, operation, maintenance and management of the protection measures.

27. *Development should be sited, designed and managed so as not to conflict with or jeopardise the continuance of an existing aquaculture development.*

28. *Development along the coast should be in the form of infill in existing developed areas or concentrated into appropriately chosen nodes and not be in a scattered or linear form.*

Design and Appearance

Objectives

1. *Development of a high architectural standard that responds to and reinforces positive aspects of the local environment and built form.*

2. *Roads, open spaces, buildings and land uses laid out and linked so that they are easy to understand and navigate.*

Principles

2. *Buildings should be designed and sited to avoid creating extensive areas of uninterrupted walling facing areas exposed to public view.*
3. *Buildings should be designed to reduce their visual bulk and provide visual interest through design elements such as:*
    (a) articulation
    (b) colour and detailing
    (c) small vertical and horizontal components
    (d) design and placing of windows
    (e) variations to facades.

5. *Building form should not unreasonably restrict existing views available from neighbouring properties and public spaces.*

7. *The external walls and roofs of buildings should not incorporate highly reflective materials which will result in glare.*

11. *Buildings, landscaping, paving and signage should have a co-ordinated appearance that maintains and enhances the visual attractiveness of the locality.*

14. *Development should be designed and sited so that outdoor storage and service areas are screened from public view by an appropriate combination of built form, solid fencing or landscaping*

18. *The setback of buildings from public roads should:*
    (a) be similar to, or compatible with, setbacks of buildings on adjoining land and other buildings in the locality
    (b) contribute positively to the streetscape character of the locality
    (c) not result in or contribute to a detrimental impact upon the function, appearance or character of the locality.

Hazards

Objectives

1. *Maintenance of the natural environment and systems by limiting development in areas susceptible to natural hazard risk.*

2. *Development located away from areas that are vulnerable to, and cannot be adequately and effectively protected from the risk of natural hazards.*

3. *Development located to minimise the threat and impact of bushfires on life and property.*

4. *Expansion of existing non-rural uses directed away from areas of high bushfire risk.*

6. *The environmental values and ecological health of receiving waterways and marine environments protected from the release of acid water resulting from the disturbance of acid sulphate soils*

8. *Minimisation of harm to life, property and the environment through appropriate location of development and appropriate storage, containment and handling of hazardous materials*

Principles

1. *Development should:*

    (a) be excluded from areas that are vulnerable to, and cannot be adequately and effectively protected from, the risk of natural hazards
    (b) be sited, designed and undertaken with appropriate precautions being taken against fire, flood, coastal flooding, storm surge, landslip, earthquake, toxic emissions or other hazards such as vermin
    (c) not occur on land where the risk of flooding is likely to be harmful to safety or damage property.

2. *There should not be any significant interference with natural processes in order to reduce the exposure of development to the risk of natural hazards.*

3. *The location of critical community facilities or key infrastructure in areas of high natural hazard risk should be avoided.*

4. *Development should not be undertaken in areas liable to inundation by tidal, drainage or flood waters unless the development can achieve all of the following:*

    (a) it is developed with a public stormwater system capable of catering for a 1 in 100 year average return interval flood event
    (b) buildings are designed and constructed to prevent the entry of floodwaters in a 1 in 100 year average return interval flood event.

5. *Development, including earthworks associated with development, should not do any of the following:*

    (a) impede the flow of floodwaters through the land or other surrounding land
    (b) occur on land where the risk of flooding is unacceptable having regard to personal and public safety and to property damage
    (c) increase the potential hazard risk to public safety of persons during a flood event
    (d) aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood
    (e) cause any adverse effect on the floodway function
    (f) increase the risk of flooding of other land
    (g) obstruct a watercourse.

6. *The following bushfire protection principles of development control apply to development of land identified as General, Medium and High bushfire risk areas as shown on the Bushfire Protection Area BPA Maps - Bushfire Risk.*

7. *Development in a Bushfire Protection Area should be in accordance with those provisions of the Minister's Code: Undertaking development in Bushfire Protection Areas that are designated as mandatory for Development Plan Consent purposes.*

8. *Buildings and structures should be located away from areas that pose an unacceptable bushfire risk as a result of one or more of the following:*

    (a) vegetation cover comprising trees and/or shrubs
    (b) poor access
    (c) rugged terrain
    (d) inability to provide an adequate building protection zone
    (e) inability to provide an adequate supply of water for fire-fighting purposes

Infrastructure

Objectives

1. *Infrastructure provided in an economical and environmentally sensitive manner.*

4. *The visual impact of infrastructure facilities is minimised*

Principles

2. *Development should only occur only where it provides, or has access to, relevant easements for the supply of infrastructure.*

3. *Development should incorporate provision for the supply of infrastructure services to be located within common service trenches where practicable.*

4. *Development should not take place until adequate and co-ordinated drainage of the land is assured*

9. *Utilities and services, including access roads and tracks, should be sited on areas already cleared of native vegetation. If this is not possible, their siting should cause minimal interference or disturbance to existing native vegetation and biodiversity.*

Interface between land uses

Objectives

1. *Development located and designed to minimise adverse impact and conflict between land uses.*
3. *Protect desired land uses from the encroachment of incompatible development.*

Principles

1. *1 Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:*
    (a) the emission of effluent, odour, smoke, fumes, dust or other airborne pollutants
    (b) noise
    (c) vibration
    (d) electrical interference
    (e) light spill
    (f) glare
    (g) hours of operation
    (h) traffic impacts.
2. *Development should be sited and designed to minimise negative impacts on existing and potential future land uses desired in the locality*.
7. *Development that emits noise (other than music noise) should include noise attenuation measures that achieve the relevant Environment Protection (Noise) Policy criteria when assessed at the nearest existing noise sensitive premises.*
8. *Development with the potential to emit significant noise (e.g. industry) should incorporate noise attenuation measures that prevent noise from causing unreasonable interference with the amenity of noise sensitive premises*.
11. *Development with the potential to emit harmful or nuisance-generating air pollution should incorporate air pollution control measures to prevent harm to human health or unreasonable interference with the amenity of sensitive uses within the locality.*

Natural Resources

Objectives

1. *Retention, protection and restoration of the natural resources and environment.*
2. *Protection of the quality and quantity of South Australia's surface waters, including inland, marine and estuarine and underground waters.*
3. *The ecologically sustainable use of natural resources including water resources, including marine waters, ground water, surface water and watercourses.*
6. *Development sited and designed to:*
    (a) protect natural ecological systems
    (b) achieve the sustainable use of water
    (c) protect water quality, including receiving waters
    (d) reduce runoff and peak flows and prevent the risk of downstream flooding
    (e) minimise demand on reticulated water supplies
    (f) maximise the harvest and use of stormwater
    (g) protect stormwater from pollution sources
8. *Native flora, fauna and ecosystems protected, retained, conserved and restored*
13. *Protection of the scenic qualities of natural and rural landscapes*

Principles

1. *Development should be undertaken with minimum impact on the natural environment, including air and water quality, land, soil, biodiversity, and scenically attractive areas.*

2. *Development should ensure that South Australia's natural assets, such as biodiversity, water and soil, are protected and enhanced.*

3. *Development should not significantly obstruct or adversely affect sensitive ecological areas such as creeks, wetlands, estuaries and significant seagrass and mangrove communities.*

4. *Development should be appropriate to land capability and the protection and conservation of water resources and biodiversity.*

27. *Development should retain existing areas of native vegetation and where possible contribute to revegetation using locally indigenous plant species.*
28. *Development should be designed and sited to minimise the loss and disturbance of native flora and fauna, including marine animals and plants, and their breeding grounds and habitats.*
29. *Native vegetation should be conserved and its conservation value and function not compromised by development if the native vegetation does any of the following:*
    (a) provides an important habitat for wildlife or shade and shelter for livestock
    (b) has a high plant species diversity or includes rare, vulnerable or endangered plant species or plant associations and communities (c) provides an important seed bank for locally indigenous vegetation
    (d) has high amenity value and/or significantly contributes to the landscape quality of an area, including the screening of buildings and unsightly views
    (e) has high value as a remnant of vegetation associations characteristic of a district or region prior to extensive clearance for agriculture
    (f) is growing in, or is characteristically associated with a wetland environment.

33. *Development should be located and occur in a manner which:*
    (a) does not increase the potential for, or result in, the spread of pest plants, or the spread of any non-indigenous plants into areas of native vegetation or a conservation zone
    (b) avoids the degradation of remnant native vegetation by any other means including as a result of spray drift, compaction of soil, modification of surface water flows, pollution to groundwater or surface water or change to groundwater levels
    (c) incorporates a separation distance and/or buffer area to protect wildlife habitats and other features of nature conservation significance.

Transportation and Access

Objectives

1. *A comprehensive, integrated, affordable and efficient air, rail, sea, road, cycle and pedestrian transport system that will:*
    (a) provide equitable access to a range of public and private transport services for all people
    (b) ensure a high level of safety
    (c) effectively support the economic development of the State
    (d) have minimal negative environmental and social impacts
    (e) maintain options for the introduction of suitable new transport technologies.

2. *Development that:*
    (a) provides safe and efficient movement for all motorised and non-motorised transport modes
    (b) ensures access for vehicles including emergency services, public infrastructure maintenance and commercial vehicles
    (c) provides off street parking
    (d) is appropriately located so that it supports and makes best use of existing transport facilities and networks.

5. *Safe and convenient freight movement throughout the State.*

Principles

1. *Land uses arranged to support the efficient provision of sustainable transport networks and encourage their use.*

2. *Development should be integrated with existing transport networks, particularly road corridors, as shown on Overlay Maps - Transport, and designed to minimise its potential impact on the functional performance of the transport networks.*

8. *Development should provide safe and convenient access for all anticipated modes of transport including cycling, walking, public and community transport, and motor vehicles.*

12. *Industrial/commercial vehicle movements should be separated from passenger vehicle car-parking areas*

13. *Development should make sufficient provision on site for the loading, unloading and turning of all traffic likely to be generated.*

21. *Development should have direct access from an all weather public road.*

PRIMARY PRODUCTION ZONE

Objectives

1 Economically productive, efficient and environmentally sustainable primary production.

2 Allotments of a size and configuration that promote the efficient use of land for primary production.

3 Protection of primary production from encroachment by incompatible land uses and protection of scenic qualities of rural landscapes.

4 Accommodation of wind farms and ancillary development.

5 Development that contributes to the desired character of the zone.

Desired Character

This zone comprises most of the council area and is used mainly for agricultural production and the grazing of stock on relatively large holdings. The pattern of occupation with homesteads, ancillary buildings and paddocks enclosing crops and livestock dominate the environment and firmly establish an open, rural appearance.

The climate, soil and landform characteristics of this zone favour the continuance of agricultural production and livestock grazing. It is desirable not only that these activities continue, but also that good land management techniques be encouraged to control proclaimed pest plants, vermin and soil erosion.

In order to improve the economy of the district, some agro-based industry, such as processing or handling or primary produce and intensification of agricultural activity, including aquaculture, is warranted. However, a large-scale proliferation of intensive development and occupation of the zone would threaten its proper function and render the rural landscape susceptible to competing demands and undesirable change.

To maintain the agricultural importance and stability of the zone, it is vital that the size of the land holdings is not significantly reduced, except in the case of aquaculture, or densities increased, and that future pressures for development in the zone do not result in conversion of agricultural land to less productive uses.

Principles

1 The following forms of development are envisaged in the zone:

- *diversification of existing farming activities through small scale tourist accommodation:*
- *within existing buildings; or*
- *in the form of farm stay, guesthouse, rural or nature retreat, or bed and breakfast*
- *accommodation as an integral part of the farm buildings complex*
- *farming*
- *intensive animal keeping*

- *tourist accommodation (including through the diversification of existing farming activities and*
- *conversion of farm buildings)*
- *wind farm and ancillary development*
- *wind monitoring mast and ancillary development.*

3 Development listed as non-complying is generally inappropriate.

4 Industry and warehousing should only be developed if it supports primary production, processing, storage and distribution of local primary produce or products produced on the same site, and should be developed where:

(a) it has a direct relationship with primary production

(b) it is unlikely to limit or inhibit the use of adjoining land for primary production

(c) the particular use requires a site in proximity to a particular natural resource or other product or materials sourced from the locality

(d) it will not result in the alienation of land or water resources identified as significant for primary production or ecological reasons

(e) the use would be inappropriate within a township.

9 Development should not be undertaken unless it is consistent with the desired character for the zone.

10 Development should not occur within 500 metres of a National Park, Conservation Park, Wilderness Protection Area or significant stands of native vegetation if it will increase the potential for, or result in, the spread of pest plants.

COASTAL CONSERVATION ZONE

Objectives

1. *To enhance and conserve the natural features of the coast including visual amenity, landforms, fauna and flora.*
2. *Low-intensity recreational uses located where environmental impacts on the coast will be minimal.*
3. *Development that contributes to the desired character of the zone.*

Desired Character

The zone defines the coastal areas of high landscape or conservation value and incorporates policy to ensure the preservation of the coastal landscape resource.

Principles

1. *The following forms of development are envisaged in the zone:*
   - *coastal protection works*
   - *conservation works*
   - *interpretive signage and facilities*
   - *tourism/visitor facilities*
   - *tourist accommodation.*
2. *Development listed as non-complying is generally inappropriate and not acceptable unless it can be demonstrated that it does not undermine the objectives and principles of the Development Plan.*

3. *Buildings and structures should mainly be for essential purposes, such as shelters and toilet facilities associated with public recreation, navigation purposes or necessary minor public works.*

5. *Development should not be undertaken unless it is consistent with the desired character for the zone.*

6. *Development should be designed and sited to be compatible with conservation and enhancement of the coastal environment and scenic beauty of the zone.*

7. *Development should:*

   (a) not adversely impact on the ability to maintain the coastal frontage in a stable and natural condition
   (b) minimise vehicle access points to the area that is the subject of the development
   (c) be landscaped with locally indigenous plant species to enhance the amenity of the area and to screen buildings from public view
   (d) utilise external low reflective materials and finishes that will minimise glare and blend in with the features of the landscape.

8. *Buildings or structures should be unobtrusively located, limited to a height of 6.5 metres above natural ground level, and be of such size and design, including materials and colours, to harmonise and blend naturally with the landscape and natural features of the zone.*

9. *Where public access is necessary in sensitive locations, walkways and fencing should be provided to effectively control access.*

11. *Development should not prejudice the landscape quality and natural bushland of the zone.*

11.3.2 Planning and Design Code (Phase 1) Out of Councils

The Planning and Design Code (Phase 1) Out of Councils – Coastal Waters Zone (enacted 1 July 2019) (formerly the Land not Within a Council Area – Coastal Waters) sets out the 'rules' (planning policies) for what can be done within the area and zone

Relevant provisions for the components of the development proposed for construction and location in the Out of Councils area include the following:

COASTAL WATERS ZONE

Desired Outcomes

DO 1 - Protection and enhancement of the natural marine environment and recognition of it as an important ecological commercial, tourism and recreational resource and passage for safe watercraft navigation.

Performance Outcomes

Environmental Protection

PO 1.1 - Development undertaken in a manner which minimises the potential for harm to the marine environment.

PO 1.2 - Development minimises the potential for harmful effects of turbidity and sedimentation on the marine environment both inside and outside of the zone

COASTAL AREAS OVERLAY

Desired Outcomes

DO 1- Conservation and enhancement of the natural coastal environment, provision for natural coastal processes and recognition of current and future coastal hazards including

sea level rise, flooding erosion and dune drift to avoid the need, now or in the future, for public expenditure on protection of the environment and development

Performance Outcomes

Hazard Risk Minimisation

PO 2.1 - Development and its site are protected against the standard sea flood risk level.

PO 2.3 - Development, including associated roads and parking areas, but not minor structures unlikely to be adversely affected by flooding, protected from sea level rise.

PO 2.4 - Development will not create or aggravate coastal erosion or require coast protection works that cause or aggravate coastal erosion.

PO 2.5 - Development set back a sufficient distance from the coast to provide an erosion buffer in addition to a public reserve that will allow for at least 100 years of coastal retreat for single buildings or small-scale developments, or 200 years of coastal retreat for large scale developments unless:

1. *the development incorporates appropriate private coastal protection measures to protect it from anticipated erosion; or*
2. *there are formal commitments to protect the existing or proposed public reserve and development from anticipated coastal erosion.*

Coast Protection Works

PO 3.1 - Development avoids the need for coast protection works through measures such as setbacks to protect development from coastal erosion, sea or stormwater flooding, sand drift or other coastal processes.

Environment Protection

PO 4.1 - Development will not unreasonably affect the marine and onshore coastal environment by pollution, erosion, damage or depletion of physical or biological resources, interference with natural coastal processes, introduction of and spread of marine pests or any other means.

PO 4.2 - Development avoids delicate or environmentally-sensitive coastal areas such as sand dunes, cliff tops, estuaries, wetlands or substantially intact strata of native vegetation.

PO 4.4 - Development designed so that solid and fluid wastes and stormwater runoff are disposed of in a manner that avoids pollution or other detrimental impacts on the marine and onshore environment of coastal areas.

Access

PO 6.1 - Development maintains or enhances appropriate public access to and along the foreshore.

PO 6.3 - Access roads to the coast, lookouts and places of interest:

(a) do not detract from the amenity or the environment;
(b) are designed for slow moving traffic; and
(c) are minimised in number.

HISTORIC SHIPWRECKS OVERLAY

Performance Outcomes

General

PO 1.1 - Development is designed and located to avoid potential impacts on un-located historic shipwrecks and historic relics.

PO 1.2 - Development is designed and located to avoid potential impacts on located historic shipwrecks and historic relics.

GENERAL PROVISIONS

Bulk Handling and Storage Facilities

Performance Outcomes

Siting and Design

PO 1.1 - Bulk handling and storage facilities sited and designed to minimise risks of adverse air quality and noise impacts on sensitive land uses.

Slipways, Wharves and Pontoons

PO4.1 - Slipways, wharves and pontoons used for the handling of bulk materials (such as fuel, oil, catch, bait and the like) incorporating catchment devices to avoid the release of materials into adjacent waters.

Interface Between Land Uses

Desired Outcomes

DO 1 - Development located and designed to mitigate adverse effects on neighbouring and proximate land uses to reduce potential for conflict.

Performance Outcomes

General Land Use Compatibility

PO 1.1 - Sensitive land uses designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses and land uses desired in the zone.

Hours of Operation

PO 2.1 - Non-residential development does not unreasonably impact the amenity of existing sensitive land uses or an adjacent zone primarily for sensitive land uses through hours of operation having regard to:

(a) the nature of the development;
(b) measures to mitigate off-site impacts;
(c) the extent to which the development is desired in the zone; and
(d) measures that might be taken in an adjacent zone primarily for sensitive land uses that mitigate adverse impacts without unreasonably compromising the intended use of that land.

Activities Generating Noise or Vibration

PO 4.1 - Development that emits noise (other than music noise) does not unreasonably impact acoustic amenity at the nearest existing sensitive land use.

Air Quality

PO 5.1 - Development with the potential to emit harmful or nuisance-generating air pollution incorporates air pollution control measures to prevent harm to human health or unreasonably impact the amenity of existing sensitive land uses within the locality and zones primarily intended to accommodate sensitive land uses.

Light Spill

PO 6.1 - External lighting positioned and designed to not cause unreasonable light spill impact on adjacent sensitive land uses

Marinas and On-Water Structures

Desired Outcomes

DO 1 - Marinas and on-water structures located and designed to minimise impairment of commercial, recreational and navigational activities and adverse impacts on the environment.

Performance Indicators

Navigation and Safety

PO 1.5 - Marinas and on-water structures located to avoid interfering with the operation or function of a water supply pumping station.

Environmental Protection

PO 2.1 - Development sited and designed to facilitate water circulation and exchange.

11.4 Environment Protection Act 1993

The *Environment Protection Act 1993* (EP Act) provides for the management and protection of the environment, including site contamination, air and water quality, noise and waste management.

Based on the information provided, the proposed development would involve a prescribed activity of major environmental significance as contained in Schedule 22 of the *Development Regulations 2008,* and prescribed activities of environmental significance as contained in Schedule 1 of the EP Act being: bulk shipping facilities (during ongoing operations)

An EPA licence would be required for this component.

Before making a decision on the proposed development, regard must be made to the object of the EP Act, the general environmental duty and any relevant Environment Protection Policies.

The objects of the Act are:

- *To promote the principles of ecological sustainable development*
- *To ensure that all reasonable and practice measures are taken to protect, restore and enhance the quality of the environment having regard to the principles of ecologically sustainable development, and to prevent, reduce, minimise and, where practicable, eliminate harm to the environment.*

In addition, proper weight must be given to both long and short term economic, environmental, social and equity considerations in deciding all matters relating to environmental protection, restoration and enhancement. The Environment Protection Authority (EPA) is required to apply a precautionary approach to the assessment of risk of environmental harm and ensure that all aspects of environmental quality affected are considered in decisions relating to the environment.

The following Environment Protection Policies are applicable:

- Environment Protection (Water Quality) Policy 2015
- Environment Protection (Air Quality) Policy 2016
- Environment Protection (Noise) Policy 2007
- Environment Protection (Waste to Resources) Policy 2010
- Environment Protection (Waste Management) Policy 2007

Other relevant EPA documents include:

- Bunding and Spill Management Guidelines (2016)
- Wastewater Lagoon Construction (April 2019) Guidelines
- Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry (1999)
- Code of Practice for Materials Handling on Wharves 2007 (updated 2017)
- Code of Practice for Vessel and Facility Management (marine and inland waters) 2008 (revised 2019)
- Handbooks for Pollution Avoidance
- Construction Environmental Management Plan (CEMP) Guideline (2019)

11.5 Other Relevant Information

11.5.1 20-Year State Infrastructure Strategy (2020)

The strategy includes 38 Priorities, with the most relevant being:

- Priority 1: Develop frameworks that appropriately value the economic contribution of regional projects when prioritising infrastructure
- Priority 26: Identify key economic corridors through Adelaide and the regions and plan interventions to create more efficient supply chains
- Priority 28: Improve landside access to international gateways
- Priority 35: Develop water infrastructure to unlock economic opportunities

In regard to 'Freight Transport' the strategy identifies the following.

Needs and challenges:

South Australia has 10 operational ports, with another two on the Eyre Peninsula having received development approval. There appears to be sufficient capacity within the existing ports to manage the forecast export and import task.

While there may be market opportunities for lower capital-cost port solutions and increased competition, it is likely to be a major new iron ore project or potentially a hydrogen export facility that will require a significant new or expanded port facility.

A more efficient response is to focus on improving the landside access to ports and maximising the utilisation of existing assets until there is an economic case for new capacity. Government can play a role in facilitating multi-user proposals that will contribute to economic growth.

Future Priorities:

Create efficient supply chains to international markets via the State's sea and air ports to make South Australia globally competitive and grow the economy. Concentration of volumes at the last mile of landside access to these gateways has negative impacts on congestion and efficiency.

Planning studies need to identify precise locations and the most efficient treatments to address these. Particular attention should focus on access to Outer Harbour and the interaction between road, rail and commercial vehicle access to Adelaide Airport, particularly in light of any change in traffic patterns as Airport East is developed and necessary road improvement on the Eyre Peninsula in light of the closure of the rail to Port Lincoln.

11.5.2 Eyre Peninsula Freight Study (SMEC 2019)

The *Eyre Peninsula Freight Study* (SMEC, 2019) was prepared for The Department of Planning, Transport and Infrastructure and Genesee and Wyoming Australia. Whilst it was a general freight study, the primary focus was on the future use of the existing rail network, which was reported to transport approximately 816,000 tonne of grain to Port Lincoln in 2017 (and approximately 1.1 million tonnes delivered by road).

The Study forecasted the impact of the railway closure to be an additional 30 two-way freight vehicle (assumed to be 70 tonne freight vehicles) movements per day on the Lincoln Highway between Wharminda Road and Tumby Bay, assuming this volume of grain would continue to be transported to Port Lincoln. In the town centre of Port Lincoln, the impact of the railway line closure was forecast to be 68 freight vehicles per day. This assumes no seasonal variation to the transport of the grain.

The Study considered the new port at Lucky Bay and the approved port at Cape Hardy and identified the potential need for a strategic east-west freight link joining Tod Highway and Lincoln Highway, approximately along Dog Fence Road and joining Lincoln Highway near Cape Hardy.

The Traffic Impact Assessment in the APER (Volume 3; Appendix B) confirmed that such a link would be required to service either the Port Spencer port or the proposed Cape Hardy port, both of which would be expected to reduce the north-south transfer of grain to Port Lincoln. As the railway line closure is a recent change to the transport network on the Eyre Peninsula (railway closure occurred 1 June 2019), the impact on the road network is not fully understood as a harvest season has not yet occurred to uncover the resultant transport impacts – it is understood that works are currently underway by DPTI to investigate the impact of this change on the wider Eyre Peninsula road network including along the Lincoln Highway.

Following the report, the State Government concluded that given the rail corridor is no longer commercially viable for grain going forward, a package of works to upgrade roads on the Eyre Peninsula would alleviate the expected impacts from the transition of rail to road as well as deliver greater community-wide benefits. The South Australian Government has been working closely with the Australian Government to develop this package of road works. The Australian Government has announced $100M funding to upgrade the South Australian section of the Port Augusta to Perth corridor. This commitment includes funding to upgrade roads on the Eyre Peninsula in response to the closure of the rail corridor. The package of works will focus on enhancing road safety and community amenity, particularly in and around high-traffic areas following the expected transition of freight from rail to road.

Works undertaken could include:

- Overtaking lanes.
- Road widening and shoulder sealing.
- Road safety improvements.

The SA Government would work closely with local councils to identify opportunities to improve road safety outcomes as part of this package of works.

11.5.3 Regional Transport Strategy (SMEC 2019)

The *Regional Transport Strategy* (SMEC, 2019) was prepared for the Eyre Peninsula Local Government Association (EPLGA), as an update of the 2015 Strategy, and provides guidance on the management and development of roads across the region, including classification into a functional hierarchy and identification of Action Plans.

The Strategy identified the closure of the rail network would will mean an increase in the road freight task to transport grain. The extent of increase will clearly vary from year to year depending on the season. A high level assessment of the potential impact on local roads was considered based on the outcome of three different scenarios where;

- All grain continues to go to Port Lincoln;
- Some grain goes to Lucky Bay; and
- Some grain goes to Cape Hardy.

Due to uncertainty about the level of impact of Lucky Bay and Cape Hardy the purpose of capturing these scenarios was to identify and acknowledge local roads that have never been prioritised as part of the strategy previously and hence not included in current action plans, but should be flagged on a "watch list" for consideration moving forward.

11.6 Building Rules Consent

This AAR does not include an assessment of the proposal against the provisions of the Building Rules under the *Development Act 1993*. If the Minister grants a variation to the development authorisation, further assessment of the proposed development against the Building Rules will be required. The proponent may choose to seek building rules consent from the District Council of Tumby Bay or by a private building rules certifier / accredited professional. The Building Rules certification must be consistent with the development authorisation.

In addition, several components of the development (including stormwater management, monitoring programs and operational protocols) would be required to meet the relevant Australian Standards, EPA Guidelines/Codes and other relevant engineering standards.

12 Appendix 2

12.1 Current Development Authorisation

DEVELOPMENT ACT 1993, SECTION 25 (17): COORONG DISTRICT COUNCIL—INDUSTRY AND MOTORSPORT DPA PART 2

Preamble

1. The Industry and Motorsport DPA Part 2 (the Amendment) by the Coorong District Council has been finalised in accordance with the provisions of the Development Act 1993.

2. The Minister for Planning has decided to approve the Amendment.

NOTICE

PURSUANT to Section 25 of the Development Act 1993, I—

(a) approve the Amendment; and

(b) fix the day on which this notice is published in the *Gazette* as the day on which the Amendment will come into operation.

Dated 4 December 2014.

JOHN RAU, Deputy Premier,
Minister for Planning

DEVELOPMENT ACT 1993: SECTION 48

Decision by the Minister for Planning

Preamble

1. On 6 January 2011, the Minister for Urban Development and Planning published in the *South Australian Government Gazette* a declaration under Section 46 of the Development Act 1993 (the Act) in respect of any development of a kind listed in Schedule 1 of that notice in the parts of the State listed in Schedule 2 of that notice.

2. A development proposed by Centrex Metals Ltd to establish and operate a Deep Water Port Facility (Port Spencer)—Stage 1, north of Tumby Bay on the Eyre Peninsula, is the subject of a development application lodged on 18 February 2011.

3. In accordance with the declaration referred to in Paragraph 1 of this Preamble, the proposed development has been under consideration under Division 2 of Part 4 of the Act. The proposed development has been the subject of a Public Environmental Report and an Assessment Report under Sections 46 and 46 C of the Act, and is hereafter referred to as the 'proposed Major Development'.

4. On 20 December 2012 the Governor granted provisional development authorisation to the proposed Major Development, whilst reserving the decision on specified matters until further assessment of the proposed development, after being satisfied that the Public Environmental Report and Assessment Report prepared in relation to the proposed Major Development were appropriate and had regard, when considering the proposed Major Development, to all relevant matters under Section 48 (5). On this date the Governor also delegated power to the Minister for Planning to, amongst other things, vary or revoke conditions under Section 48 (7) *(b)*.

5. Application has now been made to the Minister for Planning, as delegate of the Governor under Section 48 of the Development Act 1993, for a variation of the development authorisation which provided that if development was not commenced by substantial work on the site within two years of the date of the authorisation, the Governor may cancel the authorisation by written notice.

6. The proposed variation is to re-word the development authorisation to provide that if development is not commenced by substantial work on the site by 20 December 2016 (within four years of the date of the original authorisation), the Governor may cancel the authorisation by written notice.

7. The application for a variation of the development authorisation is contained in the letter from Centrex Metals Limited to the Minister for Planning dated 2 October 2014.

8. The Minister for Planning has, in considering of the application for variation of the development authorisation, had regard to all relevant matters under Section 48 (5) of the Development Act 1993.

9. The Minister for Planning is satisfied that the variation of the development authorisation does not require the preparation of a further or amended Public Environmental Report.

10. For ease of reference the varied provisional development authorisation for the Deep Water Port Facility (Port Spencer)—Stage 1 is republished in full hereunder.

Decision

PURSUANT to Section 48 of the Development Act 1993 and with the advice and consent of the Executive Council, and having due regard to the matters set out in Section 48 (5) and all other relevant matters, I:

(a) grant a provisional development authorisation in relation to the proposed Major Development under Section 48 (6), subject to the conditions set out in Part B below;

(b) pursuant to Section 48 (6) reserve my decision on the matters specified in Part A below;

(c) specify under Section 48 (7) *(b)* (i) all matters which are the subject of conditions herein and all reserved matters herein as matters in respect of which the conditions of this authorisation may be varied or revoked, or new conditions attached; and separately to specify the matter of the completion of the works as a matter in respect of which a condition may be imposed in any final authorisation to be granted;

(d) specify for the purposes of Section 48 (11) *(b)* the period of four years from the date of the Governor's provisional development authorisation, being 20 December 2012, as the time within which substantial work must be commenced on site, failing which I may cancel this authorisation under Section 48 (11) and proceed to refuse a final development authorisation under Section 48 (2) *(a)*.

PART A: RESERVED MATTERS

The following are the matters reserved for further assessment:

(a) compliance with the Building Rules in relation to all aspects of the proposed Major Development relating to building works (refer to Conditions and Notes to Proponent below);

(b) road upgrades for the Lincoln Highway, Swaffers Road and associated roads (including overtaking lanes, turning lanes and intersections), finalised plans, drawings, specifications and financial arrangements (including Deeds of Agreement with road authorities), which are to be prepared to the reasonable satisfaction of the Department of Planning, Transport and Infrastructure and the District Council of Tumby Bay (refer to Conditions and Notes to Proponent below);

(c) road upgrades for the Lipson Cove Road, finalised plans, drawings, specifications and financial arrangements (including Deeds of Agreement with road authorities), which are to be prepared to the reasonable satisfaction of the District Council of Tumby Bay and the Department of Planning, Transport and Infrastructure (refer to Conditions and Notes to Proponent below);

(d) a Road Maintenance and Monitoring Agreement for Swaffers Road and the Lipson Cove Road (including associated intersections) between Centrex Metals Ltd and the District Council of Tumby Bay (refer to Conditions and Notes to Proponent below);

(e) road upgrades for the Balumbah-Kinnard Road and associated roads (including intersections with the Lincoln Highway), finalised plans, drawings, specifications and financial arrangements (including Deeds of Agreement with road authorities), which are to be prepared to the reasonable satisfaction of the District Council of Cleve, the District Council of Tumby Bay and the Department of Planning, Transport and Infrastructure (refer to Conditions and Notes to Proponent below);

(f) road upgrades for the Murdinga-Murlong Road and associated roads (including intersections with the Birdseye Highway), finalised plans, drawings, specifications and financial arrangements (including Deeds of Agreement with road authorities), which are to be prepared to the reasonable satisfaction of the District Council of Cleve and the Department of Planning, Transport and Infrastructure (refer to Conditions and Notes to Proponent below);

(g) a Road Maintenance and Monitoring Agreement for the Balumbah-Kinnard Road and the Murdinga-Murlong Road between Centrex Metals Ltd, the District Council of Cleve and the District Council of Tumby Bay (refer to Conditions and Notes to Proponent below);

(h) the Construction Environmental Management and Monitoring Plan (CEMMP) for the pre-construction and construction phases, the finalised and consolidated version of which is to be prepared to the reasonable satisfaction of the Environment Protection Authority, other relevant government agencies and the District Council of Tumby Bay (refer to Conditions and Notes to Proponent below);

(i) the Operational Environmental Management and Monitoring Plan (OEMMP) for the operational phase of the development, the finalised and consolidated version of which is to be prepared to the reasonable satisfaction of the Environment Protection Authority, other relevant government agencies and the Tumby Bay District Council (refer to Conditions and Notes to Proponent below);

(j) the Revegetation and Rehabilitation Plan and Vegetation Management Plan, finalised and consolidated versions of which are to be prepared to the reasonable satisfaction of the Native Vegetation Council and the Eyre Peninsula Natural Resources Management Board (refer to Conditions and Notes to Proponent below);

(k) a Management and Monitoring Plan for Rogers Beach, which is to be prepared in consultation with the District Council of Tumby Bay and to the reasonable satisfaction of the Department of Environment, Water and Natural Resources and the Eyre Peninsula Natural Resources Management Board;

(l) a Beach Profile Monitoring and Sediment Management Plan, which is to be prepared to the reasonable satisfaction of the Coast Protection Board; and

(m) a Fire Management Plan, which is to be prepared to the reasonable satisfaction of the Country Fire Service.

PART B: CONDITIONS OF PROVISIONAL DEVELOPMENT AUTHORISATION

1. No works on any part of the proposed Major Development shall commence until a favourable decision has been notified to the applicant by me or my delegate in respect of all reserved matters and a final authorisation issued.

2. A decision on Building Rules compliance will only be made after a Building Rules assessment and certification has been undertaken and issued by the District Council of Tumby Bay, or a private certifier, in accordance with the provisions of the Development Act 1993, and after the Minister for Urban Development and Planning receives a copy of all relevant certification documentation, as outlined in Regulation 64 of the Development Regulations 2008 (refer to Notes to Proponent below for further information).

3. Before seeking a decision in respect of the reserved matters, the applicant shall finalise and lodge a consolidated 'Construction Environmental Management and Monitoring Plan' (CEMMP). The CEMMP shall cover the pre-construction and construction phases of the proposed Major Development and shall include a Construction Soil Erosion and Drainage Management Plan (SEDMP), Air Quality Management Plan, Marine Water Quality Management Plan (including monitoring program), Waste Management Plan, Weed and Pest Management Plan, Fire Management Plan, Energy Efficiency Plan and Revegetation and Rehabilitation Plan. The matters to be addressed in the consolidated CEMMP shall generally include, but shall not be limited to, the management, mitigation, and monitoring of, and corrective actions/contingency plans in relation to, the following matters:

- dust and sediment control;
- odour emissions;
- surface and ground water management;
- site contamination;
- waste management (for all waste streams) and overall site clean-up (including litter);
- use and storage of chemicals, oil, construction-related hazardous substances, and of other materials that have the potential to contaminate stormwater, groundwater or the marine environment (including emergency responses);
- noise emissions (including ongoing noise assessment and monitoring to ascertain the effectiveness of noise control measures);
- Aboriginal heritage requirements in accordance with the Aboriginal Heritage Act 1988;
- vegetation clearance;
- introduced plants and animals;
- impacts on seagrass and marine flora;
- impacts on the marine environment (especially noise and turbidity);
- visual impacts (including lighting);
- traffic management strategies;
- effect on existing infrastructure;
- impacts on adjacent land users;
- site security, fencing and safety and management of impacts on local amenity for residents, traffic and adjacent land users;
- periods and hours of construction and operation in accordance with the requirements of the Environment Protection (Noise) Policy 2007; and
- community complaints register regarding the above matters.

4. Before seeking a decision in respect of the reserved matters, the applicant shall finalise and lodge a consolidated 'Operational Environmental Management and Monitoring Plan' (OEMMP). The OEMMP shall cover the post-construction phase of the proposed Major Development and shall include an Air Quality Management Plan, Marine Water Quality Management Plan (including monitoring program), Emergency Response and Incident Management plan (including maritime and terrestrial response processes and procedures), Fire Management Plan, Waste Management Plan, Weed and Pest Management Plan, Maritime Pest Management Plan, Revegetation and Rehabilitation Plan, Vegetation Management Plan, Beach Profile Monitoring and Sediment Management Plan and Site Water Management Plan. The matters to be addressed in the consolidated OEMMP shall generally include, but shall not be limited to, the management, mitigation, and monitoring of, and corrective actions/contingency plans in relation to the following matters:

- dust and sediment control;
- surface and ground water management;
- stormwater management;
- waste management (for all waste streams) and overall site clean-up (including litter);
- chemical, oil, hazardous substances and fuel use and storage (including management/emergency response plans);
- safe shipping activities and navigation;
- sand accretion and deposition;
- coastal hazards;
- impacts on seagrass and marine flora;
- impacts on the terrestrial, coastal and marine environment;
- pest plant and animal species (both terrestrial and marine);
- odour emissions;
- noise emissions (including a monitoring program to ascertain the effectiveness of noise control measures);
- visual impacts (including lighting);
- revegetation and landscaping (including environmental rehabilitation);

— traffic management;

— public access;

— public safety;

— impacts on adjacent land users; and

— community complaints register regarding the above matters.

5. No construction activities or building works shall commence until an Environmental Management Implementation Management Plan (EMIP) has been prepared to the reasonable satisfaction of the Environment Protection Authority and the Development Assessment Commission.

6. All works and site activities shall be undertaken in accordance with the approved Construction Environmental Management and Monitoring Plan, Environmental Management Implementation Management Plan and Operational Environmental Management and Monitoring Plan.

7. Construction activities shall be suitably managed to minimise and/or mitigate impacts on the community (especially noise and dust) and the natural environment as far as reasonably practicable.

8. Further engineering designs for the jetty and associated structures shall be prepared and independently certified by a registered engineer, to the reasonable satisfaction of the Department for Planning, Transport and Infrastructure. A certificate as to the structural soundness of the proposed structures shall be submitted to the Development Assessment Commission, prior to the commencement of construction.

9. Transport routes for the delivery of construction materials shall be selected to the reasonable satisfaction of the District Council of Tumby Bay and the Department for Planning, Transport and Infrastructure.

10. Stockpiled soils shall be suitably managed to control dust emissions, erosion and weed infestation.

11. Undeveloped allotments shall be left in a neat and tidy condition, with soil surfaces stabilised to minimise erosion.

12. Water-sensitive urban design measures and practices shall be adopted for the management of run-off, including stormwater capture and re-use.

13. Road designs shall not affect existing natural drainage lines in such a way as to cause flooding.

14. The design of the Swaffers Road upgrade shall avoid any spills of toxic materials from entering the marine environment.

15. Appropriate navigational aids shall be erected in prominent locations, in consultation with the Department for Planning, Transport and Infrastructure, prior to use of the facility for shipping purposes.

16. The proponent shall ensure satisfactory spill and fire-fighting facilities and contingencies, determined in consultation with the Department of Planning, Transport and Infrastructure and the Country Fire Service, are in place prior to commencement of operation of the facility.

17. Vegetation screening and landscaping of the site shall commence prior to construction commencing and, when established, must be maintained in good health and condition at all times. A plant must be replaced if or when it dies or becomes seriously diseased within the first growing season after the plant dies or becomes seriously diseased. A weed control program shall also be implemented.

18. The District Council of Tumby Bay shall be given seven days notice, prior to the commencement of works, and be provided with the name and contact facilities for the person responsible for coordinating site works covered by this approval.

PART C: NOTES TO PROPONENT

The following is advised to the proponent:

1. Approvals will be required for all components of the development not hereby approved, including:

- the jetty structure and associated loading facilities;
- storage sheds and other storage structures;
- fuel and chemical storage tanks;
- truck weighbridge station;
- the installation of navigational aids;
- all administrative and other buildings; and
- any land division to create separate allotments.

2. Further designs and plans (i.e. subject to separate applications to the Development Assessment Commission, as the Governor's delegate, or the District Council of Tumby Bay in the future) will be required should further development approval be sought for additional storage or administrative related buildings or structures.

3. Pursuant to Development Regulation 64, the applicant is advised that the District Council of Tumby Bay or private certifier conducting a Building Rules assessment must:

(a) provide to the Minister a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in question; and

(b) to the extent that may be relevant and appropriate:

(i) issue a Schedule of Essential Safety Provisions under Division 4 of Part 12; and

(ii) assign a classification of the building under these regulations; and

(iii) ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.

Regulation 64 of the Development Regulations 2008 provides further information about the type and quantity of all Building Rules certification documentation for Major Developments required for referral to the Minister for Planning.

4. The District Council of Tumby Bay or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with this provisional development authorisation (including any Conditions or Notes that apply in relation to this provisional development authorisation).

5. Should the applicant wish to vary the Major Development or any of the components of the Major Development, an application may be submitted, provided that the development application variation remains within the ambit of the Public Environmental Report and Assessment Report referred to in this provisional development authorisation. If an application variation involves substantial changes to the proposal, pursuant to Section 47 of the Development Act 1993, the applicant may be required to prepare an amended Public Environmental Report for public inspection and purchase. An amended Assessment Report may also be required to assess any new issues not covered by the original Assessment Report and a decision made by the Governor pursuant to Section 48 of the Development Act 1993.

6. The applicant's CEMMP and OEMMP should be prepared taking into consideration, and with explicit reference to, relevant EPA policies and guideline documents, including, but not limited to: the Environment Protection (Air Quality) Policy 1994, the Environment Protection (Noise) Policy 2007, the Environment Protection (Water Quality) Policy 2003, the Environment Protection (National Pollutant Inventory) Policy 2008, the EPA Code of Practice for Materials Handling on Wharves 2007, EPA Bunding and Spill Management Guidelines 2012, EPA Handbooks for Pollution Avoidance and the EPA Stormwater Pollution Prevention Codes of Practice, in addition to other legislative requirements and Guidelines/Australian Standards requiring compliance.

7. The following activities in relation to the components of the development hereby approved and/or requiring future approval will require licenses under the Environment Protection Act 1993:

- Bulk Shipping Facility: the conduct of facilities for bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to and from any wharf or wharf side facility (including sea-port grain terminals), being facilities handling or capable of handling these materials into or from vessels at a rate exceeding 100 tonnes per day.
- Petroleum Production, Storage or Processing Works or Facilities: The conduct of works or facilities at which petroleum products are stored in tanks with a total storage capacity exceeding 2 000 m^3.

8. All works and activities must be undertaken in accordance with the General Environmental Duty as defined in Part 4, Section 25 (1) of the Environment Protection Act 1993 (which requires that a person must not undertake any activity, which pollutes, or may pollute; without taking all reasonable and practical measures to prevent or minimise harm to the environment), relevant Environment Protection Policies made under Part 5 of the Environment Protection Act 1993, the ANZECC Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand and other relevant publications and guidelines.

9. Pursuant to the Harbors and Navigation Act 1993, the proponent will need to enter into a licence agreement with the Minister for Transport & Infrastructure over adjacent and subjacent land on terms acceptable to the Minister prior to the commencement of construction. Such agreement will require completion of the works to the satisfaction of the Minister, at which time the responsibility and control of the area will be transferred so as to minimise the Minister's ongoing responsibilities. Under the Harbors and Navigation Act 1993, the proponent would also need to apply to the Minister for Transport & Infrastructure to have the harbor defined (and Gazetted) as a 'Port', including a Port Operating Agreement being negotiated between the port operator and the Minister.

10. Prior to the use of the facility for shipping purposes, the Port will be required to be defined under the Harbors and Navigation Act 1993 as a harbor and a port, and that the proponent (or port operator) will be required to enter into a port operating agreement with the Minister for Transport and Infrastructure. The port may be a compulsory pilotage area. Usage of the name 'Port Spencer' is subject to formal approval pursuant to the Geographical Names Act 1991.

11. Pursuant to the Road Traffic Act 1961, the proponent will need to seek approval from the Department of Planning, Transport and Infrastructure (DPTI), as delegated by the Minister for Transport and Infrastructure, for authority to access the construction site with vehicles that do not fall within the definition of 'General Access Vehicle'. This might include such things as construction equipment and vehicles carrying large indivisible construction materials. The proponent will also need to give consideration to application for access to enable Restricted Access Vehicles to have regular access to a network of roads to facilitate the Port's business. This might include access for Road Trains or B-Doubles to transport commodities to and from the Port. If the road network required is not already Gazetted as an approved route for the type of vehicle required, then an application must be made to DPTI to amend the Gazetted route.

An important initial step, as outlined in the Heavy Vehicle Access Framework, is to have an assessment of the route undertaken by an Authorised Route Assessor, at the applicant's cost. This process will identify any upgrades required to make the route safe and suitable for the type of vehicle access requested. As part of the approval/s, the proponent will be required to prepare a list of final transport infrastructure improvement needs upon completion of a full route assessment and the proponent's resolution on double road train/triple road train option. This list should identify the scope, timing and estimated cost of the required improvements. Based on the list, the proponent will be required to enter a Deed of Agreement with DPTI regarding delivery of the infrastructure identified in the list of improvement needs. DPTI will require the assessment of proposed routes any road improvements that are required to cater for the movement of heavy vehicles associated with the mine and Port to be funded by the proponent.

12. The applicant is reminded of its obligations under the Aboriginal Heritage Act 1988 whereby any 'clearance' work, which may require permission to disturb damage or destroy Aboriginal Sites, must be undertaken with the full authorisation of the Minister for Aboriginal Affairs and Reconciliation, according to Section 23 of the Aboriginal Heritage Act 1988.

13. The applicant, and all agents, employees and contractors, such as construction crews, must be conversant with the provisions of the Aboriginal Heritage Act 1988, particularly the requirement to immediately contact the Department of Aboriginal Affairs and Reconciliation in the event that archaeological items (especially skeletal material) are uncovered during earthmoving.

14. The applicant is reminded of its obligations under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999, not to undertake any activity that could have a significant effect on any matter of National Environmental Significance, without the approval of the Federal Minister for Sustainability, Environment, Water, Population and Communities.

15. As foreign vessels are allowed to port in the marina the proponent would need to consult with Transport SA (Marine Safety Section) to address any requirements of the Australian Quarantine Inspection Service (AQIS) and Australian Customs Service.

16. The wastewater treatment system shall be designed to ensure that the general obligations of the Environment Protection (Water Quality) Policy 2003 are met, and to ensure that effluent does not overflow or escape from drains, pipes, sumps, tanks, storage/ treatment basins into any watercourse, or into stormwater drains which do not drain into the effluent collection, treatment and disposal system, except where the effluent complies with criteria in the above Policy.

17. The Minister has a specific power to require testing, monitoring and auditing under Section 48C of the Development Act 1993.

Given under my hand at Adelaide, 12 December 2014.

JOHN RAU, Minister for Planning