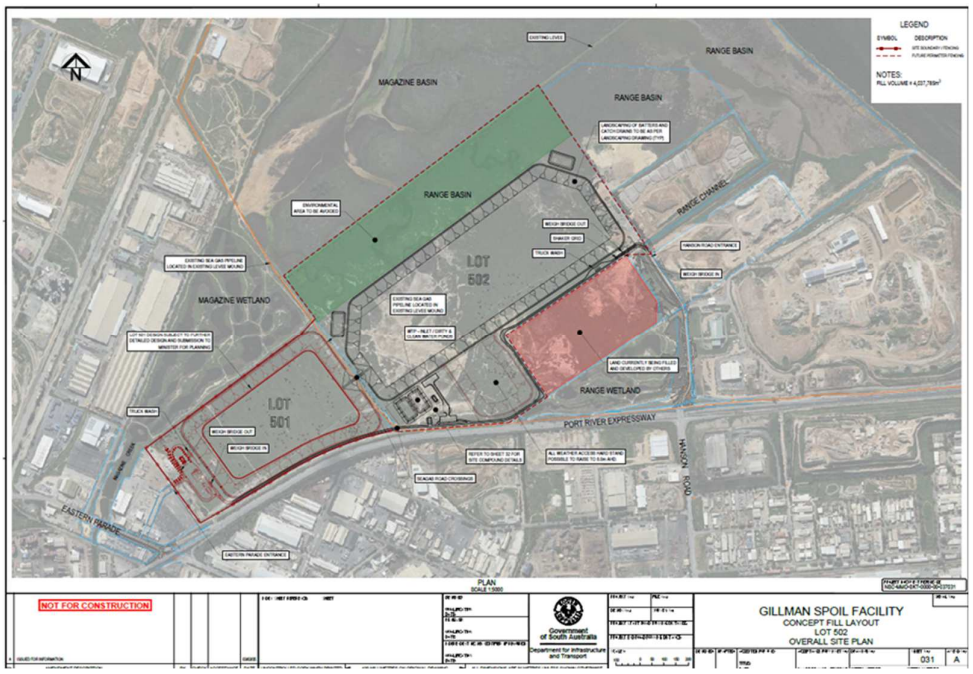
Department for Infrastructure and Transport (DIT)
Change in the use of the land to a spoil re-use facility, filling of land and construction of temporary buildings, facilities and infrastructure (Part 2)

Lot 506 North Arm Road, Dry Creek (DP 121878 Q502)
Development Application 25004790



Subject land - Location of subject land (Q502) and adjacent land approved in Part 1 (Q501)

CONTENTS:

OVERVIEW

DEVELOPMENT NO.:	25004790
APPLICANT:	Department for Infrastructure and Transport (DIT)
CONSENT SOUGHT:	Development Approval
ADDRESS:	Lot 506 North Arm Road, Dry Creek (Q 502)
NATURE OF DEVELOPMENT:	Change in the use of the land to a spoil re-use facility, filling of land and construction of temporary buildings, facilities and infrastructure (Part 2). *Note: the development is in association with the DA for a SRF (Part 1) approved on Q501 (DA 24014973)*
ZONING INFORMATION:	**Zone / Subzone:** • Strategic Employment Zone • Gillman Subzone **Overlays:** • Airport Building Heights (Regulated) (All structures over 110 metres) • Coastal Areas • Defence Aviation Area (All structures over 90 metres) • Gas and Liquid Petroleum Pipelines • Gas and Liquid Petroleum Pipelines (Facilities) • Hazards (Acid Sulfate Soils) • Hazards (Flooding) • Hazards (Flooding - General) • Hazards (Flooding – Evidence required) • Hazards (Acid Sulfate Soils) • Major Urban Transport Routes • Non-stop Corridor • Prescribed Wells Area • Regulated and Significant Tree • Traffic Generating Development • Water Resources **Technical Numeric Variations (TNVs)** • Finished Ground and Floor Levels (Minimum finished ground level is 3.7m AHD; Minimum finished floor level is 3.95m AHD) • Concept Plan (Concept Plan 102 - Gillman)
LODGEMENT DATE:	13 March 2025
RELEVANT AUTHORITY:	Minister for Planning
P& D CODE VERSION:	Version 2025.4 (27 February 2025)
CATEGORY OF DEVELOPMENT:	Crown Development (Section 131 - State Agency development)
APPEAL RIGHTS:	Nil

NOTIFICATION:	Public notification required pursuant to Section 131 (13) of the *Planning, Development and Infrastructure Act 2016* as the development cost of works exceed $10 million
REPRESENTATIONS:	Three representations (two wishing to be heard)
REFERRALS STATUTORY:	• City of Port Adelaide Enfield • Commissioner of Highways • Coast Protection Board • DEW – Dolphin Sanctuary • DEM (Gas pipelines) • EPA
DELEGATION:	SCAP (as delegate of the SPC) to provide advice to the Minister for Planning pursuant to Section 131 (17) of the *Planning, Development and Infrastructure Act 2016*.
REPORT AUTHOR:	Gabrielle McMahon

EXECUTIVE SUMMARY

The application has been made by the Department for Infrastructure and Transport (DIT) and is for a change of land use from vacant land to a dedicated Spoil Re-use Facility (SRF), associated temporary structures and the long-term filling of land. The SRF will store, treat and re-use the spoil generated by the tunnelling and excavation works associated with the River Torrens to Darlington (T2D) road infrastructure project.

The subject land is located at 208 Eastern Parade, Gillman (piece Q502). This application (25004790) is for the Part 2 works and is an extension to the SRF previously approved by the Minister for Planning on 11 December 2024 (Part 1 was approved in DA 24014973 which is located directly south on piece Q501).

As with the approved works for Part 1 the application involves the filling of much of the subject land to a permanent minimum height of 3.7m AHD and will involve the temporary pre-load of material up to 8.0m AHD. This will be undertaken in accordance with EPA requirements for spoil derived fill management. The proposed SRF will operate 24 hours per day / 7 days per week for the duration of the construction of the T2D Project which is scheduled to be completed by the end of 2031.

As a State Agency development the application has been assessed in accordance with the provisions of Section 131 of the *Planning, Development and Infrastructure Act 2016*. A comprehensive development application, including technical reports and plans, has been provided in support of the application.

The development area is located within the Strategic Employment Zone and the Gillman Subzone of the Planning and Design Code (the Code). The zone envisages a range of manufacturing, high-technology, research and logistics land uses that can take advantage of the surrounding road, rail and ports infrastructure. The subzone reinforces these land use/development targets but also places an emphasis on the area's environmental importance and for land to be provided for stormwater management and enhancement of tidal flow and habitat function of Magazine Creek, Range wetlands, samphire and mangroves.

Although zoned for an industrial/commercial purpose, the site is low-lying and undeveloped as it is physically unsuitable in its present state to support its envisaged development. Substantial filling of the land is required to address the risk of sea water inundation and management of stormwater. This

application will have the effect of contributing to the longer-term economic potential of the land through the undertaking of the fill process which will facilitate viable development sites.

The fill activity will also necessitate the construction of associated temporary management facilities such as hard stand areas, weighing and vehicle washdown facilities, storage compound, lighting, security fencing and on-site water treatment.

DIT seek a staged approval to facilitate the initial establishment of the SRF, then the undertaking of the fill in stages based on the intended source of the fill and, finally, the decommissioning process. This is accepted by the EPA. The staging allows for the early works to commence with the immediate introduction of 'clean' excavation soil. Interim Audit advice can be deferred to a later stage.

The supply of fill material from the T2D earthworks will offer the opportunity to bring the site up to the required minimum building site levels that would help realise the land use potential of the site to support economic growth and employment industries in line with code policy in the Strategic Employment Zone. The filling of the land and associated stockpiling broadly meets the intent of the Gillman subzone as part of land reclamation and meets the intent of the subzone to cater for future industrial / employment uses.

The development cost of the project exceeds $10 million and was publicly notified. Three representations were received who opposed the development on environmental grounds, with two requesting to be heard by the SCAP.

State agencies did not object to the proposal provided appropriate conditions are attached to the approval to ensure the potential for environmental impacts are minimised, stormwater runoff is acceptably managed, gas pipeline safety is not compromised, and that suitable traffic management plans are implemented.

Whilst the Coast Protection Board (CPB) did not object, they did raise matters of concern that require further consideration. These relate to potential flooding and associated impacts on the wetlands, and upgrade to the tidal gates and the location of fill within the Threatened Ecological Community (TEC), comprising temperate coastal saltmarsh habitat on an area of 1.11ha of land. CPB would prefer that land within the TEC area is not filled.

Council objects to the proposal based on potential impacts of the development to the wetland environment and its habitat and the important bird sanctuary and the location of fill on the TEC. They also raised light pollution on wildlife being an area of concerns and the loss of blue carbon potential from the stranded saltmarsh areas of Dry Creek/Gillman.

The proposal is considered to facilitate the intent of the zoning for strategic employment uses. The main planning concerns relate to the potential for environmental impacts that arise from the fill operations and potential impacts on the coastal environment, the adjacent wetlands and the TEC and native fauna and flora.

These concerns in the establishment and operation of the SRF have been examined and analysed in detail in the environmental reports accompanying the application. These investigations have determined that environmental impacts are acceptable and can be dealt with through appropriate on-going management measures, reinforced by appropriate conditions of approval.

From a design perspective the visual impacts are noted, with a temporary mound of up to 8m AHD. Notwithstanding this the height of the platform is considered to be acceptable given the industrial nature of the locality and that there are no residential uses in close proximity.

Overall, the development proposal is expected to meet (or can meet) the objectives of the Strategic Employment Zone and Gillman Subzone and Gillman Concept Plan, the applicable Overlays and the relevant General Development Policies in relation to the proposal. Whilst the concerns raised by the CPB, Council and representors are noted, it is expected that the State Government will undertake the necessary investigations and mitigation works to ensure that environmental impacts are kept to a minimum – whilst also allowing for the development potential on the site to be realised in accordance with the zoning objectives.

On balance, it is considered that the proposal is sufficiently in keeping with the relevant provisions of the Planning and Design Code, subject to the inclusion of relevant conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 The proposal involves the reuse of Waste Derived Fill (WDF) from the Torrens to Darlington (T2D) Project.

1.2 The T2D Project is a significant road infrastructure project which will deliver the final 10.5-kilometre (km) section of the North-South Corridor and complete the 78km non-stop, traffic light-free motorway between Gawler and Old Noarlunga. It involves construction of two twin tunnels and will generate approximately 3.9 million cubic metres of spoil material through boring of the tunnels by tunnel boring machines (TBM) and excavation of the lowered motorways and cut and cover tunnel portals.

1.3 The spoil from the T2D needs to be moved offsite and instead of disposing it to landfill, DIT is seeking to reuse the WDF through a dedicated SRF to receive, treat and reuse the spoil in accordance with requirements of the WDF Standard. This will be governed under the Environment Protection Act 1993 (EP Act).

1.4 On 11 December 2024 approval was granted by the Minister for Planning for a temporary SRF and filling of land on the adjacent site at 208 Eastern Parade, Gillman (Q501) and is subject to 26 conditions (DA 24014973). That application was for Part 1 of a two-part development, with the current application being Part 2.

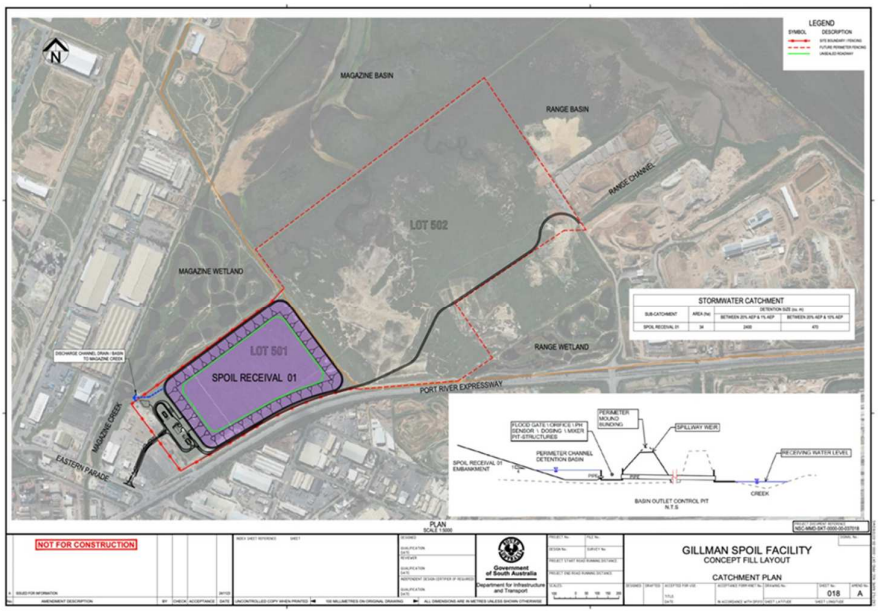


Figure 1: Approved Development at Q501

5.1 Greater Plan for Greater Adelaide (GARP)

The subject land is within the Strategic Employment Zone of the Code and within an area designated as a State Significant Industrial Employment Precinct in the Greater Adelaide Regional Plan (GARP).

Within the State Significant Industrial Employment Precincts (SSIEP) the protection of existing strategic traditional industry, freight and logistic employment precincts is prioritised to preserve the important role they play in underpinning the state's prosperity and in providing access to employment opportunities. The long-term strategic objectives are to:

1. *Identify, maintain and support state significant operations and prime industrial employment land by protecting them from encroachment by incompatible and/or more sensitive land uses to ensure their long-term and uninhibited operation; and*
2. *Guide local employment land strategic planning to determine the role and function of employment lands and additional policy and investment required to support and grow these precincts.*

SSIEPs are precincts of (actual or potential) scale, whose current and future activities are strongly linked with strategic and economic objectives of the state, and which accommodate (or will eventually accommodate) a critical mass of economic activity and employment.

The site is identified as having action for 'Urban Heat' – involving spatial mapping and identify policy response options (DEW is responsible for this action). The following Themes are relevant to the site and are reflected the Planning and Desing Code Overlays:

- Gas and Liquid Petroleum Pipelines / Petroleum Pipeline Licences
- Prescribed Wells Areas
- Stormwater Management Planning Priority Areas
- Water Resources
- Integrated Water Management Security and Quality
- Local Transport Networks - Existing Cycling Infrastructure
- Flooding - Medium or Low Risk
- Flooding - High Risk
- Acid Sulfate Soils
- Climate Change - Projected change in average daily max temperature in 2040-2059 / Projected change in average rainfall in 2020-2039

6.1 State Planning Policies (SPP)

State Planning Policy 9 *Employment Lands* seeks the provision of a suitable supply of land for employment uses to support job growth and the economic prosperity. The planning system needs to support the diversification of our economy and remove barriers to innovation and to attract interest, investment.

Policy 9.6 seeks that the protection of prime industrial land for employment use where it provides connectivity to freight networks; enables a critical mass or cluster of activity; has the potential for expansion; is connected to skilled labour; is well serviced; and is not constrained by abutting land uses.

State Planning Policy 13 *Coastal Environment* acknowledges the interface between sea and land that is dynamic and is subject to coastal hazards such as flooding, erosion, sand dune drift and acid sulfate soils. The planning system aims to conserve the marine and coastal

environment, whilst enabling existing settlements to be able to adapt to coastal hazards and ensuring new development is sustainable and not placed at risk. There will be substantial benefits to our economy by providing for sustainable coast-dependent development which need to be located adjacent to or on coastal waters.

Policy 13.1 seeks to protect and enhance the natural coastal environment and its resilience to a changing climate, including environmentally important features, such as mangroves; wetlands; estuaries; marine-protected areas; sand dunes; native vegetation; living creatures; and other important habitats.

Policy 13.2 seeks development that is not at risk from current and future coastal hazards (including sea-level rise, coastal flooding, erosion, inundation, dune drift and acid sulfate soils) consistent with the hierarchy of *'avoid', 'accommodate' and 'adapt'*.

Policy 13.3 seeks to balance social and economic development outcomes in coastal areas with the protection of the environment.

State Planning Policies for Climate Change seek to avoid or mitigate development in hazard-prone areas; protect and enhance areas that provide biodiversity and ecological services and maximise opportunities for carbon storage; encourage development that does not increase our vulnerability to, or exacerbate the impacts of climate change (5.5, 5.7, 5.8, 5.9).

2. DETAILED DESCRIPTION OF PROPOSAL

DIT seeks approval to establish a temporary Soil Re-use Facility (SRF) to receive, treat and re-use the surplus spoil that will be generated through the construction of the T2D Project. The overall site for the SRF is identified as Lot 506 and comprises two pieces, namely Q501 and Q502, as shown on the land identification map provided.

The SRF is to be undertaken in two parts to reflect the timing of investigations for the subject land. Part 1 (Q501) has received a separate Development Approval under the Crown process. The current application (Part 2) is for Q502 although has a relationship with the approval on the adjacent land (Q501) and utilises some of the infrastructure to be established on that land. In particular, the access arrangements will not change (noting that certain elements are not development and do not require approval). The site amenities will also be shared.

The main components of the development comprise:

- A change of land use from vacant land to a SRF
- The filling of land (being within the Coastal Areas Overlay) – to a minimum of 3.7m AHD, including temporary pre-load surcharge up to 8.0m AHD
- The construction of stormwater bunds, drainage channels and detention, retention/storage and/or sedimentation basins
- Temporary spoil management facilities, including:
  - storage buildings and structures, including silos
  - truck weighing facilities and turnaround areas
  - truck plant and equipment, washdown facility, wheel washes and above ground water tanks, and
  - temporary facilities to enable the safe operation of the site for the duration of the filling activities
- A Waste Water Treatment Plant (WWTP) with the capacity to treat more than 12.5ML of wastewater per annum (requiring a license under the Environment Protection Act)
- Retaining walls within the Coastal Areas Overlay

SRF - Process

Once spoil is received at the site, its treatment would vary depending on the nature of the spoil. Spoil from the excavation component of the T2D construction will require minimal or no treatment and would be re-used as engineered fill. The generation of this spoil will commence in early 2025.

Spoil derived from the tunnel boring will require treatment to reduce its water content (water is a requirement to aid and facilitate the boring process) which must be done prior to the spoil being used as engineered fill on the site. The generation of this spoil will commence in late 2025/early 2026 subject to construction timeframes.

The site will be progressively filled through to 2031 when the facility will be decommissioned with a finished engineered ground design level (post-settlement) of between 3.7m and 4.2m AHD. At completion of the project the facilities will be removed or repurposed. The land will then be able to be made suitable for commercial/industrial development consistent with the zone/subzone land use framework.

In the operational phase of the SRF, however, there will be a pre-load level above the engineered fill layers to 8.0m AHD as shown in the Figure below, incorporating an engineered embankment design to ensure that it is inherently stable under environmental and operational conditions -

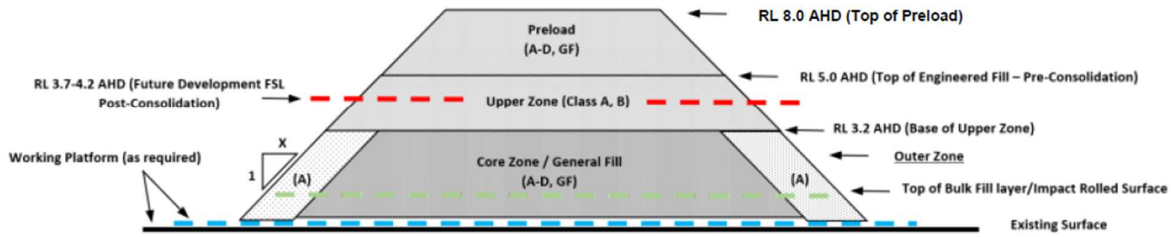


Figure 2 Typical fill formation - conceptual

The exact layout and design of these facilities are preliminary, and final plans are expected to be submitted in mid-2025 once these have been developed further by the T2D Alliance. The final plans may form a condition of approval. In the event significant departures are proposed in the detailed design phase, a variation development application may be required. The buildings are likely to be transportable in nature.

Vehicle movements and access

The approved access arrangement for the Part 1 SRF facility will apply to both Parts 1 and 2 of the SRF development (no change to access is proposed as part of this DA). This involves spoil trucks (consisting of a truck and dog trailer), staff vehicles, and deliveries (fuel and other necessary goods), with an estimated 280 spoil trucks per day, 30 staff vehicles per day. This is an average delivery rate of one spoil truck every 3 to 4 minutes (i.e. an expected 17 trucks per hour) increasing to an estimated maximum 33 trucks per hour (a truck every 2 minutes) during maximum excavation periods.

The site's vehicle access routes are circuitous and involve entry via PREXY, a righthand turn into Perkins Drive, another righthand turn into Eastern Parade and then a lefthand turn into the driveway 'leg' of the subject land. Vehicle egress is less complicated and involves a lefthand turn from the site's driveway 'leg' into Eastern Parade and then a lefthand turn to access PREXY.

Landscaping

The site will generally not be landscaped, given that it is an operational site with spoil being moved around the site and preload material placed on the land. However, landscaping is proposed at the perimeter bunds, catch drains and the slopes of the fill mound is proposed to assist with erosion and dust suppression. See Figures 3 and 4 below which show the landscaping conceptually represented. This includes landscaping at the environmental area to be avoided adjacent Magazine Basin and also landscaping adjacent the Port River Bikeway (consistent with the condition of approval for the Part 1 application).

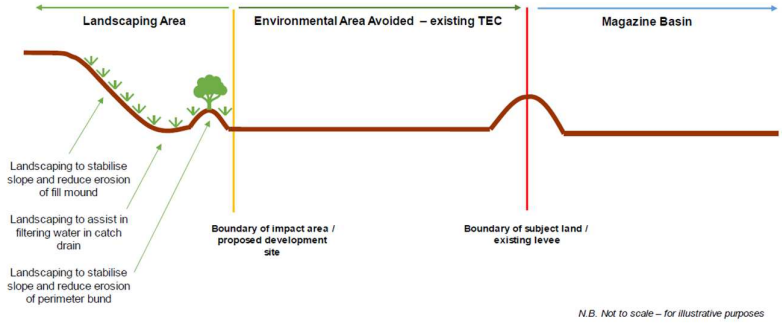


Figure 3: Conceptual landscaping section adjacent TEC

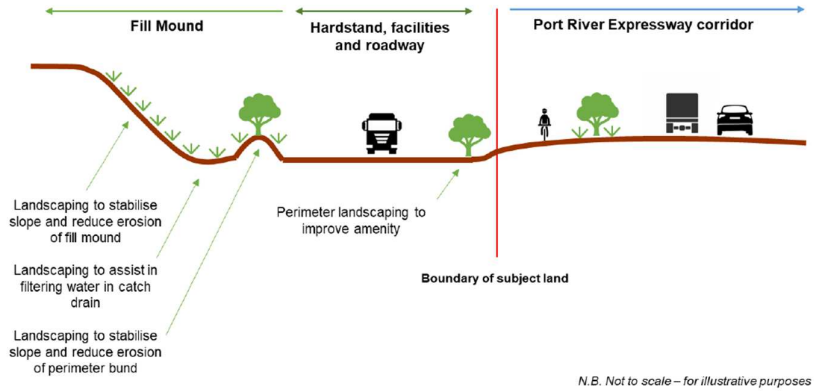


Figure 4: Conceptual landscaping section adjacent Port River Bikeway

Lighting

Permanent (non-relocatable) and temporary (relocatable) lighting is proposed for the duration of spoil delivery to the site, to enable 24 access and operation. The Applicant advises that permanent lighting will be designed and operated in accordance with AS/NZS 1158 and the light poles will be restricted to areas where absolutely required. The lighting can be installed and directed to only have downward light distribution to minimise direct spill light into the sky. Mobile light towers are required to illuminate the changing physical location of the spoil placement areas.

Environmental and Stormwater Management

A Construction Environmental Management Plan (CEMP) will be prepared for the establishment and operation of the SRF and which may incorporate other management plans (sub-plans), or may be standalone documents in their own right, to cover specific environmental aspects of the fill process and to include at a minimum the following:

- Site Contamination Plan
- Soil Erosion and Drainage Management Plan
- Water Quality Monitoring Plan
- Operational Noise Plan (including Night Works Management Plan)
- Air Quality Management Plan (including monitoring)
- Environmental Emergency Response Plan/Procedure.

Environmental audits, undertaken via qualified external parties or undertaken internally by the T2D Alliance, will be required to monitor the environmental performance of the SRF operation. Environmental performance is to be measured against the CEMP and the other sub-plans. Separate audits will be required for the transport, placement and use of *Standard for the Production and Use of Waste Derived Fill* (WDF Standard) from the T2D Project to the SRF site.

A sub-surface drainage system would be required in the detailed design and construction of the SRF to reduce the water table levels, including the build-up of drainage layers to ensure that potential acid sulfate soils remain below the water table and are not exposed to further oxidation.

Mitigation measures will be incorporated into the detailed stormwater design to be outlined in the CEMP and a Stormwater Management sub-plan that are to be prepared for the site:

- ensure water quality releases into wetlands are managed with stormwater generated from the SRF site needing to be retained, managed and treated (if required) within the site boundaries possibly utilising detention or sedimentation basins
- ensure there is no upstream/downstream flooding risk due to stormwater management on-site with water sensitive urban design options such as swales considered for surface water run off control and designed to withstand high water flows from significant storm events
- if spoil conditioning products are required to be used on the bulk earthworks spoil (which is expected to be unlikely), these will be managed in accordance with Waste Derived Fill Standard and the final Site Management Plan which are subject to approval by the independent EPA appointed auditor
- SRF detailed design will consider vehicle washdown/maintenance/refuelling requirements and will install a dedicated washdown/truck cleaning facility designed in a manner to manage slurry/high suspended solids loads, with all washdown water collected within a bund at the wash facility and disposed of either to sedimentation ponds or a wastewater management system on-site.

Staging

The applicant proposes to undertake the fill development in 4 stages with the intention that additional plans and details are to be provided at each stage, namely a Site Management Plan (SMP) and a Construction Environmental Management Plan (CEMP) along with associated relevant sub-plans. The development is expected to be completed by 2031 (i.e. 6 years).

The WDF Standard, which involves the IAA, is not relevant to this stage.

Stage 1 Site establishment	Stage 1 requires the change of use of the land, site establishment works for the purposes of site facilities and infrastructure construction and the filling of land with clean fill. To enable this first stage to occur, the preparation of detailed plans, including a Stormwater Management Plan, Traffic Management Plan and CEMP and relevant sub-plans will be required. The WDF Standard, which involves the IAA, is not relevant to this stage.

Stage 2 - Bulk earthworks spoil filling	Stage 2 involves the filling of land from bulk surface earthworks which includes spoil from the excavation of the tunnel portals, tunnel machine launch boxes and the lowered motorway, and may require amended plans for the filling as well as details on engineering controls to protect the environment, filling operations and water treatment. In accordance with the WDF Standard, there will be an associated IAA and updated SMP (Part 3C, Operation). Filling using waste fill, and construction of specific engineering controls related to that fill, cannot occur until this has been endorsed by the auditor and accepted by the EPA. There may be more than one IAA and iterations to the SMP during this stage to reflect bulk earthworks from different parts of the T2D Project area Further detailed plans, and an updated Stormwater Management Plan, Traffic Management Plan and CEMP (and associated sub-plans) would be required. There may also be a requirement for the T2D Alliance to obtain EPA Licences for Earthworks Drainage and Wastewater Treatment, which is separate from the development application process
Stage 3 - TBM spoil filling	Stage 3 involves the filling of land with spoil from the tunnelling process and may require amended plans for the filling as well as details on engineering controls to protect the environment, filling operations and water treatment. Again, in accordance with the WDF Standard, there will be an associated IAA and updated SMP (Part 3C, Operation) that requires endorsement by the auditor and acceptance by the EPA. Similarly, there may also be a requirement EPA Licences to be issued or amended for the Earthworks Drainage and Wastewater Treatment.
Stage 4 Decommissioning	Stage 4 comprises the decommissioning of the on-site facilities and infrastructure, including the removal of temporary buildings, structures and the infrastructure established in the 1st stage. A final SMP (Part 3D Decommissioning) will be required, together with a Remediation and Validation Report and Site Environmental Management Plan that addresses the works undertaken and environmental management requirements. In accordance with the WDF Standard, there is also a requirement for an audit report and site contamination audit statement to be prepared at the conclusion of the project. Importantly, this stage does not include the future use of the land, which will be subject to separate and later application processes by Renewal SA for particular individual developments.

The applicant emphasises that an Interim Audit Advice (IAA) under the Standard for the Production and Use of Waste Derived Fill (WDF Standard) would only be required in relation to stages 2, 3 and 4 where the filling of land from waste spoil is proposed, as well as for the decommissioning process as, at the conclusion of the project, the WDF Standard requires an Audit Report and Site Contamination Audit Statement.

Proposal Plans

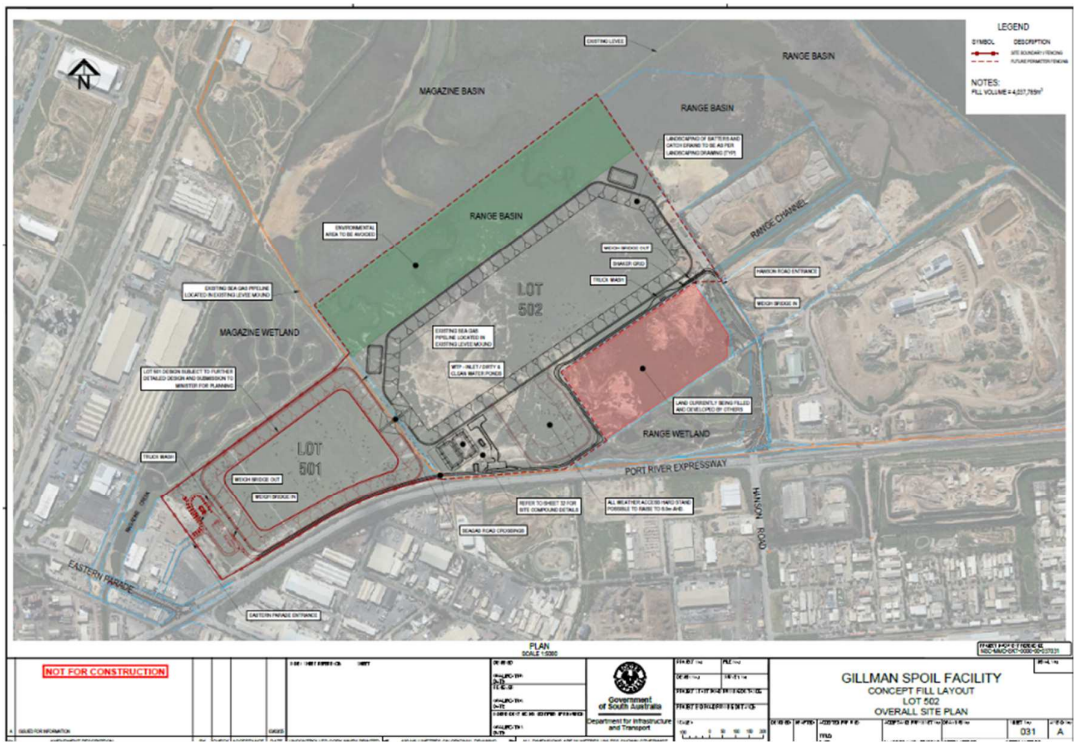


Figure 5: Proposed Concept Layout (including adjacent Q501)

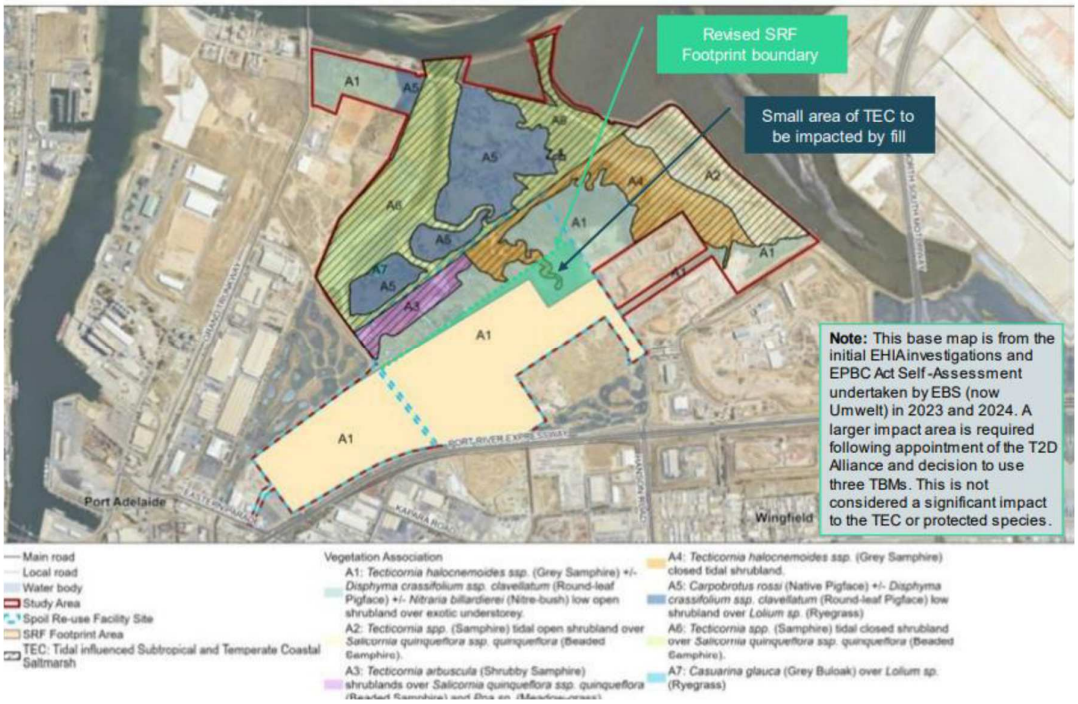


Figure 6: Option 2 - Subtropical and Temperate Coastal Saltmarsh Threatened Ecological Community (TEC). *Note this image shows the 1.11ha of land to be filled within the TEC.*

Figure 7: Local Hydrology (Source Mott MacDonald)

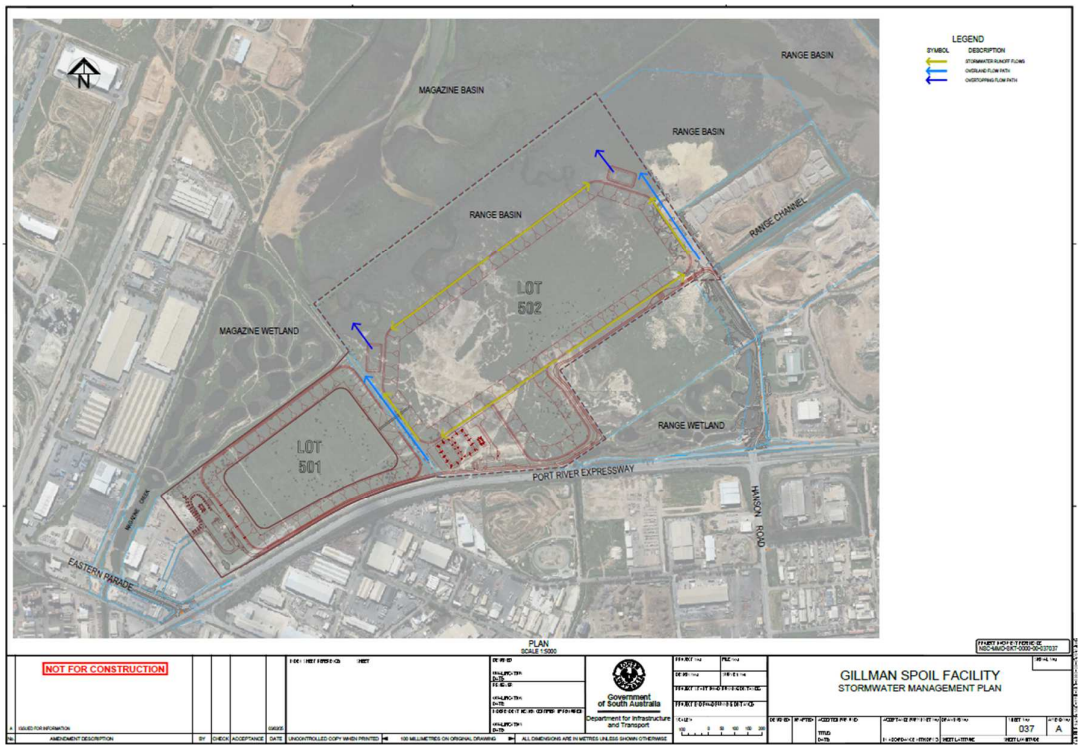


Figure 8: Stormwater Management Plan

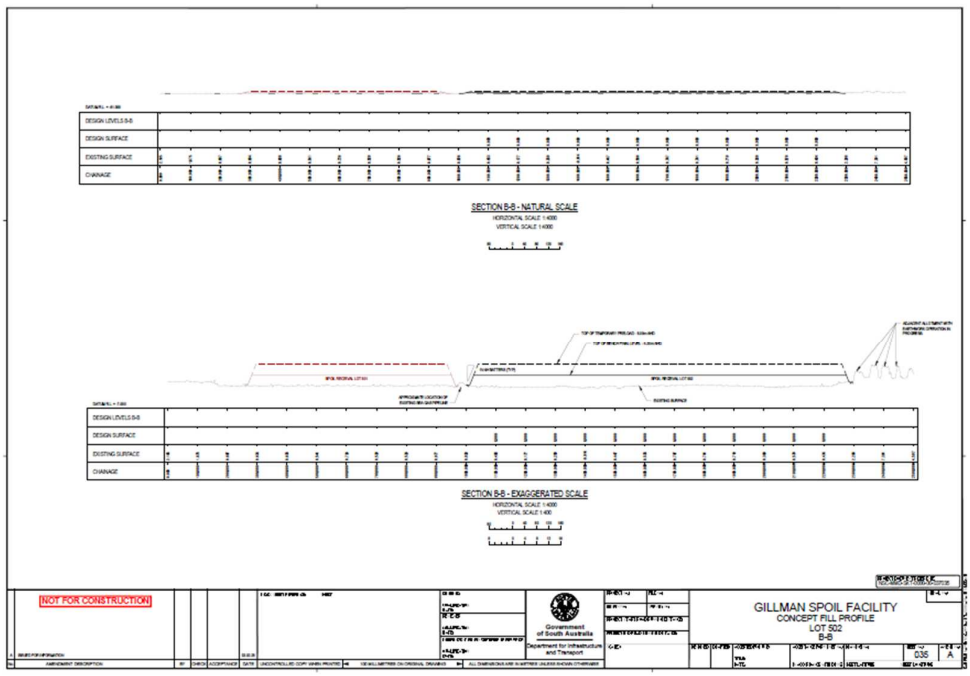


Figure 9: Conceptual Fill Profile

3. SITE AND LOCALITY

Location reference: Lot 506 North Arm Road, Dry Creek

Title reference: CT 239/959 **Plan Parcels:** DP 121878 Q502 **Council:** City of Port Adelaide Enfield

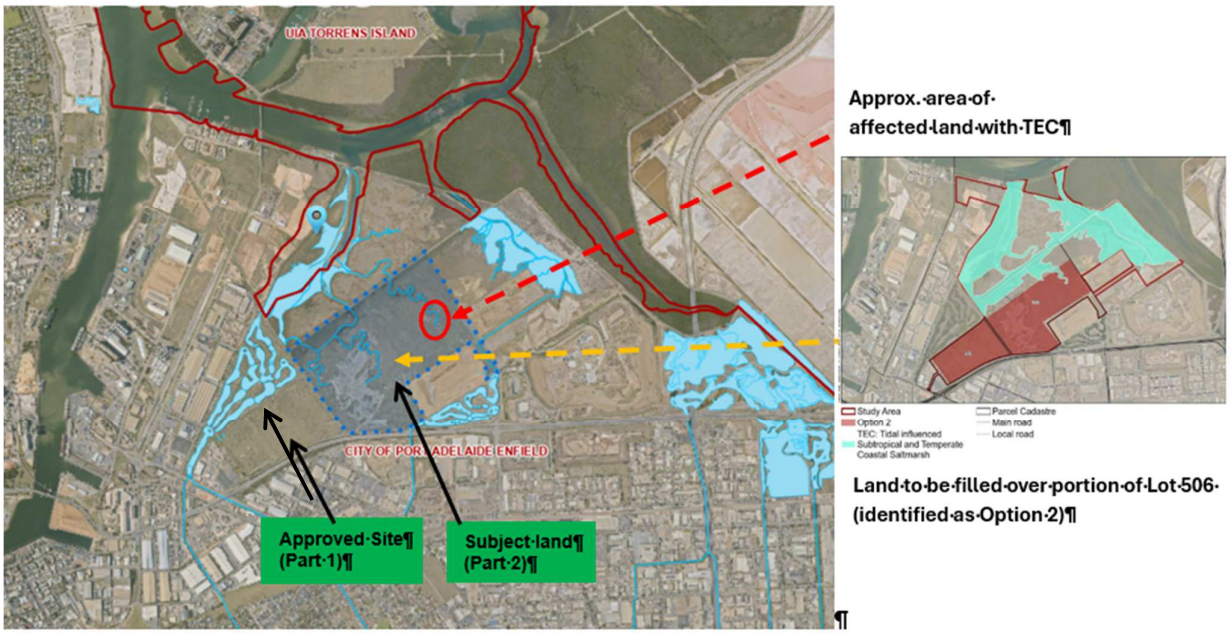


Figure 10: Location Plan – subject land (Source: SAPPA)

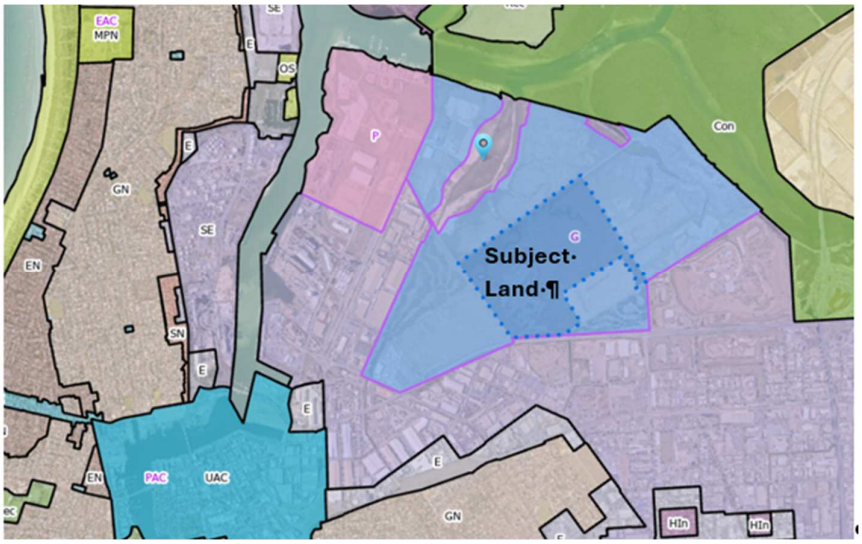


Figure 11: Zoning Map (SE: Strategic Employment Zone; G: Gillman Subzone) (Source: SAPPA)

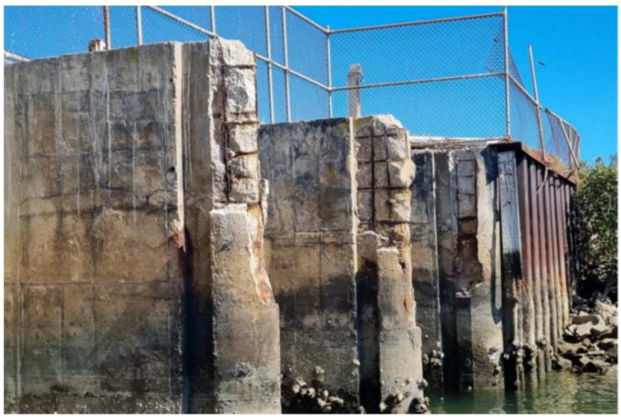


Figure 12: Existing tidal gates (Source: Mott MacDonald Planning Report)

3.1 Site Description

The subject land (together with adjoining piece Q501) is owned by the State Government (Renewal SA) and collectively forms part of the largest single vacant land unit that is zoned for employment-related purposes in the Adelaide metropolitan area.

The land is located about 12km NW of the Adelaide CBD, approximately 2km NE of the Port Adelaide centre and less than 1km east of the Port River. The land is currently vacant and irregular in shape with a site area of approximately 115.4ha. Historically the site was used as part of the Dean Rifle Range which was operational between 1887 to 2003.

The site is low-lying and undeveloped as it is physically unsuitable in its present state to support future industrial/ commercial-based development. The site requires substantial filling to address the risk of sea water inundation and management of stormwater.

Gillman is protected by a coastal levee bank, which may require periodic repair and or upgrade to minimise flood hazard risks now and in the future. Renewal SA, as owner of the land occupied by the levee bank, has responsibility to assess its condition and suitability, to monitor and address any potential hazard risk. The fill site includes a 1.11ha portion of land within the Threatened Ecological Community (TEC).

Easements exist over the subject land, including:

- A high-pressure gas pipeline from Port Campbell in Victoria to the Pelican Point Power Station on the Le Fevre Peninsula (South East Australia Gas (SEAGas)) - along the southern boundary adjacent to the Port River Expressway. The SEAGas pipeline is generally within the North Arm Road reserve and is buried within a raised bund, running along the NW boundary of Q501.
- A free and unrestricted right of way within the 'handle' that extends to Hanson Road, provides access to adjoining allotments to the northeast (Lots 201, 202 and 507) and east (Lot 403)
- A drainage easement to facilitate the drainage channel from the Range Wetlands over the handle that extends to Hanson Road to the channel located on portion of Lot 506 between Lots 201 and 20

A Land Management Agreement (LMA) is also registered over the subject land between Renewal SA and a private development firm establishing a right to purchase and a framework for the future commercial development of the site. The LMA does not apply to the SRF proposal and is not a factor in the assessment.

Vehicle access is available off Eastern Parade located to the SW via an existing 250m long driveway access 'leg' which is part of Lot 501. The southern portion of the driveway is shared with neighbouring lots 1 and 2 via reciprocal rights-of-way arrangements.

3.2 Locality

The subject land is strategically situated in Adelaide's important and concentrated NW industrial and commercial area that supports a diverse range of employment activity covering traditional and emerging freight/logistics/defence industry/waste resource receival and recovery and inter-modal clusters. There is direct access to the national road network via PREXY/Eastern Parade/Hanson Road connections.

Figure 13: Locality Plan (Source: Mott MacDonald)

The locality contains several sensitive and protected conservation, aquatic and inter-tidal ecosystems including the neighbouring Magazine Creek Wetlands on the subject land's western/NW site boundary, the Range Wetlands to the east and, further north, the Barker Inlet – St Kilda Aquatic Reserve, the Adelaide Dolphin Sanctuary, Torrens Island Conservation Park and the Adelaide International Bird Sanctuary National Park.

Garden Island and Torrens Island are both located over 2km further north of the site on the other side of the Port River. The Range Wetlands is a subtropical and temperate coastal saltmarsh habitat, which includes the Threatened Ecological Community (TEC). The Magazine Wetlands has significant environmental values and is home to a number of EPBC Act Vulnerable Species.

Immediately south of the site is North Arm Road (unmade) and Q501 (being approved as Part 1 of the SRF development). Adjacent to that site are two large blocks that front onto Eastern Parade and accommodate a variety of commercial-based uses incorporating a service station and car logistics, warehousing and freight transport businesses. The Port River Expressway (PREXY) is to the south.

To the north, adjoining the land is Lot 506, which forms the Magazine Creek ponding basin and is also low-lying land with temperate saltmarsh and watercourses. This land is surrounded by flood levees, the sea wall and is protected by tidal gates to the Barker Inlet. Renewal SA own Lot 506, the sea wall and the tidal gates. To the northwest of Lot 506 comprises developed industrial land and development sites along Grand Trunkway, which effectively form the western edge of the Magazine Creek ponding basin.

There are no residential land uses in close proximity to the subject land with the nearest housing being approximately 1km to the south in the suburbs of Ottoway and Rosewater. Residential properties are also located appriximately 1.5km to the SE (adjacent to Dock 1, Port Adelaide) and nearly 2km due east to the suburb of Birkenhead.

4. CATEGORY OF DEVELOPMENT

PER ELEMENT:

- Change of use
- Storage of material or equipment
- Filling of land
- Fences and walls
- Shed
- Office
- Other - Commercial/Industrial - Truck wash bays, weighbridges, gatehouses
- Other - Infrastructure - Fuel storage (less than 100 cubic metres)
- Temporary stockpiling
- Water tank (above ground)

OVERALL APPLICATION CATEGORY:

- Performance Assessed – Crown Development

REASON

The application is lodged by Department for Infrastructure and Transport (DIT), a State Agency and was subsequently lodged with the State Planning Commission (SPC) under Section 131 of the Act.

5. STATUTORY / TECHNICAL REFERRAL BODY COMMENTS

The Applicant has provided a response to Council and agency comments (refer to Attachment 4). Following receipt of this advice, state agencies have updated their responses, where appropriate.

City of Port Adelaide Enfield

Council does not support the proposal, expressing concerns including:

- Flood Gates: The existing flood gates are towards the end of their service life, are in need of replacement within the foreseeable future, with no currently funded plans for their replacement by Renewal SA.

- Wetland Functionality: The expansion of the spoil deposition area and the potential to land lock both the Range and Magazine wetlands for future expansion.

  Both wetlands require significant maintenance works along with further flood modelling in the region to determine if the current wetlands (size and configuration) and flood plains are capable of managing coastal inundation and stormwater surge (considering future sea-level rise and proposed development implications from extra stormwater flows).

  Council also understands that the wetlands are already at capacity during heavy rainfall events. Council advises that the following matters should be addressed:

  - Appropriate vehicular access to the site, including a minimum of 6m road width
  - The availability of sufficient land to deposit the soil and silt from the wetland during desilting works and spoil treatment
  - A buffer between the development and wetlands so that, in the future, the wetlands are able to be expanded given the increase in hard surface infrastructure within the catchment and through the future development of the Strategic Employment Zone land.

- EPBC Self-Assessment: Council questions the validity of the survey data to support Option 2 for the self-assessment under the EPBC Act which concluded that the site does not regularly support a population of a Critically Endangered or Endangered threatened species, or an important population of a Vulnerable threatened species, or impact important habitat for migratory shorebirds. Council is concerned that the data was collected in one of Adelaide's driest summers which significantly diminished the suitable foraging and roosting habitat available for several EPBC listed bird species.

  Council considers that Advisory notes 14 and 15 in the original Development Approval for Stage 1 are not giving enough consideration to these aspects of the development:

  Advisory Note 14: Prior to the final design being completed, consideration should be given to mitigation measures (e.g. appropriate buffer areas, design e.g. mound gradient, staging of the fill landscaping and operational measures) that minimise impacts on the environmental values of the nearby Magazine Creek wetland (e.g. impacts to wildlife, including migratory birds).

  Advisory Note 15: Any future landscaping should consist of local native coastal species, to improve coastal biodiversity, amenity and minimise the spread of exotic plants on the coast.

- Fauna Concerns: The proposal should be revised to exclude development of the 1.11 ha portion of land within the TEC until more detailed mapping is completed of the TEC to show the location of sensitive plant species that require protection.

- Light Pollution: In areas of shorebird habitat development should include mitigation measures for light pollution in line with the National Light Pollution Guidelines. These should include:
  - No light source should be directly visible from foraging or nocturnal roost habitats, or from migratory pathways.
  - No fixed light sources installed in nocturnal foraging or roost areas.
  - The prevention of mobile light sources shining into nocturnal foraging and roost habitat.

- Blue Carbon Potential: The stranded saltmarsh areas of Dry Creek/Gillman still have carbon storage value. This could be improved significantly through management, conservation and improving tidal reconnection and planning for retreat. Such could be revitalized to increase carbon storage by improved tidal reconnection. Notwithstanding the Strategic Employment Zoning of the land, the development of high value estuary and blue carbon areas at Dry Creek/Gillman can be considered at odds with State Planning Policy 5 – Climate Change (policies 5.5, 5.7, 5.8, 5.9).

- Conditions: It is requested that Conditions 3 (Landscaping Plan) and 4 (Stormwater Management Plan) of the Stage 1 Decision also be applied to any approval issued for the current DA. It is recommended that the Landscaping Plan Condition be updated to more specifically reference the close proximity to the Magazine Tidal Creek Outflow.

Commissioner of Highways (CoH)

The application was referred to the Commissioner of Highways in accordance with section 122 of the Act, Regulation 107(5) and Schedule 9(7) of the Regulations as a form of development affecting transport routes and corridors.

The Commissioner was also consulted on the original DA and raised no concerns with that proposal, subject to conditions including a final Traffic Management Plan. This proposal does not change the traffic egress to the site and the Commissioner continues to have no objections to the proposed works and recommended 3 conditions of Approval (relating to access being consistent with the original DA; that the shared pathway adjacent the site be kept open during construction and operation of the facility; and that stormwater runoff be collected on-site and discharged without affecting the integrity of the adjacent road network).

Department for Energy and Mining (DEM)

The application was referred to the DEM in accordance with section 122 Act and section 41, Regulation 107(5) and Item 3, Clause 3 Schedule 9B of the Regulations, as the subject land is within the Gas and Liquid Petroleum Pipelines Overlay in the Code.

The proposed development is within the vicinity of Pipeline Licence (PL) 13, which is licensed to SEA Gas for the South Australian section of the Port Campbell to Adelaide Pipeline. The proximity of the proposal to the pipeline gives rise to potential risks to public safety and to the pipeline, particularly due to the change in land use and the potential to introduce additional threats to the pipeline, namely construction on the easement or ROW and infrastructure services crossing the pipeline.

DEM is satisfied that these potential risks are capable of being adequately addressed as these matters can be covered by a suitable engineering design. Such details can be finalised and

provided to the relevant authority prior to the commencement of construction. Accordingly, DEM is satisfied that the failure to provide Detailed Design information may be addressed by conditions and that the proposed development is appropriate.

It is noted that DEM and SEA Gas have considered the revised comments from the Applicant and agree to the changes to be consistent with the part 1 DA (except for condition 6).

Coast Protection Board (CPB)
The application was referred to the CPB in accordance with section 122 of the Act, Regulation 107(5) and Schedule 9(3) of the Regulations as a form of development involving the filling of land exceeding a volume of 9 cubic metres (Coastal Areas Overlay).

The Coast Protection Board (CPB) has not objected to the proposal although has raised several matters for further consideration. The Applicant has provided a response to the concerns raised (refer to **Attachment 4**). The CPB will attend the SCAP hearing to elaborate on their advice. In summary the CPB makes the following comments.

Coastal Flooding

- The site is currently low lying (existing ground levels approximately 0.5m AHD on average). The proposed finished fill height meets the requirement for compliance with the Board's coastal flooding risk standard, minimum building site and floor levels of 3.7m and 3.95m AHD respectively.

- Given the potential for future coastal flood hazard risk, consideration could be given to raising the fill site to 4.4m AHD to meet the 2100 predicted flood heights. If this does not occur, then future development may be required to further raise site levels, depending on the projected lifespan of the subject development.

- The proposed temporary facilities and buildings associated with the SRF will not be elevated to the recommended site and therefore may be vulnerable to flooding events. The Applicant should consider implementing a flood emergency management plan to address potential coastal flooding events for the duration that these structures are on the land.

  Applicant's Response:
  - *It is not proposed to change the application to achieve a consistent site level of 4.4m AHD, nor make changes to existing coastal protection infrastructure. However, the filling of the land as currently proposed does not preclude further filling of land by Renewal SA to raise site levels as part of future development if it is deemed necessary, or the Board's policy is translated to the Code through a future Code Amendment. A key consideration in determining if this may be required will also include decisions on the future of the sea wall and levee heights, and future upgrades to the tidal gates*

  - *The Department, as applicant, and Renewal SA, as landowner, both acknowledge that there will be a future need for repair, replacement or augmentation of the tidal gates. The requirement for such an upgrade will be a consequence of a combination of factors:*

    - *filling rate of current low-lying areas within the locality earmarked for development, including the subject land and other land to the east, north and along Grand Trunkway;*
    - *the nature and form of future development (i.e. land use, extent of built form and hardstands, and on-site landscaping and stormwater infrastructure) within the broader Gillman Precinct, which is yet to be confirmed; and*
    - *increases to sea levels, which will occur over time.*

- With regard to the temporary buildings and site infrastructure which will be constructed below the required 3.7m AHD – the Applicant advises *that while there would be minimal filling of land where site infrastructure is to be located the T2D Alliance will create a general site level and bridging layer that is raised above the existing ground level to 2m AHD, with fill between 0.5m and 1.5m in depth depending on existing site levels. This level will be above the 10% AEP and is appropriate considering the temporary nature and type of facilities for the SRF.*

Future Flood Risk Impacts on the balance of the land within Gillman Subzone

- According to the Technical Note prepared by Mott MacDonald the subject land and other land in the *Range Wetland and Magazine Wetland ponding basins, provides flood storage capacity in a 1% Annual Exceedance Probability (AEP) storm event with elevated tidal levels. Filling of the whole of the subject land (beyond the scope of this application), together with other land identified for development at Gillman and Dry Creek within the Gillman Subzone, will result in flood impacts upstream of the tidal gates due to displaced storage, particularly in the vicinity of the Range Wetlands.*

- The CPB notes that *the increased flood impacts upstream of the tidal gates will result in longer periods of freshwater inundation, which is highly likely to cause changes to ecological communities' distribution, composition, health and condition, and habitat value. The changes to hydrological patterns may cause significant impacts to the mapped Subtropical and Temperate Coastal Saltmarsh TEC and associated EPBC Act listed species adjacent to the spoil site*. The Applicant advises that the proposal does not trigger the need for upgrades to the Renewal SA owned tidal gates.

The CPB makes the following recommendations:

  - *that all efforts should be made to maintain the current hydrological patterns that are supporting significant areas of a threatened ecological community, including undertaking the upgrades to the tidal gates so that flooding stormwater can be released more quickly to the Port River;*
  - *exploring connectivity of the remnant creek channels within the ponding basins to distribute flood depths more evenly across the ponding basins and reduce the effect of filling the existing flood storage areas (as suggested in Paragraph 7 -Page 47 of the Flood Modelling Report);*
  - *review flow control culverts to optimise the design, which would include "detailed bathymetric and bank top survey of the existing channels, environmental studies including mangrove accession and fish nursery impacts and contamination assessment, including Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS) for preparation of a management plan for the management of removal material." (as suggested in Paragraph 8 -Page 47 of the Flood Modelling Report).*
  - *Consider upgrading the tidal gates as appropriate to allow quicker release of the increased stormwater volumes on the land surrounding the fill site.*

It is also noted that the EBS EPBC Self-Assessment report states that no referral to DCCEEW is required because the fill option … assessed did not have any direct impacts on the TEC. However, the report does not address the indirect effects of the predicted flood impacts (as per the Mott MacDonald 2025 flood study) to the remainder of the study area on threatened species or ecological communities. The EBS report should be updated to include assessment of the impacts of changed hydrology to the surrounding lands and habitats caused by filling the site.

Applicant's Response
The Applicant has provided a detailed response (refer to Attachment 4).

Prior to lodging the application for the SRF - Part 2 the Applicant undertook additional flood modelling to determine suitable filling opportunities for the subject land (this resulted in the separation of the SRF applications into two parts to allow for that modelling to occur).

The Applicant advises that:

> *Mott MacDonald's flood modelling to support the SRF indicated that filling of the whole of the subject land (beyond the scope of this application), together with other land identified for development at Gillman and Dry Creek within the Gillman Subzone, will result in flood impacts upstream of the tidal gates due to displaced storage, particularly in the Range Basin. However, the impacts are considered modest with 25 to 110 millimetre (mm) increases above existing conditions during Mean High Water Springs (MHWS), with future sea level rise from climate change and no change to the existing tidal gates. Importantly, the modelling considers impacts of stormwater from future development upstream based on inputs provided to Mott MacDonald and is consistent with modelling results undertaken previously by Tonkin Consulting.*
>
> *The flood modelling undertaken generally shows that areas outside of the Magazine and Range Basins that were modelled to stay dry in a worst-case flood event where there is no filling of the subject land stay dry in an ultimate filling scenario (as proposed by the Gillman Master Plan). The areas within the basins that become wet are denoted in blue* in the figure below*, highlighting the appropriateness of filling even beyond the scope of this application. Impacts from filling the subject land as currently proposed will be significantly less than illustrated and be contained almost entirely on the subject land.*
>
> *Therefore, having regard to the various assessments undertaken, the filling proposed by this application is considered appropriate having regard to potential flooding impacts.*

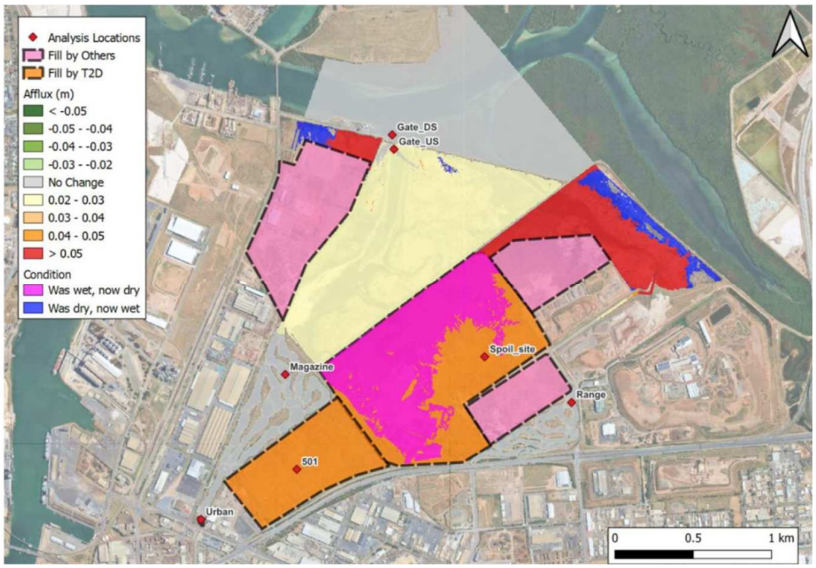


Figure 14: Ultimate fill scenario under current tidal gate conditions

Coastal Biodiversity
The proposed development is adjacent both the Range Wetlands along the northwestern boundary (being a subtropical and temperate coastal saltmarsh habitat which is part of a Threatened Ecological Community (TEC), as shown in the figure below); and the Magazine Creek

Wetlands (with significant environmental values and home to a number of EPBC Act Vulnerable Species).

The CPB notes the 5 fill options identified by the Applicant in the EPBC Self-Assessment-Addendum. These options vary in their impacts on the adjacent TEC's. The Application is for filling of land as outlined in Option 2 – which impacts 1.11ha of Subtropical and Temperate Coastal Saltmarsh TEC and on unlisted stranded saltmarsh and tidal creeks.

The Board's preference is for the location of the fill platform to have the least impact on coastal habitats and species. It notes that Option 3 would have the least impact on the TEC (acknowledging that it excludes an area to the south which is suitable for fill) and that Option 1 has the next least impact. Option 1 avoids all Subtropical and Temperate Coastal Saltmarsh TEC but impacts on unlisted stranded saltmarsh and tidal creeks.

The Board therefore prefers Option 1 over Option 2, although recommends that consideration be given to a non-linear edge on the western side of the fill mound to accommodate the full extent of the stranded tidal creeks and saltmarsh habitat. This would allow for the opportunity for re-introduction of tidal flows in the future to the remaining, unfilled site for habitat restoration.

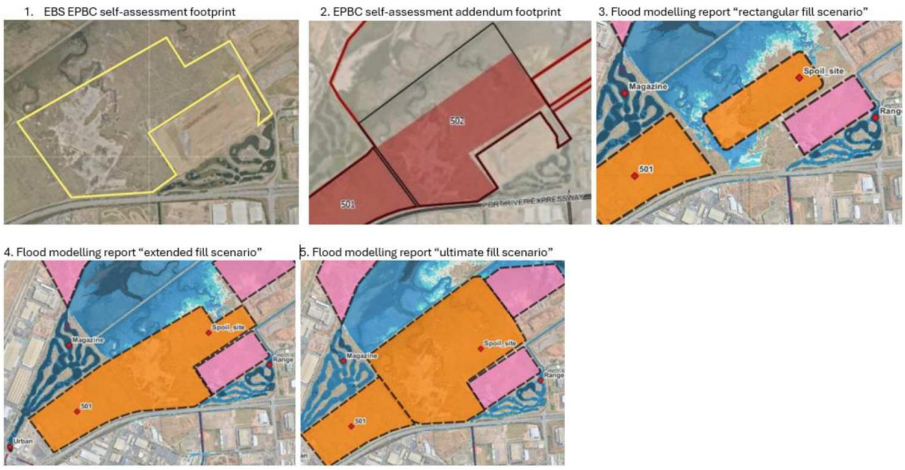


Figure 15: Five Fill options

Notwithstanding the extent of the fill platform the Board has the following requirements for future development on this land:

- *Prior to the final design being completed, consideration should be also given to mitigation measures (e.g. appropriate buffer areas, design, mound gradient, staging of the fill landscaping and operational measures) that minimise impacts on the environmental values of the adjacent Range and Magazine Creek wetland (e.g. impacts to wildlife, including migratory birds);*
- *It is also recommended that a minimum environmental buffer of 50m between wetlands and the edge of the spoil facility be implemented to minimise impacts on wildlife. However, a final buffer distance, which might be greater than 50m, should be considered further with the City of Port Adelaide Enfield, to ensure there are no wetland management and access implications. Consideration should also be given to reducing the gradient of the spoil mound embankment. Staging the fill delivery in such a way that a barrier is formed along the western boundary first might provide ongoing protection from lights, noise and dust for the remainder of the fill operation. These measures are likely to reduce impact on the birdlife in the wetlands and increase the success of vegetation plantings, and allow*

sufficient access for the City of Port Adelaide Enfield to be able to access the wetland areas for management and maintenance.

- *All the imported substrate material or engineered fill will need to be free of weeds to ensure that noxious weeds are not introduced into the coastal environment.*
- *Any proposed and future landscaping should consist of local native coastal species, to improve coastal biodiversity, amenity and minimise the spread of exotic plants on the coast. Green Adelaide has issued the following planting guide coastal-gardens-planting-guide.pdf (environment.sa.gov.au) and could provide the applicant with further advice in this regard.*

Applicant's Response:

Mott MacDonald on behalf of the Applicant advises the following in response to the CPB's comments above:

As noted in the Planning Report, following field survey by ecologists from Umwelt in December 2023, the subject land and a wider study area was identified as including samphire TEC, which was mapped and included in their assessment.

However, most of the area of TEC in the locality extends beyond the subject land and is concentrated in the Range and Magazine Basins to the north. The TEC is potential habitat for Calidris acuminata (Sharp-tailed Sandpipers), which is a vulnerable and migratory bird species protected by the EPBC Act. However, the TEC itself is not protected by the EPBC Act and the subject land is not in an area that is subject to the NV Act.

The proposed filling will generally avoid the areas of sensitive environmental habitat on the subject land.

The Planning Report acknowledged there will be a small impact to an area of TEC within a former tidal watercourse to the northern end of the subject land. This land was subject to further assessment by Umwelt in the Addendum to the EPBC Act Self-Assessment completed in January-February 2025. The assessment and associated field surveys observed no obvious tidal water influence in this area. Umwelt concluded that the 1.11 ha TEC mapped as impacted by filling, which is just 0.76% of the TEC assessed within the study area, was of a degraded quality and may not meet all the TEC diagnostic criteria (including tidal influence).

The Department is satisfied that measures taken to reduce impacts to sensitive saltmarsh environment and habitat in the proposed development demonstrate a reasonable minimisation and avoidance of impact in accordance with its ETHM. I am confident in the outcomes of the Umwelt assessments and am of the view that exclusion of impacted TEC from the proposal would not result in a material environmental benefit.

The Board is also concerned with changes to hydrology patterns impacting the TEC on the subject land and within the Range Basin upstream. However, the current hydrological patterns (see Figure 7) will not be fundamentally disturbed by the filling of the land. Areas that are inundated now will continue to be inundated in the future and generally to the same degree and duration. The current hydrological pattern has likely supported the TEC on the subject land, with stormwater mixing with saline groundwater to support the saltmarsh isolated from tidal interaction by the levee.

The Applicant advises that the development exceeds a 50m buffer to the Magazine Basin, and the TEC left on Lot 502 is more than 200m wide.

Stormwater Management

It is noted that the proposed development intends to implement "Stormwater infrastructure and a water treatment plant (WTP) that will ensure that water runoff from the site is captured, retained and treated for reuse on-site. The approval for the SRF for Part 1 included a condition requiring a final stormwater management plan.

For this application the Board also supports the need for more detailed information on stormwater management and requests to be consulted when the final SMP is provided to the Minister (similar to the Part 1 application).

Coastal Acid Sulfate Soils

Coastal acid sulfate soils have the potential to cause major habitat loss and degradation due to the release of acid and heavy metal ions into the environment. There is also a threat to development after construction due to deterioration and corrosion resulting from the disturbance. The land over which the development is situated may have the potential to develop acid sulfate conditions if exposed to oxygen. The CPB has released a set of guidelines which shall be followed in areas where acid sulfate soils are likely to occur.

Four conditions and 5 advisory notes are recommended to be attached to any approval.

Environment Protection Authority (EPA)

The application was referred to the EPA in accordance with section 122 of the Act, Regulation 107(5) and Schedule 9(9) as a form of development of an activity of environmental significance (in the form of a Waste Water Treatment Plant and discharge to marine or inland waters activities as per Part 9.1 of the Planning and Design Code) and (9A) of the Regulations as a form of development for site contamination and technical advice on waste management, water quality, Noise and Air quality.

The EPA makes the following comments:

- Due to the distance from the subject site to sensitive receivers the proposal would not result in adverse air quality or noise impact.

- The EPA is satisfied that the proposed WWTP can be designed and operated in a manner which would not result in unacceptable water quality impacts. Final details for the methodology for wastewater collection, treatment and management are yet to be determined and provided. The detailed design and preparation of a Stormwater Management Plan is needed and will inform the required EPA licence application for the relevant activities. A condition relating to this is recommended.

- EPA Licences are required for both the discharge to marine or inland waters; and the WWTP. Both activities can be included in a single licence application.

- Site Contamination: The EPA notes that site contamination is known to exist at the site; realistic human health exposure pathways may exist based on the proposed land use, and remediation is, or is likely to remain, necessary to mitigate exposure risk based on the proposed land use.

  Given the unknown nature of materials previously received at the site and to fully understand the complexity of site contamination matters, it is recommended that Interim Audit Advice (IAA) is submitted to the reasonable satisfaction of the Minister for Planning prior to the commencement of site works.

A Site Management Plan (SMP) will also need to be prepared by a site contamination consultant and must have been reviewed and endorsed by the responsible site contamination auditor carrying out the audit at the site, and form part of the IAA.

- Waste Management: The information that will form part of the proposal (following the detailed design stage), that will be considered by the auditor and form part of the IAA, will require an appropriate level of understanding of the environmental condition of the receiving site as well as the nature of the incoming spoil to inform the auditor reviewed and endorsed SMP required as part of the IAA.

- It is acknowledged that the detailed design is yet to be finalised and further details regarding various environmental aspects of the proposed development are intended to be prepared. Conditions of Approval are recommended to ensure that this information is provided prior to various stages of the development occurring.

Nine conditions and 4 advisory notes are recommended to be attached to any approval. In response to the Applicant's request to amend the condition relating to the CEMP the EPA provided updated wording (refer to attachments).

Full copies of each of each statutory referral body's comments and the Applicant's response are included in **Attachment 2**.

6. PUBLIC NOTIFICATION

Pursuant to Section 131(13) of the Act a Crown development application where the total construction cost exceeds $10 million must be publicly notified. The application was notified for 20 business days between 19 March 2025 and 16 April 2025 with a public notice in the Adelaide Advertiser.

Application details were also published on PlanSA's online planning portal, and hard copies were made available at DTI-PLUS offices (83 Pirie Street, Adelaide). In accordance with Practice Direction 13 – Notification of Crown Development, two notices were placed on the land, one adjacent Eastern Parade at the main entry into the subject land and the other at Hanson Road to the north adjacent QP502.

Three representations were received during the notification period.

Name of Representor	**Wish to be heard**	**Position**
Representor 1 - Friends of Port River	Yes	Opposed
Representor 2 - Port Adelaide Residents Environment Protection Group (updated advice is attached)	Yes	Opposed
Representor 3 – B Crook (North Eastern suburbs)	No	Opposed

Concerns raised by representations

Mott MacDonald provided a detailed response to each of the submissions. Full copies of each of each representation and the applicant's response are included in **Attachment 4**.

A summary of the key issues and concerns raised by the third parties is provided below:

- Impacts on fauna and flora
- Potential environmental impacts of the Spoil Re-use Facility
- Impacts on Acid Sulphate Soils
- Inadequacy of information provided with application (including that the EHIAR has not been provided)
- Concerns about site contamination
- Impacts on stormwater quality / quantity in Magazine Creek wetlands and the adjoining creek systems, inter-tidal and aquatic zones
- Loss of opportunity for developing blue carbon to assist in Adelaide reaching net-zero emissions of carbon pollution
- Impacts of noise / dust / lights on Magazine Creek Wetlands
- Impacts on the deposition of soil on the saltmarsh and groundwater and risk of contamination
- Concerned that the filling of the land and industrial land use will reduce the capacity of the Gillman/Magazine Creek Basin to deal with potential increases in stormwater flooding events and sea level rise

7. POLICY OVERVIEW

The subject site is located within the Strategic Employment Zone and Gillman Subzone of the Planning and Design Code (the Code) Version 2025.4 (27 February 2025) under the *Planning, Development and Infrastructure Act 2016*.

Relevant planning policies are contained in **Appendix 1** and are summarised below.

7.1 Zoning

Strategic Employment Zone

The Strategic Employment Zone envisages a range of industrial, logistical, warehousing, storage, research and training land uses together with compatible business activities generating wealth and employment for the state.

Employment generating uses are to be arranged to support the efficient movement of goods and materials on land in the vicinity of major transport infrastructure such as ports and inter-modal freight facilities, maintain access to waterfront, create new and enhance existing business clusters; and ensure a pleasant visual amenity from adjacent arterial roads, adjoining zones and entrance ways to cities, towns and settlements is maintained.

Development should primarily be for a range of higher-impacting land uses, including general industry, warehouse, transport distribution and the like, supplemented by other compatible development so as not to unduly impede the use of land in other ownership in the zone for employment-generating land uses, particularly those parts of the zone that are unaffected by an interface with another zone that would be sensitive to impact-generating uses (PO 1.1).

The zone also contains specific policy relating to landscaping and fencing with landscaping to be undertaken along public roads and zone boundaries to enhance the visual appearance of the development and to soften the impact of large buildings when viewed from public spaces and adjacent land outside the zone (PO 5.1), and which incorporates landscape areas to enhance the overall amenity of the site and locality (PO 5.2).

Gillman Subzone

The Gillman Subzone seeks a range of major logistics, manufacturing, high technology and research land uses generating wealth and employment for the state that takes advantage of road, rail and ports infrastructure together with compatible business activities that support an expanding workforce (PO 1.1).

The desired outcome is for co-location of the management of Adelaide's waste, resource recovery and related processing and industrial activities to provide operational efficiencies and the economic provision of infrastructure, and provision of land for stormwater management and enhancement of tidal flow and habitat function of Magazine Creek, Range wetlands, samphire and mangroves.

The performance outcome seeks land use developments as listed above and also includes development that comprises the filling of land and associated stockpiling suitable for land reclamation and stormwater retention / detention basin. Finished Ground and Floor Levels (Minimum finished ground level is 3.7m AHD; Minimum finished floor level is 3.95m AHD).

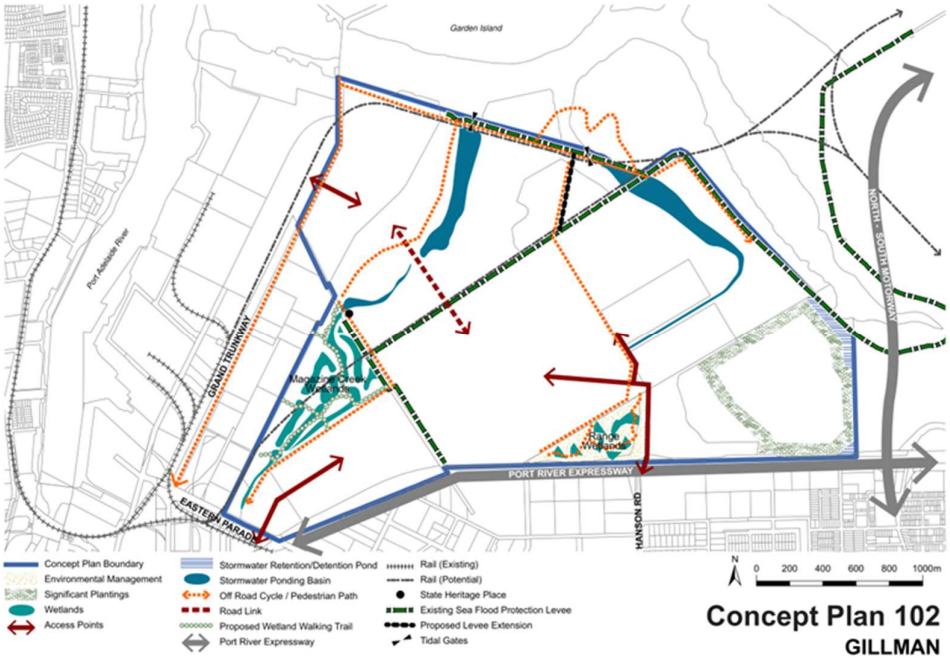


Figure 16: Concept Plan (Source: Planning and Design Code)

Corresponding Zone PO 8.1 calls for development that is compatible with the concepts and outcomes to support orderly development of land through staging of development and provision of infrastructure.

The policy framework also puts an emphasis on hazard risk minimisation measures to safeguard adverse disturbance to existing sea flood protection levees and infrastructure and to provide sufficient land for flood mitigation (including the establishment of new sea walls or sea flood protection levees) to provide protection from stormwater and seawater flooding (POs 2.2 and 2.3).

7.2 Overlays

The Code identifies the following Overlays which apply to the proposed development site.

7.2.1 Airport Building Heights (Regulated) (All structures over 110 metres) Overlay Defence Aviation Area (All structures over 90 metres) Overlay

N/A – the development height does not exceed 90m. The maximum height intended for the fill is limited to a height of 8.0m and the temporary site facilities and low scale. No referrals were required under these Overlays.

7.2.2 Advertising Near Signalised Intersections

N/A - The proposal does not involve in any form advertising or an advertising hoarding. In any event signage is an exempt form of development under Schedule 13 of the PDI Regulations. No referrals were triggered under this Overlay.

7.2.3 Prescribed Wells Area Overlay

N/A - the proposal will not involve the taking of water from a groundwater resource for which a licence would be required under the Landscape South Australia Act. No referrals were triggered under this Overlay.

7.2.4 Regulated and Significant Tree Overlay

N/A - no regulated or significant trees are present on the subject land. No referrals were triggered under this Overlay.

7.2.5 Coastal Areas Overlay

Desired Outcome: DO 1 and DO 2	**Performance Outcome:** POs 2.1 to 2.5, POs 3.1 to 3.3, POs 4.1 to 4.7 and POs 5.1 to 5.4
Key policies: The Coastal Overlay applies to the whole of the site, where it is expected that the natural coastal environment (including environmentally important features such as mangroves, wetlands, saltmarsh and estuarine areas) be conserved and enhanced. Provision is to be made for natural coastal processes and recognition of current and future coastal hazards including sea level rise, flooding, erosion to avoid the need, now and in the future, for public expenditure on protection of the environment and development. Policies relate to hazard risk minimisation, coast protection works, environmental protection and access. DPF2.2 seeks that finished ground level and floor levels should be 3.7m AHD and 3.95AHD respectively.	
Planning Assessment: The proposed development will fill land to 3.7- 4.2m AHD, enabling a development platform for future employment land uses. However, the temporary buildings and facilities to be constructed for the purposes of the operations of the SRF will not be elevated to finished site levels in accordance with DPF 2.4.	

The detailed environmental reports advise that the development will not unreasonably affect the marine and onshore coastal environment by pollution, erosion, damage or depletion of physical or biological resources or interfere with natural coastal processes or introduce and spread of marine pests and diseases or any other means. The subject land is protected by a seawall and separate levee. The filling of the land is not expected to impact on these structures. It is acknowledged that this may need to be upgraded in the future when the development potential of the land is realised. This will be the responsibility of the land owner (Renewal SA). A self-contained wastewater treatment system for the capture, treatment and reuse is proposed which will assist in protecting the coastal and marine environment. A detailed SWMP will be provided to demonstrate water quality management. Sensitive coastal samphire habitat is intended to be avoided. A relatively small area of TEC (when the overall study area is considered) will be affected (refer to the assessment below for details). There is no public access to the site and existing access arrangements on other land will not be altered, including the Magazine Creek Wetlands. A referral was required to the CPB under this Overlay. Refer to the Planning Assessment below for a detailed assessment. Based on this information provided, the proposed development is not likely to be in substantial conflict with the intent and policy framework of this Overlay.

7.2.6 Gas and Liquid Petroleum Pipelines Overlay

Desired Outcome: DO 1	**Performance Outcome:** PO 1.1
Key policies: Management of risk to public safety, the environment and security of energy supply from the encroachment of development on strategic gas and liquid petroleum pipelines.	
Planning Assessment: The land is located adjacent the Port Campbell to Adelaide Pipeline, which is an important strategic gas pipeline. The policies in this Overlay seek to mitigate community exposure to a potential hazard from the failure of a gas or liquid petroleum pipeline by locating development that may accommodate or result in large congregations of people, buildings for housing and/or caring for vulnerable people and community facilities outside areas that pose an unacceptable risk to protect life (PO 1.1). A referral was required to DEM under this Overlay. DEM advised that it is satisfied that the potential risks are capable of being adequately addressed as these matters can be covered by a suitable engineering design and, accordingly, it is not opposed to the subject to the inclusion of a number of conditions and advisory notes.	

7.2.7 Hazards (Acid Sulfate Soils) Overlay

Desired Outcome: DO 1	**Performance Outcome:** PO 1.1

Key policies: Development is located and undertaken to minimise disturbance of potential or actual acid sulfate soils and / or the release of acid drainage.
Planning Assessment: The policies in this Overlay seek to minimise soil disturbance or drainage or prevent or minimise oxidation where development may involve excavation of land or a change to a water table where potential or actual acid sulfate soils are present, and to ensure any acid drainage is treated to prevent harm or damage to the environment, primary production, buildings, structures and infrastructure or to public health. The land is susceptible to acid sulfate soils but the proposed SRF involves the filling of the land only with no excavation or a change to the water table. The likelihood of encountering acid sulfate soils for the majority of the SRF site will be low because the existing soil profile will not be modified as the land will be filled with spoil, thereby retaining potentially acid sulfate soils further below the ground surface and existing water table. However, should acid sulfate soils be encountered mitigation measures in line with the CPB's guidelines, as well and those of the EPA and the Department, will need to be considered. A referral was undertaken to the CPB under this Overlay. CPB advice confirmed the view that the development site may have the potential to develop acid sulfate conditions if exposed to oxygen although a set of guidelines has been released which shall be followed in areas where acid sulfate soils are likely to occur. The provisions of this Overlay are believed to be satisfied.

7.2.8 Key Railway Crossings Overlay

Desired Outcome: DO 1	**Performance Outcome:** PO 1.1
Key policies: Safe, efficient and uninterrupted operation of key railway crossings.	
Planning Assessment: The nearest railway crossing covered by the Overlay is located approximately 200m to the SW of Eastern Parade below the PREXY. As the proposed access point to the subject land is existing and located some distance from this crossing, it is not envisaged that site access will directly interfere with or impact on the safe operation of the crossing based on the travel paths for spoil trucks. The provisions of this Overlay do not affect and do not apply to the proposal in its own right. A technical referral was not undertaken to the ARTC. It is noted that a referral was undertaken for the Part 1 DA and the ARTC advised that it has no comment to make as the key railway crossing is separated from the development site by a road. Consequently, there is no issue with the proposal.	

7.2.9 Major Urban Transport Routes Overlay

Desired Outcome: DO 1, DO 2	**Performance Outcome:** PO 1.1, PO 2.1, PO 3.1, PO 5.1, PO 6.1, PO 7.1, PO 9.1, PO 10.1

Key policies: Safe and efficient operation of Major Urban Transport Routes for all road users, and the provision of safe and efficient access to and from Major Urban Transport Routes.
Planning Assessment: The Overlay is focused upon ensuring that the safe and functional operation of the State's Major Urban Transport Routes is not jeopardised by the number/location/nature of entranceways associated with new development. The relevant policies seek to limit access points to minimise interference with traffic flow along the State Maintained Road; to ensure that access points are appropriately located to allow vehicles to queue without impacting traffic flow; and to maintain the safe and efficient operating conditions of the road for all road users. The proposal will not change the access arrangement as per the original Part 1 application and as such the previous traffic assessment is still relevant. The subject land will utilise the existing access point onto Eastern Parade, a State Maintained Road, for traffic movements delivering the soil to the SRF site and then exiting. For spoil trucks, the Eastern Parade driveway will provide access to/from the SRF facility via left in/left out turns only, with no right turns permitted, and it is anticipated that the traffic movement will have little effect on traffic along Eastern Parade (a conclusion reached by the Access Driveway Assessment report). The proposed development accords with the intent and policy framework of the Overlay since the proposed access arrangement has been designed to integrate with the existing transport system, it will utilise the existing access point and its location and capacity upgrade will not result in a deterioration of, nor interrupt, the safe and efficient flow of traffic along the State Maintained Road. A referral to the Commissioner of Highways was required by this Overlay. The formal response from the Commissioner raised no objections to the proposal and recommended conditions.

7.2.10 Non-Stop Corridor Overlay

Desired Outcome: DO 1	**Performance Outcome:** PO 1.1
Key policies: Safe and efficient operation of non-stop corridors, where free-flowing traffic movement is prioritised.	
Planning Assessment: The Port River Expressway (PREXY) is a Non-Stop Corridor, with existing grade separated junctions at Eastern Parade, and is located adjacent the site, although no direct access to the expressway itself is being proposed or necessitated by the operational requirements of the facility. Access to PREXY will be via Eastern Parade and then the up ramp onto the expressway. The proposed development will therefore not impact on the performance of PREXY, its transport efficiency or the general flow of its traffic movement. Accordingly, the intent and policy framework of this Overlay are met. A referral to the Commissioner of Highways was required by this Overlay. Refer to comments made above in Major Urban Transport Routes Overlay section.	

7.2.11 Traffic Generating Development Overlay

Desired Outcome: DO 1, DO 2	**Performance Outcome:** POs 1.1 to 1.3
Key policies: Safe and efficient operation of Urban Transport Routes and Major Urban Transport Routes for all road users and the provision of safe and efficient access to and from urban transport routes and major urban transport routes.	
Planning Assessment: The policy framework requires development to be designed to minimise its potential impacts on the safety, efficiency and functional performance of the State Maintained Road network with access points sited/designed to accommodate the type and volume of traffic likely to be generated by the development; also that on-site queuing space is sufficient to avoid queues impacting upon the road network. See comments made above in the Major Urban Transport Routes Overlay. No referrals were triggered under this Overlay.	

7.2.12 Hazards (Flooding) Overlay / Hazards (Flooding – General) Overlay

Desired Outcome: Hazards (Flooding) Overlay – DO 1 Hazards (Flooding – General) Overlay DO 1	**Performance Outcome:** Hazards (Flooding) Overlay: PO 2.1, Flood resilience 3.1 – 3.6. Hazards (Flooding – General) Overlay: Flood resilience – PO 2.1, 3.1
Key policies: The policies for the flooding Overlays require the appropriate siting and design of development to minimise the impacts on people, property, infrastructure and the environment from general flood risk. Impacts on people, property and infrastructure and environment are to be minimised by retaining areas free from development. Development should not create unacceptable impacts on any adjoining property by the diversion of floodwaters or an increase in flood velocity or flood level. The depth and extent of fill required to raise land to the FFL should not cause unacceptable impacts by diversion of flood waters. Development avoids the need for flood protection works	
Planning Assessment: The Overlay seeks to prevent impacts to land caused by flooding and to avoid the need for flood protection works. Refer to the coastal assessment below.	

7.2.13 Prescribed Wells Area Overlay

Desired Outcome: DO 1	**Performance Outcome:** PO 1.1
Key policies: Sustainable water use in prescribed wells areas.	
Planning Assessment: The Overlay seeks to ensure that development has a lawful, sustainable and reliable water supply and does not place undue strain on water resources in prescribed water resource areas (PO 1.1).	

The proposal is not a land use that will involve the taking of water from a groundwater resource for which a licence would be required under the *Landscape South Australia Act*. The proposed development therefore satisfies the relevant DTS/DPF parameter (DTS/DPF 1.1) and therefore accords with the intent and policy framework of this Overlay. No referrals were triggered under this Overlay.

7.2.14 Water Resources Overlay

Desired Outcome: DO 1, DO 2	**Performance Outcome:** POs 1.1 to 1.3 and POs 1.5 to 1.9
Key policies: Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures as a result of climate change and maintain the conveyance function and natural flow paths of watercourses to assist in the management of flood waters and stormwater runoff.	
Planning Assessment: The Overlay seeks to ensure that watercourses and their banks are undisturbed, and that the management of existing drainage and surface water paths, and their conveyance function, is not disrupted. The Overlay has been spatially applied to existing water bodies and watercourses to protect them from development that might damage/modify/interfere with the existing hydrology or water regime and, in this instance, covers the Magazine Creek Wetlands to the immediate north of the subject land. The filling of the site will cause existing watercourses on the subject land to be modified. The Applicant advises that these *are not functional watercourses from a hydrology perspective due to the past modifications to water flows through the construction of levees, the Range Wetlands and the Port River Expressway. They remain low-lying areas that are inundated by water flowing from the north along the eastern side of the levee*. *The watercourses are not identified as such on Concept Plan 102 – Gillman and were assumed to be filled in the Gillman Master Plan that informed the concept plan. However, the proposed development does not completely fill these areas due to the presence of samphire habitat for protected bird species.* PO 1.5 seeks that when development increases surface water run-off it includes a suitably sized strip of vegetated land on each side of a watercourse to filter runoff. It is proposed that there will be perimeter bunds and catch drains around the fill mounds to catch surface runoff and intercept groundwater. While treated wastewater will be discharged to the subject land, this will be consistent with the runoff volumes under current rainfall events. As previously mentioned, water will be stored, treated and reused on site in a closed system so as not to result in pollution of watercourses.	

7.3 Technical Numeric Variations (TNVs)

- Minimum finished ground level – 3.7m AHD
- Minimum finished floor level – 3.95m AHD
- Concept Plan (Concept Plan 102 - Gillman)

The fill operations will meet the TNV value for finished ground level. The height of the fill is proposed to be up to 8.0m AHD, i.e. well in excess of the TNV, but this will be a temporary measure only (albeit possibly up to a 6 or 7 year period) and will then be compacted to a final height of between 3.7m and 4.2m AHD which would align with the Code's TNV standard. This process will result in a suitable base being prepared which will be able to properly support major industrial and employment-related development in the future, as envisaged by zone and subzone policy.

7.4 Development Policies

As a performance assessed application, and as zone *Table 3 - Applicable Policies for Performance Assessed Development* does not expressly list the filling of land, all policies of the Code apply where deemed to be related to the assessment. As far as the General Development Policies are concerned, the following key provisions have been identified as having particular relevance for this development:

Key policy reference	**Relevant policies**
Strategic Employment Zone	DO 1, DO 2, DO 3, PO's 1.1, 3.1, 3.2, 3.3, 3.5, 5.1, 5.2, 6.1, 8.1
Gillman Subzone	DO 1, DO 2, PO 1.1, 2.1,
General Policies	
Design in Urban Areas	DO 1, PO's 1.5, 2.3, 3.1, 4.3, 5.1, 7.2, 8.1, 8.4, 8.5, 9.1, 9.2, 13.1, 25.1, (water sensitive Design) 42.1,42.2, 42.3, 43.1
Design	Provisions same as above – including landscaping PO's 3.2, Design of Transportable Dwelling 21.1, Water Sensitive Design PO's 31.1, 31.2, 32.1 (identical to PO 42.1 - 42.3 above)
Interface between Land Uses	DO 1, PO's 1.2, 2.1,4.1, 4.2, 5.1, 6.1, 6.2
Site Contamination	DO 1, PO 1.1
Transport, Access and parking	DO 1, PO's 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 3.1, 3.3, 3.8, 3.9, 5.1, 6.2, 6.5, 6.6,

Refer to Appendix 1 for the relevant policies.

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the Code, which are contained in **Appendix 1**.

8.1 Land use

The Strategic Employment Zone anticipates a range of industrial, logistical, warehousing, storage, research and training land uses that are compatible with its location and setting to manage adverse impacts on land in adjacent zones.

The Gillman Subzone reinforces the zone's intended land use goals by expanding and giving a stronger focus on developing and co-locating major logistics and manufacturing plants, high technology and research opportunities that generate wealth and employment for the State. In addition, the subzone anticipates that the land needed for environmental purposes, such as for stormwater management and the enhancement of tidal flow and habitat function of Magazine Creek, Range wetlands, samphire and mangroves, should not be developed.

The Gillman Subzone anticipates the filling of land and associated stockpiling suitable for land reclamation, although this is more in the context of building up low-lying land so that it is able to subsequently support the development of employment-related activities rather than a land use in its own right.

The proposed development is twofold. Firstly, it entails a change of land use from vacant land to a temporary SRF (for the re-use of spoil material, to store and dispose of fill derived from the bulk earthworks associated with the T2D Project). This includes temporary buildings/structures and site facilities to be established on the site which are related solely to supporting the SRF facility. The SRF is an undefined use within the Zone.

Secondly the proposal is for earthworks within the Coastal Areas overlay to permanently increase the height of the land. Finished site levels of 3.7m AHD are required within the Gillman Subzone (DTF 2.4) to protect land from coastal inundation. The proposal will achieve this, as at the cessation of the SRF the finished ground design level will be between 3.7m and 4.2m AHD, with a final fill height of 3.7m above natural ground level and a typical embankment with 1-in-4 slope.

There will be a lower finished ground level in areas where operational facilities are located and once these facilities are removed further filling by Renewal SA may be required to facilitate future development of the land in line with the Gillman Master Plan. This will be subject to a separate approval process.

The filling of land is an essential precondition to achieving the strategic intent for the zone to accommodate future built form associated with industrial and major employment-generating activities. The proposal will therefore allow for the intent of the zone to be realised and is consistent with the desired use for the land within the Strategic Employment Zone and Gillman Subzone.

The development is compatible with the outcomes sought by the Gillman Concept Plan which is relevant to the site. It is considered that the proposed development, both in its interim and final forms, will be an acceptable land use within the zone/subzone.

There are a number of hazard risk minimisation provisions which will be considered later in this report.

8.2 Height and Built Form

Policies outlined in Design / Design in Urban Areas (DO1) seek development that is contextual, durable, inclusive and sustainable. Primary policy matters identified focus on:

- contextual to the built environment, fit for purpose, integrated and sustainable development, (being more of relevance to 'bricks-and-mortar' built form)
- built form aesthetic outcomes
- stormwater management and pollutants and water quality
- on-site activities such as loading/unloading, storage, waste, wash-down areas

The essential nature of the proposal is to accommodate soil derived from the T2D earthworks by depositing it over the majority of the site and gradually building up the ground surface accordingly. There is no permanent 'bricks-and-mortar' construction proposed which would have a 'design' focus. Notwithstanding this, as the site is proposed to be elevated up to 8.0m AHD the platform will be clearly visible within the locality and will significantly alter the sites appearance and that of the surrounding area.

In practical terms, it is merely a mound of dirt with no permanent development on it, which will be temporary (albeit for an extended period until 2031) pending the completion of the T2D project when the platform will be compacted and flattened to a final finished ground level in accord with the Code's TNV standard. The excess engineered fill will act as a preload and assist in the overall longer-term FFL for the site of 3.95m and for future industrial land uses. This is consistent with the approved development on Q501 and is consistent with existing and intended filled development sites in Gillman or generally.

Given the industrial context of the locality and strategic intention for the site the short-term mound height is considered acceptable. To assist in minimising the immediate visual impacts, the applicant proposes landscaping on the boundary with the bicycle/pedestrian pathway. This is consistent with the approved site for Q501 which included a similar condition of approval.

Temporary facilities are proposed in relation to the operation of the site for the duration of the filling activities, including site office buildings, staff amenities, workshops and sheds for the storage of vehicles and goods, washdown facilities for trucks and trailers, weighbridges, aboveground water tanks and fuel storage facilities in the form of self-bunded fuel tanks.

The general layout and appearance of these structures is consistent with a proposal of this nature and are temporary in nature. The appearance of the buildings is low in form and transportable in nature and their appearance would not be out of character with the types of structures commonly found in industrial areas.

Whilst the final details of these buildings are yet to be determined with the plans and elevations currently being indicative, the final details may be subject to a condition of approval for final approval by the Minister. This would be consistent with the approval for the Part 1 application.

The proposed development will include the provision of fuel storage and refuelling facilities for off-road plant and equipment, in the form of self-bunded fuel tanks. The total storage volume is less than 100m^3 or 100,000L which is below the threshold for an EPA license.

Chain mesh security fencing (1.8m high) around the southwestern, southeastern and northeastern perimeter is proposed, although this work is exempt from requiring a Development Approval under Schedule 13 of the PDI Regulations.

8.3 Amenity and Character

The Strategic Employment Zone seeks to ensure that development provides a pleasant visual amenity from adjacent arterial roads, adjoining zones and entrance ways to cities, towns and settlements and includes distinctive building/landscape/streetscape design to achieve high visual and environmental amenity, particularly along arterial roads, zone boundaries and public open spaces.

As referenced above, the proposal itself will not provide a high level of visual or environmental amenity to the area. However, given the temporary nature of the SRF development the proposed facilities and the mound, up to 8m in height is considered to be acceptable. The following matters have been taken into consideration in the assessment:

- The subject land is currently of low visual amenity, located adjacent a major road corridor, other commercial and industrial land uses (including waste treatment, recovery and recycling/landfill/distribution and logistics) as well as vacant land.

- The proposed built form will be temporary and will be dismantled at the completion of the SRF process, and will be on a far smaller scale than, and dwarfed by, the neighbouring warehouse-type buildings already established on the southern boundary of the subject land. Given the context of the existing locality the visual impact would not be overly obtrusive in the prevailing landscape character.

- Opportunities to view the proposed SRF and its associated infrastructure are limited due to a combination of the distance to the site from publicly accessible viewing locations, the presence of roadside vegetation and vegetation surrounding the broader site. Notwithstanding this, additional landscaping is proposed. This includes plantings at the embankments, catch drains and along the southern edge of the subject land adjacent to the Port River Bikeway. This will assist in screening the proposed development and mitigating some of the visual impacts.

- At completion of the filling of the land and decommissioning of the SRF there will be greater consideration given to the built form and landscaping treatment to meet the Code provisions, consistent with the Strategic Employment zoning, but in the end will be developed as an area that accommodates industrial and commercial development.

- The vertical scale of the proposal will initially be higher (up to 8.0m AHD) than the subzone's anticipated finished ground level but once the fill has been compacted and reduced to its final compacted height (one that will reflect Code policy), the fill on the land will appear as an elevated but flattened mound of soil that will blend into the surrounding landscape and will be consistent with existing development in Gillman.

In summary the proposed ultimate height is in line with Code expectations as well as being reflective of the existing development pattern in Gillman. The temporary visual prominence resulting from the 8m height profile is transient and eventually the filled site is not likely to adversely affect, or be out of place within, the prevailing landscape (and the existing and future built form conditions) displayed in the locality.

8.4 Interface impacts

Primary policy matters identified (DO1, PO 1.2, 2.1, 4.1, 5.1, 6.1, 6.2) focus on mitigation of interface impacts, hours of operation, noise, air quality and lighting.

The subject land is not adjacent to any site containing a sensitive receiver or to a zone primarily intended to accommodate sensitive receivers and is surrounded by the Strategic Employment-zoned land, which is intended for full-scale industrial and substantial economic-related development.

The nearest housing is located approximately 1km to the south in the suburbs of Ottoway and Rosewater, Port Adelaide. Housing is also located at Dock 1 (approximately 1.5km to the SE) and Birkenhead (approximately 2km due east). These separation distances from the subject site are considered adequate so as not to cause undue nuisance to sensitive receivers from the activities generated by the SRF operations, such as dust, noise, light spill, traffic or massing. It is noted that the SRF will operate 24 hour/7 day. Given the site's location relative

to sensitive receivers, the adjoining development and location of the Port River Expressway there is not expected to be a resultant interface impact.

Off-site impacts will be avoided and/or mitigated through the design, construction and operational phases of the SRF to ensure acceptable levels of environmental protection. The Final Site Management Plan to be prepared by the T2D Alliance and the CEMP to be prepared by the incoming contractor (including a Construction Noise and Vibration Management Plan, Nightworks Management Plan, Acid Sulfate Soils Management Plan and a Sediment Erosion and Drainage Management Plan) will specify methods to ensure that off-site impacts associated with air quality, noise and light spill will be managed and appropriately mitigated.

The proposed development is unlikely to have adverse interface effect on sensitive receivers or the zone's current and anticipated employment-generating uses. Of greater risk is the potential impact with the adjoining environmental and biodiversity ecosystems, which are considered below.

8.5 Stormwater and Wastewater Treatment and Environmental Management

The Gillman / Dry Creek area is adjacent to the Barker Inlet, a tidal inlet of Gulf St Vincent and is a mixture of low-lying and filled land. The undeveloped area are predominantly tidal flats and salt marshes, protected by a sea wall and tidal gates. The low-lying areas form part of the stormwater system and are considered four separate basins, comprising the Magazine Wetlands; Magazine Basin; Range Wetlands; and Range Basin.

The Magazine Creek Wetlands has significant environmental and biodiversity values and is home to the Subtropical and Temperate Coastal Saltmarsh listed as vulnerable under the EPBC Act as have a number EPBC listed migratory bird species.

Refer to the Applicants planning report (*Stormwater, Groundwater and Flooding*) for detail on how the stormwater and groundwater system operates in the area.

The Applicant explains that the proposed development will accommodate stormwater drainage infrastructure which captures surface runoff from the fill formation and on-site facilities during rain events, as well as water released by the TBM spoil during storage in stockpile bins or during the treatment process on the drying pans. Infrastructure is also provided for overland flow paths, in the event of overtopping of the Range Wetlands in storm events.

Drainage will be managed using catch drains with grading to induce runoff to the catch drains and sediment controls implemented downstream of all stockpiles. Approximately 90% of the infiltrated water is predicted to be intercepted in the perimeter drains with about 10% of the water directed away from the spoil embankment as part of the existing groundwater flow system below the subject land. The runoff will be directed into a closed loop system of local storage and treatment on-site in the WTP and reused for dust control, wheel washes, wash out bays and material conditioning. This grey water will be re-captured during truck/plant washing and fed back into the system.

It is intended that the closed loop system will allow for the reuse of as much water runoff as possible, however surplus treated water may be discharged into the Magazine Creek basin and Barker Inlet or infiltrate groundwater. As this discharge to the environment will potentially exceed 500kL per day in winter (and as the water will be treated, a referral to the EPA for discharge to marine or inland waters was required.

The discharge point is downstream of and not connected to the Magazine Creek wetlands managed by Council and the applicant advises that this will not impact upon the wetlands

function or performance. They advise that this is the same location where surface water runoff from the existing site already collects.

The approach to stormwater management will be further refined by the Applicant through detailed design and development and the preparation of a Stormwater Management Plan (SWMP).

The EPA is satisfied that the proposed WWTP can be designed and operated in a manner so as not to result in unacceptable water quality impacts. The EPA advises that final details are yet to be determined for the methodology for wastewater collection, treatment and management and the detailed design and preparation of the SWMP will inform the EPA licence application. The EPA has recommended a condition relating to this matter.

Drainage following Decommissioning

Following the decommissioning of the SRF the stormwater will be managed in accordance with the SWMP requirements and directed to existing stormwater discharge points. Passive drainage provisions (catch drains and storage basins) from the operational stage will be used in conjunction with connections to existing stormwater discharge points.

Conclusion

The applicant is confident that proposed stormwater management measures to capture, control and manage silt, sediment and pollutants from the site are sufficient to safeguard the integrity of the adjacent wetlands area and to prevent silt and pollutants entering the Council's stormwater network. To ensure this is the case, various management plans will be required to the satisfaction of environmental bodies and council, which include a Final Site Management Plan (as part of the final site Audit) and a CEMP that demonstrates compliance with environmental and waste management legislation and practices.

The proposed stormwater management and treatment systems, along with the CEMP, will ensure that necessary measures are put in place to achieve suitable environmental performance in order to prevent the wetland and biodiversity values being compromised. As the State Government is, for legal purposes, the owner of the land, there is a level of comfort that the future works will be put in place to ensure a suitable stormwater management strategy is implemented. This is similar to the position taken for the Part 1 proposal on Q501.

It is therefore not expected that there will be any detrimental environmental impact upon Magazine Creek Wetlands and to ground and surface water from the stormwater generated by the proposed SRF or as a consequence of the filling of the land, subject to the satisfactory completion of these management plans.

8.6 Acid Sulfate soils

The likelihood of encountering acid sulfate soils for the majority of the SRF site will be low, as the existing soil profile will not be modified or excavated, but is being filled with spoil, potentially acid sulfate soils further below the ground surface and existing water table will thereby be retained. However, should acid sulfate soils be encountered, the environmental report outlines that mitigation measures consistent with the CPB's guidelines, as well and those of the EPA and the Department, will need to be taken account of.

8.7 Coastal Environment and Habitat

The subject land is located near the Barker Inlet, a tidal inlet of Gulf St Vincent, and is approximately 0.5m above sea level but is not subject to inundation due to current stormwater flooding or potential sea level rise. The area comprises mainly tidal flats and salt marshes and the proposed SRF is protected by a levee bank. Due to its proximity to the Barker Inlet, the site area is underlain by a near surface water table.

Whilst the CPB has not objected to the proposal it raised a number of matters requiring further consideration (refer to the CPB comments and the Applicant's response for details). It is acknowledged that the representors and Council have also expressed concerns with potential impacts on the coastal habitat.

Finished Floor Levels

The minimum building site and floor levels of 3.7 metres and 3.95 metres Australian Height Datum (AHD) respectively is achieved for the site. While the CPB seek an additional 0.7m to 4.4m AHD due to potential sea level rise to 2100, this is not a requirement under the Code and cannot be mandated. In any event, the land could be further raised in the future if required. Based on the Code provision the Finished Ground Level is considered suitable.

The CPB also advised that the temporary buildings are not proposed to be elevated to recommended site levels and therefore vulnerable to flooding. The CPB recommended a Flood Emergency Plan be prepared for the temporary facilities. The Applicant advises that the location of the temporary buildings are sited in a location unlikely to be flooded. In addition, the existing ground level will be filled to 2m AHD which is above the 10% AEP. This is considered acceptable given the temporary nature and type of facilities for the SRF.

Flooding

Gillman is protected by a coastal levee bank and tidal gates, which may require repair and or upgrade to minimise flood hazard risks now and in the future. The tidal gates are in government ownership (Renewal SA) and are not proposed to be upgraded at this point in time.

The representors, Council and the CPB all expressed concerns about the need for an upgrade to the tidal gates and who would be responsible for these works.

The evidence provided by the Applicant is that the upgrade to the tidal gates and coastal levy bank is not required as part of this application. It was acknowledged that it may be required in the future, when the land is realised for its intended purposes. Renewal SA, as the land owner will be responsible for these works.

The CPB noted that the filling of the land is likely to increase flood impacts upstream of the tidal gates resulting in longer periods of freshwater inundation and changes to ecological communities' distribution, composition, health and condition, and habitat value. This may impact the mapped Subtropical and Temperate Coastal Saltmarsh TEC and associated EPBC Act listed species adjacent to the spoil site. The CPB made recommendations relating to this (refer CPB advice for details).

The Applicant provided a detailed response to the CPB comments on flooding (refer to Attachment 4). Based on their investigations they consider the flooding impacts to be modest with 25 to 110 millimetre increases above existing conditions during *Mean High Water Springs** (with future sea level rise from climate change and no change to the existing tidal gates).

In addition, they advise that the flood modelling generally shows that areas outside of the Magazine and Range Basins that were modelled stay dry in a worst-case flood event (with no

filling of land) also stay dry in an ultimate filling scenario. A small section of land showed flooding to the north, although this is outside the subject land to be filled. Therefore, the proponent has concluded that the impacts from the proposed filling of land will be significantly less than illustrated and will be contained almost entirely on the subject land.

Note: **Mean High Water Springs* means the average height of the two highest daily high tides during periods of spring tides (within an approximately 24hr period).

Buffer to Wetlands

Council also raised concerns regarding a 6m buffer to the wetlands to provide for maintenance. As the Applicant has explained the SRF does do not encroach on the Magazine Creek or Range Wetlands or existing access tracks and a road currently exists and will be retained within their boundaries. Access points to the wetlands are therefore not impeded.

The CPB requests a 50m buffer from the wetlands to the fill platform. The Applicant has advised that the application achieves this buffer.

8.8 Biodiversity - *Commonwealth Environment Protection and Biodiversity Conservation Act, 1999* (EPBC)

The proposed development is adjacent the Range Wetlands and the Magazine Creek Wetlands. As previously states the Range Wetlands is a Subtropical and Temperate Coastal Saltmarsh habitat which is part of a TEC, and the Magazine Creek has significant environmental values and is home to a number of EPBC Act Vulnerable Species.

As previously mentioned, the filling of land in Option 2 (revised prior to lodgement) includes a filling area which impacts 1.11ha of mapped TEC. This equates to 0.76% of the 146.03ha of TEC affected land in the Study Area.

See **Figure 17** below for the subject fill area and TEC affected.

Two of the representors, Council and the CPB raised concerns with potential impacts of the development on the TEC area. It was suggested that the 1.11ha portion of land within the TEC be excluded from the fill site to minimise impacts on saltmarsh habitat and vulnerable species, to further minimise both direct and indirect impacts.

It is noted by the Applicant that most of the area of TEC in the locality is outside of the subject land, concentrated in the Range and Magazine Basins to the north. The TEC is potential habitat for Calidris acuminata (Sharp-tailed Sandpipers), a vulnerable and migratory bird species protected by the EPBC Act. The TEC itself is not protected by the EPBC Act (and is not one of the six listed RAMSAR wetlands in South Australia). It is further noted that the subject land is not in an area that is subject to the NV Act.

The most recent environmental investigations undertaken Umwelt for the Applicant, based on the revised Option 2 fill area, conclude that the development will not trigger an EPBC referral. In summary Umwelt advise that the impacted TEC area (i.e the 1.11ha portion of land):

- is degraded and may not meet all of the TEC diagnostic criteria such as tidal influence;
- is unlikely to directly or indirectly cause a Significant Impact to any MNES or potential MNES habitat;
- does not regularly support a population of a Critically Endangered or Endangered threatened species and does not regularly support an important population of a Vulnerable threatened species;
- does not impact important habitat for migratory shorebirds.

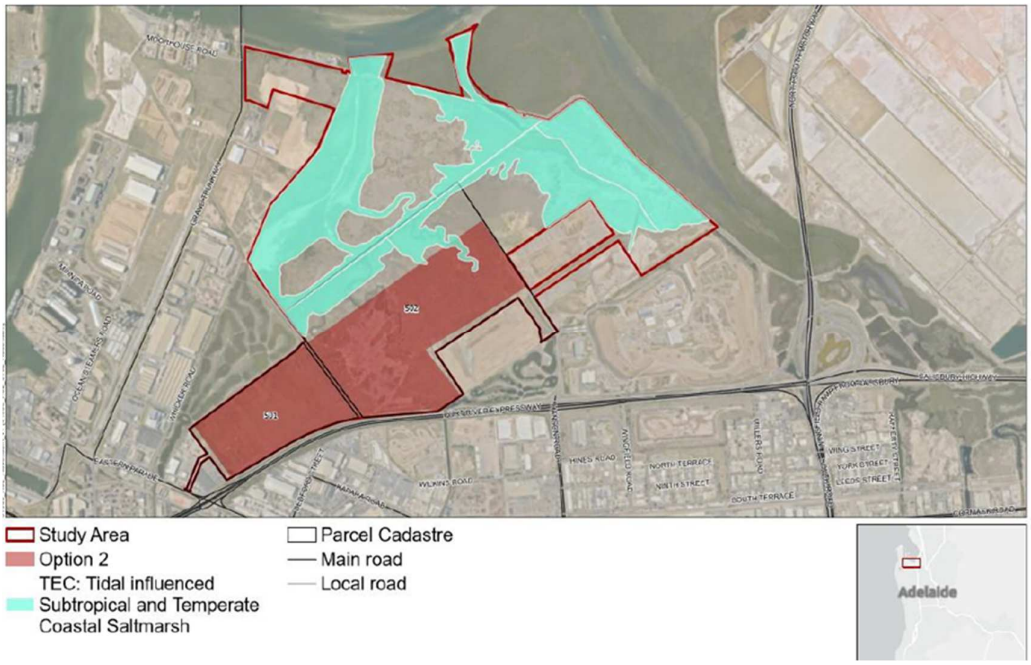


Figure 17: Option 2, showing impact to Subtropical and Temperate Coastal Saltmarsh TEC (Source: Unwelt Addendum, Feb 2025)

Whilst is it is noted that the CPB prefers other options for the filling of land than what is proposed, the applicant has applied for Option 2 and this is what must be assessed. It is further noted that the CPB has not objected to the proposal, although has recommended a number of conditional requirements. This includes a minimum of a 50m buffer between the wetlands and the edge of the spoil, which is achieved by the development.

Having considered the zoning intent of the land for industrial and employment type land uses with a requirement for the minimum filling of land, combined with the environmental advice provided by the Applicant the fill area proposed in this application is considered acceptable.

The evidence provided by the Applicant is that the relatively small area of land which impacts on the TEC is degraded and located on its outer edge. Based on recent investigations, this area of land does not, on its own, support endangered species and was found not to be important habitat for migratory shorebirds nor is it protected by the EPBC Act. For these reasons the fill platform as proposed by Option 2 is considered acceptable.

8.9 Traffic and access

The proposal is ancillary and will operate in accordance with the approved Part 1 development for Q501. The original DA considered the overall traffic volumes and the traffic and access volumes for the overall development, and as such the current application aligns with the findings of the previous assessment.

The proposal will generate a considerable volume of traffic, nearly exclusively heavy trucks transporting the soil from the T2D earthworks to the subject land mostly via the State Maintained Road network and avoid the use of local roads or residential streets.

The number of trucks accessing the land will be up to an estimated 33 per hour (ie a truck every 2 minutes) when maximum excavation will be occurring, although the average delivery

would be around 17 trucks per hour (ie one truck every 3 to 4 minutes). The traffic volume and its frequency will be continual and quite intense.

The impact of traffic on the area and road network is considered acceptable for the following reasons:

- The SRF will be integrated with the existing transport system and has been designed to minimise any impact on the function of the surrounding road network.
- The SRF is unlikely to adversely impact at and around the subject land due to the non-residential land use pattern within the locality whereby there are no residents who live in the vicinity who could be affected.
- The Strategic Employment Zone envisages significant development uplift. Because of its major State-wide importance in promoting employment and economic activity, there is an incentive and an opportunity for business enterprises being motivated to operate on an around-the-clock cycle. Economic activity of this dimension and intensity is not exceptional within a busy manufacturing and inter-modal transport/freight area. This factor does help determine the locality's transport movement and consequent amenity characteristics. In this context, the heavy vehicle traffic generated by the SRF, although substantial, would not necessarily be unconventional within the locality.

Other aspects of the development relating to traffic and access are also considered to be manageable.

- In accordance with applicant's Access Driveway Assessment report and the referral response from the Commissioner of Highways the ingress and egress to the site via the internal driveway 'leg' onto Eastern Parade is considered acceptable. This will be upgraded in any event to support ease of movement and the queuing of vehicles within the land. The assessment also anticipates that the development will have little effect on traffic along Eastern Parade. Existing sightlines at this junction and the other intersections identified as part of the spoil haulage routes are not compromised.
- The Commissioner of Highways had no comments to make, recommending 3 conditions. A Traffic management Plan was required to be provided as part of the Part 1 DA. Any upgrades required to the DIT road network in the short term, and/or into the future, to safely manage the vehicle movements associated with the SRF will be considered as part of the Part 1 DA. However, this condition is recommended to be repeated for the Part 2 DA to ensure this occurs before the works occur on Q502.
- All loading/unloading will occur entirely within the subject land so as to avoid interrupting the operation of the abutting public roads. Moreover, the subject land has sufficient space near to the location of the temporary site facilities to accommodate the car parking requirements for SRF staff and workers. The site plan shows a formal car park area consisting of 20 individual car parks. Note that there would be ample room within the compound area to supply additional car parking depending upon future requirements of the incoming T2D Alliance.

8.10 Site contamination

Primary policy matters identified focus on land suitable for its intended use, particularly changes of land use to a more sensitive use.

Currently the land has no use and the filling of land in and of itself does not represent a 'usable' form of land use. The use of the land as a SRF is not considered to be a sensitive use.

Nonetheless, the SRF will be subject to the EPA's WDF Standard which identifies the testing, submission and approval requirements for waste derived fill and details the process of the

Auditor Protocols and the role of the Site Contamination Auditor. Soil generated by the T2D earthworks will be tested prior to delivery to the subject land.

Any soil contamination will be covered by spoil, which will limit potential exposure, and future development for industrial and related land uses will likely cap the fill with buildings and hardstands thereby further limiting exposure and infiltration

9 CONCLUSION

The proposal is for a change of use of vacant land to a dedicated and temporary Spoil Re-use Facility (SRF) until 2031 and the long term filling of the land. This involves a temporary platform of spoil up to 8.0m AHD in height, which in time will be compacted and levelled and ultimately have a minimum finished floor level of between 3.7m and 4.2m AHD.

The proposed SRF will accept spoil material generated by the earthmoving operations (tunnelling and excavation) associated with the River Torrens to Darlington (T2D) road infrastructure project. The facility will operate 24 hours per day / 7 days per week for the duration of the construction of the T2D Project, at which time the SRF is expected to be decommissioned.

The fill operations also require the construction of associated temporary management facilities such as hard stand areas, weighing and vehicle washdown facilities, storage compound, maintenance area, workforce amenities, lighting, security fencing and on-site water treatment.

It is noted that the Minister for Planning approved Part 1 of the development being for a SRF on the adjacent site and similar issues have been considered - although that land did not encroach onto the TEC.

The subject land is within the Strategic Employment Zone and the Gillman Subzone where major industries, economic and employment generating activities are envisaged, which take advantage of major transport infrastructure such as ports and inter-modal freight facilities. The subzone reinforces these land use/development targets but also places an emphasis on the area's environmental importance and for land to be provided for stormwater management and enhancement of tidal flow and habitat function of Magazine Creek, Range wetlands, samphire and mangroves.

The filling of land and associated stockpiling suitable for land reclamation is an envisaged form of development in the subzone, which is a recognition of the subzone's general low-lying nature and the need to protect new development being exposed to sea flood risk and sea level rise by raising the ground surface to an appropriate safe level so that sites are able to realise their future development potential for the strategic general industry/warehousing/logistical/transport distribution-related activities actively advocated by both zone and subzone policy.

The proposal ultimately results in a raised platform over the majority of the subject land which is consistent with the Code's TNV minimum finished ground level of at least 3.7m AHD to address sea level rise, thereby being capable of facilitating the future redevelopment of the land for employment-related land uses as envisaged in the zone/subzone.

The change of land use to a SRF and the ultimate filling of land are supportable uses within the zone and subzone allowing for the land to be realised to its full potential. The key considerations associated with the proposal relate to potential environmental impacts on the surrounding sensitive environment and habitats. Whilst agencies have not objected to the proposal the CPB has identified areas requiring further consideration and the Council and representors have raised environmental concerns.

In summary, the main issues focus upon the coastal ecology (especially the Magazine and Range Wetlands), biodiversity (flora and fauna) with impacts on Threatened Ecological Communities (TEC), acid sulfate soils, water quality, environmental nuisance impacts (noise, vibration, air/dust, light) and the adequacy of the stormwater management system being proposed. The applicant provided a response on the concerns raised and advises that more detailed investigations, documentation and designs are recommended to be provided through conditions of approval. These will accompany the proposed stages to minimise any environmental impact.

It is considered that the applicant has suitably demonstrated that the proposal, if undertaken in a carefully managed manner consistent with the environment studies and designs prepared and to be prepared, is unlikely to result in environmental harm to the coastal ecology or receiving water ways (biodiversity, flora and fauna, wetlands), acid sulfate soils, water quality or create unacceptable environmental nuisance impacts. The environmental impacts of the filling of Q502 and the operations of the SRF are considered to be acceptable and can be managed through appropriate measures, including licenses required under the Environment Protection Act.

As with the Part 1 DA for Q501 the proposal provides acceptable vehicular access to the site service the fill activity and will be safe and convenient and will not upset the transport integrity of the State Maintained Road network.

As also outlined in the Part 1 DA there is a level of reliance placed on the cooperation of the applicant to act in good faith in responding to the complex requirements for the preparation and implementation of various investigations, designs, audits, CEMPs and the like to quantify and manage the environmental issues that have been identified by the third-parties and agencies (an approach endorsed via recommended conditions of approval). There is a level of comfort that the environmental matters will be suitably dealt with, given the applicant and land owner are the State Government (DIT and Renewal SA respectively).

Pursuant to Section 131 of the *Planning, Development and Infrastructure Act 2016*, and having undertaken an assessment of the application against the relevant provisions of the Planning and Design Code, the application is generally consistent with its provisions for the reasons outlined.

If no further information is required, and all relevant assessment matters have been considered, this planning report can be endorsed by the SCAP pursuant to 131(14) of the Act, and a formal recommendation provided to the Minister for Planning for their further review and decision.