

Your ref: SSD-33042483 Our ref: DOC22/721855

Deana Burn Specialist Planner Contractor Energy Resource Industry Assessments Department of Planning and Environment 320 Pitt Street Sydney NSW 2000

Via Major Projects Portal: (PAE-46301712)

Dear Deana,

Subject: Major Projects – New Request for Advice - Manildra - Port Kembla Bulk Liquid Terminal (SSD-33042483) (Wollongong City)

Thank you for your email dated 14th July 2022 seeking comments from the Biodiversity and Conservation Division (BCD) of the Department of Planning and Environment (the Department) about the Environmental Impact Statement (EIS) for the abovementioned project.

We have reviewed the exhibited EIS against the Secretary's Environmental Assessment Requirements (SEARs) provided by the Department to the proponent on 23rd December 2021.

BCD considers that the EIS **does not** meet the Secretary's requirements for **flooding**, and **coastal hazards & coastal management**, we have addressed these issues further in **Attachment A**. As presented, this proposal presents a potential risk to the community and environment which can be avoided through appropriate consideration of these issues at this stage of planning and design. It is considered that a more comprehensive flood and coastal impact risk assessment is required to ensure consistency with the SEARs and relevant government policy and guidance. If you require further advice on coastal or floodplain risk management matters, please contact the South East Water Floodplains & Coast team, DPE-Biodiversity & Conservation Division.

We have also provided some additional comments that relate to **biodiversity** to ensure impacts can be avoided or minimised.

A summary of our assessment, advice and recommended conditions of approval is provided in **Attachment A.** Detailed comments are in **Attachment B**.

If you have any further questions about this matter, please contact Chris Page, Senior Team Leader (Planning Illawarra), Biodiversity Conservation Division, at chris.page@environment.nsw.gov.au.

Yours sincerely

Alwarthewell.

ALLISON TREWEEK 19/08/2022 A/ Director South East Biodiversity & Conservation Division Department of Planning and Environment

ATTACHMENT A – BCD Assessment Summary for Manildra - Port Kembla Bulk Liquid Terminal Environmental Impact Statement (SSD 33042483) ATTACHMENT B – Detailed comments for Manildra - Port Kembla Bulk Liquid Terminal Environmental Impact Statement (SSD 33042483)

ATTACHMENT A BCD Assessment Summary for Manildra - Port Kembla Bulk Liquid Terminal Environmental Impact Statement (SSD 33042483)

<u>Key Issues</u>

1.	Floodplain Risk Management – criteria in Attachment 2	The flood assessment in the Site Based Stormwater Management Plan report provides insufficient information to assess the proposal against the SEARs. Recommended action:
	Attuchment 2	Address information on:
		Flood Planning Area
		Hydraulic Categorisation
		• The effects of the proposed project (including fill) on the flood behaviour for the full range of design flood events specified in Section 2 of the flooding SEARs including consideration of climate change
		The impact of the development on:
		• The existing flood behaviour for a full range of flood events including up to the probable maximum flood
		 Other developments or land including the redirection of flow, flow velocities, flood levels, hazards and hydraulic categories (no flood impact mapping has been provided)
		• The list on requirements in Section 5, including consideration of emergency management, evacuation and access etc.
		• How site-specific requirements are addressed including storage of hazardous materials and the integrity of the proposed structures including consequences of flooding on the environment by way of a risk assessment over the full range of flood events up to and including the Probable Maximum Flood (PMF).
	Extent and Timing	Pre-determination

2.	Floodplain Risk Management – detailed modelling	 The flood assessment supplied within the EIS does not provide a thorough assessment of the proposal. Recommended action: Given the potential for floods to impact the proposed development and the potential for the development to impact on flood behaviour, the environment and risks to public safety, we recommend that detailed modelling be undertaken to address the SEARs.
	Extent and Timing	Pre-determination

3.	Floodplain Risk Management - Allans Creek Flood Study	The site is within the extents of Wollongong City Council's adopted Allans Creek Flood Study (Advisian (Worley Group), 2019), which includes a calibrated hydrologic and hydraulic models.
		Recommended action:
		• That the flood assessment adopts the hydrologic and hydraulic parameters from this study (and/or justifies any local discrepancies). Contact Council as the source of best available flood information.
	Extent and Timing	Pre-determination

4.	Floodplain Risk Management – flood risk assessment	 Additional detail required for flood risk assessment. Recommended action: The nature of the development warrants a detailed risk assessment of the full range of floods up to the Probable Maximum Flood. Particularly, the consequences of the impacts of large to extreme events (above the design event) on the operation of the proposed facility and the environment. The risk assessment may warrant flood related design amendments to address these risks to ensure the protection of people, the environment and receiving waterways.
	Extent and Timing	Pre-determination

5.	Coastal Risk Management	The Allans Creek Flood Study may include coincident modelling of coastal and catchment flooding but this has not been discussed in the EIS. Recommended action:
		• Given the potential high risk of impacts to people and the environment from the hazardous material to be stored on site, there should be consideration of the structural integrity of storage facilities to withstand extreme events, and control and remediation measures should structures fail.
	Extent and Timing	Pre-determination

6.	5. Coastal Risk Management – water quality	The area is mapped as Coastal Environment Area under the Chapter 2 of the Resilience and Hazard SEPP and should demonstrate it will not cause an adverse impact on the water quality. Recommended action:
		• The development proposal should demonstrate it will not cause an adverse impact on the water quality.
	Extent and Timing	Pre-determination

7.	Coastal Risk Management – sea level rise and flooding	 The EIS also contains a very limited discussion on sea level rise and flooding. It is unclear whether sea level rise has been taken into account when designing infrastructure, for example will stormwater management structures such as the GPTs still be effective into the future. Recommended action: Provide discussion on sea level rise and flooding (taking into account infrastructure such as stormwater management structures).
	Extent and Timing	Pre-determination

8.	Coastal Risk Management – sea level rise and flooding	 The EIS should consider the background condition of the receiving waterbody for the stormwater discharge and proposed monitoring to ensure stormwater management controls are affective. Recommended action: Provide details of consideration of the background condition of the receiving waterbody for the stormwater discharge and proposed monitoring to ensure stormwater management controls are affective.
	Extent and Timing	Pre-determination

9.	Biodiversity – measures to avoid harm to fauna	Develop and include measures to avoid harm to protected fauna during tree removal. Recommended action:
		• Prior to any tree removal, preclearing survey by an experienced ecologist must be undertaken 24 hours prior to tree removal to determine if tree/s are occupied by Protected fauna for their breeding or roosting habitat. Tree removal (if required) should be done to avoid harm to Protected fauna. This may be achieved by programming tree removal outside the time/s of fauna dependency; otherwise a licenced fauna handler may be required to minimise harm.
	Extent and Timing	Pre-construction
	Recommended Conditions of Approval	(as "recommended action" above)

10.	Biodiversity – measures to protect trees	 Include measures to avoid harm to trees not being removed. Recommended action: In addition, all other trees not being removed should be protected during construction where construction activities may occur within Tree Protection Zones. BCD recommends referring to the Australian Standard 4970-2009 Protection of Trees on Development Sites (especially refer to figures 3 and 4 as appropriate – on pages 16 and 17).
	Extent and Timing	Pre-construction

Recommended Conditions of	(as "recommended action" above)
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ATTACHMENT B Detailed comments for Manildra - Port Kembla Bulk Liquid Terminal Environmental Impact Statement (SSD 33042483)

Floodplain Risk Management Comments

As noted in our previous advice (DOC21/1112440, 17/12/2021), the development is proposed on flood prone land and should therefore be considered in accordance with the flood related SEARs and the NSW Government's Flood Prone Land Policy as set out in the Floodplain Development Manual, 2005 (FDM).

The proponent has since provided a Site Based Stormwater Management Plan report as part of the Environmental Impact Statement for the proposal. We have reviewed the EIS and have identified a range of issues relating to the adequacy of flood investigations, consistency with the SEARs and the principles of the Floodplain Development Manual.

The proponent has supplied information to address the general SEARs requirements for flooding but does not appear to have considered the additional issues raised in the public authority responses in SEARs Attachment 2. The EIS would benefit from detailing how each of the SEARs are proposed to be addressed to manage flooding on the proposed site. The 2-page flood assessment in the Site Based Stormwater Management Plan report provides insufficient information to assess the proposal against the SEARs including a lack of information on:

- Flood Planning Area
- Hydraulic Categorisation
- The effects of the proposed project (including fill) on the flood behaviour for the full range of design flood events specified in Section 2 of the flooding SEARs including consideration of climate change
- The impact of the development on:
 - The existing flood behaviour for a full range of flood events including up to the probable maximum flood
 - Other developments or land including the redirection of flow, flow velocities, flood levels, hazards and hydraulic categories (no flood impact mapping has been provided)
- The list on requirements in Section 5, including consideration of emergency management, evacuation and access etc.
- How site-specific requirements are addressed including storage of hazardous materials and the integrity of the proposed structures including consequences of flooding on the environment by way of a risk assessment over the full range of flood events up to and including the Probable Maximum Flood (PMF).

The flood assessment supplied within the EIS does not provide a thorough assessment of the proposal. Given the potential for floods to impact the proposed development and the potential for the development to impact on flood behaviour, the environment and risks to public safety, we recommend that detailed modelling be undertaken to address the SEARs. This would be best undertaken with a 2-dimensional hydraulic model to accurately represent the flood behaviour, extents, hydraulic categories, hazards and impacts. It would also provide for clear pre and post development scenario modelling over the range possible floods to demonstrate the adequacy of

flood risk management development control measures, including managing any off-site impacts. It should also consider coincident catchment and coastal flooding.

The site is within the extents of Wollongong City Council's adopted Allans Creek Flood Study (Advisian (Worley Group), 2019), which includes a calibrated hydrologic and hydraulic models. It is recommended that the flood assessment adopts the hydrologic and hydraulic parameters from this study (and/or justifies any local discrepancies) and to contact council as the source of best available flood information.

The BCD also considers that the nature of the development warrants a detailed risk assessment of the full range of floods up to the Probable Maximum Flood. Particularly, the consequences of the impacts of large to extreme events (above the design event) on the operation of the proposed facility and the environment. The risk assessment may warrant flood related design amendments to address these risks to ensure the protection of people, the environment and receiving waterways.

To assist the flood assessment, guidance provided in the Draft Flood Impact and Risk Assessment Guideline (Flood Risk Management Guide LU01, DPE, 2022, <u>https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Floodplains/flood-risk-management-impact-risk-assessment-220057.pdf</u>) could be utilised to inform the appropriate information for inclusion in the flood assessment. A table in the report referencing which report section addresses each requirement of the flooding SEARs is highly recommended.

Recommended actions:

• Address recommended actions, items 1 – 4 in this Attachment A.

Coastal Risk Management Comments

We note that the site is mapped as Coastal Environment Area and Coastal Use area under Chapter 2 of the Resilience and Hazard SEPP. There is not a certified Coastal Management Program or Coastal Zone Management Plan covering the area.

We have reviewed the EIS and relevant appendices in particular the Site Based Stormwater Management Plan, and Groundwater Assessment and Management report. In general, the proponent has addressed the 'Soils and Water' items outlined in the main SEARs requirements but does not appear to have considered the additional issues raised in the public authority responses in SEARs Attachment 2. Therefore, some items raised for consideration by Biodiversity and Conservation Division under 'Water and Soils' and 'Coastal Hazards and Coastal Management Areas' are yet to be addressed.

The following issues still need to be considered:

• Potential effects of coastal processes and hazards on the proposed development and arising from the development, including sea level rise and climate change. We understand the Allans Creek Flood Study may include coincident modelling of coastal and catchment flooding but this has not been discussed in the EIS. Given the potential high risk of impacts to people and

the environment from the hazardous material to be stored on site, there should be consideration of the structural integrity of storage facilities to withstand extreme events, and control and remediation measures should structures fail. We note the area is mapped as Coastal Environment Area under the Chapter 2 of the Resilience and Hazard SEPP and as such the development proposal should demonstrate it will not cause an adverse impact on the water quality. The EIS also contains a very limited discussion on sea level rise and flooding. It is unclear whether sea level rise has been taken into account when designing infrastructure, for example will stormwater management structures such as the GPTs still be effective into the future.

Impacts on the receiving surface water body and how these can be minimised. The EIS should consider the background condition of the receiving waterbody for the stormwater discharge and proposed monitoring to ensure stormwater management controls are affective. We understand treatment is via Humegard units and note annual cleaning of units is proposed. There does not appear to be any monitoring of the effectiveness of the treatment units.

We recommended the proponent refers to the advice in Attachment 2 of the original SEARs for more detail.

Recommended actions:

• Address recommended actions, items 5 – 8 in this Attachment A.

Biodiversity

BCD note that a waiver was granted on the 14th June 2022 in relation to a Biodiversity Development Assessment Report (BDAR) meaning a BDAR was not required to be prepared for this proposal.

The BDAR waiver report (Lesryk, 2022) identified removal of trees and/or shrubs (trees) i.e.: "*several isolated native and exotic saplings and (possibly) a line of nine planted trees under which there is no native understorey*".

Prior to any tree removal, preclearing survey by an experienced ecologist must be undertaken 24 hours prior to tree removal to determine if tree/s are occupied by Protected fauna for their breeding or roosting habitat. Tree removal (if required) should be done to avoid harm to Protected fauna. This may be achieved by programming tree removal outside the time/s of fauna dependency; otherwise a licenced fauna handler may be required to minimise harm.

In addition, all other trees not being removed should be protected during construction where construction activities may occur within Tree Protection Zones. BCD recommends referring to the Australian Standard 4970-2009 Protection of Trees on Development Sites (especially refer to figures 3 and 4 as appropriate – on pages 16 and 17).

Link to the Australian Standards: https://www.standards.org.au/

Recommended actions:

• Ensure that measures to avoid harm to fauna and to protect trees are carried out as conditions of consent – and such measures could be housed in the proponent's construction environmental management plan.