

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Part 8, Division 5 of the *Environmental Planning and Assessment Regulation 2021*

Application Number	SSD-41680467
Project Name	Eden 1 Seaweed Aquaculture Lease
Development	Construction and operation of a 200-hectare seaweed aquaculture marine farm utilising longline infrastructure
Location	Disaster Bay, off Womboyn - Marine Lease AL21/004
Applicant	Auskelp Pty Ltd
Date of Issue	23 May 2022
General Requirements	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in sections 190 and 192 of the Environmental Planning and Assessment Regulation 2021 (the Regulation) and must have regard to the <i>State Significant Development Guidelines</i>.</p> <p>In addition, the EIS must include:</p> <ul style="list-style-type: none"> • consideration of issues discussed in the public authority responses to request for key issues (see Attachment 2) • a detailed assessment of the key issues specified below, including: <ul style="list-style-type: none"> – a description of the existing environment, using sufficient baseline data – a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment. • a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS • consideration of the likely environmental impacts and relevant planning pathway of any related development associated with the development, including any land-based hatchery or processing facility. <p>The EIS must also be accompanied by:</p> <ul style="list-style-type: none"> • high quality files of maps and figures of the subject site and proposal • a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) of the proposal (as defined in the Dictionary of the Regulation), including details of all assumptions and components from which the CIV calculation is derived • an estimate of the jobs that will be created by the development during the construction and operational phases of the proposed development • certification that the information provided is accurate at the date of preparation.
Key issues	<p>The EIS must include an assessment of the potential impacts of the proposal (including cumulative impacts) and develop appropriate measures to avoid, mitigate, manage and/or offset these impacts.</p> <p>The EIS must address the following specific matters:</p> <ol style="list-style-type: none"> 1. Statutory and Strategic Context – including: <ul style="list-style-type: none"> – justification for the proposal and the suitability of the site – detailed justification that the proposed land use is permissible with consent – demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to: <ul style="list-style-type: none"> ○ State Environmental Planning Policy (Biodiversity and Conservation) 2021

- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Primary Production) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Transport and Infrastructure) 2021
- NSW Marine Water Sustainable Aquaculture Strategy (NSW Department of Primary Industries, 2018)
- NSW Marine Estate Management Strategy 2018 – 2028
- NSW Marine Estate Statewide Threat and Risk Assessment 2017
- National Conservation Management Plan for the Southern Right Whale 2011- 2021
- South East and Tablelands Regional Plan 2036.

2. Community and Stakeholder Engagement – a community and stakeholder engagement strategy consistent with the Department’s *Undertaking Engagement Guidelines for State Significant Projects* for all stages of the development, including (but not limited to):

- details of how issues raised, and feedback provided during engagement activities have been considered and responded to in the development
- details of the proposed approach to future community and stakeholder engagement based on the results of consultation.

3. Biodiversity – an assessment of the proposal’s biodiversity impacts in accordance with the *Biodiversity Conservation Act 2016* and *Fisheries Management Act 1994*, including:

- a baseline assessment to determine:
 - habitat types and species types/assemblages beneath and within the vicinity of the proposed lease area
 - biological, chemical and physical properties of the benthic environment
- an assessment of any direct or indirect impacts on critical habitats, threatened or protected species, populations or ecological communities and their habitats in and around the lease area and in the region
- a marine fauna interaction plan that considers:
 - the potential for entanglement of marine fauna in the lease infrastructure during deployment, operation and decommissioning
 - potential disturbance of whale resting behaviour, in particular the Southern Right Whale and Humpback Whale
 - impacts on marine fauna from lease lighting or navigational features, potential for vessel strike and acoustic impacts
 - operational and maintenance procedures, observer protocols and monitoring and recording procedures to minimise entanglement risk and manage all interactions between marine fauna, lease infrastructure, vessels and humans.
- consideration of the potential loss of plastic or other debris from lease infrastructure and mitigation measures to prevent ingestion by marine fauna
- consideration of potential impacts of biofouling on the benthic environment, including details of biofouling removal methods and assimilation capacity of the marine environment
- consideration of light impacts on marine species, including seabirds in the area
- an outline of a benthic monitoring program for benthic areas within and around the lease area prior to (baseline) and during farm operation
- an assessment of any terrestrial biodiversity impacts in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR), except where a waiver for preparation of a BDAR has been granted
- details of all proposed measures to avoid, mitigate and offset impacts.

4. Navigation and Safety – a navigation risk and impact assessment prepared in accordance with Port Authority of NSW and NSW Roads and Maritime requirements, including:

- a description and assessment of impacts from vessel movements associated with the development on port operations, commercial and recreational/tourism shipping movements and boating/fishing activities

- details of measures to minimise risk and avoid impacts on existing port operations, shipping movements and boating/fishing activities
- a description and assessment of impacts on the proposed use of Port Authority land and wharf structures at East Boyd Bay and Snug Cove
- consideration of impacts on Department of Defence operational areas
- an assessment of the potential impacts of the lease infrastructure and associated navigational features on water-based traffic, including details of any proposed vessel exclusion zones and risk of vessel entanglement
- consideration of measures to ensure the safety of all recreational users of Disaster Bay and Twofold Bay.

5. Coastal Processes and Suitability of Infrastructure – an assessment of impacts on coastal processes having regard to the *Bega Valley Shire Coastal Processes and Hazards Definition Study (2015)*, including:

- demonstration the site has adequate water depth to accommodate lease infrastructure without making physical contact with the seabed when stocked at maximum standing biomass or during recorded sea state maximums
- consideration of the alignment of proposed site and infrastructure layout with respect to the predominant local wave and swell direction
- evidence the lease area is adequately separated from any rocky reefs
- design details of the proposed lease infrastructure to demonstrate it has been designed:
 - using proven technologies, established engineering knowledge and models (as appropriate)
 - to withstand prevailing coastal processes (recorded or modelled maximums for wave height, tidal range, swell and windspeed) and extreme events and will not interrupt sediment transport
- details of operational and maintenance procedures and infrastructure design features that minimise obstructions to water flow, including regular removal of biofouling and appropriate spacing of infrastructure
- consideration of the potential impacts on marine sand bodies identified for future beach nourishment programs
- a structural integrity monitoring program
- consideration of the potential for marine debris from damaged or failed lease infrastructure, including an assessment of impacts, and appropriate management and mitigation measures
- an emergency protocol that details procedures for the collection of infrastructure and/or debris from the ocean, beach and estuary entrance environments if the lease is damaged during a major storm event or incident.

6. Biosecurity Risks and Health Management – a biosecurity risk assessment and biosecurity management plan, including:

- identification of any disease risks to fish and other marine species' health associated with the proposed development
- details of proposed measures to be used in maintaining the genetic integrity of local wild stocks
- detailed disease and pest management protocols for seaweed seedstock harvested at the land-based hatchery (including the use of any chemicals), prior to transfer to the lease area, and following placement in the lease area
- procedures for handling, treating and disposing of wastes, infrastructure and other materials that are potential carriers of disease agents or pests
- an outline of a disease/pest monitoring program to monitor seaweed in the lease area for the presence of disease, parasites, biofouling or herbivory
- details of all management and mitigation measures.

7. Water Quality – a quantitative assessment of potential marine water quality impacts associated with the development in accordance with the requirements of the *National Water Quality Management Strategy* and *Marine Water Quality Objectives*, including:

- details of existing background conditions and associated trigger values for all relevant water quality parameters
- a quantitative analysis of predicted water quality impacts

- evidence that water quality parameters are within the acceptable range for the proposed end use of the seaweed and for all the physiological requirements of the seaweed species selected, having regard to the relevant Australian Government water quality guidelines
- an investigation on any dredging activities that occur in the region
- an outline of a water quality monitoring program to monitor water quality within the lease and surrounding waters prior to and during operation of the farm
- details of spill containment procedures for vessels used during deployment, operation and decommissioning
- details of proposed mitigation and management measures.

8. Traffic and Transport – a quantitative traffic impact assessment prepared in accordance with relevant Roads and Maritime Services and Austroads guidelines, that includes:

- details of all daily and peak traffic volumes likely to be generated during all key stages of construction and operation, including a description of key access / transport routes, vehicle types and potential queuing impacts
- details of proposed access arrangements for the Edrom Multi-Purpose Wharf
- an assessment of the predicted impacts of development traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model
- details of road upgrades, infrastructure works or new roads or access points required for the development if necessary
- details of access arrangements for monitoring, maintenance and emergencies, including identification and assessment of impacts of any emergency access arrangements to Greenglade or Womboyn beaches.

9. Aboriginal Cultural Heritage – an Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared in accordance with relevant Heritage NSW and Environment and Heritage guidelines. The ACHAR must:

- identify, describe and assess impacts on any Aboriginal cultural heritage sites or values associated with the site
- provide evidence and details of consultation with Aboriginal people in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010)
- consider potential impacts on Aboriginal cultural fishing activities
- consider potential impacts on native title in accordance with the Commonwealth *Native Title Act 1993*.

10. Environmental Heritage – a heritage impact assessment which must detail potential impacts on heritage assets, including maritime archaeology (shipwrecks), in accordance with relevant Heritage NSW guidelines.

11. Visual Amenity – an assessment of visual impacts of lease infrastructure and associated navigational equipment on any private properties, key vantage points (Womboyn and Greenglade beach, Baycliff and lookouts along Greencape Lighthouse access road), publicly accessible areas and other waterway users.

12. Noise and Vibration – a quantitative noise and vibration impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards, including any impacts on aquatic ecology (particularly cetaceans) during all stages of the development (construction, deployment, operation and decommissioning).

13. Waste – an assessment of waste impacts and waste management plan, including:

- details of the quantities, type and classification of all waste streams to be generated during all stages of the development (construction, deployment, operation and decommissioning)
- details of waste storage, handling and disposal
- a description of procedures to monitor Womboyn and Greenglades beaches for waste/debris from the lease area during operations.

	<p>14. Offshore Resources – a description and identification of impacts on any offshore resources, exploration and mining.</p> <p>15. Socio-Economic – a social impact assessment in accordance with the Department’s <i>Social Impact Assessment Guideline for State Significant Projects</i>.</p> <p>16. Ecologically Sustainable Development – including a description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development, comply with the <i>Australian Aquaculture Code of Conduct</i>, and include consideration of climate change impacts through choice of materials for lease infrastructure, use of low emission vehicles/vessels, reducing energy use, and the re-use and recycling of materials and waste.</p> <p>17. Construction – a draft construction, and deployment management plan that includes measures to minimise potential noise, air quality, traffic, water and waste impacts.</p> <p>18. Decommissioning – a draft decommissioning management plan that includes a process description, waste disposal measures, schedule and monitoring.</p>
<p>Consultation</p>	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Bega Valley Shire Council • Commonwealth Department of Defence • Port Authority of NSW • Department of Planning and Environment: <ul style="list-style-type: none"> ○ Biodiversity and Conservation Division ○ Heritage NSW • Transport for NSW (including Roads and Maritime Services) • Housing and Property Group - Crown Lands • Department of Regional NSW <ul style="list-style-type: none"> ○ Division of Mining, Exploration and Geoscience ○ Department of Primary Industries • NSW Food Authority • surrounding local landowners, businesses and stakeholders • local and regional community and environmental groups • local fishers and fishing groups/co-ops/associations • Local Aboriginal Land Council • any other public transport, utilities or community service providers. <p>The EIS must detail the engagement undertaken and demonstrate how it was consistent with the <i>Undertaking Engagement Guide: Guidance for State Significant Projects</i>. The EIS must detail how issues raised and feedback provided have been considered and responded to in the project. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
<p>SEARs Expiry</p>	<p>SEARs will expire two years after the date of issue (or the date last modified).</p>
<p>References</p>	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.</p>

ATTACHMENT 1 **Technical and Policy Guidelines**

The following guidelines may assist in the preparation of the environmental impact statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

<https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines/key-guidance>
<http://www.planning.nsw.gov.au>
<http://www.australia.gov.au/publications>
<http://www.epa.nsw.gov.au/>
<http://www.environment.nsw.gov.au/>
<http://www.dpi.nsw.gov.au/>

Policies, Guidelines & Plans

Aspect	Policy / Methodology
State Significant Development Guidelines	
	State Significant Assessment Guidelines (DPIE, 2021)
	Undertaking Engagement Guide – Guidance for State Significant Projects (DPIE, 2021)
	Cumulative Impact Assessment Guidelines for State Significant Projects (DPIE, 2021)
Aquaculture	
	Marine Water Sustainable Aquaculture Strategy (DPI, 2018)
	NSW Marine Estate Management Strategy 2018 – 2028
	NSW Marine Estate Statewide Threat and Risk Assessment 2017
	Australian Aquaculture Code of Conduct
Biodiversity	
	<i>Biodiversity Conservation Act 2016</i> and associated regulation
	Biodiversity Assessment Method (EES, 2021)
	Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018)
Heritage	
	<i>Heritage Act 1977</i>
Non-Aboriginal Heritage	NSW Heritage Manual (HO and DUAP, 1996)
	The Burra Charter (ICOMOS Australia, 2013)
	Statements of Heritage Impact (HO and DUAP, 2002)
Aboriginal Heritage	Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010)
	Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010)
Noise and Vibration	
	Acoustics – Description and measurement of environmental noise (AS1055:2018)
	Noise Policy for Industry (EPA, 2017)
	NSW Road Noise Policy (DECCW, 2011)
	Noise Criteria Guideline (RMS, 2015)
	Noise Mitigation Guideline (RMS, 2015)
	Interim Construction Noise Guideline (DECC, 2009)
	Assessing Vibration: A Technical Guide (DEC, 2006)
	Noise Guide for Local Government (EPA, 2013)

Policies, Guidelines & Plans

Aspect	Policy / Methodology
Traffic, Transport and Access	
	<i>Roads Act 1993</i>
	State Environmental Planning Policy (Transport and Infrastructure) 2021
	Guide to Traffic Generating Development (RTA, 2002 as updated)
	Road Design Guide (RMS, 2015-2017)
	Guide to Traffic Management – Pt 12: Traffic Impacts of Development (Austroads, 2016)
	Guidelines for Planning and Assessment of Road Freight Access in Industrial Areas (Austroads, 2014)
	Bicycle Parking Facilities: Guidelines for Design and Installation (AS 2890.3:2015)
	Integrated Public Transport Service Planning Guidelines: Sydney Metropolitan Area (TfNSW, 2013)
	Future Transport Strategy 2056 (TfNSW, 2018)
	Greater Sydney Services and Infrastructure Plan (TfNSW, 2018)
	NSW Freight & Ports Plan 2018-2023 (TfNSW, 2018)
Waste	
	NSW Waste and Sustainable Material Strategy 2041 (EPA, 2021)
	NSW Plastics Action Plan (EPA, 2021)
	NSW Energy from Waste Policy Statement (EPA, 2021)
	NSW Energy from Waste Infrastructure Plan (2021)
	The National Waste Policy: Less Waste More Resources 2009
	Waste Classification Guidelines (EPA, 2014)
	Environmental guidelines: Composting and Related Organics Processing Facilities (DEC, 2004)
	Environmental guidelines: Use and Disposal of Biosolid Products (EPA, 1997)
	Composts, soil conditioners and mulches (Standards Australia, AS 4454)
	Standards for Managing Construction Waste in NSW (EPA, 2018)
Soils and Water	
Marine	National Water Quality Management Strategy
	Marine Water Quality Objectives for NSW Ocean Waters: South Coast (DEC, 2005)
Erosion and Sediment	Managing Urban Stormwater: Soils & Construction (Landcom, 2004)
	Soil and Landscape Issues in Environmental Impact Assessment (DLWC, 2000)
	Wind Erosion – 2 nd Edition (DIPNR, 2003)
Groundwater	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC, 2000)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW Aquifer Interference Policy (NOW, 2012)
	Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources (NOW, 2011)
Stormwater	Storing and Handling Liquids: Environmental Protection (DECC, 2007)
	Managing Urban Stormwater: Strategic Framework. Draft (EPA, 1996)
	Managing Urban Stormwater: Council Handbook. Draft (EPA, 1997)
	Managing Urban Stormwater: Treatment Techniques (DEC, 2006)
	Managing Urban Stormwater: Source Control. Draft (EPA, 1998)
	Managing Urban Stormwater: Harvesting and Reuse (DEC, 2006)
Wastewater	National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC, 1997)

Policies, Guidelines & Plans

Aspect	Policy / Methodology
	<p>National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC, 2000)</p> <p>National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) (EPHC, NRMMC & AHMC, 2006)</p> <p>National Water Quality Management Strategy – Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 2) (EPHC, NRMMC & AHMC, 2009)</p>
Hazards and Risk	<p>State Environmental Planning Policy (Resilience and Hazards) 2021</p> <p>Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DoP, 2011)</p> <p>Assessment Guideline: Multi-level Risk Assessment (Planning and Infrastructure, 2011)</p>
Air Quality	<p>AGO Factors and Methods Workbook (AGO, 2018)</p> <p>Guidelines for Energy Savings Action Plans (DEUS, 2005)</p> <p>Greenhouse Gas National Greenhouse and Energy Reporting Scheme Measurement, Technical Guidelines for the estimation of emissions by facilities in Australia (Department of the Environment and Energy (DoEE), 2017)</p> <p>National Greenhouse Accounts Factors (DoEE, 2019)</p>
Urban Design and Visual	<p>Control of Obtrusive Effects of Outdoor Lighting (AS 2482)</p> <p>Better Placed (Government Architect NSW, 2017)</p> <p>Greener Places (Government Architect NSW, 2020)</p>
Social	<p>Social Impact Assessment Guideline for State Significant Projects (DPIE, 2021)</p>

ATTACHMENT 2
Government Authority Advice