

Merimbula Sewage Treatment Plant Upgrade and Ocean Outfall

Preferred Infrastructure Report



Bega Valley Shire Council acknowledges and pays our respects to the traditional custodians of the lands, waterways and airspace of the shire.

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Executive Summary

Bega Valley Shire Council (BVSC) proposes to upgrade the Merimbula Sewage Treatment Plant (STP) and construct a new deep ocean outfall to address long-standing public health, environmental and regulatory risks associated with the existing effluent disposal arrangements. The project was declared State Significant Infrastructure (SSI) in 2016 and an Environmental Impact Statement (EIS) was publicly exhibited in 2021. A Response to Submissions (RtS) was completed in 2025.

Following a substantial period between exhibition of the EIS and finalisation of the RtS, the Department of Planning, Housing and Infrastructure (DPHI) requested that BVSC prepare a Preferred Infrastructure Report (PIR). The purpose of this PIR is to contemporise the EIS, confirm the validity of its conclusions, and document any updated information that has arisen since exhibition. The PIR does not seek approval for a fundamentally different project, nor does it expand the assessed project footprint or introduce new receiving environments. Rather, it confirms that the preferred infrastructure remains appropriate and represents the best available option to meet project objectives.

Since exhibition of the EIS, BVSC has undertaken additional technical work, including updated ocean dispersion modelling, an updated marine ecology assessment, and engaged a consultant for the STP concept design. These additional studies confirm that the project will meet Marine Water Quality Objectives and that the environmental impact conclusions of the EIS remain valid.

This PIR has been prepared in accordance with the State Significant Infrastructure Guidelines – Preparing a Preferred Infrastructure Report. It provides a clear description of the preferred infrastructure, identifies and explains project developments since the EIS, assesses any new impacts, and justifies the preferred infrastructure as a whole having regard to economic, environmental and social considerations and the principles of ecologically sustainable development.

1.0 Introduction

1.1 Purpose of this Preferred Infrastructure Report

DPHI requested preparation of this PIR following completion of the RtS, primarily due to the time gap between exhibition of the EIS and finalisation of assessment documentation. The purpose of this PIR is to:

- acknowledge updated studies, information and policy context that have emerged since exhibition
- confirm that the scope, intent and statutory approval pathway for the project remain unchanged
- demonstrate that the environmental impact conclusions of the EIS remain valid; and
- support the Planning Secretary's assessment and the Minister's determination of the application.

This PIR has been prepared at the request of the Planning Secretary and does not constitute an amendment initiated by the proponent. It does not seek approval for a different project, nor does it propose an expansion of the assessed project footprint, changes to receiving environments or a variation to the statutory approval pathway.

1.2 Project background

The Merimbula Sewage Treatment Plant (STP) services the communities of Merimbula, Pambula, South Pambula and Pambula Beach on the Far South Coast of New South Wales. The STP is located on Arthur Kaine Drive, approximately 3.5 km south of Merimbula town centre and 2.5 km north of Pambula village. It is an intermittently decanted extended aeration (IDEA) activated sludge facility designed to serve an equivalent population of approximately 15,500, with a current average dry weather flow of around 2 ML/day.

Effluent produced from the treatment of sewage at the STP is managed through a combination of recycled water supply and effluent disposal. Approximately 25% of the effluent is supplied as recycled water for irrigation at the adjacent Pambula Merimbula Golf Club and the Oaklands agricultural area. The remaining volume is disposed to the environment via the beach-face ocean outfall and dunal exfiltration ponds to the east of the STP.

The existing effluent disposal arrangements no longer meet contemporary community expectations or regulatory standards and present ongoing risks to public health, groundwater, coastal and marine water quality, Aboriginal cultural heritage values, and regional amenity. In particular, the disposal of effluent at the beach face and via exfiltration to groundwater occurs within environmentally sensitive and highly valued recreational areas.

The Project involves upgrading the Merimbula STP to improve sewage treatment performance, increasing opportunities for supply of recycled water, and providing a safer and more reliable method for effluent disposal. Key elements of the Project

include upgrades to the STP treatment processes, decommissioning of the existing beach-face outfall, cessation of use of the dunal exfiltration ponds, installation of upgraded pumping infrastructure, and construction of a new effluent disposal system comprising a deep ocean outfall approximately 3.5 km in length with a submerged offshore diffuser in Merimbula Bay.

The proposed upgrades would significantly reduce environmental and public health risks associated with current operations by providing a higher level of treatment and a superior method of effluent dispersion offshore, while maintaining and supporting the continuation and future expansion of recycled water supply schemes.



Figure 1-1: Current beach-face outfall pipeline



Figure 1-2: One of two dunal exfiltration ponds

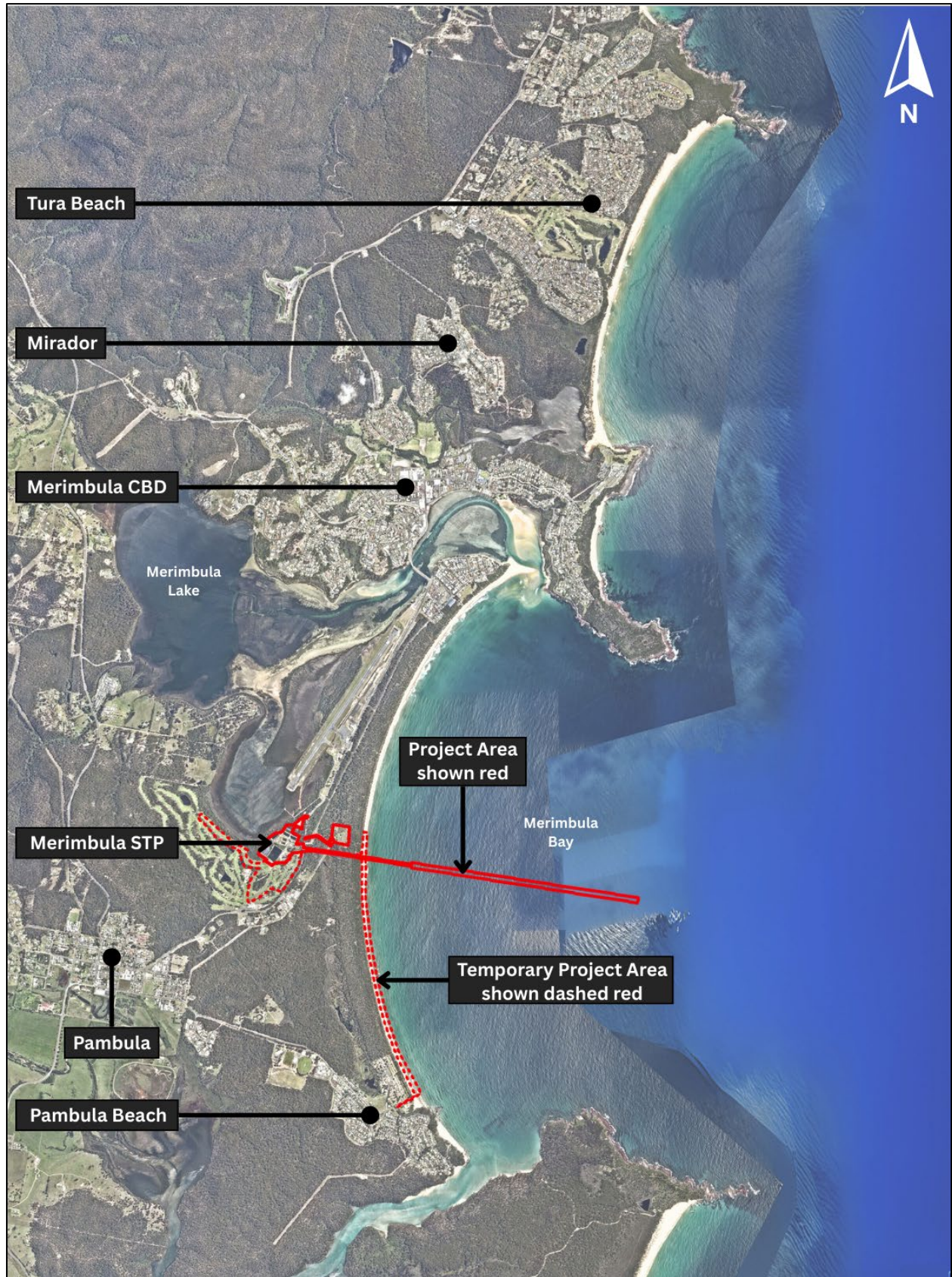


Figure 1-3: Location of the project area within the regional context

1.3 Project overview

The Project includes:

1. Upgrade of the existing STP treatment processes to improve effluent quality;
2. Decommissioning of the existing beach-face outfall;
3. Cessation of effluent disposal to the existing in-dune exfiltration ponds;
4. Construction of a new ocean outfall pipeline extending approximately 3.5 km from the STP to a submerged offshore diffuser;
5. Construction of an ocean outfall pump station within the STP site;
6. Provision of recycled water storage (if end-user storage is not available or is not considered the most feasible option); and
7. Retention and continuation of existing recycled water supply to the Pambula-Merimbula Golf Club and Oaklands agricultural area.

The Project does not alter the approved treatment capacity of the STP but improves treatment performance and replaces the existing nearshore discharge arrangements with a deepwater offshore discharge.

1.3.1 STP upgrade works

All new treatment infrastructure will be located within the existing, cleared STP site.

Secondary treatment enhancements

The upgrade includes chemical dosing for phosphorus removal within the secondary treatment process. The dosing system will be flow-paced and designed to achieve compliance with the amended Environment Protection Licence (EPL) 1741 discharge limits. Final chemical selection and dosing configuration will be confirmed during detailed design.

Tertiary treatment and disinfection including:

- Installation of inline ultraviolet (UV) disinfection units capable of treating dry weather flows;
- Diversion and controlled return of wet weather flows to ensure full UV treatment prior to discharge;
- Chlorine dosing for recycled water only (ocean-disposed effluent will not be chlorinated);
- Provision for tertiary filtration, if required, subject to detailed design confirmation; and
- Construction of a new chlorine dosing facility, including compliant storage and handling infrastructure.

Storage and pumping infrastructure including:

- Provisions for a new covered recycled water storage facility (if required);
- Construction of an ocean outfall pump station;
- Installation of additional internal pump stations and associated pipework; and
- Electrical, control, and ancillary infrastructure upgrades.

The existing 17 ML effluent storage pond will be reconfigured to have divided effluent storage, recycled water storage and disinfection facilities. The separate wet weather overflow pond (20 ML capacity) will be retained for storm flow management.

1.3.2 Ocean outfall system

Pipeline

The ocean outfall pipeline will extend approximately 3.5 km, comprising:

- ~0.8 km of underground pipeline installed via trenchless construction methods (horizontal directional drilling or direct drive tunnelling) from the STP site to beyond the surf zone; and
- ~2.7 km of offshore pipeline laid on the seabed and stabilised using rock or concrete mattress protection.

The pipeline will have an approximate internal diameter of 366 mm (outer diameter up to 450 mm).

Diffuser

A multi-port diffuser approximately 50 to 80 m in length will be installed at a depth of approximately 30 m below mean sea level. The diffuser will promote rapid initial dilution and dispersion of effluent within offshore waters.

Associated marine works including:

- Installation of a transition riser (if required);
- Placement of stabilisation materials;
- Commissioning, hydrostatic testing, and pigging; and
- Long-term inspection and maintenance provisions.

1.3.3 Decommissioning of existing infrastructure

The following infrastructure will be decommissioned or cease being used:

- The existing beach-face outfall (exposed headwall removed and pipeline capped in situ); and
- The in-dune exfiltration ponds (effluent disposal ceased; site retained under Council management).

1.4 Assessment to date

An EIS for the Merimbula STP Upgrade and Ocean Outfall was exhibited in August–September 2021. The EIS assessed the environmental, social and economic impacts of the project and identified mitigation measures to manage potential impacts during construction and operation. Forty-seven submissions were received from government agencies and the community.

BVSC subsequently prepared a Response to Submissions (RtS) addressing all issues raised. The RtS documented additional technical investigations undertaken after exhibition, including updated ocean dispersion modelling and marine ecology assessments, and confirmed that no amendment to the SSI application was required.

1.5 Contemporisation summary

The environmental risk assessment in the EIS identified key environmental impacts associated with the construction and operation of the Merimbula STP upgrades and ocean outfall. Table 1-1 summarises these key aspects of the project that have been reviewed and contemporised as part of this PIR. Further detail on post-exhibition technical studies is provided in Section 6.3.

The contemporisation process confirms that the mitigation framework established in the EIS remains appropriate and effective. Information updated since exhibition has not identified any new or increased impacts, nor altered the conclusions reached in the EIS. Most potential impacts remain temporary and associated with construction activities.

Ongoing consultation with relevant stakeholders will continue through detailed design and construction, should the project be approved, to ensure mitigation measures are implemented in accordance with contemporary standards and regulatory expectations.

Table 1-1: EIS contemporisation summary

Topic	EIS position (2021)	Current position	Outcome
Water quality, hydrology and flooding	<u>EIS Chapter 8</u> Impacts on water quality, water bodies and flood related impacts in the receiving environment assessed	Updated treatment design and dispersion modelling confirm water quality outcomes; no change to hydrology or flooding context.	EIS conclusions remain valid.
Ground water	<u>EIS Chapter 9</u> Impacts to ground water quality, levels and flows assessed from drilling operations, construction activities assessed and deemed low.	Additional requirements identified by DCCEEW following the RtS include quantification of maximum annual groundwater take and assessment in accordance with the Aquifer Interference Policy.	To be addressed through a Water Access Licence and groundwater monitoring program prior to construction. EIS conclusions remain valid.

Topic	EIS position (2021)	Current position	Outcome
Marine and coastal processes (including protected and sensitive lands, such as coastal wetlands)	<u>EIS Chapter 10</u> Minor, short-term & localised construction impacts. Impacts to marine sediment/sand transport by pipeline to be assessed, including scour leading to excessive bridging in the above ground section of the pipeline. Pipeline design to take into account anchor or net drag as well as large wave forces.	No changes from EIS position. Impacts to marine and coastal processes to be outlined in the CEMP and comprehensively addressed during detailed design stage. Geotechnical sampling to be carried out during detailed design.	EIS conclusions and mitigation measures remain valid.
Marine ecology	<u>EIS Chapter 11</u> Baseline surveys and impact assessment	Updated marine ecology assessment to consider the mixing zone extent outcomes from the second round of dispersion modeling in 2022, and incorporate more recent baseline water quality information (refer 6.3.2)	No new or increased impacts identified
Terrestrial ecology	<u>EIS Chapter 12</u> Baseline assessment and field surveys	Flora and fauna management plan to be prepared as part of the CEMP. Pre-construction surveys to be undertaken prior to construction.	No new or increased impacts identified
Landform, geology and soil	<u>EIS Chapter 13</u> Geotechnical investigation, baseline assessment and field surveys	CEMP to address unexpected finds of contamination and accidental spills. Soil Erosion and Sedimentation management Sub-Plan for managing soil and water issues during construction. Ocean outfall alignment to be monitored for subsidence. Acid sulphate soils to be managed in accordance with NSW Acid Soils Manual.	Confirms EIS conclusions

Topic	EIS position (2021)	Current position	Outcome
Aboriginal cultural heritage	<u>EIS Chapter 14</u> ACHAR and AHIMS search current at time of EIS	Updated AHIMS searches undertaken (refer Attachment A) Planned continuous consultation and engagement.	No new constraints identified
Non-Aboriginal heritage	<u>EIS Chapter 15</u> Non-Aboriginal heritage assessed. Archaeological surveys undertaken, historical heritage registers reviewed maritime geophysical data obtained	No changes to non-Aboriginal heritage context or impacts. Mitigation and management measures to be included in the CEMP	No new requirements or constraints identified
Hazards and risk	<u>Chapter 16</u> Risk screening assessment undertaken for class, quantity and location of dangerous goods and hazardous materials	No change. Mitigation and management measures to be reviewed and incorporated in the CEMP and applicable STP operating procedures.	No new requirements or constraints identified
Human health (Health and safety)	<u>EIS Chapter 17</u> Pre-STP upgrade Human Health Risk Assessment (HHRA) undertaken.	No changes to pre-STP HHRA.	Post-construction HHRA to be undertaken. Health and safety mitigations to be implemented in operating procedures.
Traffic and transport	<u>EIS Chapter 18</u> Impacts to road network, surrounding traffic and transport environment assessed	No changes. Mitigation and management measures to be incorporated in a Construction Traffic Management Plan (CTMP)	No new requirements or constraints identified
Property and land use	<u>EIS Chapter 19</u> Project area and construction footprint assessed.	No change to existing land use or impact on properties in the project area.	Use of dunal exfiltration ponds to cease. Rehabilitation and re-purposing of the exfiltration ponds would be subject to a separate

Topic	EIS position (2021)	Current position	Outcome
			project and environmental approval process.
Noise and vibration (airborne)	<u>EIS Chapter 20</u> Construction and operational noise assessed	No change to noise sources or mitigation approach. A Construction Noise and Vibration Management Plan (CNVMP) is to be implemented prior to commencement of construction, and is to include all reasonable and feasible safeguards to manage noise emissions.	No new requirements or constraints identified
Noise and vibration (underwater)	<u>EIS Chapter 21</u> Underwater noise during construction assessed	No change to marine construction methodology. No change to noise sources or mitigation approach. Mitigation and management measures to minimise identified underwater noise impacts are to be included in the CEMP and are to also apply during operation.	No new requirements or constraints identified
Air quality	<u>EIS Chapter 22</u> Air quality impacts assessed	No change to emission or controls. Mitigation and management measures to minimise identified air quality impacts are to be included in the CEMP	No new requirements or constraints identified
Social and Economic	<u>EIS Chapter 23</u> Social and economic impacts assessed	Strategic context updated; benefits unchanged	EIS conclusions remain valid
Sustainability	<u>EIS Chapter 24</u> Sustainability principles considered	Updated policy context reviewed; project approach unchanged	EIS conclusions remain valid
Climate change risk	<u>EIS Chapter 25</u> Climate change and sea level rise assessed	Updated policy context reviewed; no change to risk profile	EIS conclusions remain valid
Waste	<u>EIS Chapter 26</u> Waste generation and management assessed	No change to waste streams or management approach	No new requirements or constraints identified

2.0 Strategic context

The strategic need for the project remains fundamentally unchanged from that described in the EIS. The project responds to regulatory requirements under the Protection of the Environment Operations Act 1997, including conditions of the Merimbula STP Environment Protection Licence requiring improved effluent management. It also addresses long-standing community concerns regarding public health, beach amenity and environmental quality in Merimbula Bay.

The broader strategic context, including regional population growth, protection of sensitive coastal and estuarine environments, and the importance of tourism and recreation to the local economy, continues to support the project. Since exhibition of the EIS, no strategic policy changes have occurred that would alter the fundamental need for or justification of the project. Updated state and local policy frameworks continue to emphasise improved wastewater management, protection of coastal waters, and resilient infrastructure.

2.1 Strategic context as described in the EIS

The EIS identified a clear strategic need for the project based on the following factors:

- the existing Merimbula STP and beach-face outfall do not meet Marine Water Quality Objectives for NSW Ocean Waters – South Coast
- current effluent quality and disposal practices present risks to public health, beach amenity and marine water quality, particularly during wet weather periods when recycled water schemes cannot operate
- continued reliance on dunal exfiltration ponds presents risks to groundwater quality, surrounding ecology and Aboriginal cultural heritage values
- inadequate sewage treatment infrastructure has the potential to constrain future population growth, tourism and economic activity in the Merimbula–Pambula area.

The EIS also identified that the project was required to meet conditions of the Merimbula STP Environment Protection Licence (EPL) 1741 issued under the Protection of the Environment Operations Act 1997, which requires the construction and commissioning of a deep ocean outfall and associated STP upgrades.

Within this context, the EIS demonstrated that upgrading the STP and providing a reliable, environmentally protective disposal pathway for surplus effluent was necessary to protect sensitive coastal and marine environments, support community health and amenity, and underpin the long-term social and economic sustainability of the region.

An updated summary of the documents referenced for strategic context is provided below.

2.1.1 State Infrastructure Strategy 2022-2042

The State Infrastructure Strategy 2022–2042 (Infrastructure NSW, 2022) supersedes the State Infrastructure Strategy 2018–2038 referenced in the Environmental Impact Statement. The updated Strategy places increased emphasis on sustainable water management, circular economy principles and maximising the value of water and wastewater resources, while continuing to prioritise public health protection, environmental outcomes and infrastructure resilience across regional New South Wales.

The Strategy recognises the importance of recycling wastewater where feasible and beneficial, while also acknowledging that regional contexts vary and that infrastructure solutions must be appropriate to local conditions, environmental constraints and demand profiles. It emphasises the need for fit-for-purpose wastewater systems that balance reuse, environmental protection and reliable operation under a range of conditions.

The Merimbula STP Upgrade and Ocean Outfall is consistent with this approach. The project prioritises recycled water use through existing irrigation schemes and has been designed to support expansion of recycled water schemes where feasible. However, investigations undertaken for the EIS and prior studies have demonstrated that it is not practicable or environmentally responsible to supply 100 per cent of effluent generated at Merimbula STP as recycled water for use, due to constraints relating to land availability, seasonal demand mismatch, environmental sensitivity and storage requirements.

In this context, the provision of a compliant and environmentally protective ocean outfall is necessary to safely manage surplus effluent, protect marine and coastal environments, and ensure reliable operation of the Merimbula-Pambula sewerage system. By maximising recycled water supply and use where practicable and providing a robust disposal pathway for residual effluent, the project aligns with the State Infrastructure Strategy's objectives for sustainable, resilient and regionally appropriate wastewater infrastructure.

2.1.2 Safe and Secure Water Program

The Safe and Secure Water Program (Department of Climate Change, Energy, the Environment and Water, 2024) supersedes the program guidelines referenced in the Environmental Impact Statement and continues to support the NSW Government's objective of addressing critical water and wastewater risks in regional NSW. The program prioritises projects that improve public health, environmental outcomes and service levels in regional communities where the cost of essential infrastructure can outweigh local economic capacity.

The Merimbula STP Upgrade and Ocean Outfall align with the objectives of the Safe and Secure Water Program by addressing high-priority sewage treatment and effluent management risks and improving environmental and public health outcomes. The project also reflects the program's emphasis on fit-for-purpose solutions by maximising recycled water supply and use where feasible, while providing a compliant disposal pathway for effluent surplus to recycled water needs.

2.1.3 Marine water quality objectives

The *Marine Water Quality Objectives for NSW Ocean Waters* were developed in 2005 by the former Department of Environment and Conservation and apply to ocean waters adjoining the NSW coast and extending three nautical miles offshore. The *Marine Water Quality Objectives for NSW Ocean Waters – South Coast* (DEC, 2005) apply to the project area, including Bega Valley Shire.

The objectives are based on the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC, 2000) and include criteria for aquatic ecosystem health, recreation, visual amenity and aquatic foods. The South Coast Water Quality Objectives remain current and have not been updated since exhibition of the EIS.

While not statutory, the objectives continue to be applied as the relevant guideline framework for assessing marine water quality. A key objective of the project is to improve sewage treatment and effluent disposal so that operations meet these objectives and improve environmental and public health outcomes in Merimbula Bay.

2.1.4 Regional and local policies

South East and Tablelands Regional Plan 2036

The *South East and Tablelands Regional Plan 2036* (Department of Planning and Environment, 2017) provides the regional strategic framework for land use, infrastructure and environmental management in the South East and Tablelands region. The Plan identifies priorities to support sustainable regional growth, protect coastal environments and manage coastal hazards.

The project was assessed in the EIS having regard to the objectives of the Regional Plan, including protection of coastal values and consideration of coastal processes and climate change.

The Regional Plan 2036 remains current. A draft *Southeast and Tablelands Regional Plan 2041* has been exhibited and continues the strategic direction of the current Plan, with increased emphasis on climate resilience and environmental protection. The draft update does not alter the strategic context or conclusions of the EIS, and the project remains consistent with both the current and draft Regional Plans.

Regional Water Strategy South Coast 2022

The *South Coast Regional Strategy 2006–31* (Department of Planning, 2007), referenced in the Environmental Impact Statement, identified key challenges for the South Coast region including population growth, climate change and sea level rise, and the need to manage water and wastewater services to protect sensitive ecosystems, particularly during peak holiday periods.

Since exhibition of the EIS, the NSW Government has released the *South Coast Regional Water Strategy* (Department of Planning and Environment, 2022). The South Coast Regional Water Strategy reinforces the need for resilient, fit-for-purpose water and wastewater infrastructure to support regional growth, protect environmental values and manage seasonal demand pressures.

The Merimbula STP Upgrades and Ocean Outfall remain consistent with the objectives of both the earlier Regional Strategy and the current South Coast Regional Water Strategy by improving sewage treatment and effluent management, reducing risks to sensitive coastal and marine environments, and providing infrastructure to support existing and future communities in the region.

Bega Valley Community Strategic Plan 2040

The Environmental Impact Statement referenced the *Bega Valley Community Strategic Plan 2040* in effect at the time of exhibition. Since then, Council has adopted the *Bega Valley Community Strategic Plan 2042* (BVSC, 2025), which sets the long-term vision and priorities for the Shire.

The updated Community Strategic Plan (CSP) continues to emphasise protection of the natural environment, public health, sustainable growth and delivery of reliable infrastructure to support community wellbeing. These themes are consistent with those relied upon in the EIS and do not alter the strategic justification for the project.

The Merimbula STP Upgrades and Ocean Outfall remain aligned with the updated CSP by improving sewage treatment and effluent management, protecting coastal and marine environments, and supporting the long-term liveability and resilience of the Merimbula–Pambula area. An updated summary is provided in Table 2-1.

Table 2-1 Relevant themes, objectives and strategies from the Bega Valley CSP 2042

CSP Theme	Strategic objectives	Relevant strategies	How the Project aligns
A. Our community	<i>Our shire is a safe and affordable place to live.</i>	A.7 Ensure community safety and public health is planned for.	Improves sewage treatment and effluent management, reducing public health risks.
B. Our economy	<i>Our economy is prosperous, diverse and supported by innovative and creative businesses.</i>	B.1 Support local business and industry to be resilient and successful. B.6 Diversify and expand key industries, leveraging our natural strengths.	Protects coastal water quality and beach amenity that underpin tourism, recreation and local business activity, supporting business resilience and the ongoing viability of key regional industries.
C. Our environment	<i>Our air and water are clean, and our natural environment and rural landscapes are protected.</i>	C.1 Deliver and support integrated water management.	Improves sewage treatment and disposal to protect marine water quality.

CSP Theme	Strategic objectives	Relevant strategies	How the Project aligns
C. Our environment	<i>We are leaders in sustainable living and support innovative approaches to resource use and sustainable design principles.</i>	C.3 Support innovative approaches to waste minimisation and resource recovery, circular economy and local solutions.	Maximises opportunities for recycled water schemes where feasible as part of an integrated effluent management system.
C. Our environment	<i>We adapt to and mitigate the effects of climate change.</i>	C.6 Develop climate-resilient infrastructure and improve energy efficiency in existing buildings and assets.	Provides resilient sewerage infrastructure capable of operating under future conditions.
D. Our infrastructure	<i>Our infrastructure meets community needs.</i>	D.1 Plan and provide for waste, water, sewerage and stormwater infrastructure and services that will meet current and future needs.	Delivers upgraded sewerage infrastructure to meet current and future servicing requirements.

3.0 Project development since EIS exhibition

This section outlines project development activities undertaken since exhibition of the Environmental Impact Statement (EIS). These activities respond to the time elapsed since 2021 and support contemporisation of the assessment material. They do not propose changes to the project scope, footprint, receiving environments or statutory approval pathway.

Since exhibition, work has focused on:

- progressing options development for the Merimbula Sewage Treatment Plant (STP) upgrades to inform future concept and detailed design; and
- undertaking targeted technical studies to test and validate key assumptions and conclusions of the EIS.

The post-exhibition activities relate to:

- STP secondary treatment process development; and

- updated ocean dispersion modelling and marine ecology assessment.

These activities do not introduce new impact pathways and do not alter the nature of the project assessed in the EIS. **Table 3-1** summarises the project elements that have progressed since exhibition. A revised project description reflecting current design development is provided in Appendix A.

Table 3-1: Project development table

Project element	Summary of the original project in the EIS (2021)	Post-exhibition position
STP upgrade	Phase two: secondary treatment Provision for chemical dosing to reduce nutrients, with two-stage poly aluminium chloride (PAC) dosing identified as a potential option The introduction of PAC dosing would result in additional sludge being produced, resulting in nearly a 20% increase in overall solids to be handled.	Chemical dosing for phosphorus removal is proposed. The specific coagulant type, dosing configuration and control strategy will be determined during detailed design. The dosing system will be designed to achieve compliance with the Environmental Protection Licence (EPL) 1741 discharge limits and maintain the effluent quality outcomes assessed in the EIS. Any chemical dosing will increase sludge production relative to no dosing, with the magnitude dependent on the final phosphorus limits and detailed design. The selected dosing approach will seek to optimise chemical consumption, sludge generation and operational efficiency while meeting regulatory requirements.
Ocean outfall	Ocean outfall length, diffuser depth and configuration assessed based on dispersion modelling undertaken in 2021.	Updated dispersion modelling undertaken to test assumptions and additional scenarios (refer to Appendix B from RtS). The modelling supports the outfall configuration assessed in the EIS and does not result in changes to the project design.
Marine ecology	Marine ecology assessment undertaken based on baseline information available at the time of the EIS.	Updated marine ecology assessment completed using more recent baseline information and reflecting updated dispersion modelling (refer to Appendix C from RtS). The assessment does not identify new or increased impacts.

Project element	Summary of the original project in the EIS (2021)	Post-exhibition position
Recycled water scheme options	Recycled water reuse assessed as part of the EIS, with limitations identified due to land availability, demand and environmental constraints.	Re-examination of recycled water options confirms that inherent constraints remain and that a disposal pathway for surplus effluent is required.

4.0 Statutory context

The statutory framework applicable to the project remains consistent as that described in the EIS. The project continues to be assessed under Division 5.2 of the Environmental Planning and Assessment Act 1979 as State Significant Infrastructure.

Since exhibition of the EIS, updated technical studies undertaken post-exhibition, as summarised in Section 6.3, confirm that the project continues to meet applicable statutory requirements, including marine water quality objectives, biodiversity protection requirements and Aboriginal heritage legislation.

4.1 Coastal management legislative framework

At the time of exhibition of the EIS, coastal planning controls were contained within the *State Environmental Planning Policy (Coastal Management) 2018*. These provisions have since been consolidated within the *Resilience and Hazards SEPP 2021*, with the overarching objects and management objectives established under the *Coastal Management Act 2016*.

This legislative consolidation reorganises the coastal planning provisions but does not introduce new impact pathways or materially different assessment tests. The defined coastal management areas remain coastal wetlands and littoral rainforest areas, coastal vulnerability areas, coastal environment areas and coastal use areas.

In response to agency advice, the coastal assessment presented in Chapter 10 of the EIS has been reviewed against the current legislative framework. This review confirms that the project avoids direct disturbance to mapped coastal wetlands through trenchless construction methods, does not increase exposure to coastal hazards or materially alter coastal processes, improves nearshore marine water quality through replacement of the beach-face outfall, and maintains or enhances public access and coastal amenity. The legislative update does not require modification of the preferred infrastructure.

4.1.1 Consistency with the Objects of the Coastal Management Act 2016

Section 3 of the Coastal Management Act 2016 sets out the objects of the Act. The project has been reviewed against these objects and addresses them as follows.

Protection of coastal processes and environmental values

(Objects (a), (f), (g), (i), (m))

The project improves nearshore marine water quality by replacing the beach-face outfall with an offshore ocean outfall, reducing nutrient and pathogen loading within the surf zone (refer EIS Chapters 8 and 10). Directional drilling beneath dune and wetland systems avoids permanent disturbance to dynamic coastal landforms and maintains natural sediment processes.

Coastal hazards, including erosion and inundation risks, were assessed in EIS Chapter 10. Infrastructure is located underground and beyond the active beach and surf zone, reducing exposure to shoreline movement and accommodating the dynamic nature of the coastline. The project therefore mitigates current and future hazard risks and supports the resilience of coastal assets under changing climate conditions.

By improving marine water quality outcomes, the project also supports the objectives of the Marine Estate Management Act 2014.

Social, cultural and economic values of the coastal zone

(Objects (b), (c), (d))

Public access to and along the foreshore is maintained following construction, and long-term recreational water quality and amenity at Merimbula Beach are improved. The project therefore supports the social and recreational values of the coastal zone.

Aboriginal cultural heritage has been assessed in consultation with Registered Aboriginal Parties (refer EIS Appendix I). Sensitive dune landforms are traversed at depth to avoid disturbance of archaeological deposits, recognising the cultural significance of the coastal landscape.

By supporting environmental quality and recreation at Merimbula Beach, the project contributes to the sustainability of the local coastal and tourism economy.

Ecologically sustainable and coordinated coastal management

(Objects (e), (h), (j), (k), (l))

The project was subject to comprehensive environmental assessment under Division 5.2 of the *Environmental Planning and Assessment Act 1979*, with avoidance and mitigation measures embedded in the design. The assessment process included public exhibition and consultation with relevant State agencies, ensuring coordinated and integrated consideration of coastal matters.

The project contributes to the protection and enhancement of the coastal environment through improved effluent management and ongoing environmental management commitments.

4.1.2 Consistency with the Management Objectives of the Coastal Management Act 2016

In addition to alignment with the objects of the *Coastal Management Act 2016*, sections 6–9 of the Act establish specific management objectives for each mapped Coastal Management Area. The project has been reviewed against the management objectives applicable to the mapped coastal wetlands and littoral rainforest area,

coastal environment area and coastal use area. No land within the project footprint is mapped as coastal vulnerability area.

Table 4-1 provides detailed alignment of the project with the relevant management objectives and confirms that the project meets the requirements of the *Coastal Management Act 2016*. The consolidation of coastal planning provisions within the *Resilience and Hazards SEPP 2021* does not alter the assessment conclusions of the EIS or require modification of the preferred infrastructure.

Table 4-1: Alignment with Coastal Management Act 2016 Management Objective

Management Objectives	Response
Coastal wetlands and littoral rainforests area <i>Coastal Management Act 2016 – section 6 management objectives</i>	
(a) to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity.	Mapped coastal wetlands occur within Merimbula Lake, along Pambula Beach and within the broader coastal dune system. The project footprint does not directly disturb land mapped as coastal wetland. A portion of the underground pipeline alignment passes beneath a mapped wetland area east of the STP site; however, this section is to be installed using horizontal directional drilling at depth. As detailed in EIS Chapter 9 (Groundwater) and Chapter 10 (Marine and Coastal Processes), the drilling depth avoids interaction with surface wetland systems and is not expected to interrupt groundwater flows that sustain wetland hydrology. No surface excavation or vegetation removal is proposed within mapped wetland areas. Accordingly, the project avoids direct disturbance and maintains the biological and hydrological integrity of mapped coastal wetlands. No areas of littoral rainforest are mapped within the project area.

Management Objectives	Response
(b) to promote the rehabilitation and restoration of degraded coastal wetlands and littoral rainforests.	While the project does not involve rehabilitation works within mapped wetlands, it incorporates mitigation measures to ensure construction activities do not degrade adjacent wetland systems. Erosion and sediment controls, water management procedures and groundwater protection measures are detailed in EIS Chapter 13 (Landform, Geology and Soils) and Chapter 9 (Groundwater). These measures are designed to prevent indirect impacts such as sedimentation, changes in surface runoff patterns or groundwater contamination that could adversely affect wetland condition. Through avoidance of disturbance and implementation of these controls, the project supports the ongoing integrity and condition of adjacent wetlands.
(c) to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration.	By avoiding permanent surface infrastructure within mapped wetland areas and maintaining groundwater and surface water regimes, the project does not constrain the adaptive capacity of coastal wetlands to respond to sea level rise, storm events or other climate-related pressures. The use of trenchless construction methods through sensitive dune and wetland systems reduces fragmentation and supports the continued natural function and resilience of these ecosystems.
(d) to support the social and cultural values of coastal wetlands and littoral rainforests.	The project does not remove or restrict access to mapped wetlands, nor does it alter their visual or recreational setting. Aboriginal cultural heritage considerations associated with dune and back-barrier sandflat landforms are addressed in EIS Appendix I (Aboriginal Cultural Heritage Assessment Report). The depth of drilling beneath these landforms avoids disturbance of archaeological deposits, thereby protecting cultural values associated with the coastal landscape.

Management Objectives	Response
(e) to promote the objectives of State policies and programs for wetlands or littoral rainforest management.	The project design adopts an avoidance-first approach consistent with State wetland protection principles. Construction and operational environmental management plans will incorporate measures consistent with contemporary wetland protection practices, including groundwater protection and sediment control, as detailed in the EIS.
Coastal vulnerability area <i>Coastal Management Act 2016 – section 7 management objectives</i>	
N/A	No land within the project area is currently mapped as Coastal Vulnerability Area under the <i>Resilience and Hazards SEPP 2021</i>. Notwithstanding this, coastal hazard considerations have been assessed in EIS Chapter 10 (Marine and Coastal Processes). The project does not increase coastal hazard exposure or exacerbate erosion, inundation or shoreline instability. The pipeline is installed underground beyond the active beach and surf zone, reducing exposure to shoreline movement and storm impacts. Construction and operational safety measures will manage risks associated with extreme weather events.
Coastal environment area <i>Coastal Management Act 2016 – section 8 management objectives</i>	
(a) to protect and enhance the coastal environmental values and natural processes of coastal waters, estuaries, coastal lakes and coastal lagoons, and enhance natural character, scenic value, biological diversity and ecosystem integrity.	The project replaces the existing beach-face outfall with an ocean outfall extending beyond the surf zone. As described in EIS Chapter 8 (Water Quality, Hydrology and Flooding) and Chapter 10, this results in improved nearshore marine water quality outcomes relative to the current situation. Directional drilling beneath dune systems and offshore installation beyond the surf zone ensures that coastal geomorphology and natural processes are not materially altered. The project does not introduce structures that would interfere with sediment transport or shoreline dynamics.

Management Objectives	Response
(b) to reduce threats to and improve the resilience of coastal waters, estuaries, coastal lakes and coastal lagoons, including in response to climate change.	Improved effluent treatment and offshore discharge reduce nutrient loading and pathogen concentrations within nearshore waters. This reduces stressors on marine and estuarine ecosystems and enhances long-term resilience. Coastal hazard assessments incorporated into project design further support resilience to future climate conditions.
(c) to maintain and improve water quality and estuary health.	Water quality modelling and impact assessment presented in EIS Chapter 8 demonstrate that water quality outside the defined mixing zone will meet relevant objectives. Compared to the existing beach-face discharge, the ocean outfall configuration materially improves nearshore water quality and reduces cumulative impacts in the local marine environment.
(d) to support the social and cultural values of coastal waters, estuaries, coastal lakes and coastal lagoons.	Improved water quality enhances recreational use, surfing, swimming and community enjoyment of Merimbula Beach and adjacent waters. The removal of visible discharge infrastructure from the beach-face improves amenity and community perception of environmental quality.
(e) to maintain the presence of beaches, dunes and the natural features of foreshores, taking into account the beach system operating at the relevant place.	Trenchless installation through dune areas and burial of offshore pipeline infrastructure ensure that beaches and dune systems remain physically intact. No permanent structures are introduced within the active beach or surf zone. Specialist terrestrial and marine ecology assessments (refer EIS Chapter 12) conclude that, with mitigation measures implemented, no significant impacts to native vegetation, marine habitats or rock platforms are predicted.

Management Objectives	Response
(f) to maintain and, where practicable, improve public access, amenity and use of beaches, foreshores, headlands and rock platforms.	Public access to beaches and foreshores will be temporarily managed during construction but restored following completion. In operation, the project improves amenity through enhanced water quality and removal of the beach-face discharge infrastructure. The underground pipeline alignment does not create hazards to beach users or restrict long-term access.
Coastal use area <i>Coastal Management Act 2016 – section 9 management objectives</i>	
(a) to protect and enhance the scenic, social and cultural values of the coast by ensuring that— (i) the type, bulk, scale and size of development is appropriate for the location and natural scenic quality of the coast, and (ii) adverse impacts of development on cultural and built environment heritage are avoided or mitigated, and (iii) urban design, including water sensitive urban design, is supported and incorporated into development activities, and (iv) adequate public open space is provided, including for recreational activities and associated infrastructure, and (v) the use of the surf zone is considered.	Project infrastructure is largely underground or contained within the existing STP site, limiting visual and bulk impacts. The scale and form of works are consistent with existing land use character. Aboriginal cultural heritage has been assessed in consultation with Registered Aboriginal Parties (refer EIS Appendix I), and non-Aboriginal heritage assessments confirm no significant impacts to identified heritage items. The removal of the beach-face outfall infrastructure enhances scenic and recreational values of the surf zone.
(b) to accommodate both urbanised and natural stretches of coastline.	The project consolidates infrastructure within the existing STP site and underground corridor, avoiding expansion of visible infrastructure along natural beachfront areas. This approach supports essential public infrastructure provision while maintaining the natural character of the coastline.

4.1.3 Consistency with the draft Merimbula and Back Lake Coastal Management Program

Bega Valley Shire Council is currently finalising the *Merimbula and Back Lake Coastal Management Program (CMP)*. The draft CMP identifies sewage contamination (Threat T2.2) as a key risk to estuary health, with potential impacts to aquaculture, recreation and tourism arising from sewer overflows and associated pathogen and nutrient loading.

The Merimbula Ocean Outfall project directly addresses this identified threat by upgrading and replacing the existing beach-face outfall infrastructure with a new offshore outfall and associated conveyance infrastructure. The project increases system capacity and reliability, thereby reducing the likelihood and consequence of wet weather overflows and uncontrolled discharges to Merimbula and Back Lakes and the nearshore environment.

In addition, the existing pipeline alignment is located within a mapped coastal erosion zone; replacement and modernisation of this asset reduces vulnerability to coastal hazard exposure and the risk of infrastructure failure.

Accordingly, the project is consistent with the overarching objective of the draft CMP to improve estuary health and manage the coastal zone in a manner consistent with ecologically sustainable development for the social, cultural and economic wellbeing of the Shire.

5.0 Community and stakeholder engagement

Community and stakeholder engagement for the project was undertaken extensively during preparation and exhibition of the EIS. Submissions received from government agencies, stakeholders and the community were addressed comprehensively in the Response to Submissions (RtS).

Following completion of the RtS, a planning focus meeting was held with relevant NSW Government agencies in September 2025 to review outcomes and confirm that no additional issues requiring further assessment had been identified. No new issues or information gaps were raised through this process.

No additional targeted community consultation has been undertaken specifically for the PIR, as there are no new impacts or changes to the nature of the project, no expansion to the assessed project footprint or the receiving environments beyond those evaluated in the EIS.

Bega Valley Shire Council remains committed to ongoing communication and engagement with the community and stakeholders during detailed design, construction and operation, should the project be approved. Engagement activities will focus on providing timely and transparent information, managing construction-related impacts, and ensuring regulatory requirements are met.

5.1 Planned communications and engagement

Planned engagement activities include:

- Maintaining and updating Council's project page website to provide current information on project status, timing and planned activities.
- Continued engagement with Registered Aboriginal Parties (RAPs) to ensure compliance with the Aboriginal cultural heritage consultation requirements under the *National Parks and Wildlife Act 1974*, including maintaining accurate and up-to-date AHIMS information.
- Continued engagement with the relevant Aboriginal Land Council in relation to land status and access requirements associated with parcels subject to undetermined Aboriginal Land Claims.
- Ongoing engagement with Crown Lands to progress easement requirements and, if required, a temporary licence to authorise access during construction, subject to planning approval.
- Continued consultation with relevant government agencies during detailed design and construction, including:
 - Department of Primary Industries and Regional Development – Fisheries, regarding detailed design and environmental management measures; and review of any additional water quality monitoring needs beyond the committed two year water quality monitoring period.
 - NSW Environmental Protection Authority in relation to Environmental Protection Licence requirements, discharge monitoring and validation programs;
 - Department of Climate Change, Energy, the Environment and Water regarding any required Water Access Licence and groundwater monitoring requirements.
 - Continued consultation with NSW Health regarding public health matters.
 - Consult with Transport for NSW to obtain relevant permits and seek their review of Transport Management Plans prior to construction.
- Subject to project approval, issuing a media release and updating Council's communication channels to inform the broader community of next steps.

6.0 Assessment of impacts

This section assesses whether information updated since exhibition of the Environmental Impact Statement (EIS) gives rise to any new or increased impacts compared to those assessed in the EIS. The assessment draws on post-exhibition technical studies, design development and the contemporisation process described earlier in this report.

Overall, the assessment concludes that the project does not introduce new impact pathways and does not increase the significance of impacts identified in the EIS. Updated information provides additional confidence in technical performance and environmental protection outcomes, but does not alter the conclusions of the original assessment.

6.1 Environmental impacts

Updated ocean dispersion modelling and marine ecology assessments (refer to Appendix B & C from RtS) confirm that the project can meet Marine Water Quality Objectives and will not result in unacceptable impacts on marine ecosystems.

No new or increased impacts on terrestrial ecology, groundwater, Aboriginal cultural heritage, traffic, noise, air quality or amenity have been identified based on information updated since exhibition of the EIS.

6.2 Social and economic impacts

The project continues to provide the social and economic benefits identified in the EIS, including improved public health protection, improved beach amenity and support for the regional tourism economy. Information updated since exhibition does not identify any new adverse social or economic impacts.

6.3 Studies undertaken post-EIS exhibition

The period between exhibition of the Environmental Impact Statement in 2021 and completion of the Response to Submissions in 2025 enabled Bega Valley Shire Council to undertake additional technical studies and design development to further refine the project and confirm the validity of the EIS conclusions. These studies were undertaken in response to issues raised during exhibition, agency feedback and the need to contemporise technical information. They did not expand the scope of the project, alter the assessed footprint, or introduce new impact pathways.

6.3.1 Ocean dispersion modelling

The EIS was supported by dispersion modelling undertaken by AECOM in 2021, which informed the proposed outfall length, diffuser configuration and discharge depth. Following exhibition, BVSC requested AECOM to refine model inputs and assess additional discharge scenarios, including shorter pipeline lengths, shallower diffuser depths and alternative mixing configurations.

This work is documented in the *Merimbula Ocean Outfall and Sewage Treatment Plant CORMIX Modelling 2022 Update Report* (AECOM, 2023) which was included as Appendix B of the RtS. The updated modelling confirmed that while shorter or shallower configurations may offer economic advantages, they would not reliably achieve the required dilution to meet Marine Water Quality Objectives and would be unlikely to receive regulatory approval. The modelling confirmed that the preferred ocean outfall configuration with a submerged diffuser at approximately 30 metres below sea level remains necessary to achieve compliant and environmentally protective discharge outcomes.

6.3.2 Marine ecology assessment

A Marine Ecology Assessment prepared by Elgin in 2021 supported the EIS and assessed potential impacts on marine habitats and biota. In 2022, BVSC commissioned Elgin to update this assessment to reflect the outcomes of the updated dispersion

modelling and incorporate more recent baseline information, including consideration of post-fire and post-flood conditions.

The updated assessment, documented in the *Marine Ecology Assessment – Update* (Elgin, 2024) which was included as Appendix C of the RtS, confirmed that the refined project design does not result in new or increased impacts on marine ecology compared to those assessed in the EIS. The assessment supports the conclusion that the preferred infrastructure remains environmentally acceptable with the proposed mitigation measures.

6.3.3 STP concept design development

In 2024, BVSC engaged BECAHunterH2O to review and further develop the original 30 per cent concept design prepared by AECOM for the Merimbula STP upgrades. This work resulted in a draft Design Basis Report that outlines forecast loadings, treatment objectives and expected performance.

The design development indicates that the core objectives assessed in the EIS, including improved screening, nutrient removal and disinfection, remain appropriate. The work improves understanding of robustness and operational requirements but does not change the nature of the treatment train assessed in the EIS. Final selection of treatment equipment will occur during detailed design within the assessed performance envelope.

BecaHunterH2O is currently preparing a long list of options for the STP upgrade, which will be followed by a short list of options and multi-criteria analysis. These options will be assessed with our funding partner, DCCEEW and concept design will proceed based on the final option selected.

6.3.4 Assessment of alternative pipeline configurations and recycled water scheme options

As part of the post-EIS investigations, BVSC assessed alternative ocean outfall configurations, including shorter pipeline lengths and shallower diffuser depths within Merimbula Bay. Although these options presented potential cost savings, the investigations demonstrated that they would not meet Marine Water Quality Objectives and would therefore be unlikely to be approved by the NSW Environment Protection Authority.

BVSC also revisited recycled water scheme options. While recycled water supply continues to be prioritised where feasible, assessments reaffirmed that structural constraints relating to topography, land availability, proximity to waterways and seasonal demand mismatch prevent 100 per cent of effluent being treated and supplied as recycled water to users. These constraints are inherent and would persist regardless of additional investment. A disposal scheme for surplus effluent will always be required at Merimbula STP.

7.0 Agency advice response

Agency advice received during exhibition of the EIS and finalisation of the RtS has informed the preferred infrastructure and the proposed post-approval delivery approach. This section summarises the key matters raised by agencies following the RtS and sets out Council's response, including where actions are already addressed through the mitigation framework, and where additional detail will be progressed during detailed design and prior to commencement of construction.

Council's responses below confirm that agency recommendations do not require a change to the approved scope, project footprint, receiving environments, or statutory approval pathway.

7.1 NSW Department of Climate Change, Energy, the Environment and Water

7.1.1 DCCEEW Water Group

Summary of submission

DCCEEW Water reviewed the RtS in September 2025 and noted that Council proposed to address certain groundwater-related matters at the detailed design and construction planning stage. DCCEEW Water identified residual uncertainty regarding groundwater interception during construction and provided post-approval recommendations relating to aquifer interference assessment, groundwater take quantification and licensing.

The Department did not raise objections to the project but recommended that groundwater impacts be quantified in accordance with the NSW Aquifer Interference Policy and that a groundwater monitoring program be developed prior to construction.

Response

Council acknowledges DCCEEW Water's advice and confirms that groundwater interception and take will be quantified during detailed design in accordance with the NSW Aquifer Interference Policy and Framework. Where required, a Water Access Licence will be obtained prior to construction.

A groundwater monitoring program will be developed prior to construction commencement and implemented in accordance with mitigation measures identified in the EIS and RtS. These requirements are consistent with existing commitments and do not represent new impact pathways or changes to the preferred infrastructure.

7.1.2 DCCEEW Conservation Programs, Heritage and Regulation Group (CPHR)

Summary of submission

CPHR reviewed the RtS against the Secretary's Environmental Assessment Requirements and confirmed that it generally meets requirements for biodiversity and flooding, subject to two matters being addressed prior to determination.

These matters relate to updating references to contemporary legislation, including the Resilience and Hazards SEPP 2021 and Coastal Management Act 2016, and formalising biodiversity mitigation measures from the Biodiversity Assessment Report into a Construction Environmental Management Plan and flora and fauna management subplan.

Response

The PIR updates statutory references to reflect current legislation and demonstrates consistency with the Coastal Management Act 2016 and relevant Coastal Management Areas. Mitigation measures identified in the EIS and RtS will be formalised in a Construction Environmental Management Plan and supporting subplans prior to construction, to be prepared in consultation with and to the satisfaction of CPHR.

7.1.3 DCCEEW Heritage NSW

Summary of submission

Heritage NSW reviewed the RtS in September 2025 and confirmed that Aboriginal cultural heritage matters raised during the EIS have been adequately addressed, subject to updating AHIMS searches and demonstrating that Aboriginal community consultation has remained continuous or an updated condensed consultation program be completed.

Response

Council has updated AHIMS searches in Attachment A and provided an updated condensed consultation program consistent with Heritage NSW guidelines in Appendix B.

7.2 NSW Department of Primary Industries and Regional Development

7.2.1 DPIRD Agriculture and Biosecurity

Summary of submission

The Department of Primary Industries and Regional Development (DPIRD) Agriculture and Biosecurity reviewed the Response to Submissions (RtS) in September 2025, following its earlier advice on the Environmental Impact Statement (EIS) provided in September 2021.

DPIRD confirmed that the RtS satisfactorily addressed all matters raised in its 2025 submission. In particular, DPIRD noted that nutrient budgeting investigations for the Oaklands agricultural reuse site had already been undertaken as part of earlier approvals and assessments, including the 2005 EIS and subsequent site and soil investigations undertaken in 2008. These studies informed the explicit inclusion of the Oaklands site in Environment Protection Licence (EPL) 1741 as a permitted recycled water scheme location.

While DPIRD raised no new concerns and did not request additional assessment, it encouraged Council to continue using the Recycled Water Management System (RWMS) and Recycled Water Supply and Use Agreements (RWSUAs) to ensure ongoing

protection of water quality, particularly where operational conditions, standards or reuse practices change over time.

Response

Council notes DPIRD's confirmation that its previous advice has been satisfactorily addressed and that no further information is required at this time. The Preferred Infrastructure Report (PIR) confirms that the current proposal does not represent a material change to recycled water arrangements assessed in the EIS or addressed in the RtS.

The supply of recycled water to Oaklands utilisation area remains authorised under EPL 1741 and no expansion or new agricultural recycled water schemes are proposed as part of the preferred infrastructure. Council will continue to operate recycled water schemes in accordance with the RWMS and RWSUAs, ensuring that recycled water practices remain consistent with contemporary standards and regulatory expectations.

Ongoing monitoring, periodic review of recycled water practices and engagement with DPIRD will continue during operation, particularly if new recycled water schemes are considered or if changes to best practice standards occur. No additional mitigation or approval requirements are triggered by DPIRD's advice.

7.2.2 DPIRD Fisheries

Summary of submission

DPIRD Fisheries reviewed the RtS in September 2025, with a focus on aquatic ecosystems, commercial and recreational fisheries, oyster aquaculture and marine habitat protection. DPIRD Fisheries acknowledged the sensitivity of Merimbula Lake, Pambula Lake and Merimbula Bay and recognised the importance of protecting oyster production and public health outcomes.

DPIRD Fisheries supported the proposed STP upgrades and confirmed they are expected to reduce risk to oyster industries by improving effluent quality and reducing the likelihood of pathogen transport. DPIRD Fisheries reiterated earlier recommendations relating to UV disinfection performance, retention of the existing 17 ML storage pond to reduce bypass risk during wet weather, and ongoing water quality monitoring.

Additional advice included preferences regarding pipeline weighting methods to promote marine habitat complexity, review of detailed design for the drill rig pad, and opportunities for DPIRD Fisheries to review construction and operational management plans prior to commencement.

Response

Council acknowledges DPIRD Fisheries' support for the project and its confirmation that the proposed upgrades represent an improvement over existing arrangements. The preferred infrastructure incorporates UV disinfection capable of achieving continuous UV dosage consistent with DPIRD Fisheries' recommendations and retains operational storage through the proposed reconfigured 17 ML pond and the separate 20 ML wet weather overflow pond to provide resilience during wet weather events.

Pipeline weighting methods and drill rig pad design will be finalised during detailed design, at which time DPIRD Fisheries will be consulted in accordance with its advice. Construction and Environmental Management Plans, Erosion and Sediment Control Plans, Acid Sulphate Soil Management Plans and operational monitoring programs will be prepared prior to construction and provided to DPIRD Fisheries for review and comment where relevant.

Operational water quality, infauna and sediment monitoring will be undertaken in accordance with the EIS, RtS and licence requirements, with results shared with DPIRD Fisheries as appropriate. The PIR confirms that these commitments do not represent new impacts and are consistent with the mitigation framework already assessed.

7.3 Department of Planning, Housing and Infrastructure Crown Lands

Summary of submission

The Department of Planning, Housing and Infrastructure – Crown Lands (Crown Lands) reviewed the Environmental Impact Statement in September 2021 and provided updated advice in September 2025.

Crown Lands identified that elements of the Merimbula Sewage Treatment Plant Upgrade, including sections of the ocean outfall pipeline and associated construction activities, are located on Crown land. Crown Lands advised that Council must obtain lawful authority under the Crown Land Management Act 2016 to occupy and use Crown land for the project.

In its September 2025 advice, Crown Lands confirmed that engagement with Crown Lands should continue as the easement design is finalised. Crown Lands recommended early engagement with the Crown Lands divestment team once the final alignment is confirmed to determine the most appropriate tenure pathway. Crown Lands advised that options may include creation or variation of easements, or the use of licences as an interim (non-preferred) arrangement while permanent tenure is progressed. Crown Lands also noted that, where relevant, Council may consider exercising powers under the Local Government Act 1993 in conjunction with section 5.50 of the Crown Land Management Act 2016 to facilitate project delivery, subject to compliance with statutory requirements.

Response

Council acknowledges the advice provided by Crown Lands and confirms that lawful authority will be obtained for all project components located on Crown land prior to construction.

Council will continue to consult with Crown Lands during detailed design to confirm the final alignment of infrastructure on Crown land and to determine the most appropriate tenure arrangements. Early engagement with the Crown Lands divestment team will be undertaken to confirm requirements for easements, licences or other tenure instruments.

Where existing easements do not apply to the final alignment, Council will progress new easements or variations as required. If necessary to facilitate construction

sequencing, Council may seek interim licences over Crown land parcels while permanent tenure arrangements are finalised, noting this is not the preferred pathway.

Council will ensure compliance with all relevant statutory requirements, including consideration of Aboriginal Land Claims and Native Title obligations. All required Crown land tenure arrangements will be in place prior to construction commencing.

7.4 NSW Environmental Protection Authority

Summary of submission

The EPA reviewed the RtS in September 2025 and confirmed that its 2021 advice remains current. The EPA generally supports the project and recognises it as a significant improvement to existing arrangements. The EPA identified the need for post-approval programs, including a Mixing Zone Verification Program and Nutrient Loading Monitoring Program, to validate modelled outcomes and inform future licence conditions.

Response

Council acknowledges the EPA's advice and confirms that all required post-approval programs will be developed and implemented as conditions of the Environment Protection Licence. These programs will validate dispersion modelling, confirm compliance with Marine Water Quality Objectives and support continuous improvement in effluent management.

The PIR confirms that updated modelling and marine ecology assessments support the EPA's position and that no new impacts arise from the preferred infrastructure.

Construction and Environmental Management Plans, Erosion and Sediment Control Plans, Acid Sulphate Soil Management Plans will be prepared prior to construction and provided to the EPA for review where relevant.

7.5 NSW Health / Murrumbidgee Local Health District

Summary of submission

NSW Health confirmed in September 2025 that its advice remains unchanged from previous submissions and encouraged continued consultation throughout the planning process.

Response

Council will engage with NSW Health during detailed design and operation. Health risk management remains consistent with the EIS and RtS.

7.6 Transport for NSW

Summary of submission

Transport for NSW reviewed the RtS in September 2025 and confirmed that the conditions outlined in its 3 September 2021 submission continue to apply, with no additional comments.

Response

Council confirms that all TfNSW conditions from 2021 remain applicable and will be implemented, including marine transport management, traffic mitigation measures and permitting for oversized loads. No changes to access arrangements or traffic impacts are proposed.

8.0 Justification of the preferred infrastructure

The project represents the most effective, reliable and environmentally responsible solution to the environmental, public health and regulatory risks associated with existing effluent management at the Merimbula STP. It will improve treatment performance, provide a reliable effluent disposal pathway for surplus effluent and support ongoing recycled water use, consistent with the principles of ecologically sustainable development.

Upgrades to the STP will improve the quality of both effluent and recycled water through enhanced removal of nutrients, solids and metals using chemical dosing. Disinfection processes, as assessed in the EIS, will reduce pathogen concentrations in treated effluent and recycled water, improving protection of public health and environmental values.

The project will provide a reliable method for disposing excess effluent unable to be supplied as recycled water when demand for recycled water is low. It will enable the existing beach-face outfall and dunal exfiltration ponds to cease being used. It will provide a disposal location in 30 metres depth of water, 2.7 kilometres from the coastline, with a diffuser designed to improve mixing and dilution.

Updated ocean dispersion modelling confirms that the dilution required to meet Marine Water Quality Objectives can be achieved within a radius of approximately 55 metres of the diffuser under most current speeds, directions and density gradient conditions. Under worst-case stratified conditions, a dilution radius of approximately 300 metres was estimated for ammonia, representing the most conservative effluent quality scenario.

The updated marine ecology assessment concludes that disposal of treated effluent at the 30-metre diffuser location would not result in any unacceptable impacts on marine ecosystems and may have a neutral or positive effect on local species diversity and abundance.

Overall, the project will reduce public health and environmental risks, improve the quality of recycled water supplied for municipal use, protect Aboriginal cultural heritage values through cessation of use of the exfiltration ponds, and deliver benefits for recreation, aquaculture, commercial fishing and tourism in Merimbula Bay.

8.1 Recycled water use and limitations

The project prioritises recycled water supply and use where feasible and beneficial. Investigations undertaken for the EIS and subsequent studies confirm that structural constraints, including land availability, seasonal demand mismatch and environmental sensitivities, prevent 100 per cent reuse of effluent generated at the Merimbula STP.

As a result, a reliable disposal pathway for surplus effluent is required to ensure year-round operation of the treatment plant. The project adopts a balanced effluent management approach that maximises recycled water use while providing a safe and environmentally protective ocean disposal system.

9.0 References

Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, 2000. National Water Quality Management Strategy Australian Guidelines for Fresh and Marine Water Quality

Bega Valley Shire Council, 2025. Bega Valley Community Strategic Plan 2042. Available at: <https://www.begavalley.nsw.gov.au/About-Council/Plans-and-Reporting/Community-Strategic-Plan-CSP>.

Department of Environment and Conservation, 2005. Marine Water Quality Objectives for NSW Ocean Waters – South Coast.

Department of Climate Change, Energy, the Environment and Water 2024. Safe and Secure Water Program – Grants program guidelines.

Department of Planning and Environment, 2017. South East and Tablelands Regional Plan 2036.

Department of Planning and Environment, 2022. Draft South East and Tablelands Regional Plan 2041.

Department of Planning and Environment, 2022. Regional Water Strategy South Coast 2022.

Infrastructure NSW, 2022, State Infrastructure Strategy 2022-2042: Staying Ahead.

NSW Government, Coastal Management Act 2016.

NSW Government, State Environmental Planning Policy (Resilience and Hazards) 2021.

List of Supporting Information

Attachments

- **Attachment A** Updated AHIMS extensive search

Appendices

- **Appendix A** Revised Project Description
- **Appendix B** Condensed Aboriginal Consultation Program
- **Appendix C** Condensed Aboriginal Consultation Program – Consultation Log

Appendices that were provided previously for reference, but are not included in this report, can be accessed via the NSW Major Projects Planning Portal under the Response to Submissions section.

- **Appendix B (RtS)** AECOM (2023). *Merimbula Ocean Outfall and Sewage Treatment Plant CORMIX Modelling 2022 Update Report*. Prepared for Bega Valley Shire Council.
- **Appendix C (RtS)** Elgin (2024). *Marine Ecology Assessment – Update*. Prepared for Bega Valley Shire Council.



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