

Stuarts Point Sewerage Scheme

Application Number: **03010**

Commencement Date:
24/07/2025

Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Stuarts Point Sewerage Scheme

1.1.2 Project industry type *

Waste Management (sewerage)

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

01/03/2026

1.1.4 Estimated end date *

01/09/2027

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

The project includes the construction and operation of a centralised sewer scheme to service the townships of Stuarts Point, Grassy Head and Fishermans Reach within the Kempsey shire Council local government area. Infrastructure that comprise the sewer scheme include:

- wastewater collection and transfer system:
 - low pressure sewer network
 - property collection systems
- Stuarts Point Wastewater Treatment Plant (WWTP)
- treated effluent disposal system:
 - treated effluent pipeline
 - dunal discharge

Key activities associated with the proposed action would include:

- The project would require a construction phase, expected to take place over two years and require up to 20 full-time employees during peak construction. The key temporary construction infrastructure for the project includes environmental management measures, construction compounds including car parking areas, laydown areas for construction materials, and drill sites for underbore construction methods.
- The construction of the SPSS project would primarily utilise trenchless underground boring using horizontal directional drilling (HDD) for pipe installation. This technique significantly reduces surface disturbance compared to traditional trenching methods by establishing discrete drill sites with shallow entry pits, where a surface-launched drill installs pipes through the subsurface in a shallow arc. Sections would be linked approximately every 100 meters as necessary for valve placements, drill exit sites, and pipe joining.
- For the treated effluent pipeline crossing of the Macleay Arm, HDD would be employed through the dense sand layer situated above the estimated rock depth. This major underbore would establish an entry site at the corner of Kimpton Street and Marine Parade in Stuarts Point (west of the Macleay Arm) and an exit site within the southern area of the land designated for the dunal discharge (east of the Macleay Arm).
- Construction of the WWTP would include bulk earthworks, building of the plant, installation of treatment processes, and installation of services. The dunal discharge construction would involve clearing vegetation and installing surface irrigation pipework, along with ancillary infrastructure. Fencing and signage would also be erected to facilitate management of the discharge area. All these elements combined would integrate to form a modern, centralized wastewater system for the villages of Grassy Head, Stuarts Point, and Fishermans Reach.
- Following sewerage scheme construction and commissioning, Council would undertake the decommissioning of redundant OSMS infrastructure for all properties to be connected into the scheme. Septic pump-out of wastewater following OSMS decommissioning would follow current arrangements which includes disposal of wastewater at the South Kempsey WWTP via tanker truck
- Following construction, the project would be operated in perpetuity as a council infrastructure asset via ongoing operation and maintenance. The operation of the Stuarts Point Sewerage Scheme would involve several key activities to ensure the continuous and effective management of wastewater. The sewer network would consistently transfer wastewater to the WWTP, with routine maintenance activities conducted to address any blockages or leaks that may arise, so that the network remains fully functional.
- In maintaining the treated effluent pipeline, regular inspections would be carried out to facilitate the seamless transfer of tertiary treated and disinfected effluent from the Stuarts Point WWTP to the dunal discharge. The WWTP itself would operate continuously, with up to three staff members dedicated to daily operations. These personnel would oversee regular monitoring and maintenance of treatment processes, ensuring compliance with all effluent quality criteria. Their tasks would include the upkeep of all treatment units and responding swiftly to any operational issues.

- The operation of the dunal discharge would involve routine maintenance to preserve the integrity and security of the discharge site. This would include vegetation and weed management to keep the area clear and functional. In the event of adverse weather conditions, operational protocols would be in place to manage these situations, including the temporary storage of effluent at the Stuarts Point WWTP. Specific triggers for the cessation of discharges would be established, along with detailed inspections required before discharge activities can recommence. These measures would ensure the dunal discharge system remains secure and operates effectively under various conditions.

Refer to **Attachment 1: Project Description** for an overview of the proposed action, including all proposed activities and a full response to this section.

Refer to **Attachment 3: Project Footprint Mapping** for a layout of the proposed action (which forms an attachment under Section 2.0 'Location' of this EPBC Referral).

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Power to grant consent

The project has been declared a State Significant Development (SSD) under NSW planning legislation, specifically under Part 4 of the *Environmental Planning and Assessment Act 1979* and Section 22 of Schedule 1 of the State Environmental Planning Policy (Planning Systems) 2021 due to having an estimated development cost valued at over \$30 million.

As such, the project is subject to the environmental assessment process for SSDs including the preparation of a Scoping Report to receive the Secretary's Environmental Assessment Requirements (SEARs) and the preparation of an Environmental Impact Statement (EIS) to satisfy the SEARs.

Under Division 4.2, Section 4.5 of the planning legislation, specifically under Part 4 of the *Environmental* the consent authority for SSD is the Independent Planning Commission (if the development is of a kind for which the commission is declared the consent authority by an environmental planning instrument) or the Minister for Planning (if the development is not of that kind).

Permissibility

The State Environmental Planning Policy (Transport and Infrastructure) 2021 describes the development controls for sewerage systems under Division 18 of the planning instrument. Under the State Environmental Planning Policy (Transport and Infrastructure) 2021, the Stuarts Point WWTP is permitted without development consent in a prescribed zone, additionally the low-pressure sewer network, treated effluent pipeline and dunal discharge is permitted without development consent on any land in the prescribed circumstances.

Other applicable legislation

- Environmental Protection Licence (EPL) for a proposed scheduled activity (sewage treatment) under the *Protection of Environment Operations Act 1997*
- An approval is required under Section 138 of the *Roads Act 1993* to permit the erection of a structure or carry out a work in, on or over a public road
- Dangerous goods transportation licence under the *Dangerous Goods (Road and Rail Transport Act) 2008*
- Approvals would be required should the project require the transport of any infrastructure by oversize over mass (OSOM) vehicles under the *Heavy Vehicle National Law 2013*
- Consent for works over Crown Land under the *Crown Land Management Act 2016*
- In accordance with the *Biodiversity Conservation Act 2016*, an application to carry out SSD, under the EP&A Act is to be accompanied by a Biodiversity Development Assessment Report (BDAR)

The need or otherwise for any approvals required under other applicable legislation would be determined during the EIS and in discussion with the relevant government agencies.

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

The project is in close proximity to habitat for Commonwealth listed Threatened Ecological Communities, Threatened Species and Migratory species. If the project is deemed a controlled action by the Minister, it is assumed biodiversity-related MNES will be assessed as part of the NSW Biodiversity Assessment (BDAR) under the Amended Assessment Bilateral Agreement between NSW and the Commonwealth.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

To date, consultation undertaken with the general public includes:

- Kempsey Shire Council's project website was created to be the hub for all relevant project documents and has been continually updated as the project progresses
- Newsletters issued via post to individuals within the communities of Grassy Head, Stuarts Point and Fishermans Reach on:
 - May 2021
 - May 2022
 - December 2022
 - January 2023
 - November 2023
- Media statements to introduce and update the project:
 - Interview and subsequent news piece published in NBN News – Mid North Coast on 6 December 2022.
 - Media Statement from Mayor and subsequent article published in news of the Area on 9 December 2022
 - Interview with Mayor on the project and subsequent newspaper article posted in the ABC Mid North Coast newspaper in May 2021
 - Newspaper article published in local newspaper, the Macleay Argus, in June 2023.
- Community information sessions including virtual attendance option, held on:
 - November 2023
 - April 2024
 - November 2024
 - April 2025
 - June 2025
- A survey of community opinions, feedback and information of the project was undertaken by asking a range of questions about the SPSS project to allow participants to provide issues and insights (7 November 2023 - 22 December 2023)

To date, consultation with the relevant government agency includes:

- Engagement with Department of Planning, Housing and Infrastructure on the project in general
- Engagement with the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) Conservation Programs, Heritage, and Regulation (CHPR) division on the project's Biodiversity development assessment report.
- Engagement with the NSW DCCEEW Water Group on the project's water take and hydrogeological assessment
- Engagement with NSW EPA regarding water quality modelling, environmental and ecological assessment, and discharge assessment
- Engagement with Department of Primary Industries (DPI) Fisheries and DPI Agriculture on the project's Land Use Cumulative Risk Assessment and impacts to aquatic ecology.
- Liaison with other state government agencies on the project and the EIS assessment including, NSW Crown Lands, Heritage NSW, NSW National Parks, Transport for NSW, NSW State Emergency Services, Fire and Rescue NSW, and NSW Rural Fire Services.

To date, consultation undertaken with the Aboriginal community includes:

- November 2021: Kempsey LALC were contracted to conduct a preliminary cultural heritage assessment of the WWTP site
- 27 May 2022: Kempsey LALC were contracted to conduct a preliminary cultural heritage assessment of the effluent disposal site
- 2023-2025: Participation of Registered Aboriginal Groups (RAPs) in the Aboriginal Cultural Heritage Assessment (ACHAR)

Consultation to be undertaken:

As the project progresses, Council will continue to engage with the community and stakeholders in accordance with a project specific community and stakeholder engagement plan.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

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Alternatively, email us at privacy@awe.gov.au.

Confirm that you have read and understand this Privacy Notice *

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN 49095437442
Organisation name RAMBOLL AUSTRALIA PTY LTD
Organisation address 6000 WA

Referring party details

Name Charyssa Lawrence
Job title Environmental Scientist and Planner
Phone 0431122667
Email clawrence@ramboll.com
Address The Arc, 45a Watt Street, Newcastle 2300

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN 70705618663
Organisation name KEMPSEY SHIRE COUNCIL
Organisation address 2440 NSW

Person proposing to take the action details

Name Eric Nielsen
Job title Program Manager
Phone 0427325685
Email eric.nielsen@kempsey.nsw.gov.au
Address 22 Tozer Street, West Kempsey. 2440

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Kempsey Shire Council regularly undertakes infrastructure delivery and natural resource conservation and management works each year complying with the relevant environmental legislation.

One penalty notice was issued to Kempsey Shire Council on 3 March 2015 under the *Protection of the Environment Operations Act 1997* for pollution of waters (Notice No: 3085775981). Kempsey Shire Council has not been involved in any enforceable undertakings or civil proceedings relating to environmental management and/or uses of natural resources.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Refer to **Attachment 2: Sustainability and Resilience Strategy** for Kempsey Shire Council's environmental policy and planning strategy.

Kempsey Shire Council's environmental policy and planning framework focuses on integrating sustainability and resilience into the community through a clear strategy comprising three main themes: Leadership, Environment, and Community. The framework aims to address operational impacts on sustainability, enhance energy efficiency, support renewable energy, manage natural and urban environments, and foster community preparedness for climate change. It leverages local and state strategic policies and initiatives, aims to achieve net zero emissions by 2050, and emphasizes collaboration among Council, governments, businesses, and the community

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN 70705618663
Organisation name KEMPSEY SHIRE COUNCIL
Organisation address 2440 NSW

Proposed designated proponent details

Name Eric Nielsen
Job title Program Manager
Phone 0427325685
Email eric.nielsen@kempsey.nsw.gov.au
Address 22 Tozer Street, West Kempsey. 2440

1.3.4 Identity: Summary of allocation

✔ Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	49095437442
Organisation name	RAMBOLL AUSTRALIA PTY LTD
Organisation address	6000 WA
Representative's name	Charyssa Lawrence
Representative's job title	Environmental Scientist and Planner
Phone	0431122667
Email	clawrence@ramboll.com
Address	The Arc, 45a Watt Street, Newcastle 2300

✔ Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	70705618663
Organisation name	KEMPSEY SHIRE COUNCIL
Organisation address	2440 NSW
Representative's name	Eric Nielsen
Representative's job title	Program Manager
Phone	0427325685
Email	eric.nielsen@kempsey.nsw.gov.au
Address	22 Tozer Street, West Kempsey. 2440

✔ Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

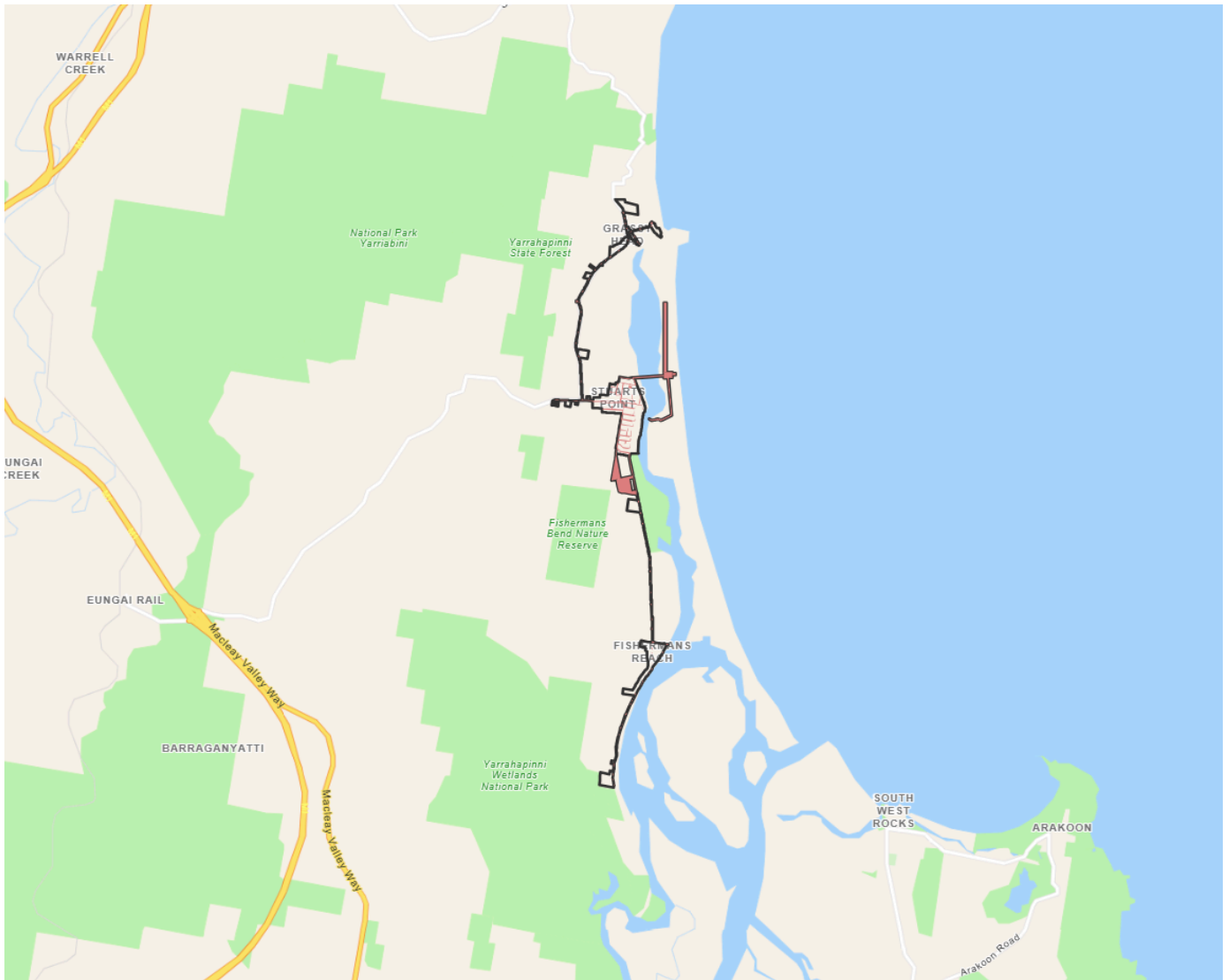
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



Project Area: 143.02 Ha Disturbance Footprint: 33.66 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

The townships of Stuarts Point, Grassy Head and Fishermans Reach located on the Mid-North Coast

2.2.2 Where is the primary jurisdiction of the proposed action? *

New South Wales

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The land pertaining to the project is predominately Crown Land and Council owned land, including the WWTP site, treated effluent pipeline and dunal discharge area. The dunal discharge site will be contained within an easement over Crown Land.

The low-pressure sewer network will be located on both Crown Land and within the Council owned road reserve, with an exception for connections to each of the dwellings and businesses to be serviced by the project which will be on private land.

Each project element would be located on part of the following Lot / DPs:

Low-pressure sewer network:

- Lot 7007 DP 1054244
- Lot 139 DP 752438
- Lot 1 DP 1284907
- Road reserve

Property connection systems:

- Refer to **Attachment 1: Project Description** (Section 2.0).

Stuarts Point WWTP:

- Lot 1 DP 1284907

Treated effluent pipeline:

- Lot 7300 DP 115278
- Road reserve

Dunal discharge:

- Lot 7300 DP 1152758

Refer to **Attachment 3: Project Location** for details of the project footprint and disturbance area and Lot/DP details for Property collection systems and properties to be connected into the scheme.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The project area is primarily orientated north-south with its' northern end occurring near the intersection of Pavans Access and Grassy Head Road in Grassy Head, and its' southern end occurring approximately 1.7 kilometres south of the Perrett Lane and Fishermans Reach Road intersection, in Fishermans Reach. It is approximately 10 kilometres between the northern and southern ends of the subject land which includes:

- The road corridors of Grassy Head Road, Stuart Point Road, Ocean Avenue, and Fishermans Reach Road.
- A portion of the road networks within Grassy Head, Stuarts Point and Fishermans Reach villages.
- The WWTP south of the township of Stuarts Point at Lot 1 DP 1284907.
- The dunal discharge site and access track.

The project area is within Kempsey Local Government Area (LGA) and includes the following land zonings under the Kempsey Local Environmental Plan 2013:

- C1 National Parks and Nature Reserves
- C2 Environmental Conservation
- C3 Environmental Management
- E4 General Industrial
- RU1 Primary Production
- RU2 Rural Landscape
- RU5 Village
- SP2 Infrastructure (Waste or resource management facility)
- W1 Natural Waterways.

Land use includes remnant native vegetation and light residential development in the northern section of the subject land, between Stuarts Point and Grassy Head. Around Stuarts Point are more built-up residential developments which comprise the village of Stuarts Point. To the east of Stuarts Point, the project area includes an approximately 11.6 hectare, largely linear, north-south band of coastal dune vegetation which occurs between the Macleay Arm and the South Pacific Ocean.

To the south of Stuarts Point, within the central portion of the project area is the WWTP site. This site is characterised by a centrally cleared and disturbed area fringed by tracts of remnant native vegetation that extend east, south and west.

South of Stuarts Point, the remainder of the project area includes Fishermans Reach Road and a portion of the Fishermans Reach road network.

Located between the eastern and western portions of the subject land and stretching along the entirety of its' north-south alignment is the Macleay Arm, a regionally significant Strahler Order 4 watercourse that supports the extensive estuarine wetland system known as the Clybucca Creek Estuary.

3.1.2 Describe any existing or proposed uses for the project area.

Land uses in the project area and surrounds comprise of agricultural, residential, and nature reserves. Fishermans Reach contains three avocado farms, one of which is one of the largest avocado producers on the NSW Mid North Coast.

The area also has an active aquaculture industry, predominantly oyster leases within the Macleay Arm to the south-east of Fishermans Reach, surrounding Shark Island, Whiskey Island and Little Shark Island and occurring throughout Anderson Inlet, Clybucca Creek and Spencers Creek.

The project area is also known as a high tourism area with two caravan parks, being Grassy Head Holiday Park and Stuarts Point Caravan Park, in addition to the Yarrahapinni Youth Centre, and the Stuarts Point Convention Centre (Convention Centre).

Stuarts Point Reserve and Joe Donanvon Sporting Complex are also located in Stuarts Point.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The Macleay Arm is mapped as part of the Clybucca Creek Estuary Wetland, which is included in the Directory of Important Wetlands of Australia (DoIW) (Cth DCCEEW 2005). The Clybucca Creek Estuary Wetland is 1,817 hectares in area. The wetland was listed on the DoIW for the following reasons:

- It is a good example of a wetland type occurring within a biogeographic region in Australia.
- It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycles, or provides a refuge when adverse conditions such as drought prevail.
- The wetland is of outstanding historical or cultural significance.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The project area's landscape comprises low inner beach ridge plains with gentle to undulating slopes. The project area has extremely low relief, ranging between one to nine metres AHD across the project area, but typically is less than three metres AHD. The terrain can be described as an inner barrier beach ridge plain consisting of mainly north-south trending linear dunes and swales approximately parallel to the modern coastline.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

A number of MNES are predicted to occur within the subject land based on recent BioNet records and the presence of habitat based on ground-truthed vegetation mapping. A protected matters search revealed six Commonwealth listed Threatened Ecological Communities (TECs), 57 migratory species and 92 threatened species listed under the EPBC Act are predicted to occur within the subject land, or within a 10 km buffer.

To date, biodiversity values have been documented in the subject land through a combination of reviewing existing reports, database searches, inspection of state-wide vegetation modelling and multiple field visits. Biodiversity surveys and impact assessments are in progress, with the following work completed to date:

- January 2024 – preliminary field investigations, vegetation and habitat mapping
- April 2024 - vegetation and habitat mapping, floristic (BAM) plot data collection
- June 2024 – targeted threatened flora survey
- September 2024 – targeted flora and fauna (aves) survey
- March 2025 – arboreal and terrestrial camera trap deployment (4 weeks)
- April 2025 – vegetation and habitat mapping, Koala Spot Assessment Technique (SAT) survey, further diurnal bird survey

To date, only one EPBC Act listed threatened species, South-Eastern Glossy Black cockatoo *Calyptorhynchus lathami lathami* (Vulnerable), has been confirmed present foraging, but not breeding, within the subject land. However, the targeted survey program will continue into 2025, with further survey for most flora and fauna MNES planned, including that of South-Eastern Glossy Black cockatoo.

The following MNES flora and fauna are considered most likely to occur and many are to subject of ongoing survey:

- Threatened flora:
 - Slender Marsdenia *Marsdenia longiloba* (Vulnerable) - potential to occur within dune vegetation (to be surveyed Summer 2025). Local BioNet records exist.
- Threatened/migratory fauna:
 - Sharp-tailed Sandpiper *Calidris acuminata* (Migratory) – the Macleay River Estuary, including the Macleay Arm, is listed as nationally important habitat for this species in the *National Directory of Important Migratory Shorebird Habitat*.
 - Bar-tailed Godwit *Limosa lapponica* (Migratory) – habitat present within the Macleay Arm.
 - Terek Sandpiper *Xenus cinereus* (Vulnerable, Migratory) - The NSW government has important habitat mapped for this species for the Macleay River Estuary and adjacent lands including a portion of the subject land to the east of Macleay Arm.
 - South-eastern Glossy Black Cockatoo *Calyptorhynchus lathami lathami* (Vulnerable) – recorded during September 2024 survey. Breeding (potential) and foraging habitat present.
 - Gang-gang Cockatoo *Callocephalon fimbriatum* (Endangered) – habitat present and local BioNet records.
 - Koala *Phascolarctos cinereus* (Endangered) – habitat present and local BioNet records.
 - Grey-headed Flying-fox *Pteropus poliocephalus* (Vulnerable) – habitat present. Local BioNet records. No camps present within the subject land.
 - Latham's Snipe *Gallinago hardwickii* (Vulnerable, Migratory) – habitat present in adjacent shoreline and estuarine areas as well as dune vegetation. Local BioNet record.
 - Eastern Curlew *Numenius madagascariensis* (Critically Endangered, Migratory) - habitat present in adjacent shoreline and estuarine areas as well as dune vegetation. Local BioNet record. The NSW government has important habitat mapped for this species for the Macleay River Estuary and adjacent lands.
 - White-throated Needletail *Hirundapus caudacutus* (Vulnerable, Migratory) – habitat present.
 - Southern Giant Petrel *Macronectes giganteus* (Endangered/Migratory) – habitat present and local BioNet record.

- Swift Parrot *Lathamus discolor* (Critically Endangered) – habitat present and local BioNet records. The NSW government has important habitat mapped for this species centred on Grassy Head extending south towards Stuarts Point township, this mapping intersects the dunal discharge area and northern portion of the reticulation associated with the project.

Several EPBC Act TECs have been recorded within the disturbance footprint and/or within the subject land:

- TECs:
 - Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland – recorded within and adjacent the disturbance footprint (Endangered).
 - Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community – recorded within and adjacent the development footprint (Endangered).
 - Subtropical and Temperate Coastal Saltmarsh – recorded within and adjacent the development footprint (Vulnerable).
 - Littoral Rainforest and Coastal Vine Thickets of Eastern Australia – recorded within and adjacent the development footprint (Critically Endangered).

The MNES listed above, along with any other MNES recorded or predicted as likely to occur within the subject land, will require consideration as part of ongoing ecological assessments. A significant portion of the disturbance footprint is yet to be subject to targeted flora survey and not all threatened fauna survey, such as for aves and amphibians has been completed. As such, MNES presence within the subject land is not fully understood at this time.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Vegetation

The subject land for the project BDAR contains approximately 80.17 hectares of native vegetation across a wide range of vegetation types including rainforest, saltmarsh, mangrove forest, heathlands, forested wetlands and wet and dry sclerophyll forests. Given the proximity to villages and human development, few areas are free of any disturbance history and edge effects. Primarily this includes clearing for roads, electrical transmission and large scale historical clearing at the WWTP site which now contains derived and regenerative conditions.

The largest, continuous patch of native vegetation is the dunal system where the dunal discharge would be located. However, this area is also not disturbance free and contains thick areas of common coastal exotics.

Several EPBC Act TECs have been recorded within the disturbance footprint and/or within the subject land:

- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland – recorded within and adjacent the disturbance footprint (Endangered).
- Subtropical and Temperate Coastal Saltmarsh – recorded within and adjacent the development footprint (Vulnerable).
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia – recorded within and adjacent the development footprint (Critically Endangered).

Soil

The project area is predominantly underlain by Pleistocene-aged coastal barrier deposits which generally comprise marine sand, indurated sand with potential for Holocene age estuarine deposits to the east in the southern half of the project area generally comprises marine sand, silt, clay and gravel.

Sandstones of the Carboniferous-aged Kempsey Beds occur as bedrock at depth on the project area and exposed to the west and north-west of the project area.

Review of the soil landscapes of the Macksville-Nambucca 1:100,000 map sheet (Eddie, 2000), specific project area soils for the low-pressure system and WWTP and the dunal discharge site are as follows:

- the low pressure sewer network and the WWTP site soil landscape is Stuarts Point, which consists of Aeric Podosols (podzols) with shelly Cumulic Anthrosols (Prairie Soils) on midden mounds, which have high erodibility and permeability
- the dunal discharge area site soil landscape is Goolawah variant c, which on the site consists of weakly developed Aeric Podosols (Podzols) on stable dunes, which have high erodibility and permeability.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

A Historic Heritage Impact Assessment is being prepared for the project. No Commonwealth or National heritage listed places are located within or near the project area and/or disturbance footprint.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

An Aboriginal Heritage Cultural Heritage Assessment Report (ACHAR) is being prepared for the project in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* by Department of Climate Change and Water New South Wales and dated 2010.

A search of the Aboriginal Heritage Information Management System (AHIMS) register on 4 December 2023 and 23 May 2025 returned 81 results for Aboriginal sites within a 10 km radius of the disturbance footprint. None of the sites are within the disturbance footprint.

To date, two field surveys have been undertaken by the project archaeologist with the assistance of Registered Aboriginal Parties (RAPs) in 2024 and 2025.

Three 'Culturally Significant Areas' (CSAs) were identified by the RAPs, these include CSA 1 Razorback Ridge, a spur situated close to the intersection of Grassy Head Road and Reserve Road, Grassy Head; CSA 2 Moreton Bay Fig Tree, located in bushland off Reserve Road, and CSA 3 Port Jackson Fig Tree, located adjacent to Millington Avenue, Grassy Head. CSAs are not regarded as Aboriginal objects and not registered on the AHIMS register but are rather a management tool recognising areas or features of interest to the Aboriginal community. CSA 1 is in the disturbance footprint while CSA 2 and CSA 3 are located outside of the disturbance footprint.

Recommendations have been made for the protection of CSA 1 including prescribing the use of underboring construction methodologies to avoid disturbance of the landform contained within CSA 1 and having a representative of the Aboriginal community present during the initial ground disturbance during construction so that any potential Aboriginal objects are not harmed. Recommendations made within the ACHAR will become mitigation measures included in the EIS.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

Surfacewaters

The Stuarts Point Sewerage scheme is located within a low-lying coastal estuarine environment featuring small areas of coastal wetlands and is typically underlain by alluvial floodplain groundwater sources.

The project area pertains to the Maclear River catchment which spans an area of 11,540 square kilometres within NSW. The project runs adjacent to the Macleay Arm, which is subject to the construction and installation of the treated effluent pipeline via underbore construction methods.

Sections of Macleay River and estuary within proximity to the project area are mapped as coastal wetlands or littoral rainforest areas under the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP). The only project element mapped as pertaining to the coastal wetland area as mapped in accordance with the Resilience and Hazards SEPP includes the pedestrian access for the dunal discharge (for access), and no elements of the disturbance footprint sit within areas mapped as coastal wetland under the Resilience and Hazards SEPP. Some project elements are included in the coastal wetland proximity area however, including a section of the low-pressure sewer system along Fishermans Reach Road and part of the WWTP in the east that will be used for access via Fishermans Reach Road. The WWTP development footprint that encompasses all WWTP infrastructure sits out of the area mapped as coastal wetland proximity area

Groundwaters

Groundwater sources within the project area and surrounding locality primarily comprise floodplain alluvial groundwater aquifers. Generally, groundwater at the project area is anticipated to be present in the coastal sediments between, approximately 1 to 4m below ground level (mbgl), with flows generally in an easterly direction although tidal variation and atmospheric conditions can locally alter flow. Specifically, groundwater at the dunal site is nominally at 0.8 mbgl, and the WWTP up to 2.0 mbgl.

Review of existing registered groundwater bores identifies over 200 registered bores within the project area footprint and over 100 bores within a 1 km radius. Total depths ranged from approximately 2 to 80 mbgl with available water levels information indicating water depths between 2 and 50 mbgl. Generally, wells installed in the area are listed for domestic, irrigation and water supply use, with some also registered for monitoring, mining/exploration or research.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

No world heritage sites are located within or within proximity (within 500 metres) to the project area.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

No national heritage sites are located within or within proximity (within 500 metres) to the study area.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The nearest Ramsar site lies approximately 245 kilometres to the south (Myall Lakes Ramsar site). There is no foreseeable direct and/or indirect impact to this Ramsar wetland.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
Yes	Yes	<i>Acronychia littoralis</i>	Scented Acronychia
No	No	<i>Anthochaera phrygia</i>	Regent Honeyeater
No	No	<i>Ardenna grisea</i>	Sooty Shearwater
No	No	<i>Argynnis hyperbius inconstans</i>	Australian Fritillary
No	No	<i>Arthraxon hispidus</i>	Hairy-joint Grass
No	No	<i>Balaenoptera musculus</i>	Blue Whale
No	No	<i>Botaurus poiciloptilus</i>	Australasian Bittern
Yes	Yes	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris canutus</i>	Red Knot, Knot
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
Yes	Yes	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo
Yes	Yes	<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo
No	No	<i>Carcharias taurus</i> (east coast population)	Grey Nurse Shark (east coast population)
No	No	<i>Carcharodon carcharias</i>	White Shark, Great White Shark
No	No	<i>Caretta caretta</i>	Loggerhead Turtle
No	No	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat
No	No	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover
No	No	<i>Chelonia mydas</i>	Green Turtle
No	No	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (south-eastern)
No	No	<i>Cryptostylis hunteriana</i>	Leafless Tongue-orchid
No	No	<i>Cyclopsitta diophthalma coxeni</i>	Coxen's Fig-Parrot

Direct impact	Indirect impact	Species	Common name
Yes	Yes	<i>Cynanchum elegans</i>	White-flowered Wax Plant
No	No	<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	<i>Dermochelys coriacea</i>	Leatherback Turtle, Leathery Turtle, Luth
No	No	<i>Diomedea antipodensis</i>	Antipodean Albatross
No	No	<i>Diomedea antipodensis gibsoni</i>	Gibson's Albatross
No	No	<i>Diomedea epomophora</i>	Southern Royal Albatross
No	No	<i>Diomedea exulans</i>	Wandering Albatross
No	No	<i>Epinephelus daemeli</i>	Black Rockcod, Black Cod, Saddled Rockcod
No	No	<i>Eretmochelys imbricata</i>	Hawksbill Turtle
No	No	<i>Erythroriorchis radiatus</i>	Red Goshawk
No	No	<i>Eubalaena australis</i>	Southern Right Whale
No	No	<i>Euphrasia arguta</i>	
No	No	<i>Falco hypoleucos</i>	Grey Falcon
No	No	<i>Fregetta grallaria grallaria</i>	White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian)
No	No	<i>Galeorhinus galeus</i>	School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark
Yes	Yes	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
No	No	<i>Grantiella picta</i>	Painted Honeyeater
No	No	<i>Hippocampus whitei</i>	White's Seahorse, Crowned Seahorse, Sydney Seahorse
No	No	<i>Hirundapus caudacutus</i>	White-throated Needletail
Yes	Yes	<i>Lathamus discolor</i>	Swift Parrot
No	No	<i>Leichhardtia longiloba</i>	Clear Milkvine
No	No	<i>Limosa lapponica baueri</i>	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
No	No	<i>Litoria aurea</i>	Green and Golden Bell Frog

Direct impact	Indirect impact	Species	Common name
No	No	<i>Macadamia integrifolia</i>	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak
No	No	<i>Macronectes giganteus</i>	Southern Giant-Petrel, Southern Giant Petrel
No	No	<i>Macronectes halli</i>	Northern Giant Petrel
Yes	Yes	<i>Marsdenia longiloba</i>	Clear Milkvine
No	No	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	<i>Mixophyes balbus</i>	Stuttering Frog, Southern Barred Frog (in Victoria)
No	No	<i>Mixophyes iteratus</i>	Giant Barred Frog, Southern Barred Frog
No	No	<i>Mordacia praecox</i>	Non-parasitic Lamprey, Precocious Lamprey
No	No	<i>Natator depressus</i>	Flatback Turtle
No	No	<i>Neophema chrysostoma</i>	Blue-winged Parrot
No	No	<i>Notamacropus parma</i>	Parma Wallaby
Yes	Yes	<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew
No	No	<i>Pachyptila turtur subantarctica</i>	Fairy Prion (southern)
No	No	<i>Parsonsia dorrigoensis</i>	Milky Silkpod
No	No	<i>Persicaria elatior</i>	Knotweed, Tall Knotweed
No	No	<i>Petauroides volans</i>	Greater Glider (southern and central)
No	No	<i>Petaurus australis australis</i>	Yellow-bellied Glider (south-eastern)
No	No	<i>Phaius australis</i>	Lesser Swamp-orchid
Yes	Yes	<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	<i>Phoebetria fusca</i>	Sooty Albatross
No	No	<i>Potorous tridactylus tridactylus</i>	Long-nosed Potoroo (northern)
No	No	<i>Pseudomys novaehollandiae</i>	New Holland Mouse, Pookila

Direct impact	Indirect impact	Species	Common name
No	No	<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel, Australian Gould's Petrel
No	No	<i>Pterodroma neglecta neglecta</i>	Kermadec Petrel (western)
Yes	Yes	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox
No	No	<i>Rhincodon typus</i>	Whale Shark
Yes	Yes	<i>Rhodamnia rubescens</i>	Scrub Turpentine, Brown Malletwood
Yes	Yes	<i>Rhodomyrtus psidioides</i>	Native Guava
No	No	<i>Rostratula australis</i>	Australian Painted Snipe
No	No	<i>Saltuarius moritzi</i>	New England Leaf-tailed Gecko, Moritz's Leaf-tailed Gecko
No	No	<i>Seriolella brama</i>	Blue Warehou
No	No	<i>Sphyrna lewini</i>	Scalloped Hammerhead
No	No	<i>Stagonopleura guttata</i>	Diamond Firetail
No	No	<i>Sternula albifrons</i>	Little Tern
No	No	<i>Sternula nereis nereis</i>	Australian Fairy Tern
No	No	<i>Thalassarche bulleri</i>	Buller's Albatross, Pacific Albatross
No	No	<i>Thalassarche bulleri platei</i>	Northern Buller's Albatross, Pacific Albatross
No	No	<i>Thalassarche carteri</i>	Indian Yellow-nosed Albatross
No	No	<i>Thalassarche cauta</i>	Shy Albatross
No	No	<i>Thalassarche impavida</i>	Campbell Albatross, Campbell Black-browed Albatross
No	No	<i>Thalassarche melanophris</i>	Black-browed Albatross
No	No	<i>Thalassarche salvini</i>	Salvin's Albatross
No	No	<i>Thalassarche steadi</i>	White-capped Albatross
No	No	<i>Thesium australe</i>	Austral Toadflax, Toadflax
No	No	<i>Tringa nebularia</i>	Common Greenshank, Greenshank
No	No	<i>Vincetoxicum woollsii</i>	

Ecological communities

Direct impact	Indirect impact	Ecological community
Yes	Yes	Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community
Yes	Yes	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
Yes	Yes	Littoral Rainforest and Coastal Vine Thickets of Eastern Australia
No	No	Lowland Rainforest of Subtropical Australia
Yes	Yes	Subtropical and Temperate Coastal Saltmarsh
No	No	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The project is likely to have a direct and indirect impact on threatened species and communities listed under the EPBC Act. These impacts are likely to occur throughout the construction and operation phases of the project, both of which, have been summarised below.

Construction

The construction of the project components (wastewater collection and transfer system, waste water treatment plant (WWTP) and treated effluent disposal system [dunal discharge]) require clearing of vegetation and habitat, primarily in relation to the WWTP and dunal discharge. These activities have the potential to result in a direct, long-term impact on the occurrence, extent and coverage of threatened species and communities within the subject land. Approximately 12 hectares of native vegetation and associated habitats would be removed.

The project will likely also result in some indirect impacts to MNES, which may include the loss of feeding, refuge and breeding habitat for threatened fauna, habitat fragmentation and the loss of habitat connectivity. Fragmentation and loss of connectivity for TECs may also occur, with subsequent effects on gene flow between flora communities. Direct and indirect impacts may also include changes to water flow/floodplains, sedimentation, dust deposition, erosion, weed introduction and/or spread, vehicle or machinery strike, light and noise pollution, shading and vibration from the movement of equipment and vehicles. Project design will focus on avoiding and minimising these potential impacts, and best practice mitigation measures will be implemented to minimise these and other potential unavoidable impacts.

Operation

Operational impacts are primarily associated with the introduction of the WWTP and dunal discharge system to the environment. The WWTP would present operational impacts such as introducing a barrier to movement for fauna, as well as some degree of light and sound disturbance, most likely to affect nocturnal fauna.

The dunal discharge involves the discharge of treated effluent through the dunal system on the eastern side of the Macleay Arm. Other than ongoing vegetation management as part of maintenance activities, it is unclear what long-term impact the dunal discharge could have on surrounding vegetation (including TECs) and habitats. All efforts will be made to ensure potential impacts associated with discharge of treated water into the environment will be minimised, especially in regards to potential erosion, nutrient load and alteration of hydrological patterns.

EPBC Act listed species and communities (MNES)

Biodiversity assessment completed to date has determined the following key EPBC Act related risks to the project area include (noting further survey is being undertaken and some of the below MNES may be confirmed absent from the subject land):

- Threatened flora:
 - Scented Acronychia *Acronychia littoralis* (Endangered)
 - White-flowered Wax Plant *Cynanchum elegans* - (Endangered)
 - Slender Marsdenia *Marsdenia longiloba* (Vulnerable)
 - Scrub Turpentine *Rhodamnia rubescens* (Critically Endangered)
 - Naïve Guava *Rhodomyrtus psidioides* (Critically Endangered)
- Threatened fauna:
 - South-eastern Glossy Black Cockatoo *Calyptorhynchus lathami lathami* (Vulnerable)
 - Gang-gang Cockatoo *Callocephalon fimbriatum* (Endangered)
 - Koala *Phascolarctos cinereus* (Endangered)
 - Grey-headed Flying-fox *Pteropus poliocephalus* (Vulnerable)
 - Swift Parrot *Lathamus discolor* (Critically Endangered)

South-eastern Glossy Black Cockatoo

South-eastern Glossy Black Cockatoo is likely to hold the highest EPBC Act threatened species significant impact risk for the project. The species has been recorded multiple times foraging and traversing through vegetation that would be cleared for the WWTP. South-eastern Glossy Black Cockatoos are associated with specific food trees as they almost exclusively feed on *Allocasuarina* species (NSW DCCEEW 2025b) which are present at the WWTP site. Many hollow-bearing trees containing suitably sized hollows are also located in this area, two of which would be removed. Breeding activity has not been observed, however survey is ongoing.

Thorough assessment of this species' presence will be completed during the ecological assessment process, and in preparation of the project's Biodiversity Development Assessment Report (BDAR). This process will include mapping of suitable habitat, targeted surveys and detailed recommendation to continue to apply the avoid and minimise impact principles to the Vulnerable EPBC Act listed species.

TECs

Several EPBC Act TECs have been recorded within the disturbance footprint and/or within the subject land:

- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (Endangered).
- Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community (Endangered).
- Subtropical and Temperate Coastal Saltmarsh (Vulnerable)
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia (Critically Endangered).

These TECs are primarily associated with the dunal discharge and access. Most impacts are characterized by the removal of linear sections of vegetation of larger patches of TEC that extend outside the subject land, however, in the case of Coastal Swamp Sclerophyll Forest, impact will be more substantial as this TEC occurs as small patches (less than 1 hectare) within the dunal discharge area. Much of each mapped patch will be removed to site the surface irrigation pipework and ancillary infrastructure.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Based on removal of TECs, primarily Swamp Sclerophyll Forest. Also removal of South-eastern Glossy Black Cockatoo foraging and potential breeding habitat.

Further assessment of flora and fauna species will confirm biodiversity impacts during the preparation of an Environmental Impact Statement (EIS). At this stage however, given the potential nature and scale of the project and expected residual impacts, a significant impact to Commonwealth listed threatened species and ecological communities is considered likely.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

Further assessment of flora and fauna species will confirm biodiversity impacts during the preparation of an EIS. At this stage however, given the potential nature and scale of the project and expected residual impacts, a Controlled Action decision on the basis of potential significant impacts to Commonwealth listed threatened species and ecological communities is considered warranted.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The avoidance and minimisation of impacts to biodiversity values is a requirement under both state and Commonwealth legislation and will be implemented throughout the project. Avoidance and minimisation have already occurred in the initial project design phase as a result of the initial biodiversity constraints prepared by Biosis. This resulted in the selection of trenchless underground boring using horizontal directional drilling (HDD) for the wastewater collection and transfer system, which requires significantly less surface disturbance compared to traditional trenching methods. This has avoided native vegetation, including TEC, and habitats adjacent Grassy Head Road and Fisherman's Reach Road.

Further avoidance and minimisation measures will be implemented following detailed impact assessment undertaken as part of the project BDAR.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

The NSW Biodiversity Offset Scheme and 'EPBC Act Environmental Offsets Policy' (Commonwealth of Australia 2012) are expected to apply to the assessment, generating an offset requirement for the Project. An appropriate mechanism to satisfy the project's offset credit obligation will be established.

An offset requirement for the project's residual impacts will be determined in accordance with the BAM (as allowable under the Assessment Bilateral Agreement), which will be secured via (but not limited to):

- Acquiring or retiring credits that are publicly available.
- Establishing a Biodiversity Stewardship Site (or multiple sites).
- Making payments into the Biodiversity Conservation Fund managed by the Biodiversity Conservation Trust.

The above listed offsetting options have been endorsed by the Commonwealth, and all offsets for MNES subject to significant impacts will also be secured in accordance with the EPBC Act Environmental Offsets Policy.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	<i>Actitis hypoleucos</i>	Common Sandpiper
No	No	<i>Anous stolidus</i>	Common Noddy
No	No	<i>Apus pacificus</i>	Fork-tailed Swift
No	No	<i>Ardenna carneipes</i>	Flesh-footed Shearwater, Fleshy-footed Shearwater
No	No	<i>Ardenna grisea</i>	Sooty Shearwater
No	No	<i>Balaenoptera edeni</i>	Bryde's Whale
No	No	<i>Balaenoptera musculus</i>	Blue Whale
Yes	Yes	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris canutus</i>	Red Knot, Knot
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
No	No	<i>Calidris melanotos</i>	Pectoral Sandpiper
No	No	<i>Calonectris leucomelas</i>	Streaked Shearwater
No	No	<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark
No	No	<i>Carcharias taurus</i>	Grey Nurse Shark
No	No	<i>Carcharodon carcharias</i>	White Shark, Great White Shark
No	No	<i>Caretta caretta</i>	Loggerhead Turtle
No	No	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover
No	No	<i>Chelonia mydas</i>	Green Turtle
No	No	<i>Cuculus optatus</i>	Oriental Cuckoo, Horsfield's Cuckoo
No	No	<i>Dermochelys coriacea</i>	Leatherback Turtle, Leathery Turtle, Luth
No	No	<i>Diomedea antipodensis</i>	Antipodean Albatross
No	No	<i>Diomedea epomophora</i>	Southern Royal Albatross

Direct impact	Indirect impact	Species	Common name
No	No	<i>Diomedea exulans</i>	Wandering Albatross
No	No	<i>Eretmochelys imbricata</i>	Hawksbill Turtle
No	No	<i>Eubalaena australis</i>	Southern Right Whale
No	No	<i>Fregata ariel</i>	Lesser Frigatebird, Least Frigatebird
No	No	<i>Fregata minor</i>	Great Frigatebird, Greater Frigatebird
Yes	Yes	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
No	No	<i>Gallinago megala</i>	Swinhoe's Snipe
No	No	<i>Gallinago stenura</i>	Pin-tailed Snipe
Yes	Yes	<i>Hirundapus caudacutus</i>	White-throated Needletail
No	No	<i>Lamna nasus</i>	Porbeagle, Mackerel Shark
Yes	Yes	<i>Limosa lapponica</i>	Bar-tailed Godwit
Yes	Yes	<i>Macronectes giganteus</i>	Southern Giant-Petrel, Southern Giant Petrel
No	No	<i>Macronectes halli</i>	Northern Giant Petrel
No	No	<i>Megaptera novaeangliae</i>	Humpback Whale
No	No	<i>Mobula alfredi</i>	Reef Manta Ray, Coastal Manta Ray
No	No	<i>Mobula birostris</i>	Giant Manta Ray
No	No	<i>Natator depressus</i>	Flatback Turtle
Yes	Yes	<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew
No	No	<i>Numenius minutus</i>	Little Curlew, Little Whimbrel
No	No	<i>Orcinus orca</i>	Killer Whale, Orca
No	No	<i>Pandion haliaetus</i>	Osprey
No	No	<i>Phaethon lepturus</i>	White-tailed Tropicbird
No	No	<i>Phaethon rubricauda</i>	Red-tailed Tropicbird
No	No	<i>Phoebastria fusca</i>	Sooty Albatross
No	No	<i>Rhincodon typus</i>	Whale Shark
No	No	<i>Sternula albifrons</i>	Little Tern

Direct impact	Indirect impact	Species	Common name
No	No	Thalassarche bulleri	Buller's Albatross, Pacific Albatross
No	No	Thalassarche carteri	Indian Yellow-nosed Albatross
No	No	Thalassarche cauta	Shy Albatross
No	No	Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
No	No	Thalassarche melanophris	Black-browed Albatross
No	No	Thalassarche salvini	Salvin's Albatross
No	No	Thalassarche steadi	White-capped Albatross
No	No	Tringa nebularia	Common Greenshank, Greenshank
Yes	Yes	Xenus cinereus	Terek Sandpiper

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

A significant number of migratory bird species (38) are predicted to occur within the 10km PMST search area, including the following:

- Sharp-tailed Sandpiper *Calidris acuminata* (Migratory) – the Macleay River Estuary, including the Macleay Arm, is listed as nationally important habitat for this species in the *National Directory of Important Migratory Shorebird Habitat*.
- Bar-tailed Godwit *Limosa lapponica* (Migratory) – habitat within the Macleay Arm.
- Terek Sandpiper *Xenus cinereus* (Vulnerable, Migratory) - The NSW government has important habitat mapped for this species for the Macleay River Estuary and adjacent lands.
- Latham's Snipe *Gallinago hardwickii* (Vulnerable, Migratory) – habitat present in adjacent shoreline and estuarine areas as well as dune vegetation. Local BioNet record.
- Eastern Curlew *Numenius madagascariensis* (Critically Endangered, Migratory) - habitat present in adjacent shoreline and estuarine areas as well as dune vegetation. Local BioNet record. The NSW government has important habitat mapped for this species for the Macleay River Estuary and adjacent lands.
- White-throated Needletail *Hirundapus caudacutus* (Vulnerable, Migratory) – habitat present.
- Southern Giant Petrel *Macronectes giganteus* (Endangered/Migratory) – habitat present and local BioNet record.

Many of which are required to be assessed under the BC Act as BAM ecosystem or species credits species. Most are associated with saltmarsh, mangrove and forested wetland vegetation types, which occur primarily to the east of the Macleay Arm. This habitat will be directly and indirectly impacted by the project including removal of over eight hectares of vegetation within the dunal system.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

Key to the assessment of a significant impact to a migratory species is the concepts of 'important habitat' for a migratory species and an 'ecologically significant proportion' of a population of a migratory species. The Macleay River Estuary, which included the Macleay Arm, is noted as important habitat Sharp-tailed Sandpiper. This extensive area has been known to support 0.25% of the flyway population of the species which exceeds the 0.1% threshold required for the area to be considered important habitat.

However, the project, given the context of large area of important habitat and that impacts to the Macleay Arm is limited to small areas of fringing vegetation, is not considered likely to have a significant impact as it would not:

- substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species
- result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or

seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action.

*

The important habitat that the subject land intersects is vast, extends tens of kilometres along the NSW coast and upstream along the Macleay River system. Direct impacts to the Macleay are not anticipated, save for potential minor trimming of mangrove vegetation for access purposes. Therefore, in this context, a significant impact is not envisioned.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The avoidance and minimisation of impacts to biodiversity values is a requirement under both state and Commonwealth legislation and will be implemented throughout the project. Avoidance and minimisation have already occurred in the initial project design phase as a result of the initial biodiversity constraints prepared by Biosis. This resulted in the selection of trenchless underground boring using directional drilling HDD for the wastewater collection and transfer system, which requires significantly less surface disturbance compared to traditional trenching methods. This has avoided native vegetation, including TEC, and habitats adjacent Grassy Head Road and Fisherman's Reach Road.

Further avoidance and minimisation measures will be implemented following detailed impact assessment undertaken as part of the project BDAR.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

The NSW Biodiversity Offset Scheme and 'EPBC Act Environmental Offsets Policy' (Commonwealth of Australia 2012) are expected to apply to the assessment, generating an offset requirement for the Project. An appropriate mechanism to satisfy the project's offset credit obligation will be established.

An offset requirement for the project's residual impacts will be determined in accordance with the BAM (as allowable under the Assessment Bilateral Agreement), which will be secured via (but not limited to):

- Acquiring or retiring credits that are publicly available.
- Establishing a Biodiversity Stewardship Site (or multiple sites).
- Making payments into the Biodiversity Conservation Fund managed by the Biodiversity Conservation Trust.

The above listed offsetting options have been endorsed by the Commonwealth, and all offsets for MNES subject to significant impacts will be secured in accordance with the EPBC Act Environmental Offsets Policy.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not incorporate a nuclear action.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The project area does not include any Commonwealth marine areas.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The Great Barrier Reef is not located within or within proximity (within 500 metres) to the project area.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not involve coal seam gas or coal mining development.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Commonwealth land area
No	No	Commonwealth Land - Australian Telecommunications Commission

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

Commonwealth land (Australian Telecommunications Commission) is located adjacent to the project area but sits outside of any disturbance areas nominated for the project. As such, it is unlikely that the project will have an impact (direct or indirect) impact to Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

No Commonwealth Heritage Places are located within or within proximity (within 500 metres) to the project area.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The Stuarts Point Sewerage Scheme (SPSS) project addresses the wastewater management needs for the villages of Grassy Head, Stuarts Point, and Fishermans Reach within the Kempsey Shire Council area. These regions are experiencing growth, necessitating improvements to infrastructure to accommodate increasing populations and development. The SPSS project aims to establish a modern, centralized wastewater system to replace outdated on-site sewage management systems (OSMS) and support both current and future demands.

The primary objective of the SPSS project is to enhance wastewater management for the affected villages, reducing the pressure on existing infrastructure, and ensuring the resilience, redundancy, and ongoing capacity of local council services. The project will facilitate planned growth in these areas and improve environmental outcomes by implementing efficient wastewater collection, treatment, and disposal systems.

As the existing infrastructure is nearly at capacity and unable to meet future demands, the SPSS project is being pursued with the utmost urgency. The current timeline attempts to rectify the above shortage and meet future demand as soon as feasibly possible to address current shortages and future needs, ensuring sustainable and effective wastewater management for the long-term development of Grassy Head, Stuarts Point, and Fishermans Reach.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	A1_Project Description_v1.0_250722.pdf Project Overview for the Stuarts Point Sewerage Scheme	22/07/2025	No	High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	A2-Kempsey-Sustainability-resilience- strategy-2022.pdf Kempsey Shire Council's Sustainability and Resilience Strategy for the Kempsey local government area	01/01/2022	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	A3_318001851_GIS_P007_EPBC_Combined Project Mapping including project area, disturbance footprint, avoidance areas and key infrastructure.	23/07/2023	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	49095437442
Organisation name	RAMBOLL AUSTRALIA PTY LTD
Organisation address	6000 WA
Representative's name	Charyssa Lawrence
Representative's job title	Environmental Scientist and Planner
Phone	0431122667
Email	clawrence@ramboll.com
Address	The Arc, 45a Watt Street, Newcastle 2300

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

By checking this box, I, **Charyssa Lawrence of RAMBOLL AUSTRALIA PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	70705618663
Organisation name	KEMPSEY SHIRE COUNCIL
Organisation address	2440 NSW
Representative's name	Eric Nielsen

Representative's job title	Program Manager
Phone	0427325685
Email	eric.nielsen@kempsey.nsw.gov.au
Address	22 Tozer Street, West Kempsey. 2440

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, **Eric Nielsen of KEMPSEY SHIRE COUNCIL**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, **Eric Nielsen of KEMPSEY SHIRE COUNCIL**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

I would like to receive notifications and track the referral progress through the EPBC portal. *