Stuarts Point Sewerage Scheme
Frequently Asked Questions

Summer 2024/2025 update

Project status

Where is the project up to?

Kempsey Shire Council is continuing with planning work for the construction of a sewerage scheme for Stuarts Point, Fishermans Reach and Grassy Head. The project involves:

- The construction of a pressure sewer system to initially service approximately 600 properties, with capacity to increase to 1600 properties.
- A wastewater treatment plant (WWTP) to treat the sewage.
- A dunal discharge for the release of treated wastewater.

Planning and construction of the Stuarts Point Sewerage Scheme is complex and requires NSW Government environmental and planning consent for a State Significant Development (SSD). This involves the preparation and public exhibition of an Environmental Impact Statement (EIS).

The tender for the EIS was awarded to Ramboll. We had planned to have the EIS finalised and submitted in 2024, however, further investigations are needed in two key areas.

- **Biodiversity Assessments:** It has been identified through recent biodiversity assessments that spring and summer surveys are needed to better understand and plan for species impact mitigation and comply with state and federal legislation. Spring surveys have been completed with the summer surveys planned for early 2025.

- **Dunal Discharge Investigations:** We are also completing a more detailed assessment of the dunal discharge area to inform both the environmental assessment and the detailed design of the scheme. These investigations are underway along the length of the proposed dunal discharge area between the Macleay Arm and Stuarts Point Beach, north of Kimpton Street.

These additional investigations unfortunately delay the finalisation and submission of the EIS to the NSW Government to mid-2025.

Construction work cannot start until the determination is made and approval granted.

The civil design for the pressure sewer network including design report, tender plans for civil works, technical specifications and schedules are complete. Site audits have been completed for each property and CAD plans, schedules of work and technical specifications have also been completed in preparation for tender.

The reference design for the wastewater treatment plant (WWTP) is complete but may need to be updated following the completion of the investigations outlined above. With the extended time needed for the studies at the dunal discharge site and seasonal surveys, it has been decided to put a hold on the procurement until closer to the time of EIS submission.

KEMPSEY Shire Council

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Why has this kind of sewer scheme been chosen?

Investigations into a sewerage scheme for the area date back to 1983, with various options considered over that time.

In 2016, Council delivered a Sewerage Strategy for Stuarts Point, Grassy Head and Fishermans Reach. This identified the option of a pressure sewer collection system and transfer of sewage to South West Rocks Wastewater Treatment Plant, which would require a complex and difficult directional bore pipeline under the Macleay River.

This option was later abandoned due to the environmental and First Nations heritage impacts on the Stuarts Point-Clybucca Midden, one of the largest known estuarine midden complexes in Australia.

A further options report identified an alternative scheme, which included a wastewater treatment plant at Stuarts Point.

As such, Council selected the option of constructing a wastewater treatment plant near Stuarts Point, with dunal discharge of treated effluent.

Key Council Resolutions

December 2018 Council resolution

1. *Progress with design and investigation work for the proposed alternative option for the Stuarts Point Sewerage Scheme of a Sewage Treatment Plant (STP) near Stuarts Point, with dunal discharge of treated effluent, in parallel with pursuing the grant funding Deed*.

April 2020 Council resolution

1. *Notes the Environment Protection Authority has agreed that treated effluent from the proposed sewage treatment works be discharged to the dunes located between the Macleay River Arm and the Pacific Ocean, to the north east of the Stuarts Point township.*
2. *Continues with negotiations to secure the suitable site for the Stuarts Point Sewage Treatment Plant to the south of Stuarts Point.*
3. *Note the revised service area has removed properties from the scheme that are:*
    a. *Greater than two and a half (2.5) acres or not used for residential purposes;*
    b. *Not likely to have an impact on sensitive environmental areas or neighbouring residential properties; and*
    c. *Not zoned as residential or identified for future higher density land use in growth area planning.*
4. *Continue to progress with design work reflective of the updated service areas for the Stuarts Point Sewerage Scheme.*
5. *Informs all affected landowners that will now be excluded from the service area of this decision, with any contributions made toward the scheme from these landowners via a sewer charge refunded.*

Why has Council decided to proceed with the scheme now?

The progress of the project is in line with Council resolutions from 2018 and 2020 outlined above. The key driver for the Stuarts Point Sewerage Scheme is addressing the issues with existing on-site sewage management systems.

Typically, homes within the scheme area are 40 years old, or older, and their sewage systems do not comply with modern standards for treatment and disposal. These systems risk groundwater contamination and associated public health impacts via overflow events and ineffective treatment.

All the properties in Stuarts Point, Grassy Head and Fishermans Reach presently rely on onsite sewage management systems to treat and dispose of effluent. Many residences are served by septic tanks equipped with absorption trenches or pump-out systems. Council is focused on providing the most sustainable sewerage service to benefit and meet the needs of the community.

The proposed modern centralised sewerage scheme will have numerous benefits for the entire area including

- a positive environmental impact by reducing onsite system leakage and eliminating odour and water quality issues.
- avoiding future significant costs to residents, that would otherwise be incurred to make individual systems compliant
- supporting future growth, with land surrounding Stuarts Point zoned for future residential and industrial development
- catering for visitor populations in caravan parks
- likely improvement to property values in the area, based on increased land value, development potential and improved social benefits
- improving estuary health for oyster growers in the area.

What is the project timeframe?

Council is working towards completing planning, approvals, construction, and property connections, with the scheme commissioned and operational in 2026 with progressive connections, subject to relevant approvals being granted and favourable conditions during construction.

Will the sewerage scheme cater for growth in the area and additional people during peak holiday season?

We are making sure the Stuarts Point Sewer Scheme will meet the needs of our community for the foreseeable future. The pressure sewer network and wastewater treatment plant are being designed to meet current requirements with additional capacity to service already zoned future growth areas. While this is likely not to be required in the next decade, it makes sense to plan for the future now, so we only have to go through the lengthy approval process once.

How is the project being funded?

The project will be funded by Council via the sewer fund and low interest loans. Funding is secure and Council will continue to apply for grant opportunities from the NSW and Australian Government to offset costs as much as possible. Any additional funding secured reduces the burden on Kempsey ratepayers in the future.

Where can I find out more information?

The project team regularly attend community meetings and as the project progresses, there will be a project office on site where you can visit and ask questions. You can also:

- Visit Council's website ksc.pub/stuarts-point.
- Call (02) 6566 3200.
- Email ksc@kempsey.nsw.gov.au.

Sewerage scheme details

How does a pressure sewer system work?

The pressure sewer system consists of an underground tank and pump at each property, which collects sewage and discharges it through a network of pressure pipes to the treatment facility. Once installed, the only parts of the system that will be visible on the property will be a boundary kit, tank lid, and pump control panel. More information on pressure sewer systems is available on Council's website.

Where will the network pipes be located?

Generally, pressure sewer mains are located within road reserves.

Where will the treated wastewater be discharged?

Council has worked closely with the NSW Environmental Protection Authority (EPA) and the water team within the NSW Department of Planning and Environment (DPE), to determine the best solution. The treated wastewater is proposed to be discharged to the dunal area between the Macleay Arm and the ocean, north of the Stuarts Point village. This is similar to the existing South West Rocks dunal discharge.

The concept design of the scheme and construction phases will manage impacts on the surrounding environment and will be reviewed by the relevant government agencies as part of the approval process.

View a map of the proposed discharge location.

Property connections

Will my property be connected to the sewerage system?

If you are within the sewer service catchment for all three villages, your property will be connected to sewer and will be liable for annual Council sewer service charges.

What is the expected cost to property owners for the installation of the onsite sewer system?

Council will cover the costs associated with the pressure sewer system installation and each property will require an audit to assess the extent of works required. Each property within the

scheme will have a pressure sewer unit installed and work will include connection of all property drains to the pressure sewer unit.

Works will be conducted to comply with AS 3000 Electrical Wiring Rules and AS 3500 Australian Plumbing and Drainage Standard.

Once connected, the existing septic tank/onsite treatment system will be decommissioned by Council including site restoration.

Where is power for the pressure units supplied from?

Power will be supplied from the electrical switchboard of the property. Connection will be completed as part of the pressure sewer installation by Council.

Where will the pressure sewer unit be located on my property?

This depends on the layout of your property. The tank will be installed in a suitable location where it can be accessed easily for maintenance and provides the best outcome for the property. The pressure sewer unit is usually installed near the existing septic tank.

Property owners will be consulted during site audits to assess individual circumstances to be considered for each property design.

How will construction impact the community?

Council will endeavor to minimise the impact of construction on the community wherever possible.

As with any major construction project there may be disruption at times. This could include increased noise, vibration, dust and traffic movement.

Construction activities will be planned to minimise impacts on businesses and residents, with the pressure sewer pipework likely to be installed using horizontal boring techniques that have minimal local impact.

How do you manage Aboriginal cultural heritage items on residential properties?

This will be outlined in the Environmental Impact Statement (EIS) for the project.

Operating the system

Who will maintain the pressure sewer system?

Council will maintain the pressure sewer system.

What sewer access charges will be applicable over the project delivery timeframe?

The annual septic charge listed in Council's Schedule of Fees and Charges will be applied during construction of the scheme, with the sewer service and availability charge to apply once the scheme is completed.

Council's Fees and Charges are reviewed annually with information available on Council's website.

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How much is the sewer service charge?

Based on Council's Schedule of Fees and Charges, the sewer access charge for 2024/2025 for the average household is $1599 per annum. All properties in Kempsey Shire pay the sewer service charge.

When will this fee be applied?

The sewer service charge will be applied once the scheme is operational, which is likely to be in 2026.

How is the sewer service charge calculated?

Council works with three separate funds in both budget planning and service provision. These funds must be kept separate by law.

Those funds are:

- the general fund
- the water fund, and
- the sewer fund.

Council rates go to the general fund. The water access charge covers the cost of delivering clean water to a property including capital works. The sewer access charge covers the cost of operating and maintaining networks and treatment plants, capital works and proper disposal of sewage and wastewater.

The sewer access charge is calculated each year and is based on the maintenance, operations and essential sewer capital works program planned for the next 10 years.

How do I pay the sewer service charge?

The sewer service charge will appear on your rates notice.

What is the average yearly electrical cost to operate a unit servicing the typical single-family home? What is the duration of operation per day?

A typical home discharges approximately 400 litres of waste per day to the sewer. Typically, the 0.75kw pump will operate between 10 to 20 minutes per day and, for an average property, this equates to electricity consumption of around 70 kilowatts per annum (or $35.00 per annum if the unit cost of general power is $0.50 per kilowatt hour).

How noisy is the pressure sewer pump?

The pump is located at the bottom of the collection tank which is below ground, at a depth of two metres. The grinder pump emits a low pitch humming noise that is audible when standing at the tank but barely noticeable at a distance of five metres or more.

What if the power goes out or if the pump fails?

The pressure sewer unit provides emergency storage for approximately 24 hours. If the power goes out and is restored, or the pump fails, the pump control panel alarm warning light will

activate and an audible buzzer will sound. The buzzer can be muted manually or will turn off after 10 minutes with the light remaining active until the alarm condition is cleared. If an outage lasts longer than an hour, and the alarm is still active, you will need to contact Council and report the fault. This information is in the homeowner's manual that will be provided to each resident at the time of commissioning.

The homeowner's manual is also available on the Kempsey Shire Council website.

View a copy of the homeowner's manual.

Wastewater Treatment Plant

Where will the new WWTP be located?

Council has acquired a site near Stuarts Point, south of the village and north of the existing waste transfer station on the Fishermans Reach Road, as the site for the proposed new wastewater treatment plant.

View map of proposed wastewater treatment plant location

What will the treatment plant look like?

Here is an indicative image of the WWTP.

Will flooding impact the WWTP?

The location and elevation of the site has taken into account Kempsey Shire Council's flood modelling with the site above the 1% AEP flood level

Will the WWTP be noisy?

The WWTP will require the use of mechanical equipment such as pumps and surface aerators, as well as service vehicles and periodic dewatering and removal of biosolids for agricultural uses. The EIS includes assessment of noise from the various sources to ensure compliance with relevant noise guidelines.

The ongoing management of noise in NSW is regulated in accordance with the Protection of the Environment Operations Act (POEO Act) 1997. The design and operation of the treatment facility and its location will be subject to this regulation with standards for selection of equipment, controls and setbacks from nearby residences included in the design.

How will the potential odour from the proposed treatment plant be managed by Council?

Air pollution, including odour, is part of the EIS assessment, with odour modelling and recommendation for controls included in the design and subject to the project approval. Ongoing operations are regulated in accordance with the Protection of the Environment Operations Act (POEO Act) 1997. The design and operation of the treatment facility and its location will be subject to this regulation with odour controls and setbacks from nearby residences included in the design.

Can the discharge from the treatment plant be reused?

Recycling water from the wastewater treatment plant for non-residential uses is outside the scope of this project. Reuse could be considered in the future as a new project. Recycling water may require additional treatment depending on its end-use, infrastructure and incur additional fees/costs.

Can the discharge from the WWTP be used to create a wetland park as a tourist attraction?

The design of the plant is based on a suite of concentration limits and disposal methods specified by the EPA and will form the basis of the Environmental Protection Licence issued by the EPA for the sewerage scheme and prior to commissioning of the WWTP. Due to high water tables and flooding, wetlands are not a reliable discharge option.

The effluent from the plant will be suitable for surface dunal discharge within a restricted access area.

General questions

What about the stormwater drainage?

Council is also working on a separate project to improve stormwater drainage in Stuarts Point and the local area. Stuarts Point presents significant challenges due to the extent of drainage infrastructure required.

Groundwater and stormwater studies are now complete. These concluded that the preferred option to improve drainage is passive stormwater improvements. A concept design has been formulated, with estimates priced at approximately $8.5million. Council is seeking to grant opportunities to undertake the work, with one application already submitted.

If the drainage is fixed, can we keep the septic tanks?

The scheme will provide a new, modern and reliable sewer service to the Stuarts Point, Grassy Head and Fishermans Reach communities. The existing private systems are overloaded, with

many failing and at the end of their serviceable life resulting in significant negative environmental and social impacts.

The existing on-site sewer management systems do not meet current on-site treatment standards and if retained, would require significant capital investment by the landowner to upgrade and provide for ongoing monitoring.

Completing this project will result in benefits for both Council and the communities of Stuarts Point, Grassy Head and Fishermans Reach including minimisation of adverse impacts on the water aquifer and the environment, public health (especially during floods and water charged events) and regional development by removing planning restraints.

Upgrading the stormwater system does not impact the drivers and benefits of the proposed sewer scheme for the area.

Can the sewer scheme be complemented by on-site greywater recycling for individual properties?

On-site grey water recycling for individual properties is not part of the sewer scheme design. For further information, check out the NSW Health Department Domestic Greywater Treatment Systems Accreditation Guidelines Feb 2005 about greywater recycling for individual properties.

Are red algae blooms related to WWTP discharges?

Algal blooms occur worldwide and can be caused by a range of factors including thermal pollution, low water levels, excessive nutrients and more.

The new centralised collection and treatment system will result in a net reduction in total nutrient discharged to the water aquifer as nutrient concentrations are reduced through the WWTP treatment process and discharged to the dunal area between the Macleay Arm and the ocean, which allows rapid dispersal in an area that minimises local environmental impact.

The Environmental Protection License issued by the EPA includes maximum nutrient level criteria used as key design parameters for the WWTP.