

Redland City Council

Central Reach – Amity Point Shoreline Erosion Management Plan (SEMP): Guide for landowners



Disclaimer: The content contained in this document is limited to general information concerning obtaining development approval under the Planning Act 2016 (Qld) only and is not intended to be and does not constitute legal advice. It is your responsibility to obtain your own independent legal and other advice.

Understanding Erosion at Amity Point

Historically, Amity Point has faced long-term erosion issues due to changes in the tidal channels between North Stradbroke Island and Moreton Island. The area of Amity Point, known as the Central Reach, is particularly affected by the deep and fast-moving Rainbow Channel's easterly migration.

These natural changes have led to significant shoreline erosion, with one major factor being flow slides—a process that will be explained further in this guide.



(Diagram above: Flow slide event caused by the Rainbow Channel).

History of erosion at Amity Point

Amity Point's shoreline has been reshaped by natural forces for over a century. Historical records and aerial imagery dating back to the 1880s illustrate significant changes in tidal channels, foreshore alignments, and land formations.

The interaction between shifting channels and wave action has caused land loss and altered the coastal landscape. Additionally, the unique geological features of the area, such as sandy soils and dynamic tidal patterns, make the shoreline particularly vulnerable to erosion.

Key historical erosion events include:

- **Early 1900s:** Noticeable land loss due to tidal activity.
- **Mid-20th century:** Accelerated changes as Rainbow Channel deepened and migrated.
- **Recent decades:** Continued erosion driven by intensified channel migration, frequent flow slide activity, and rising sea levels. These factors have led to significant infrastructure concerns, prompting community-driven mitigation efforts and increased reliance on engineered solutions.

As erosion has worsened, landowners have attempted various methods to protect their properties. Many have relied on makeshift barriers to slow the impact of flow slides. However, without a proper, engineered solution, these informal barriers are not effective in the long term.

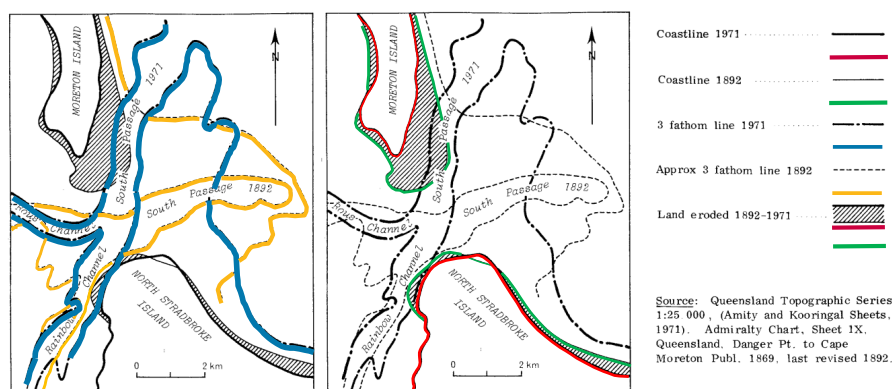


Image above: These maps show how tidal channel migration and erosion have reshaped Amity Point between 1892 and 1971, leading to shoreline retreat, land loss, and a deepening seabed. These rapid changes highlight the urgent need for long-term coastal management.



Image above: This map highlights how coastal erosion has altered property boundaries over time, with some areas that were once land now submerged underwater. The red outlines represent current property boundaries, while the coloured lines along the shoreline indicate historical shoreline position.

Flow slides explained

A flow slide occurs when the underwater slopes of a tidal channel become unstable, causing large sections of sand and soil to collapse into the ocean. This process is triggered by the continuous movement of water, which erodes and undermines the land over time, leading to sudden, rapid, and unpredictable shoreline retreat. Their rapid nature means that they can pose a significant threat to coastal structures and safety, and the speed and suddenness of flow slides make them particularly challenging to predict or control.

At the Central Reach, these flow slides are particularly common due to the deep and fast-moving Rainbow Channel, which has steadily migrated eastward. The combination of this powerful tidal channel and the sandy, loose soils at Amity Point makes the area especially vulnerable.

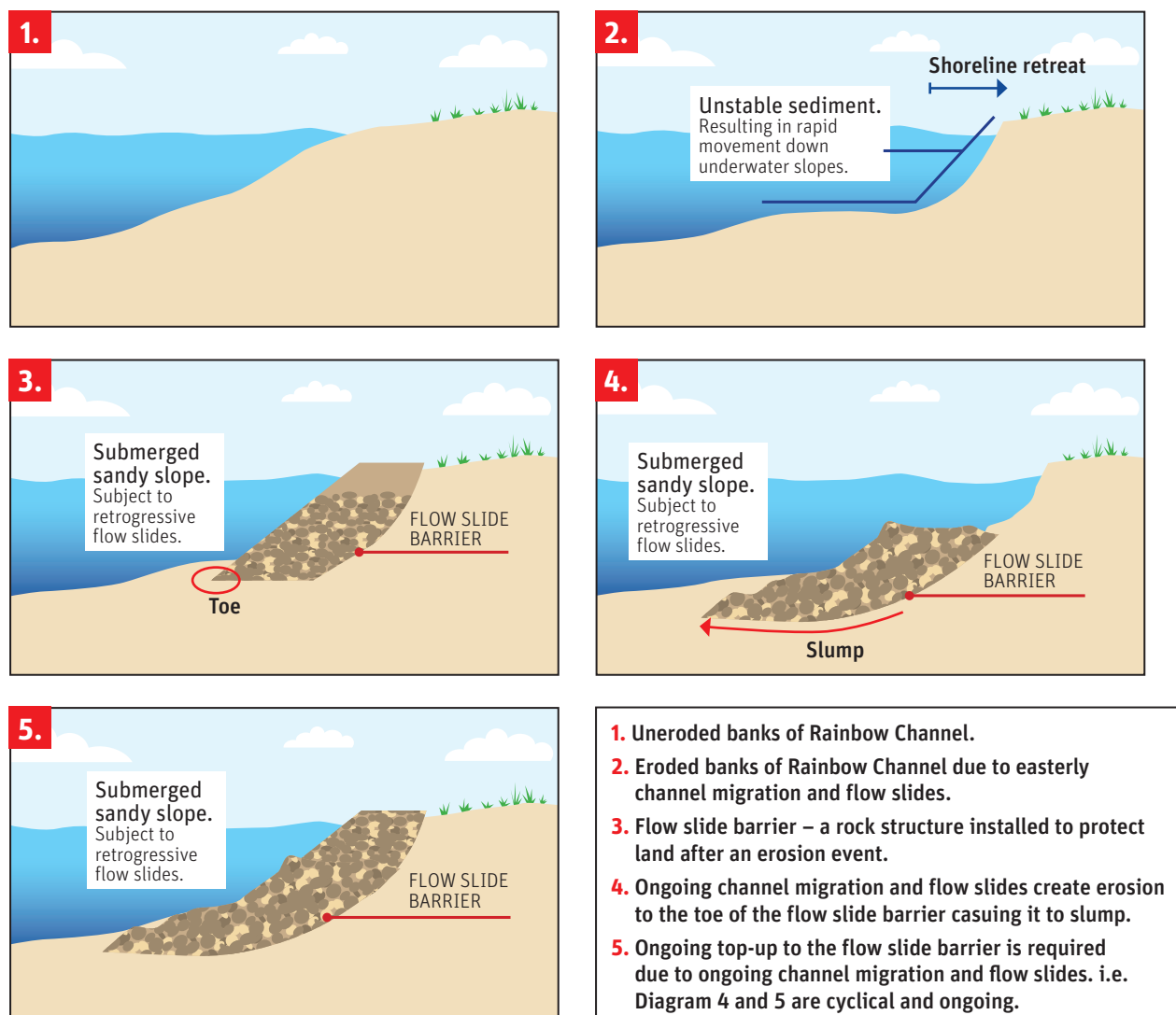
Addressing erosion, the right way – formal flow slide barrier

A formal flow slide barrier is a rock-based coastal protection structure designed to prevent land loss caused by channel migration and flow slides. Unlike informal barriers made from ad-hoc materials, a formal flow slide barrier is strategically engineered to absorb wave energy, stabilise the shoreline, and slow erosion.

These barriers are constructed with layers of rock and other durable materials, designed to move gradually over time while still protecting the land. They must be properly maintained to remain effective, requiring periodic rock top-ups and adjustments as erosion continues.

To better understand how these barriers work and what is required for their upkeep, here are the key points:

- A formal flow slide barrier is a coastal protection structure that mitigates channel migration and flow slides before they impact land.
- A flow slide barrier is not a static structure; it shifts and slumps over time as it is impacted and undermined by ongoing channel migration and flow slides.
- The only way a flow slide barrier can be an effective coastal protection structure is through ongoing maintenance and top-up.
- The only way to do ongoing flow slide barrier maintenance lawfully is with permits and approvals, as a flow slide barrier is considered a coastal protection structure for prescribed tidal works under State legislation.



Managing coastal erosion at Amity Point: strategies, plans, and responsibilities

Coastal Adaptation Strategy (CAS) overview

The Coastal Adaptation Strategy (CAS), developed by Council in 2015, provides a framework for identifying areas at risk of coastal erosion and other hazards. The strategy outlines sustainable management actions to reduce these risks and support coastal areas long-term resilience. Under the CAS, Amity Point is classified as a high-priority and high-risk area, leading Council to initiate the Amity Point Shoreline Erosion Management Plan (SEMP) as a focused response to these risks.

Shoreline Erosion Management Plan (SEMP)

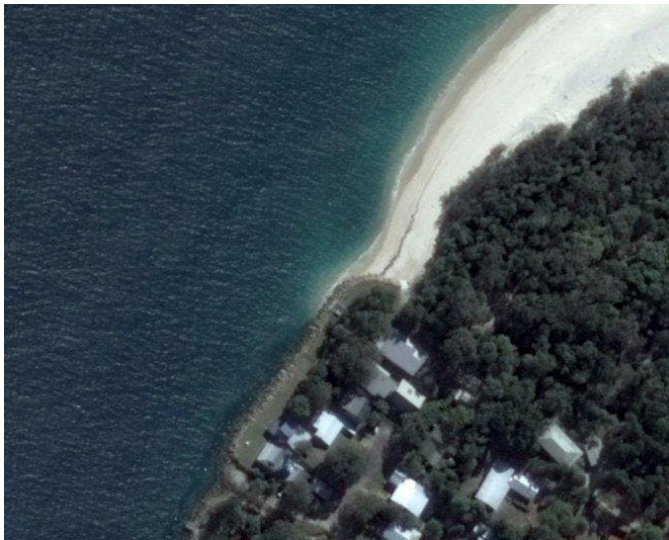
The Shoreline Erosion Management Plan (SEMP), created by Council in collaboration with coastal engineers, the Quandamooka Yoolooburrabee Aboriginal Corporation, private landowners, and the Queensland Government, was adopted in 2019.

It addresses erosion at Amity Point caused by tidal channel migration and flow slides. The SEMP provides targeted solutions to protect the shoreline, comply with legal requirements, and balance environmental, economic, and cultural priorities. It builds on the Coastal Adaptation Strategy (CAS) and focuses on practical, collaborative measures for sustainable erosion management.

History and development of the SEMP

The timeline on the following page outlines the history of erosion at Amity Point and the development of management strategies to address it.

Before



After

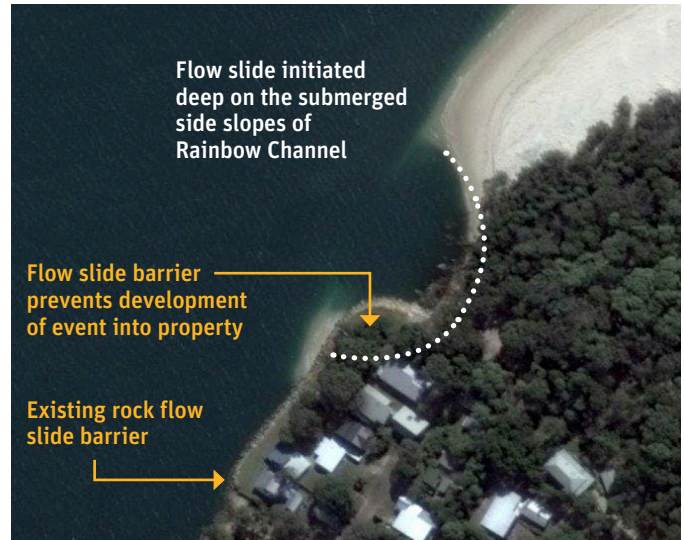
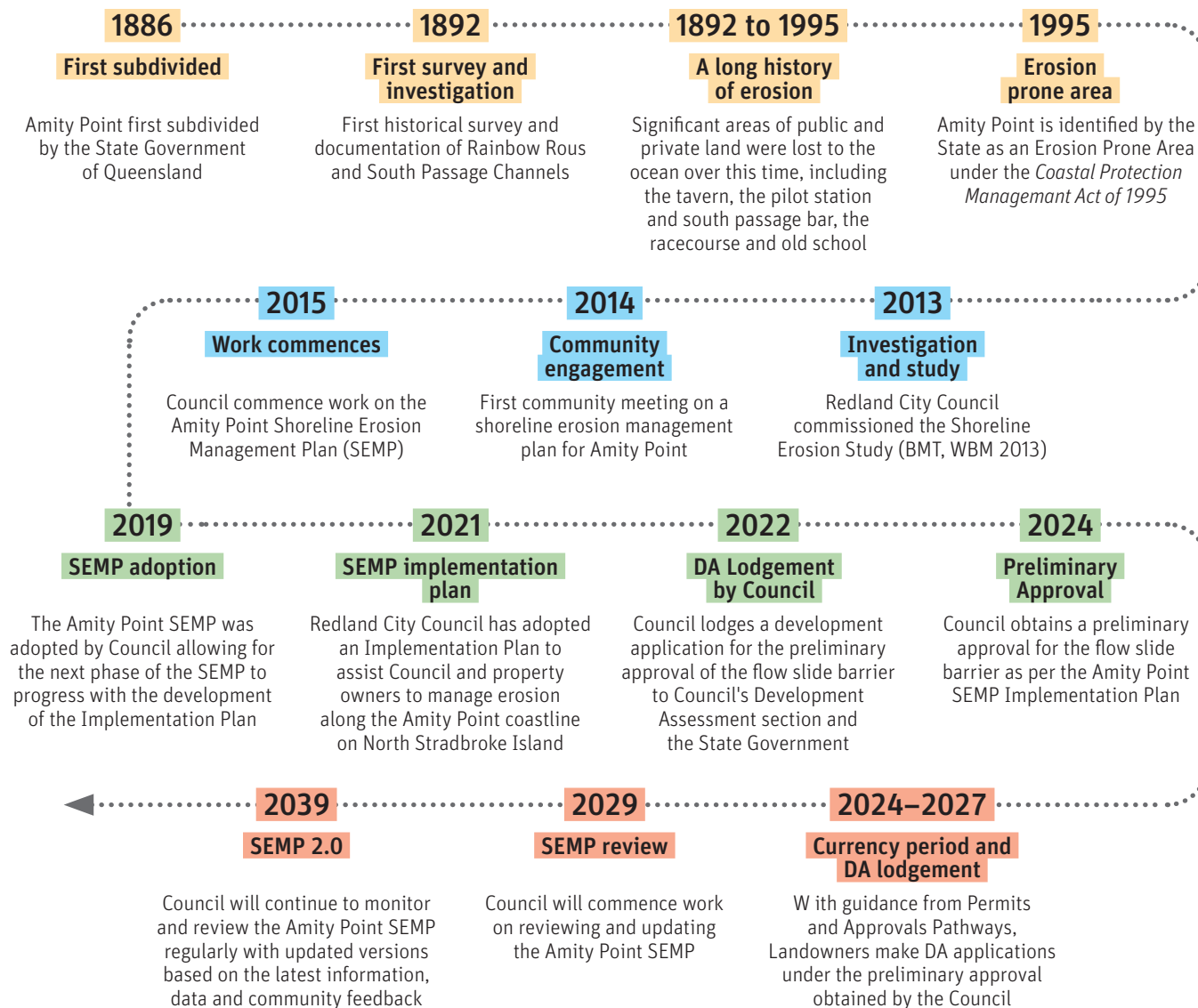


Image above: Aerial images compare conditions before and after a flow slide event. The existing rock flow slide barrier has successfully prevented land loss and protected dwellings from further erosion caused by the Rainbow Channel's shifting slopes.

History of erosion and coastal management at Amity Point



What is the SEMP Strategy?

The SEMP Strategy provides a collaborative, non-statutory framework for managing erosion risks sustainably. It helps Council and landowners address both current and future risks by balancing environmental, economic, and cultural values with natural coastal processes.

The strategy includes recommended uses for erosion-prone land and establishes long-term management goals agreed upon by the Queensland Government and community stakeholders. Amity Point is divided into Northern, Central, and Southern Reaches, with specific management recommendations tailored to each area

SEMP Strategy recommendations for the Central Reach

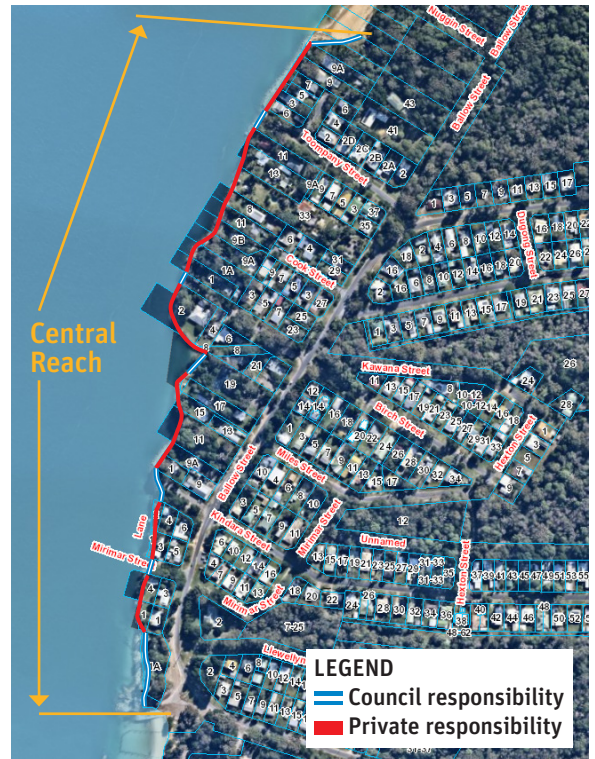
Planning and environmental approvals are required to ensure the barrier complies with Queensland Government legislation.

Currently, the barrier lacks these approvals, meaning maintenance cannot be undertaken lawfully until permits are secured. The Implementation Plan provides further guidance and actionable steps to address these compliance needs and support effective erosion management at Amity Point.

SEMP Implementation Plan

To implement the SEMP Strategy, Council developed the SEMP Implementation Plan. This plan provides practical steps and recommendations for managing erosion across Amity Point's northern, central, and southern reach.

Created in partnership with coastal engineering specialists, Water Technology, and local stakeholders, including foreshore landowners, the Implementation Plan helps break down the SEMP's overall strategy into specific, actionable steps.



SEMP Implementation Plan: key findings and responsibilities

Landowner responsibilities in maintaining the flow-slide barrier

Landowners were consulted during the SEMP Implementation Plan community engagement process and supported maintaining the flow-slide barrier, with maintenance to be organised and carried out by individual property owners.

To legally construct, maintain, or modify your flow slide barrier section, you must obtain formal approval from the government authorities. You can use Council's preliminary approval as a foundation to streamline this process. This involves engaging a coastal engineer and town planner to create site-specific designs, plan for construction and maintenance access, and secure necessary engineering certifications.

It is recommended that landowners engage a Registered Professional Engineer of Queensland (RPEQ) with expertise in coastal engineering to ensure compliance and professional guidance.

As a landowner, you may also need to establish covenants to formalise maintenance obligations and create easements to allow access to upkeep activities. It's up to you to work with your coastal engineer, town planner, and neighbours to determine the most appropriate site-specific solution for your property. By fulfilling these responsibilities, you can help to ensure the effective maintenance and legal compliance of the flow slide barrier. This contributes to the continued protection of your property and the overall coastline.

Council responsibilities in maintaining the flow-slide barrier

The SEMP recommends that Council supports the maintenance of the flow slide barrier. This includes providing preliminary approval to assist landowners in obtaining formal approvals for their flow slide barrier sections. Council is to maintain sections of the barrier that protect public assets and ensure its section of the flow slide barrier meets Queensland Government standards by following the required approval processes.

Council is also responsible for supplying rock from the Council quarry in line with emergency rock supply procedures, although availability may vary due to technical constraints. This allows transport and placement contractors engaged by private landowners to access the quarry.

Lastly, Council conducts annual bathymetric surveys and structural audits of the flow slide barrier. It shares the results with landowners to inform them of any required maintenance. Council's contribution supports landowners efforts to protect their properties and contributes to the effective management and legal compliance of the coastal defence system.

Understanding tidal works approvals for the flow-slide barrier

The importance of tidal works approvals

Maintaining the flow-slide barrier requires understanding two key types of approvals: preliminary approval and formal approval. These approvals are essential to ensure your barrier meets all legal and environmental standards.

- Preliminary approval is the first step, granted by Council, to approve the general concept and alignment of the barrier.
- Formal approval (permits) is required afterward for detailed construction, maintenance, or modification work.

By securing a formal approval, landowners can ensure their barriers are compliant and legally maintained.

What is formal tidal works approval?

A formal tidal works approval is the official permission granted by government authorities that allows you to legally construct, maintain, or modify structures like the flow slide barrier. In this instance, the formal approval you need is “approval to carry out operational works for prescribed tidal works”.

It ensures prescribed tidal works activities comply with State legislation relating to the *Planning Act 2016* and *Coastal Protection and Management Act 1995*.

Without formal approval, any work on the barrier may be unlawful, potentially leading to fines or required removal of unapproved work.

As the tidal works are in the Moreton Bay Marine Park, an additional permit to undertake the activity in the marine park may also be needed. Other legislation may apply to the development and may impose penalties on lot owners who fail to comply with them such as the *Marine Parks Act 2004* and the *Marine Parks Regulation 2017*. For more information visit: www.qld.gov.au/environment/coasts-waterways/marine-parks/applying

What is the preliminary tidal works approval?

Preliminary approval signifies an initial endorsement from authorities, confirming that the proposed project aligns with regulatory requirements in principle. However, further detailed assessments are required before final approval is granted.

For the preliminary approval of the flow-slide barrier, Council has secured approval on your behalf for the overall extent, alignment, concept design, construction zone, and environmental impact associated with the barrier. This means the authorities agree with the general concept, but they need more specific details for each property before giving full approval. This can include a site-specific proposal or design applicable to your situation and how you intend to access and maintain the flow slide barrier in a safe manner.

Preliminary approval: what it does (and doesn't) cover

- The preliminary approval is not the final permission to start construction or maintenance work. It serves as a foundation to help streamline the process of obtaining full formal approval.
- The specific requirements for obtaining full approval (operational works for prescribed tidal works) are outlined in the preliminary approval conditions (OPW22/0034 and 2204-28313 SRA), which are provided as separate documents alongside this guide.

General overview of the prescribed tidal works approval pathway for landowners

Seek advice

Landowners should first consult a RPEQ and town planner for site-specific advice and requirements. Reference the existing preliminary drawings and documentation for any site-specific requirements. The preliminary approval Council has obtained has a currency period until 4 January 2028.

Landowners consent

Before any tidal works can begin on State land, landowners consent must be obtained from the State. The process takes 6 to 8 weeks and must be completed before work starts.

Under *Section 51 of the Planning Act 2016*, developments, including those below the high-water mark, must have this consent before they can be approved.

For more details and application forms, visit:

qld.gov.au/environment/coasts-waterways/plans/development/tidal-works

Design and review

Confirm and review any site-specific designs, extent, construction materials, and noting important safety measures, access, sourcing and transport of rock materials, and any additional required plans.

Pre-lodgement

A pre-lodgement meeting with Council and/or State is recommended to seek advice and clarity on the approval pathway. While pre-lodgement is not part of the formal development assessment (DA) process, it can create a smoother development application process, especially for more complex development applications.

Final check

Following the pre-lodgement meeting, take the opportunity to review and adopt any necessary requirements and feedback provided ahead of lodgement.

Lodgement

Lodge development application including state referrals, planning report, DA forms, engineering drawings, permits, lodgement fees and relevant documentation.

The assessment manager has 2 weeks to determine whether the development application is properly made.

Assessment

Further referrals and information requests may be requested by the DA assessment manager at any point during the assessment process. It is an applicant's responsibility to provide a copy of the application to SARA

Your assessment manager will contact you once your application enters the decision stage and provide you with an estimated timeframe for when you can expect a decision to be made.

The decision period generally takes up to 7 weeks, these are the prescribed timeframes under the Development Assessment Rules.

Approval

Council as the Assessment Manager makes a final determination, but is bound by the Referral Agency's response. Once the development application is approved—either fully or with conditions—and all relevant appeal periods have passed, the approval becomes legally effective, allowing work to proceed.

Key considerations before using the preliminary tidal works approval

If you're a private landowner planning to use the preliminary approval, you should also consider:

- Timeframes
- Fees and charges
- Marine Park permits – this is independent of a prescribed tidal works approval.
- Maintenance – e.g. covenants
- Access – e.g. easements
- Ongoing sourcing, transport, and cost of rocks
- Currency period of the preliminary approval: to January 4th, 2028

Important: If your proposed works are within a marine park area, it's essential to consult with the State - please see the following link for more information: www.qld.gov.au/environment/coasts-waterways/marine-parks/applying

*Disclaimer: Other legislation may apply to the development, and may impose penalties on lot owners who fail to comply with them such as the *Marine Parks Act 2004* and the *Marine Parks Regulation 2017*.*

Steps for using the preliminary approval

1. Seek advice from a coastal engineer and town planner:

Engage a coastal engineer and town planner to discuss site specific requirements and how you can use the preliminary approval (OPW22/0034) for your specific situation. Council and the State can provide high-level information on the statutory requirements of tidal works but cannot provide engineering or town planning services.

Council has created a webpage which has download links to background technical information including research studies, technical reports, bathymetry, geophysical and structural audit information, as well as the electronic versions of the preliminary approval. This resource can assist you, your engineer and town planner in finalising approvals - visit redland.qld.gov.au/AmityCentralReach.

2. Arrange a pre-lodgement meeting with Council and the State:

To meet with Council: Schedule a pre-lodgement meeting with Council to discuss your site-specific proposal and receive advice based on outstanding requirements in the preliminary approval (OPW22/0034). Visit redland.qld.gov.au/Prelodgement.

To meet with State: Schedule a pre-lodgement meeting with the Queensland Government's State Assessment and Referral Agency (SARA) to discuss your site-specific proposal. SARA will be a referral agency when you apply for approval for your tidal works. SARA will provide pre-lodgement advice on the proposal subject to the outstanding requirements in preliminary approval (OPW22/0034). Visit: planning.qld.gov.au/planning-framework/state-assessment-and-referral-agency

It is recommended that you include your coastal engineer and town planner in this meeting to help you navigate the approvals process.

What will be covered in your pre-lodgement meetings?

Outstanding requirements for the preliminary approval

- A Council Officer will explain what you still need to do to move from preliminary approval to formal approval. They will also outline any site-specific conditions tied to OPW22/0034.

Development application process and requirements

- The Council officer will confirm which documents, reports, and site plans you'll need for your application. You will be able to ask questions about engineering requirements specific to your project.

State Assessment and Referral Agency (SARA) process

- SARA will explain their role in reviewing your tidal works application as a referral agency. They will advise you on any additional state-level approvals you might need to proceed and environmental and planning requirements.

Application and referral fees

- Council and SARA will outline the application fees. They may give you estimates or point you to fee schedules for more detail.

Guidance on lodgement & next steps

Council and SARA will provide guidance on the submission process, including documentation requirements, application timelines, and procedural expectations for the review and approval stages.

3. Prepare a Development Application:

Finalise your site-specific designs and proposal and submit an application to Council for operational works for prescribed tidal works (flow slide barrier). To formally move forward with your project, you'll need to complete a Development Application form and submit it to Council.

Once the application is properly made it is an applicant's responsibility to provide a copy of the application to the State Assessment and Referral Agency (SARA)

Council or SARA may request further information from an applicant at any stage in the assessment process. Council as the Assessment Manager will make a final determination but is bound by the Referral Agency's response.

- ☐ **Seek independent advice – Consult with an RPEQ Coastal Engineer and Town planner**
- ☐ **Seek pre-logement meeting with State and Council**
- ☐ **Landowners consent**
- ☐ **Site survey**
- ☐ **Engineering plans**
- ☐ **Planning report**
- ☐ **DA Form 1**

4. Avoid development offences:

Remember, conducting maintenance or emergency works without the proper permits is a serious offence. It could lead to actions from development control, including fines. So, always ensure you have the necessary permits before proceeding with any work.

Contact information

To speak to a Council Officer please contact 07 3829 8999 or email rcc@redland.qld.gov.au. Visit redland.qld.gov.au/AmityCentralReach, or scan the QR code below visit our website for links to resources.



