

Muskers Beach

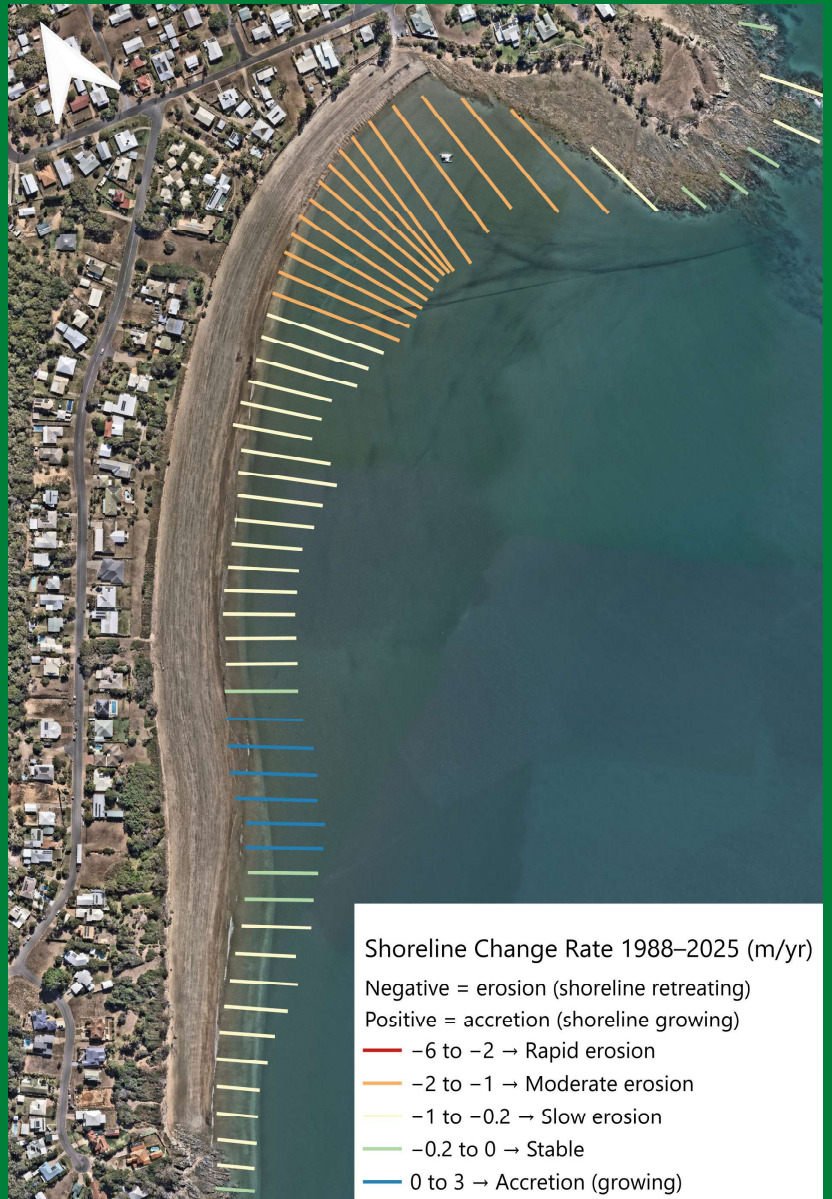
Shoreline Erosion Management Plan

What is a SEMP?

A Shoreline Erosion Management Plan (SEMP) is a strategic, long-term framework designed to address coastal erosion and manage shoreline changes. It integrates technical, environmental, social, and economic considerations to develop sustainable solutions for protecting coastal assets, ecosystems, and communities.

What does a SEMP do?

- Assess coastal processes (e.g., erosion, accretion, sediment transport).
- Identify risks to infrastructure, environment, and public safety.
- Evaluate management options (e.g., hard structures, soft engineering, nature-based solutions).
- Engage stakeholders.
- Provide a robust and defensible plan for joint decision making - such as granting environmental permits, or investment decions - between stakeholders.



How a SEMP is developed

1. Site Understanding

- Inspections
- Samples
- Historical Review

2. Technical Assessments

- Coastal Modelling
- Environment Audit
- Shoreline Change Assessment

3. Options Assessment

- Option Development
- Multi-Criteria Assessment
- Costing
- Engagement

4. SEMP Delivery

- Draft SEMP
- Council Review
- Final SEMP
- Endorsement

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Shoreline Erosion Management Plan

Current Challenges

- Ongoing coastal erosion
- Exposure and deterioration of the existing sand bag revetment
- Wind-blown sand onto residential properties
- Reduced beach amenity and dune condition
- Increasing maintenance requirements

What Options are Considered?

Options have been identified by the following group types:



ACCEPT

Continue the current management approach and accept ongoing impacts.



ACCOMMODATE

Adjusts current practice or infrastructure to live with hazard exposure.



COMPLEMENTARY

Supporting actions that inform, monitor, or enable other options.



PROTECT

A seawall with planting integrated to reduce erosion and hold the shoreline.



TRANSITION

Longer-term planning, staged adaptation, and land-use or zoning actions.

Multiple options may be combined.



Project Timeline (Apr–Nov 2026)

Environmental Constraints & Gap Analysis

Options Assessment & Preliminary Design Review

Survey & Geotechnical Investigation

Coastal Modelling

Coastal Process & Risk Assessment

Community Consultation September 2026

Options Assessment & MCA

Draft SEMP

Final SEMP

Detailed Design & Tender Documentation

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Options: Protect/Hybrid Measures

How are options assessed?

Options are assessed through a multi-stage selection process, that includes:

1. An initial 'long list' screening identifies all possible options and screens out options that are unlikely to be viable.
2. A detailed multi-criteria assessment is developed to assess options based on:
 - a. Technical viability
 - b. Approvability
 - c. Costs
 - d. Social Acceptability
 - e. Environmental Impacts
3. Sensitivity assessment to ensure the preferred pathway is robust.



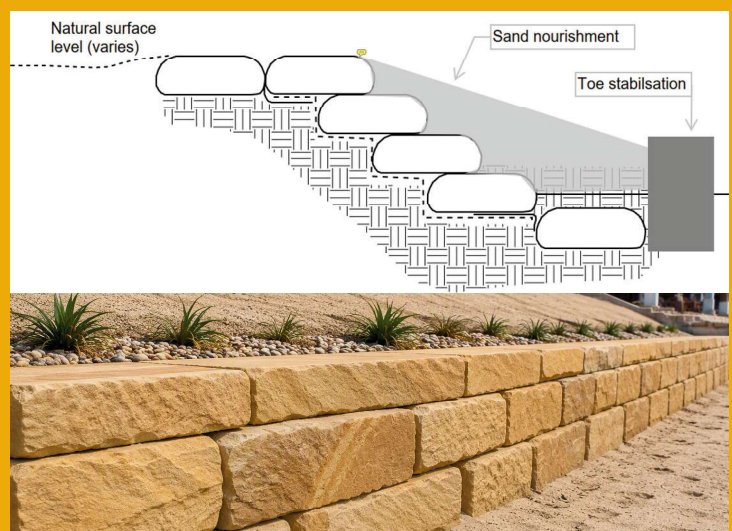
Wet sand fencing at toe with dune re-establishment

Encourages sand retention and dune rebuilding while supporting vegetation establishment.



Dune re-establishment with imported sand and vegetation

Restores the dune buffer and improves cover over the existing revetment.



Toe wall / sandstone block toe stabilisation with dune re-establishment

Provides a durable toe protection feature to support dune and shoreline stability.



Active habitat management (incl. mangrove habitat)

Protects and enhances coastal habitat values while potentially providing shoreline stabilisation benefits.

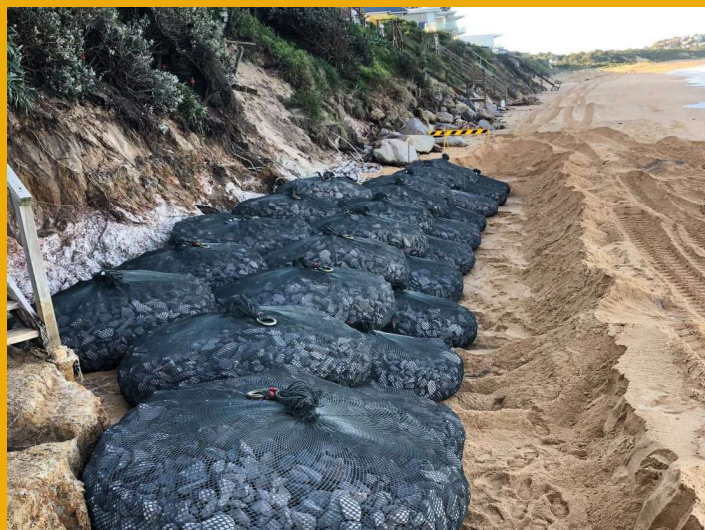
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Options: Protect Measures



Extend sand bag revetment to beach access ramp

Removes potential weak points in the existing protection alignment and improves continuity.



Rock Bags toe stabilisation

Provides localised toe protection to reduce erosion and support dune stability.

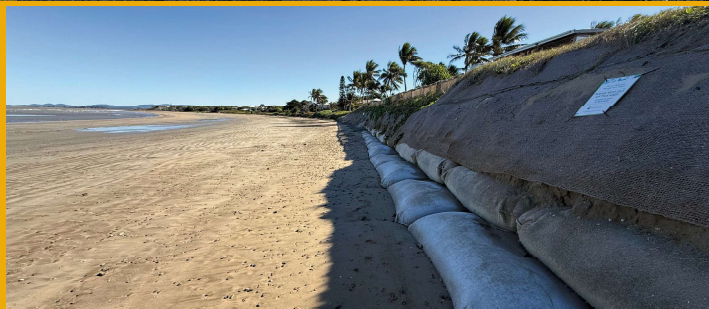


Intertidal or nearshore reef / low-crested structure

Reduces wave energy at the shoreline and may provide environmental co-benefits.

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Options: Accept, Transition & Complementary Measures



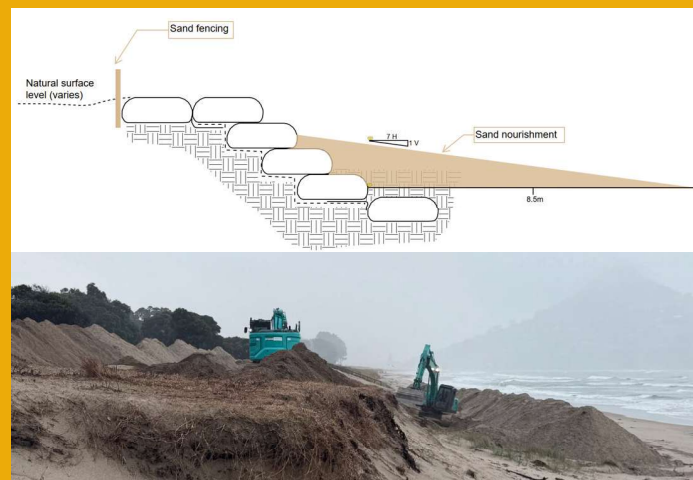
Do nothing / maintain status quo

Continue the current management approach and accept ongoing erosion, maintenance and amenity impacts.



Continue re-covering wall with locally scraped beach material

Maintains the current approach but does not address sediment suitability or wind-blown sediment concerns.



Repair damaged sand bags and cover with imported compatible sand

Restores the existing protection function while improving sediment suitability and amenity outcomes.

Investigate protection funding sources and arrangements

Supports future implementation planning and identification of funding opportunities.

Beach access management

Reduces disturbance to dunes, vegetation and placed material while maintaining public access.

Monitoring

Supports trigger-based management and informs future intervention requirements.

Planning longer term — pathways approach / zone change

Facilitates long-term adaptation through planning controls, land-use change and staged implementation triggers.



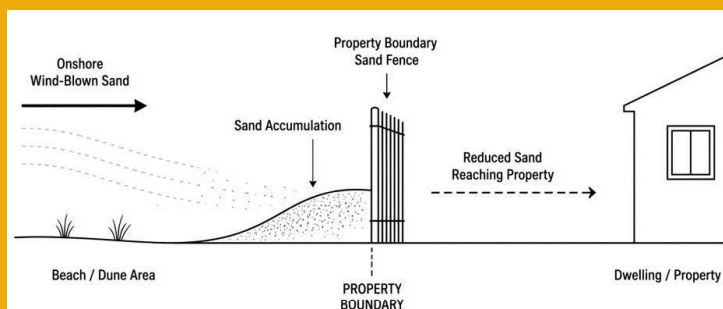
Small scale nourishment (targeted at toe)

Places compatible sand in targeted areas to improve cover and reduce localised erosion.



Sand fencing / wind fencing at dune crest

Encourages sand accumulation and supports dune vegetation growth.



Sand fencing / wind fencing at property line

Reduces wind-blown sediment impacts on adjacent properties.