

Partners responding to coastal erosion at Inverloch Surf Beach

Derek Hibbert
Coordinator Coast and Bushland Management
Bass Coast Shire Council



Acknowledgements



Environment,
Land, Water
and Planning



Inverloch Victoria



Inverloch's dynamic coast



Inverloch and Anderson Inlet, November 2009



Inverloch and Anderson Inlet, December 2018

Inverloch's dynamic coast



Surf Lifesaving Club, January 2012



Surf Lifesaving Club December 2018



Inverloch's dynamic coast: Inverloch Surf Lifesaving Club: First Observation Building



October 2013



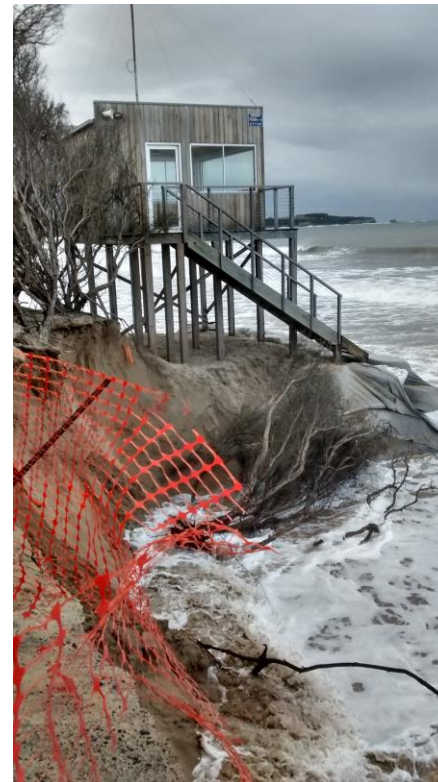
October 2013

Inverloch's dynamic coast:

Inverloch Surf Lifesaving Club: Second Observation Building



10 December 2014



October 2016

Who'll save our tower?

From page 1
And according to the President of the Inverloch SLSC, Fiona Hughes, it could cost \$45,000 to \$50,000 to crane the building out and to remove the deeply concreted pylons. That's where they told us to put it," said Mrs Hughes this week.

Certainly, the waves are continuing to crash in on the sandbags and breakwater devices protecting the foundations of the troubled tower.

While the tower itself stands firm, the waves have cut deeply into the surrounding dunes, exposing power and communication wiring from the clubhouse to the crippled structure.

The steps up to the tower are now more than two metres above the accreted beach.

The key issue, though, is the safety of swimmers. Dozens of whom will soon descend on Inverloch's famed surf beach.

"The surf lifesaving club needs a tower to allow the patrollers to effectively look up and down the beach," Mrs Hughes said.

"Ninety per cent of our rescues happen outside the flags. Mrs Hughes said the club accepts that the tower needs to be moved, however as building reports sought by Inverloch SLSC confirm that the tower is currently stable and because time is so short, the club would like to keep it in place for the summer season.

Arrangements also need to be made to provide access to the beach and to the tower.

"It's simply too late to be moving the tower at this stage," she said.

And after reaching an impasse with the shire, they've called on Surf Lifesaving Victoria, local MP Brian Pascoe, Senator Bridget McKenzie who is an active member of the club and the State Minister for

Emergency Services. James McInnis, to intervene.

The group is continuing to engage with the shire but they refused to put out a media release, prepared for them by the shire, that said everything was hunky dory.

It clearly is not.

After the Sentinel-Times contacted the shire, at 2.30pm yesterday, the shire published the following media statement on its website:

"The Inverloch Surf Life Saving Observation Tower will be removed due to significant erosion causing the structure to become unsafe and inaccessible."

"After several site inspections and discussions with the Inverloch Surf Life Saving Club, the Department of Environment, Land Water and Planning (DELWP) and Bass Coast Shire Council have deemed the observation tower to be a risk to public safety, having been subject to major wave erosion for the past 12 months."

"While other options were considered, removal is the only viable option, as the structural integrity of the building would be compromised if it were to remain long term."

"The tower was designed to be removed should this situation occur, and both Council and DELWP will assist the Surf Life Saving Club to remove the tower."

"Council and DELWP have also spoken with Surf Lifesaving Victoria regarding the removal of the structure and service over the summer period."

"The shire met with the club two weeks ago to discuss the Observation Tower and explained to the club that due to the erosion, it was restricted in the communication it could undertake on the issue. Council prepared the short media release and provided it to the club at its request."

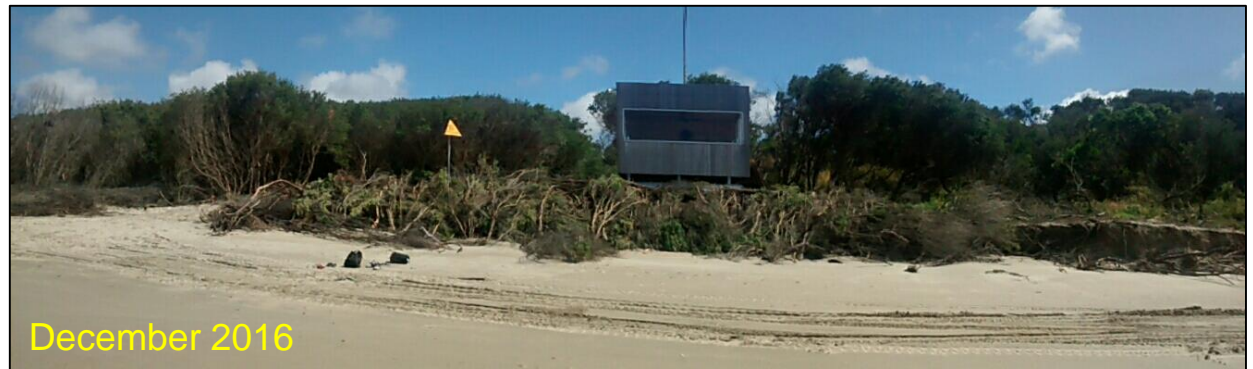
"Where to from here? Who knows?"

The club wants the tower to stay until after the summer, the shire wants it to go.



Inverloch's dynamic coast:

Inverloch Surf Lifesaving Club: Second Observation Building



Inverloch's dynamic coast:

Inverloch Surf Lifesaving Club: Second Observation Building



Inverloch's dynamic coast: Main beach access track



27 July 2016

Inverloch's dynamic coast



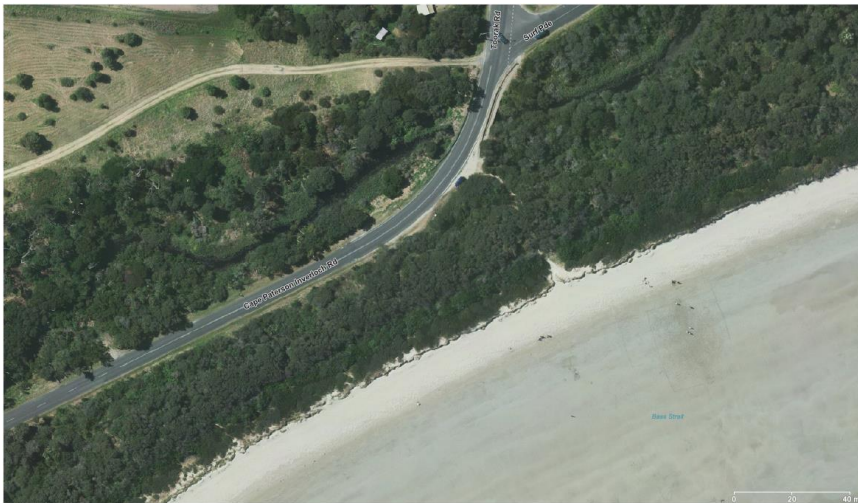
Surf Lifesaving Club, January 2012



Surf Lifesaving Club December 2018



Inverloch's dynamic coast



Cape Paterson-Inverloch Road site 2012



Cape Paterson-Inverloch Road site 2018

Asset protection at Inverloch Surf Beach



Asset protection at Inverloch Surf Beach



Asset protection at Inverloch Surf Beach



Asset protection at Inverloch Surf Beach



23 September 2018

Carmel Henderson
Program manager Regional Planning and Approvals, Gippsland
Department of Environment, Land, Water
574 Main Street
Bairnsdale VIC 3875

Our ref: 313055
Your ref:

Dear Carmel

Inverloch Coastal Protection Options DRAFT Advice

This letter summarises our review of options available for the short-term management of coastal erosion at Inverloch Main Beach.

1 Introduction and site inspection

The foreshore at Inverloch Main Beach (also known as Inverloch Surf Beach) has experienced significant coastal erosion in the last 7 years, which has led to landward movement of the beach by approximately 40m. Areas of particular concern where assets may be at risk are the Surf Life Saving Club (SLSC), and 600m to the west, a stretch of Cape Patterson-Inverloch (CP-I) Rd close to the active dune escarpment.

An inter-agency meeting and site inspection was held on 30/8/18 and attended by GHD. During the inspection the distance from assets to the active dune escarpment was estimated as:

SLSC	16m
CP-I Rd	6m

During the meeting it was proposed to address the issues on three separate timeframes:

- Immediate – emergency works to protect the road – by VicRoads
- Short term – works to protect assets or reduce erosion risk before winter 2019
- Long term – management of the coastal compartment over the next 10 or more years.

After the site inspection GHD were commissioned by DELWP to undertake a review of options available for the management of coastal erosion at Inverloch Main Beach. As agreed, this review focuses on short term measures that can be implemented before the winter of 2019 to protect the SLSC and CP-I Road.

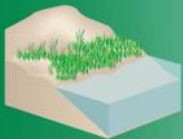
Asset protection at Inverloch Surf Beach

HOW **GREEN** OR GRAY SHOULD YOUR SHORELINE SOLUTION BE?

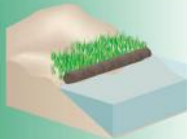
GREEN - SOFTER TECHNIQUES

GRAY - HARDER TECHNIQUES

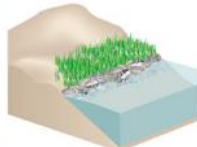
Living Shorelines



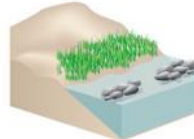
VEGETATION ONLY -
Provides a buffer to upland areas and breaks small waves. Suitable for low wave energy environments.



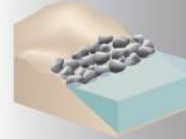
EDGING -
Added structure holds the toe of existing or vegetated slope in place. Suitable for most areas except high wave energy environments.



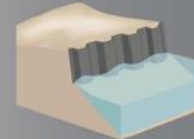
SILLS -
Parallel to vegetated shoreline, reduces wave energy, and prevents erosion. Suitable for most areas except high wave energy environments.



BREAKWATER -
(vegetation optional) - Offshore structures intended to break waves, reducing the force of wave action, and encourage sediment accretion. Suitable for most areas.



REVETMENT -
Lays over the slope of the shoreline and protects it from erosion and waves. Suitable for sites with existing hardened shoreline structures.



BULKHEAD -
Vertical wall parallel to the shoreline intended to hold soil in place. Suitable for high energy settings and sites with existing hard shoreline structures.

Source: <https://climateactiontool.org/content/restore-and-protect-natural-shorelines-use-living-shoreline-techniques>

Asset protection at Inverloch Surf Beach

Chosen Technique Combination

- Wet-sand fencing
- Sand renourishment
- Revegetation with indigenous plant species



Asset protection at Inverloch Surf Beach: Wet-sand fencing at Port Fairy



Asset protection at Inverloch Surf Beach: Stakeholder Engagement



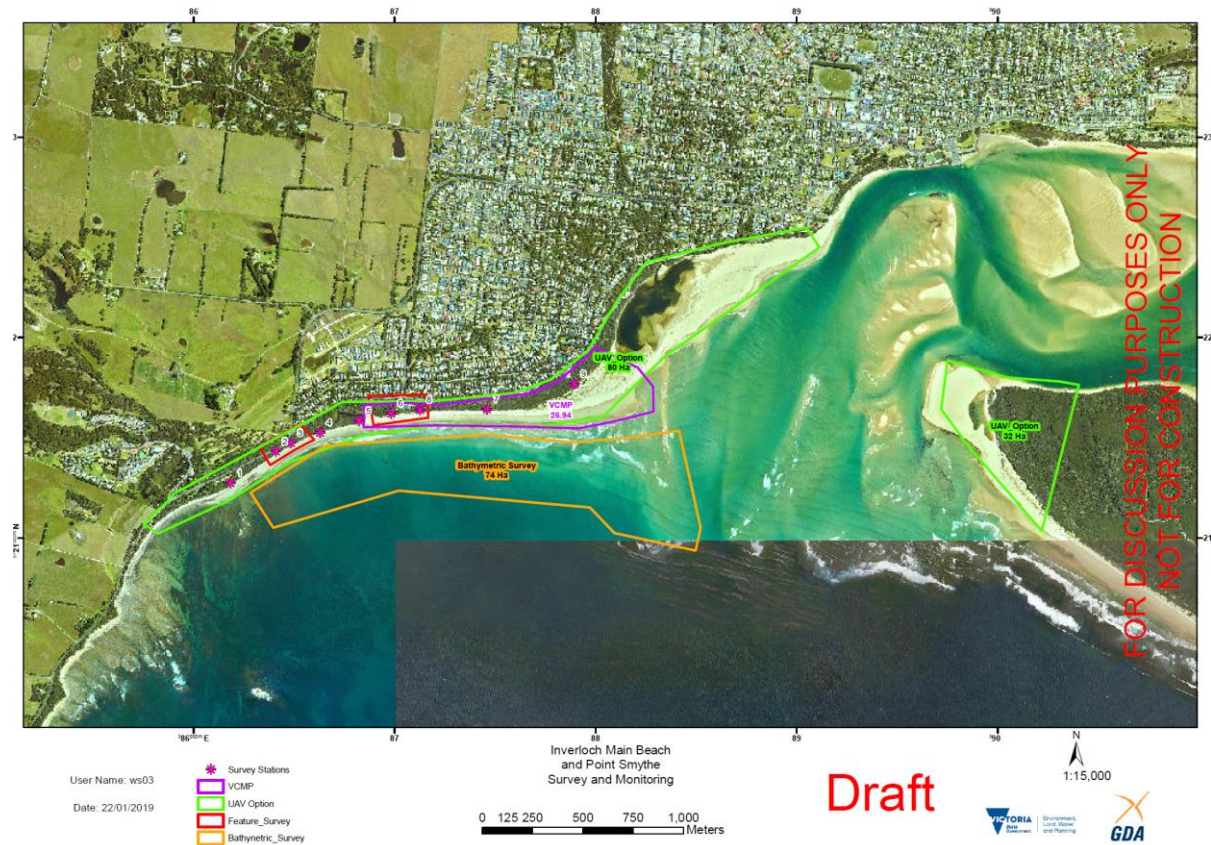
Asset protection at Inverloch Surf Beach: Wet-sand Fence Installation



Asset protection at Inverloch Surf Beach: Wet-sand Fences



Asset protection at Inverloch Surf Beach: Monitoring



Asset protection at Inverloch Surf Beach: Performance





Asset protection at Inverloch Surf Beach: Performance



Asset protection at Inverloch Surf Beach

Challenges and lessons learned



Asset protection at Inverloch Surf Beach: Challenges and lessons learned



Responding to coastal erosion at Next Steps

Next Steps: Works

- Sand Renourishment
- Revegetation with indigenous plant species

Next Steps: Medium to Longer-term

- Strategic planning for medium and longer-term scenarios at Inverloch



Partners responding to coastal erosion at Inverloch Surf Beach



“THANK YOU!”

