

# Morphology and Riparian Management

## Shag/Waihemo River



## Why have a Morphology and Riparian Management Strategy?

A morphology and riparian management strategy will ensure future generations can continue to enjoy Otago's beautiful landscape.

Otago Regional Council (ORC) engaged the community, including local iwi, to ensure their values and beliefs are represented in the strategy in a way that enhances the natural ecology of the area.



Ko te wai te ora ngā mea katoa  
Water is the life giver of all things



### More Information

The full Morphology and Riparian Management Strategy is available online. Access the strategy for the Shag/Waihemo river here:

[www.orc.govt.nz/ShagWaihemoRiver-MRMS](http://www.orc.govt.nz/ShagWaihemoRiver-MRMS)



### Contact



0800 474 0827



[www.orc.govt.nz/contact-us](http://www.orc.govt.nz/contact-us)



[info@orc.govt.nz](mailto:info@orc.govt.nz)







Otago Regional Council  
70 Stafford St  
Private Bag 1954, Dunedin 9054





## Objectives

-  **Recognise and characterise natural river processes**
  - o Collect information about flood and erosion processes
  - o Report on changes in channel morphology
  - o Provide information to the community
  - o Identify the location of river corridors within which the river will naturally meander
-  **Promote activities that enhance natural character and enjoyment of the river**
  - o Encourage the establishment of riparian plantings that are practical and appealing
  - o Provide access and habitat for sustainable fishing and white-baiting activities
  - o Support pest and weed control activities
  - o Discourage dumping, and arrange regular collection of rubbish
  - o Provide maps showing the location and characteristics of features that are of high value to the community
-  **Equip the community to live with the effects of changes in river morphology**
  - o Promote land-use practices and placement of assets that reduce the risk of changes in riverbed morphology
  - o Consider all options to manage the effects of bank erosion, including structural and non-structural options
  - o Enable works to improve the conveyance of floodwater and 'train' the river within its natural corridor, without compromising the features that are of high value to the community and iwi
-  **Enable sustainable gravel extraction**
  - o Identify areas where gravel accumulation can naturally occur
  - o Identify areas where permanent removal of gravel may have a detrimental effect on assets, riverbed morphology or community values
  - o Identify minimum bed levels/profiles, below which extraction must not occur



## Actions

### Native Plantings on Riparian Margins

- o Increase stability of riparian margins and riverbanks
- o Improve habitat and community values
- o Improve appearance of the river margins



### Physical Works on Flood Conveyance

- o Convey flood water within the natural fairway (or riverbed) without overtopping
- o Re-alignment of the channel
- o Maintenance of fairway
- o Works do not compromise features that are of high value to the community and iwi



### Gravel Extraction Management

- o Continued morphological studies to ensure sustainable gravel-takes
- o Moving sediment from an accumulating gravel beach onto an adjacent eroding bank
- o Maintain channel shape to mitigate bank erosion and flooding
- o Extraction will not compromise features that are of high value to the community and iwi



## More Information

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