

Seagrass



Seagrass, or marine eel grass (*Zostera muelleri*), is a native flowering marine plant which colonises sandy or muddy intertidal areas of a harbour or estuary and some coastal rocky platforms.

Seagrass should not be confused with freshwater eel grass, which looks similar but grows in rivers and lakes and is a pest plant.



Seagrass roots grow below the surface to anchor the plant. The leaves of seagrass extend around 10 cm above the bed at high tide when they are surrounded by water. At low tide the leaves lie flat on the sea bed.

Why are sea grass beds important?

Seagrass beds have high ecological value. They:

- stabilise the sea bed and prevent erosion, and
- provide food and shelter for animals such as fish and birds.

Unfortunately sea grass beds are declining worldwide, including in New Zealand.

State of seagrass in Tauranga Harbour

Tauranga Harbour is a national example of the rapid decline in seagrass bed populations.

Seagrass was previously abundant but had an estimated loss within the whole harbour of 34 percent between 1959 and 1996. Some areas of the harbour lost nearly 70 percent over the same period.

In recent years, the rate of seagrass loss has slowed. Areas near the harbour entrance with little land runoff or influence from other catchments have shown the smallest decline in seagrass abundance.

Why is the number of seagrass beds declining?

The decline is linked to increased sediment in the water (suspended sediment) which blocks out the light seagrass needs to survive. Higher amounts of nutrients in the water column are also related to the decline, as this causes increased algal growth which also reduces the amount of available light.

Other reasons why the number of seagrass beds is declining are:

- Reclamation of the sea bed.
- Dredging, which increases suspended sediment in the water column.
- Disturbance from vehicles, boats, structural works and people.
- Black swans grazing on the sea grass beds removing patches (Figure 1 – overleaf)

What can you do?

Seagrass beds need special care so:

- Avoid walking over them or driving vehicles over or near them.
- Minimise sediment and nutrient runoff from your property.
- Plant out any riparian areas to stabilise stream banks, trap sediment runoff from land and reduce nutrient runoff.

What is being done to help the seagrass beds?

The best way of ensuring the return of seagrass is by improving land management practices in the catchment. Actions like retiring riparian areas help to reduce runoff of sediments and nutrients from the land into the harbour.

Other actions Bay of Plenty Regional Council is taking to improve our understanding of sea grass beds and make sure they stay healthy include:

- Five yearly monitoring of changes in the distribution of sea grass beds, to identify links to other processes.
- Advocating to Fish & Game New Zealand to limit the population of black swans.
- Funding studies which look at the pressures on sea grass growth in Tauranga Harbour, such as looking at suspended sediment and nutrient loading.
- Ensuring the appropriate controls are used where land disturbance occurs in the catchments.
- Managing water quality.
- Supporting Bay of Plenty Polytechnic with research into the transplanting of sea grass as a tool to re-establish sea grass beds.



Figure 1 – A healthy bed of seagrass (top) compared with one damaged by swan grazing.

Seagrass beds stabilise the sea bed and prevent erosion. They provide food and shelter for animals such as fish and birds.

For more information

Visit www.boprc.govt.nz/taurangaharbour

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