

Benefits of coastal saltmarsh

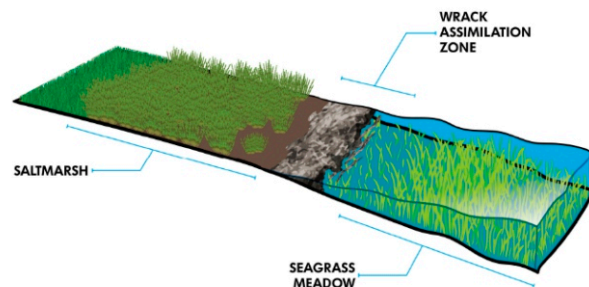
Cleaner water - saltmarsh vegetation act like the kidneys of our estuaries, slowing water down, filtering out and absorbing excess nutrients, sediments and other suspended pollution from the land and the lake.

Cleaner air – coastal saltmarsh is particularly efficient at absorbing greenhouse gases such as carbon dioxide (Co²). This process is called *carbon sequestration*, where carbon dioxide gas is taken out of the air and stored in a safe form in the plant, where it is used to provide nutrients to the soil and capture other chemicals and nutrients in the water.

Smells less – acting like a comb net, saltmarsh catches floating decaying seaweed (wrack) and as the lake levels recede, the wrack can dry and naturally breakdown becoming part of the foreshore soil, reducing smell.

Habitat and leisure - coastal saltmarsh also provides an important habitat and food for fish, birds, insects and crustaceans to nest, breed and eat, subsequently allowing for bird watching and fishing to occur in the Lakes.

Stops erosion – like mangroves, saltmarsh act as a physical barrier, protecting the foreshore against wind and boat swash, stabilising the foreshore and decreasing the amount of sediment entering the lake that makes it murky.



How you can help protect saltmarsh:

- Don't mow to the shoreline.
- Always walk or ride on paths provided.
- Keep dogs on leashes and in designated areas.
- Pick up your dog's droppings and dispose of them correctly.
- Dispose of rubbish in bins.
- Leave the shoreline in its natural state by not constructing unauthorised wharves, jetties, walls or boat ramps.
- Launch boats from public boat ramps only.
- Store boats and trailers away from saltmarsh areas.
- Keep grass clippings out of waterways by composting or using green waste collection bins.
- Report activities harming saltmarsh by contacting your nearest NSW DPI Fisheries Office or Fishers Watch Phonenumber on 1800 043 536 or the OEH Environment Hotline on 131 555.

Discover more:

loveourwaterways.centralcoast.nsw.gov.au

Biodiversity Conservation Act 2016:

legislation.nsw.gov.au/#/view/act/2016/63/sch2

Fisheries Management Act 1994:

dpi.nsw.gov.au/fishing/habitat/protecting-habitats

Environment Protection and Biodiversity Conservation Act 1999:

legislation.gov.au/Details/F2013L01563

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Coastal saltmarsh

The natural filter of the Tuggerah Lakes

Foreshore and saltmarsh rehabilitation works are part of Central Coast Council's *Tuggerah Lakes Estuary Management Plan* which focuses on the restoration of sensitive ecological areas and water quality improvements throughout the catchment and estuary. These restoration works have seen measurable improvements to water quality, better recreational areas and protection of threatened ecological communities - a win for community and the environment. Council's delivery of these works contributes to a healthier and vibrant estuary that we can all enjoy.



What is coastal saltmarsh?

Coastal saltmarsh is a very fragile plant community – not even strong enough to walk on – that only grows within a limited elevation at the water's edge.

Saltmarsh is a salt-tolerant, mostly treeless, floral plant community consisting of low-lying succulents, rushes and sedges. It grows along gently sloped foreshores where the soil moisture and salinity are maintained by both surface water and groundwater.

Where can it be found on the Central Coast?

Coastal saltmarsh grows around our lakes, estuaries and lagoons. Around Tuggerah Lakes it is common along the undeveloped shorelines, usually found right on the water's edge. Around Brisbane Water and Lake Macquarie, the saltmarsh often sits in protected areas, between pockets of emergent mangroves or behind a barrier of mangroves where it is intermittently inundated with saltwater.

Why is saltmarsh protected?

Council and the community have a shared responsibility to protect these areas by law. They are listed as an Endangered Ecological Community (EEC) under the Biodiversity Conservation Act 2016 (NSW).

As more people seek to live in the coastal zone and enjoy the surrounding natural waterways, the risk of further decline in saltmarsh increases. Greater pressure is placed on saltmarsh communities from both direct impacts (reclamation for development, mowing and off-road vehicle use) and indirect impacts (e.g. changes in natural tidal flow characteristics, pollution, weed invasion and sea-level rise).

Large amounts of coastal saltmarsh were removed or damaged while the Central Coast was developing from the 1970s-1990s, leaving small isolated patches of saltmarsh increasingly vulnerable to threats.

What is Council doing to help?

We have an extensive saltmarsh rehabilitation program to restore saltmarsh communities that have been damaged or are that are in a poor condition.

To date we have restored more than 29 hectares of saltmarsh on the Tuggerah Lakes foreshore. Two different methods have been applied to achieve this outcome – passive and active rehabilitation.

Passive saltmarsh rehabilitation supports existing saltmarsh communities to regenerate and expand into surrounding areas to a point where they can sustain themselves with little intervention.

Passive saltmarsh rehabilitation includes a range of activities such as:

- stopping damaging activities (e.g. vehicles, trampling)
- installation of no-mow markers
- tilling surface to remove compaction where required
- transplanting of saltmarsh species
- weed control
- mulching with locally sourced seagrass wrack.

Active saltmarsh rehabilitation for saltmarsh that requires serious intervention can include:

- installation of fish-friendly fencing to allow fish to freely enter and exit the site during establishment
- regrading of the site or adding fill to establish an appropriate slope and allow for low, mid and high marsh species to establish
- soil conditioning
- stabilisation of new surface
- revegetation and transplanting with local saltmarsh species
- mulching with seagrass wrack
- pinning mulch in place with open weave biodegradable mesh.

Saltmarsh Rehabilitation



Figure 1.
A modified and eroded foreshore.



Figure 2.
Active works underway - modified slope with sediment controls



Figure 3.
The road to recovery - passive rehabilitation - wrack mulching and coir mesh



Figure 4.
The end goal - a natural saltmarsh ecosystem