Hawkesbury habitats

Seagrasses

The following habitats may be present on your foreshore - help us protect them! Seagrasses are part of a fragile estuarine ecosystem that may be easily damaged. They play vital roles in providing food and shelter to aquatic animals, are important fish nurseries and help reduce erosion and maintain water quality.

Eelgrass
(Zostera capricorni)

Paddleweed
(Halophila ovalis)

Strapweed
(Posidonia australis)

Saltmarsh

Since the 1940s, over 50% of the saltmarsh in the Hawkesbury estuary has been lost. Saltmarsh are usually found between mangroves and the edge of the land. Saltmashes improve water quality by filtering sediments and nutrients from run off, providing food, homes and shelter for a range of animals, acting as a buffer between the water and the land and are aesthetically attractive.

Mangroves

Mangrove habitats also play an important ecological role in the estuary. Fallen leaves provide food for microscopic aquatic organisms and their root systems provide nurseries for juvenile fish and crustaceans. They are important for recycling nutrients and capturing sediments. They also stabilise our coastlines by minimising wave action and preventing erosion.

Stop marine pests!

Green Shore Crab

Caulerpa taxifolia

Marine invasive pests displace native marine flora and fauna. Remember to keep anchors and trailers clean to stop the spread.

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Hawkesbury estuary program

HORNSBY SHIRE COUNCIL

NSW GOVERNMENT Environment, Climate Change & Water

Living on the edge

A guide to protecting our estuary foreshore

Hawkesbury estuary program

HORNSBY SHIRE COUNCIL

Protect your foreshore

Respect your foreshore vegetation

As residents of the riverside we all have a responsibility to care for our shoreline property

- **Plant native species** along your foreshore
- **Reduce disturbance to foreshore areas** by preserving its natural state
- **Maintain your jetty** and keep your boats away from the shore
- **Minimise shoreline erosion** by keeping boat waves to a minimum
- **Control weeds** and don't dump garden waste
- **Dispose of rubbish** at appropriate locations
- **Minimise development** and set buildings and boatsheds back from the water's edge

Look after your sewage treatment systems

All effluent from sewage systems, both treated or untreated, are possible sources of pathogens, viruses and bacteria that can deteriorate the river's water quality and impact on the local environment

Leakage – Regardless of what system you may have on your property *you are responsible to ensure that it does not leak and it is maintained regularly*. Leaks can also come from the on-site disposal area, i.e. trench or spray irrigation area. This water, although treated, can still cause pollution problems and should be prevented from entering the estuary.

Impacts of seawalls on estuarine habitats

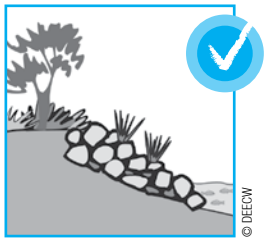
Development is continuously modifying estuarine foreshores through fragmentation of natural habitats and its replacement with artificial structures.

Seawalls can have a detrimental impact on important habitats in the estuary. There is increasing demand to build or upgrade seawalls along the shoreline as a result of climate change predictions for sea level rise.

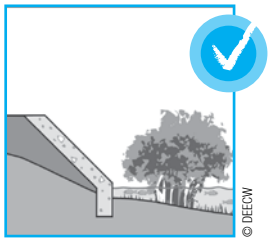
Seawalls are poor replacements of natural foreshores because

- They change the type of habitat and reduce the area for plant and animal life
- They limit the ability to hold pollutants from run off resulting in a deterioration of water quality
- They can modify wave patterns and water circulation indirectly impacting on nearby habitats, topography and properties

Any alterations to a seawall should consider incorporating an environmentally friendly seawall design.



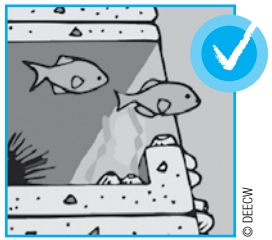
Plant native foreshore vegetation behind the seawall and in the gaps of rock seawalls.



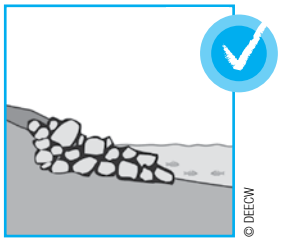
Establish mangroves in front of the seawall.

Before you build or alter a seawall:

1) Consider if you really need a seawall
   a. Sometimes it is sufficient to restore the intertidal zone by improving and using existing foreshore vegetation
   b. Use temporary structures to enhance foreshore vegetation growth until it turns into a natural barrier
2) If you need to build or upgrade a seawall
   a. Check existing information on environmentally friendly seawall designs by visiting www.environment.nsw.gov.au/publications (Aug 2009)
   b. Aim to maximise habitat diversity and complexity (i.e. using mixed sized and shaped boulders and adding cavities to shelter marine organisms, see diagrams)
   c. Create low-sloping seawalls or include changes of slope (e.g. benches or steps)
3) Before building or updating a seawall, ensure you get approval from your local council and relevant government agencies



Include pool or crevice areas that retain water at low tide.



Build the seawall with a gentle slope using boulders.

With sustained effort and care, a healthy Hawkesbury shoreline can be preserved and enhanced for future generations.