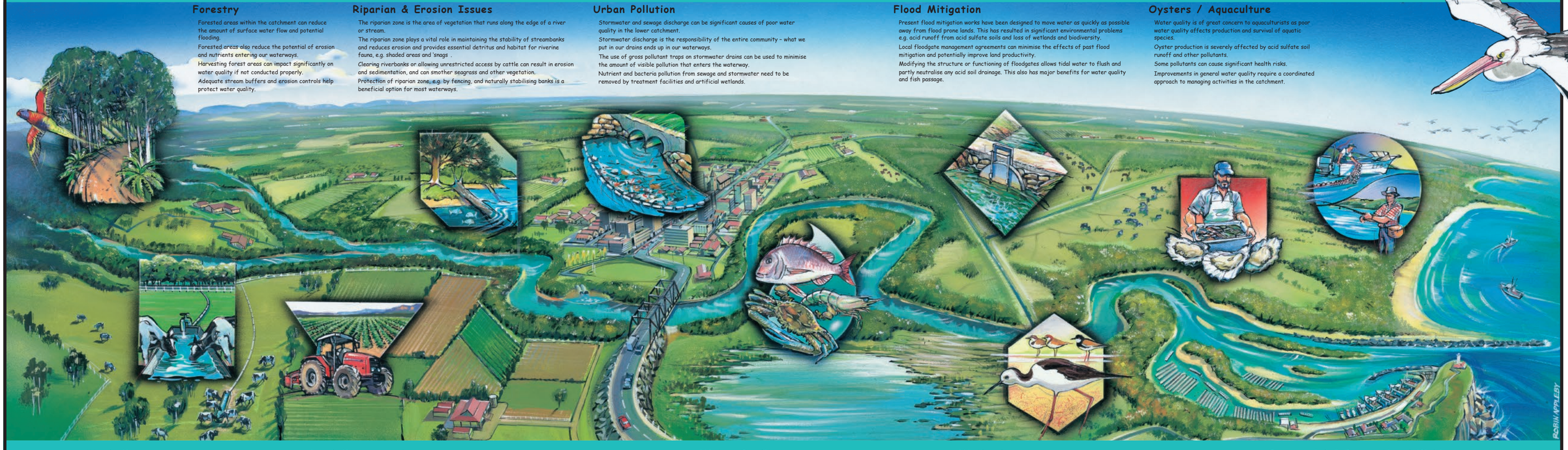
A Vision For Sustainable Coastal Floodplains



Forestry

Forested areas within the catchment can reduce the amount of surface water flow and potential flooding.

Forested areas also reduce the potential of erosion and nutrients entering our waterways.

Harvesting forest areas can impact significantly on water quality if not conducted properly.

Adequate stream buffers and erosion controls help protect water quality.

Riparian & Erosion Issues

The riparian zone is the area of vegetation that runs along the edge of a river or stream.

The riparian zone plays a vital role in maintaining the stability of streambanks and reduces erosion and provides essential detritus and habitat for riverine fauna, e.g. shaded areas and 'snags .

Clearing riverbanks or allowing unrestricted access by cattle can result in erosion and sedimentation, and can smother seagrass and other vegetation.

Protection of riparian zone, e.g. by fencing, and naturally stabilising banks is a beneficial option for most waterways.

Urban Pollution

Stormwater and sewage discharge can be significant causes of poor water quality in the lower catchment.

Stormwater discharge is the responsibility of the entire community – what we put in our drains ends up in our waterways.

The use of gross pollutant traps on stormwater drains can be used to minimise the amount of visible pollution that enters the waterway.

Nutrient and bacteria pollution from sewage and stormwater need to be removed by treatment facilities and artificial wetlands.

Flood Mitigation

Present flood mitigation works have been designed to move water as quickly as possible away from flood prone lands. This has resulted in significant environmental problems e.g. acid runoff from acid sulfate soils and loss of wetlands and biodiversity.

Local floodgate management agreements can minimise the effects of past flood mitigation and potentially improve land productivity.

Modifying the structure or functioning of floodgates allows tidal water to flush and partly neutralise any acid soil drainage. This also has major benefits for water quality and fish passage.

Oysters / Aquaculture

Water quality is of great concern to aquaculturists as poor water quality affects production and survival of aquatic species.

Oyster production is severely affected by acid sulfate soil runoff and other pollutants.

Some pollutants can cause significant health risks.

Improvements in general water quality require a coordinated approach to managing activities in the catchment.

Stock Management

It is important to control stock movement and manage grazing pressure on floodplains.

Limiting stock access to riparian areas, in combination with pumping stock drinking water to in-paddock watering stations, addresses these problems.

Within farm areas, wetlands should be preserved as potential refuges for stock during times of drought.

Controlling effluent from dairies and preventing cow manure from entering waterways protects both water quality and other waterway users.

Land Management

Land management needs to fully consider the impact of land usage on downstream water/land users.

Allowing natural inundation of land with water prevents oxidation of acid sulfate soils and can be used on badly acid-scalded areas. The water cover also encourages grasses, such as water couch to grow, provides drought pasture for stock and protects wetland biodiversity.

Land drainage needs to be managed with full consideration of issues such as acid sulfate soil distribution, maintaining wetlands and improving water quality.

Management of the appropriate level and use of pesticides/fertilisers also has positive outcomes for land and water quality.

Water Quality

Water quality reflects the health of the whole catchment. It affects both natural systems and human uses of water resources.

Water quality can be degraded by pollution from farms, factories and suburban backyards, poor water flow and too much silt and nutrients from eroding streambanks.

Poor water quality can reduce the value of streams for fish and wildlife. It can also affect the business of those who depend on waterways for their livelihood. Poor water quality costs the whole community when a clean-up is needed.

Wetlands

Wetlands are an essential part of the natural biodiversity of floodplains. They support a large number of plants and animals and provide habitat and nursery areas for wildlife including migratory birds, fish and crustaceans.

Some wetlands can be used as refuges for stock in times of drought. Careful stock management is required to ensure degradation does not occur.

Historically, wetlands have been seriously modified (drained & filled) with the aim of increasing agricultural productivity. This modification has resulted in a loss of biodiversity and fish nurseries, with little gain for agriculture.

Commercial & Recreational Fishing

Water quality is of great concern to fishers. Poor water quality reduces both the quantity and quality of fish for recreational and commercial fishers.

Wetland areas within estuarine and floodplain ecosystems provide essential habitats for many species of fish and shellfish including breeding, nurserie and grow-out area s.

Near-shore fisheries also rely on the natural input of nutrients from floodplains and estuaries.

Allowing fish to have access to wetlands and creeks by removing or modifying blockages such as floodgates or weirs, helps produce more fish.

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