

# Remedies to treat salinity

Eventually, salinity could affect more than 30% of the Toolibin catchment. The extent of this impact is too serious to ignore.

Protecting Toolibin Lake requires treating the three threats of salty groundwater, salty runoff and increased inundation. Success is dependent on tackling not only the symptom (salinity at Toolibin Lake) but also the causes in the wider catchment (decreased water usage).

## Treating the Causes

### Revegetation for Conservation

Revegetation with deep-rooted perennial species can be used to combat salinity. During the 1980s much of the immediate surrounding farmland was purchased for revegetation. This has lowered the groundwater table under the revegetated areas. Revegetation is also occurring on private land across the Toolibin catchment.



Aerial view of revegetation areas adjacent to Toolibin

Protecting and managing remnant vegetation on private property is another means of managing groundwater. Remnant areas of native bush are also valuable for nature conservation purposes.



Fenced remnant vegetation area

### Commercial Perennial Vegetation

Trees are being planted across the catchment as part of a new oil mallee industry. Not only do these native trees offer a commercial return but they also increase water usage. These trees can be seen in the catchment as alley plantings. Other species of trees are grown as fodder for times of drought. Deep rooted and perennial pastures are also being trialed in the catchment.



Commercial oil mallees planted in narrow alleys

### Surface Water Management

Structures such as contour banks, drains and dams are used in the catchment to manage surface water runoff. These structures can be used to either retain or divert surface water runoff.



Revegetation planted along surface drain

When travelling in the Toolibin area, look at how native bush areas have been fenced off, and how trees have been planting in alleys or along contour banks. Look at how physical structures have been constructed to control the flow of surface water.

## Treating the Symptoms

### Diverting Inflows

Low volume inflows entering Toolibin Lake are often very salty. The diversion structure was constructed in 1993 to divert these salty inflows away from the lakebed.



Separator gate prevents salt water flowing into the Lake

### Pumping Groundwater

Groundwater pumps across the floor of the lake remove over 700 000 litres of groundwater from under Toolibin everyday. Special bores called piezometers are used to measure the depth to the groundwater table.

Groundwater pumping has successfully lowered the groundwater table in certain areas of the lake.

The Recovery Walk provides an opportunity to view the physical structures used to treat the symptoms of salinity.



Air displacement pump on lakebed

### Increasing Outflow

All water entering the Toolibin catchment contains salt. By increasing the amount of water flowing out of the lake, the total salt load is reduced.



Outflow pipe on side of diversion wall



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