



# Environmental Issues in the Darebin Creek Catchment

The Darebin Creek Catchment covers over 129 square kilometres and incorporates four local government areas. A catchment is a geographical boundary of an area, which is determined by its watershed. This means that when rainfall lands on the ground, it either flows into our catchment or the one next to it. Therefore, all physical changes to the topography of the area including the its soil, water and surfacing will effect Darebin Creek Catchment and the creeks its tributaries.

The combination of soil, slope, aspect and rainfall and other physical constraints creates a particular vegetation community for a region. Within the Darebin Creek Catchment the vegetation and freshwater fauna have adapted to their physical constraints over thousands of years. An alteration to any of these physical constraints can change the ecological balance of a catchment and create a number of environmental issues.

The following is a summary of the issues that can occur through vegetation loss, soil loss and reduction in water quality.

## **Vegetation loss**

- Reduction of indigenous seed bank can occur through the excavation of topsoil.
- Increased grazing pressure can result in a loss of native vegetation and a dominance of more tolerant and usually exotic plant species (weeds) and make natural regeneration impossible.
- Removal of indigenous vegetation through excavation works for residential and agricultural land use can reduce the inter-connectedness of a vegetation community and put greater pressures on the remnant vegetation. This can increase plant susceptibility to insect and weed infestations.



- Removal of indigenous vegetation reduces habitat opportunities for native fauna as they can be injured or killed in the removal as well as having to compete for new territory.
- Introduction of exotic plant species (ie: pasture crops and escaped garden varieties) will result in a loss or compromise of native vegetation.

## **Soil loss**

- Dramatic increases in soil erosion and weed invasion can occur with the incorrect relocation and placement of erodible subsoil and top dressing.
- Pressure on soil by hard hooved stock can result in soil compaction and erosion.
- Increased exposure (through vegetation removal) to wind and flooding can result in loss of valuable agricultural soil and changes to stream banks.
- Increased erosion of soil can lead to sediment deposition in stream and smothering aquatic plants and aquatic life.

### **Water quality**

- Pollution spills entering the stormwater system from illegal dumping of wastes and sewer overflows can result in the death of native freshwater species which are more sensitive to pollution than introduced species.



- Introduction of gross litter into the waterway through stormwater systems, from illegal dumping and poor litter collection practices can injure native wildlife through entrapment and ingestion.
- Run off from poor use of herbicides can threaten frog and fish populations.
- Artificial loads of heavy metals accumulate through illegal pollution of stormwater and can affect sediment dwelling (benthic) fauna.
- Artificial increases in nutrients can result in excessive plant growth causing blue green algal blooms. The blue-green algae, if excessive and left untreated, can produce toxins which result in dermatitis in humans and can affect livestock and kill waterfowl.

### **What is the Darebin Creek Management Committee doing?**

The Darebin Creek Management Committee is trying to reduce these impacts through educating landholders, industry, retail outlets, school children and the community. The focus of this program is to conserve and improve the vegetation, soil and water quality of the Darebin Creek Catchment through close monitoring of spills, improving stormwater quality and

revegetation to reduce erosion and improve riparian areas.

The Darebin Creek Management Committee promotes the following initiatives throughout the Catchment:

- Reduce, reuse and recycle waste first, if unable then dispose of waste appropriately.
- Use indigenous plants in the garden to attract native wildlife and reduce water consumption.
- Help out at a planting day.
- Join a local Friends Group to help care for the area.



- Protect the water quality of the waterways by only allowing rainwater to enter the stormwater system.
- Report rubbish dumping to your local council (with details of incident).
- Report pollution spills to the DCMC or EPA pollution hotline on **1300 372 842 (1300 EPA VIC)**.

Dispose of waste chemicals at an authorised collection point (contact council for locations).

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