

2.1.2 Stock grazing

The western or downstream part of the study area has been, and continues to be grazed by stock. Adverse impacts associated with stock grazing (which are generally not associated with grazing by native animals) typically include:

- Lowered water quality (including increases in turbidity and nutrients)
- Trampling and lack of regeneration of fringing aquatic vegetation that is important for bank stability and habitat e.g. *Phragmites* spp.
- Erosion and sedimentation due to the creation of tracks and bare areas, and soil compaction
- Deterioration in stream bank stability, through trampling, track creation and loss of streambank vegetation
- Spread of weeds (into and out of riparian areas)
- Disturbance to habitat, such as rocks and logs, and loss of ground surface detrital material (litter and woody debris)
- Loss of habitat connectivity and impacts on the value of riparian areas as drought refuges for native species
- Lack of regeneration of native species, including dominant native tree cover
- Loss of invertebrate and other species due to trampling and soil compaction, with associated effects on energy and nutrient cycling processes

It is important that removal of stock be carefully managed to promote better environmental conditions and avoid uncontrolled growth of weeds, loss of amenity and increased bushfire risk. There are a variety of strategies that can be employed to manage the potential environmental impacts of stock removal, including bush regeneration practices, grazing by native animals, slashing and control burns.



Holdens Creek draining to Molonglo River - grazed area in foreground, pine regrowth and plantations on hills in distance

2.1.3 Water management

The study area is part of the Lower Molonglo River corridor, which is defined as the river downstream of Lake Burley Griffin. The Lake was created following construction of Scrivener Dam across the Molonglo River in 1963. Water flow in the river is regulated by the dam.

In recent years water has been extracted from Weston Creek near its junction with the Molonglo River at Clos Crossing and conveyed by water tanker for use at the arboretum.



Scrivener Dam upstream of the study area (January 2010)



Scrivener Dam – three floodgates open following heavy rain in December 2010

2.1.4 Recreation and amenity

Unsealed tracks throughout the area (shown in **Figure 4**) are used for recreational activities such as horse and mountain bike riding, walking, cross-country running, orienteering and recreational off-road vehicle use. The tracks provide linkages with Stromlo Forest Park, the Arboretum and Equestrian Park. The main tracks through this area are part of the Bicentennial National Trail, which is a 5,330 km marked route along the Great Dividing Range of eastern Australia.

There are two locations where the tracks cross the river – Clos Crossing and Southwell's Crossing. Both are concrete structures, although only Clos Crossing is wide enough to allow a car across.



Clos Crossing



Southwells Crossing

The Territory Plan codes do not allow for swimming in the Molonglo River because of poor water quality (refer to **Section 2.4**) and the variable water level following rainfall or release from the dam. Water is not typically released from the dam unless there is heavy rainfall upstream. Rapid increase in water level in the river can also be associated with rainfall in the catchment.



Dry rocky crossing immediately upstream of large pool (see photo on following page)



Rocky crossing under water later the same day following rain upstream



Large pool downstream of rocky section

Views are available from either side of the river valley, particularly from high hills. The ACT Equestrian Association states that Misery Hill is a favourite destination for local equestrians but they would not be able to go there if the access road is sealed because of the expected use by vehicles.



View across the valley towards future suburb of Coombs



Figure 4: Existing track network and river crossings