Land Rehabilitation at Lake Mackenzie Study

Old claypit above Fisher Forebay to be revegetated in 2014.

A review of Hydro Tasmania's land and water management activities in the Mersey-Forth catchments identified the need to rehabilitate land disturbed in the early 1970's during construction of Mackenzie dam and other infrastructure.

Some areas of land have remained bare since the vegetation was removed and the ground disturbed during the construction of the dam, canals, pipelines and road infrastructure. This bare land is subject to ongoing sheet and rill erosion by the action of wind, rain and ice.

Aim of Study

The aim of the study was to determine the feasibility and scope of work required to rehabilitate and revegetate disturbed land in the vicinity of Lake Mackenzie.

The primary objectives of this study were as follows:

- Identify areas requiring rehabilitation and revegetation;

- Identify any operational reasons for maintaining areas of bare ground;

- Assess the flora, fauna, historic heritage and Aboriginal heritage values of the disturbed areas;

- Determine the feasibility and treatments required for rehabilitation of these areas to promote revegetation by local native plant communities; and

- Determine timing of rehabilitation for identified sites and commence works where possible.

Process

To meet the objectives of the study the following processes were undertaken:

- Hydro Tasmania, in consultation with the Department of Primary Industries, Parks, Water and Environment Conservation Management Branch and the Tasmanian Parks and Wildlife Service visited the Lake Mackenzie area to identify sites requiring rehabilitation and revegetation as well as sites required for ongoing operational use;

- The Tasmanian Aboriginal community were engaged and site assessments undertaken by an Aboriginal heritage consultant to determine the presence of Aboriginal heritage values in the area;

- Sites identified for rehabilitation were mapped and plans prepared documenting treatments to be applied at each site. Treatment for each site depends on the identified aim of rehabilitation, the local climate, soils and effects of water flow, the surrounding vegetation types and the presence of flora and fauna.

One of the challenges to the establishment of new plant growth in the harsh alpine environment around Lake Mackenzie is the presence of frost heave.

Outcomes

The main outcomes from the study were:

- The identification of sixteen sites, covering a total area of approximately 5 hectares, requiring treatments to achieve rehabilitation and revegetation;

- Nine sites along the Parsons Canal access road that have shallow, stony well drained soils suitable for cultivation during the wetter period of late autumn or winter were treated in June 2013;

- The remaining sites identified for rehabilitation treatments will be surveyed for Aboriginal heritage values prior to commencing treatments in late summer/autumn 2014; and

- A technical report detailing the land rehabilitation plan was produced.

Commitment

Monitoring of treatments to rehabilitate sites at Lake Mackenzie will be undertaken to determine whether self-sustaining native vegetation has established.

Hydro Tasmania is committed to sustainable management of its land and water resources and will continue to rehabilitate land impacted by hydropower infrastructure as required.

For More Information

The technical report for this study is available at **www.hydro.com.au/ MFWMR-studies**.

To see all the Mersey-Forth Water Management Review technical and social studies go to **www.hydro.com.au/ MFWMR-studies**.

Find out more about the Mersey-Forth Water Management Review at **www.hydro.com.au/MFWMR**.

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