

Plants and animals (on land and in waterways)



This fact sheet explains what was studied, what was found, and how potential impacts to plants and animals on land and in waterways would be managed.

At a glance



Sensitive areas identified



Clearing kept to the minimum required



Impacts managed with controls and monitoring



Disturbed areas rehabilitated after construction



Planned water releases to support river health

Why this matters to the community



The Project area forms part of the Central Highlands landscape and includes native forests, buttongrass moorlands, rivers and waterways that support threatened species and important ecosystems. These environments play a key role in biodiversity, water regulation, recreation and cultural values.

Parts of the River Derwent downstream of the Project area lie within the Tasmanian Wilderness World Heritage Area, where protecting plants, animals and river health is especially important.

Understanding these values – and how potential impacts would be managed – helps protect the environment during construction and into the future.

What was studied and what was found



We carried out detailed terrestrial and aquatic ecology assessments to map vegetation communities, identify plant and animal species, assess habitat values, record weeds, and understand aquatic habitats and river health.

Surveys covered the Project area as well as surrounding waterways.

Plants and animals on land

Vegetation communities

Surveys identified 12 native vegetation communities and five modified communities, including wet and dry eucalypt forests, non-eucalypt forests and buttongrass moorlands. These communities reflect local geology and past land use, including historic hydropower development and forestry.

The Project would require clearing of up to 167.1 hectares of native vegetation, including up to 87.1 hectares of mature eucalypt forest and less than one hectare of *Diplarrena latifolia* rushland which is listed as a threatened vegetation community under the *Nature Conservation Act 2002*.

Up to 10.4 hectares of native vegetation within the Tarraleah Conservation Area would be cleared for the surge tower, rising main and access road.

Sphagnum peatland

A Sphagnum peatland is located about 400 metres upstream of Mossy Marsh Pond. This vegetation community is listed as threatened under Tasmanian legislation and forms part of an endangered ecological community listed under Commonwealth legislation.

No Project infrastructure is planned within the peatland. However, tunnel construction is predicted to cause temporary groundwater changes beneath the peatland, and partial decommissioning of No. 2 Canal is predicted to reduce surface water flow past it during operation.



These potential impacts cannot be fully avoided during construction and operation. While modelling indicates significant impacts are unlikely, a precautionary approach has been taken.

Terrestrial flora

Surveys recorded 325 plant species, including 271 native and 54 introduced species. Two threatened plant species were identified: small-leaf dogwood and native wintercress. Ten declared weed species are known to occur in the Project area.

Wildlife of interest

The Project area provides potential habitat or foraging areas for several threatened species, including:

- Tasmanian devil
- spotted-tailed quoll
- Tasmanian wedge-tailed eagle
- white-bellied sea-eagle
- Tasmanian masked owl
- swift parrot
- grey goshawk.

Surveys did not identify any Tasmanian devil or spotted-tailed quoll dens, and no eagle nests were found within proposed construction areas.

Plants and animals in rivers and waterways

Riverside plants

Native wintercress, a flow-dependent river plant protected under State and Commonwealth legislation, was recorded at several locations along the Nive River and the River Derwent.

Three other riverside plant species listed under the *Tasmanian Threatened Species Protection Act 1995* were also recorded along the River Derwent: narrowleaf westringia, matted lignum and Mount Mawson pine.

Fish, invertebrates and river health

No threatened aquatic animal species were recorded during surveys, and none are expected to occur based on known species distributions. Along the River Derwent, invertebrate communities vary, with populations in the lower reaches between Clark Dam and Wayatinah Lagoon consistently exhibiting healthy condition, while reaches closer to the dam are generally in poorer condition.

In contrast, the lower reaches of the Nive River have consistently been assessed as being in poor condition. Introduced brown trout and rainbow trout were the most common species recorded, while self-sustaining native fish populations were absent or occurred at very low levels. Platypus and native freshwater crayfish, which are widespread in Tasmania, occur throughout the waterways of the Tarraleah scheme.

Protected areas

A 23-kilometre reach of the River Derwent downstream of Derwent Pumps Weir lies within the Tasmanian Wilderness World Heritage Area, which is also listed as a National Heritage Place.

How impacts would be managed



During construction

We will avoid impacts wherever possible. Where impacts can't be avoided, they will be managed through approved plans to minimise their extent and duration, supported by monitoring and adaptive management. Any residual impacts that can't be reduced to acceptable levels will be offset. Only one potential impact has been identified that may need to be offset.

Key controls include:

- managing vegetation clearing: marking exclusion zones, limiting clearing to the minimum required and rehabilitating disturbed areas
- protecting plants: permits and exclusion zones for threatened species, and measures to prevent weed spread
- protecting wildlife: pre-construction fauna surveys, stop-work procedures if dens or nests are found, buffers and seasonal restrictions around eagle nests, and avoiding anticoagulant rodenticides that could harm birds of prey through secondary poisoning
- managing vehicle impacts: implementing a Roadkill Management Plan.

Waterways would be protected through approved Water Management, Nitrate Management and Erosion and Sediment Control Plans.

Sphagnum peatland offsets and monitoring

Because potential impacts to the Sphagnum peatland cannot be fully avoided, we are proposing to mitigate impacts with an offset. This means protecting a larger area of Sphagnum peatland in similar condition under a conservation covenant and managing it through an approved conservation management plan.

The peatland near Mossy Marsh Pond would be monitored during tunnel construction and for five years after using water table level measurements, aerial imagery and vegetation condition assessments.

During operation

Without management, operation could reduce the frequency and size of natural spill events from Clark Dam. To manage this, we will carry out planned water releases to help maintain existing flow patterns in the River Derwent.

About the Environmental Impact Statement

We have prepared a range of documents to provide information at different levels of detail, so you can choose what best suits your interests and needs.

Separate, topic specific fact sheets are available for key aspects of the EIS. They explain what was studied, what was found, and how potential impacts would be managed, in plain English. The fact sheets don't cover all aspects of the proposal or all potential impacts assessed as part of the EIS.

A Summary EIS is available and provides an overview of all topics assessed as part of the EIS. The Full EIS contains detailed technical studies, data and assessments considered as part of the environmental assessment process.

Key controls include:

- one larger high-flow release each year, and
- three smaller flow releases ("freshes") each year.

These releases are designed to:

- support natural river processes
- maintain aquatic and riverside habitats
- protect World Heritage values
- maintain suitable habitat for native wintercress.

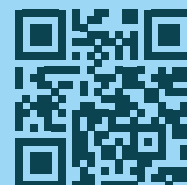
With these measures in place, no impacts on aquatic values are predicted.

Have your say

The EIS is on public exhibition, and submissions are welcomed from anyone in the community. All feedback received will form part of the EPA's assessment of the project.

Scan the QR code to visit our website:

- View the Summary EIS and full EIS
- View our Fact Sheets on a range of EIS topics
- Find out how to make a submission.



Questions or concerns?

You are welcome to contact us by phone or email if you would like more information or have a question about the project.



0457 237 453



projectengagement@hydro.com.au

Generating more clean energy *for life.*

