



# Borumba Pumped Hydro Project

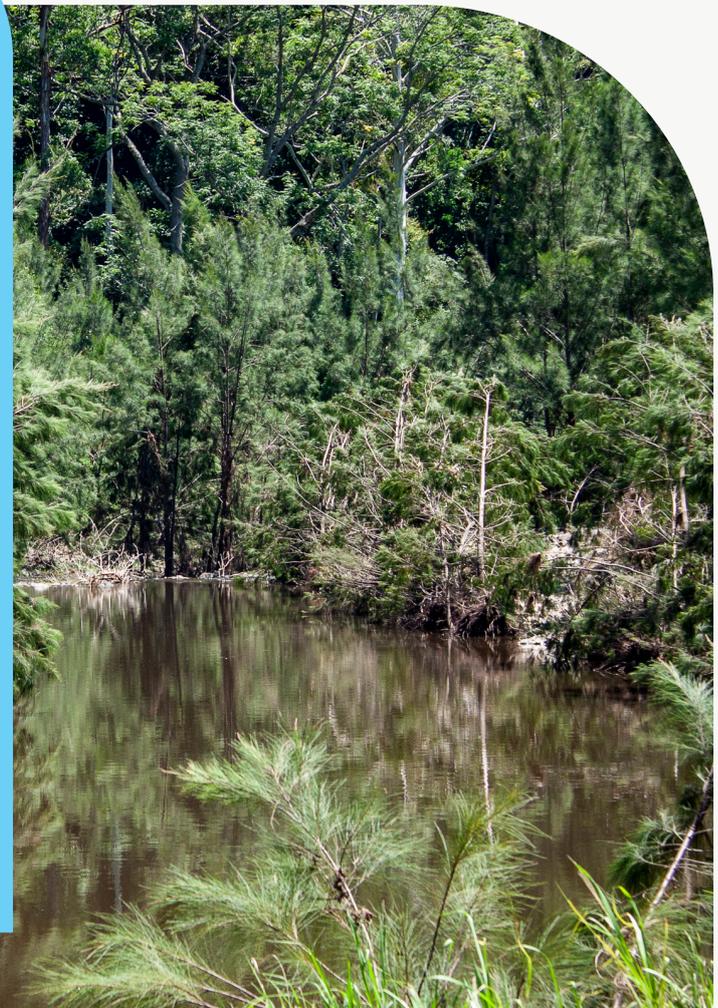
Welcome to the first edition Borumba Pumped Hydro Project newsletter. This newsletter provides details of pumped hydro studies and information about transmission lines, as well as information about the release of the Queensland Energy and Jobs Plan and the announcement of the new Queensland Hydro entity.

## Who is Queensland Hydro?

The Queensland Government released its Energy and Jobs Plan on 28 September 2022. This plan identified the critical role of long duration pumped hydro energy storage in Queensland's energy transformation. The Queensland Government also announced the creation of Queensland Hydro. Queensland Hydro is a publicly-owned entity established to deliver the large-scale hydro assets that will be the cornerstone for the transformation of the State's energy system.

Queensland Hydro will progress the detailed analytical studies for the Borumba Pumped Hydro Project, which are planned to be complete 2023. Powerlink will continue to be responsible for the delivery of safe and reliable electricity transmission network.

Queensland Hydro, and the Borumba Pumped Hydro Project team, continue to be committed to our ongoing engagement with landholders, the community and other stakeholders. For the Borumba Pumped Hydro Project, Christopher Gwynne will continue to lead the team as Project Director and will continue to be supported by the existing Borumba Pumped Hydro Project team.



## Progress with our detailed analytical studies

The Borumba Pumped Hydro Project is currently in the study phase of development. These initial studies are due for completion 2023 and will assist the Queensland Government to make an investment decision for the project. We will share the results of these studies through our community information sessions and stakeholder reference group. A summary of the studies currently underway is summarised below.



### Geotechnical drilling

The purpose of the geotechnical investigation is to understand the physical properties of soils and sub-soils in the area of proposed infrastructure, at both the upper and lower reservoirs. The investigation includes several geotechnical drilling programs. The first drilling program was in March 2022 with the next round of drilling scheduled from November 2022 to May 2023.



### Cultural heritage

Both Indigenous and non-Indigenous cultural heritage studies are underway. The non-Indigenous cultural heritage study focuses on the historical heritage in the project area. The field survey was completed in September, and we are currently analysing the findings.

Indigenous cultural heritage surveys with the Kabi Kabi People are continuing. The purpose of these surveys is to identify matters of Indigenous significance, both tangible and non-tangible. A Kabi-Kabi community meeting is scheduled for early November to discuss the project and obtain feedback from the community on matters associated with native title and Indigenous cultural heritage.



### Terrestrial and aquatic ecology

The first round of terrestrial and aquatic ecological field survey finished in August. Our specialist ecologists are now interpreting the data and detailing their findings. The survey confirmed the presence of a number of protected plant and animal species, and the project will assess options to reduce potential impacts on these species. We want to understand seasonal variations in the local ecosystems, and so our next round of field survey is scheduled to commence in November.



### Fluvial geomorphology and sediment transport

The purpose of the study is to understand the riverine landforms and terrain in the local area, and how these may be affected by the project. The studies also assess the effects of the project on erosion and deposition of coarse sediments in waterways. Field studies, including a helicopter survey and sediment sampling, were completed in July 2022 and we are in the process of preparing a sediment model and analysing the findings.



### Water quality

The first round of field survey for the water quality study finished in August, and the data is now being interpreted. This information will be used to better understand the existing water quality in Lake Borumba and watercourses in the area of the upper reservoir, as well as upstream and downstream of the project. We will also use this data to assess potential impacts to water quality during operation of the pumped hydro station itself.



### Social impact assessment and recreation study

The purpose of the social study is to assess the potential social impacts and benefits of the project. The study will also identify actions to create social value for the community by mitigating the negative effects of the project and enhancing the positive effects. We have been carrying out targeted stakeholder interviews as part of this study and thank all stakeholders for their time and valuable participation in these interviews.



### Recreation study

The purpose of the recreation survey is to assess how the project may impact existing and future recreation uses and identify management measures and opportunities. We have conducted an online community survey which will inform this study. We thank everyone who participated.



### Traffic and transport

The purpose of the study is to understand the traffic and transport volume, type, and frequency associated with the project during construction and operation and to understand how project-generated traffic may affect road safety and level of service for other road users. The study will also identify whether existing infrastructure requires upgrades to meet project requirements.



### Yield and flood hydrology

Both yield and flood hydrology studies are underway. The purpose of the yield hydrology study is to examine the potential effect of the project on water balance within the catchment, including effects on downstream water users and the aquatic environment. The study is also considering the effects of climate change on long-term water security for the project. The flood hydrology study will help to determine the design parameters for the dam, assess dam consequence category and failure outcomes, assess spatial changes in flood levels and understand implications of climate change on flooding. We are working closely with both the Department of Regional Development, Manufacturing and Water, and Seqwater in the development and delivery of these studies.



### Groundwater

The purpose of the study is to understand the existing groundwater conditions within the local area, and the potential impact of the project on these groundwater conditions. A regional groundwater model has been created to simulate existing groundwater flows, and groundwater monitoring wells will be installed in late 2022. The data from these wells will assist with refining and calibrating the model.



### Water transfer assessment

This study will use a computer-generated model to assess the effects of water transfer between the two reservoirs on water quality within Lake Borumba. Initial results were received in October 2022, and these will help to inform the overall water quality studies for the project.



### Fish passage

This study is assessing the preferred fish passage options for the new lower Borumba dam, and is informed by the aquatic ecology assessment and considers the needs of a broad range of species, including turtles. The study will also consider the potential risks of inadvertently introducing pest species into Lake Borumba if upstream fish passage is provided. We will be engaging with the Department of Agriculture and Fisheries as part of the assessment process.



### Other studies

Other studies are also being progressed to inform the detailed analytical report. These studies are high-level studies that will be further developed as part of future environmental approvals should the investment decision be made to proceed. These studies include noise and vibration, air and greenhouse gas, contaminated land, visual impact, and soils and erosion.



## Queensland Energy and Jobs Plan

The Queensland Energy and Jobs Plan was released by Premier Anastacia Palaszczuk on 28 September 2022. The Plan outlines the need for energy storage for the transformation of the Queensland electricity system and the critical role of long duration pumped hydro energy storage. The Plan also identifies the need for the transmission network to evolve to meet the changing electricity system. This includes new high-voltage (up to 500 kV) transmission lines connecting the Borumba Pumped Hydro Project to the grid in southern Queensland.

The new high-voltage transmission lines will allow the huge volume of stored energy from the Borumba Pumped Hydro Project and renewables to be moved between northern and southern Queensland more efficiently.

## Transmission study

Powerlink is considering potential transmission corridors to connect the proposed Borumba Pumped Hydro Project to the existing electricity transmission network. Due to the potential generation and storage capacity of the project, new transmission infrastructure will be needed from the proposed pumped hydro facility at Lake Borumba to existing Powerlink substations at Tarong/Halys and Woolooga.

At this early stage, Powerlink is looking at social, economic and environmental factors that might influence where proposed corridors could be located. Early and ongoing engagement with communities and other stakeholders is an important part of this process. Community sessions have been held in Imbil and Gympie in July, as well as Nanango and Yarraman in August. Further sessions are planned in these locations, as well as Kilkivan and Woolooga in late November.

## Stakeholder and community information sessions

Our next round of community information sessions will be taking place on 23 and 24 November. The focus of these sessions is to share progress and findings of our studies to date.

### Session 1

When: Wednesday 23 November 2022,  
3 pm – 7 pm

Where: Mary Valley Memorial Hall,  
127 Yabba Road, Imbil

### Session 2

WHEN: Thursday 24 November 2022,  
3 pm – 6 pm

WHERE: The Smith Room at The Pavilion  
Conference & Reception Centre,  
Adrian McClintock Park,  
77 Exhibition Road, Southside, Gympie



## Have your say

For any further enquiries or feedback on the Borumba Pumped Hydro Project, please contact our team via [borumba@qldhydro.com.au](mailto:borumba@qldhydro.com.au). More information can also be found on the Queensland Hydro website at <https://qldhydro.com.au/projects/borumba-pumped-hydro-project/>