

Species

The Coordinator-General has completed his evaluation report for the Traveston Crossing Dam Stage 1. This information sheet has been prepared as a brief summary and guide only. It is not a complete re-statement of the report. For the full report, visit www.dip.qld.gov.au. For further information about the project visit www.qldwi.com.au.

The habitat values in the project area have been substantially degraded over the last 150 years, particularly due to extensive clearing and use of land for agricultural, mining and residential purposes.

The Coordinator-General has considered the potential impacts of the project on terrestrial and aquatic native species in the context of the current degraded and worsening ecological situation in the Mary River catchment. He has particularly considered what actions are required to mitigate those impacts, stabilise the current ongoing ecological decline, and what further actions would reverse the decline and address uncertainty that may remain for the future viability of native species as a result of the project.

Through the various conditions he has imposed, the Coordinator-General is requiring that an overall 'net gain' in habitat be achieved as part of the project for endangered, threatened and rare species in the area.

The Mary River is home to a diverse and varied range of species including:

- Mary River cod
- lungfish
- Mary River turtle
- giant barred frog
- tusked frog
- elf skink
- challenger skink
- common death adder
- three-toed snake-toothed skink
- little pied bat
- koala
- painted snipe
- Lewin's rail
- black-necked stork
- Australian cotton pygmy-goose
- red goshawk
- plumed frogmouth
- square tailed kite
- grey goshawk
- glossy black cockatoo
- black-chinned honeyeater
- red-browed treecreeper
- sooty owl
- white-rumped swiftlet
- ball nut
- slender milkvine

In addition, any loss of food trees for the coxens fig parrot from the project area are to be replaced within the new protected riparian habitat to be created. This condition has been set even though this species has not been recorded in the vicinity, was not located during the environmental impact statement survey and has been assessed as not being likely to be present.



Habitat would be lost to native species as a result of the project without the mitigation and offset actions committed to by the proponent and extended by the Coordinator-General's imposed conditions. The habitat restoration measures outlined in the habitat information sheet will directly offset inundated habitat used by terrestrial species. They will also directly and indirectly offset habitat for aquatic species. Without the Coordinator-General's conditions, impacts of the project on aquatic habitat and fauna would include: the inundation of existing riverine habitat and its replacement with lake-like habitat; potential flow and water quality changes downstream that will diminish with distance from the dam wall; and the potential barrier to species movement presented by the dam itself.

For aquatic species, the project's inundation area, at full supply level, will cover 36.5 km (approximately 4 per cent) of the Mary River. The Coordinator-General has found the changes in waterway habitat conditions within the inundation area must be mitigated. Offset actions are aimed at enhancing overall aquatic habitat conditions in:

- the project area
- elsewhere within the catchment in key locations used by endangered and threatened species.

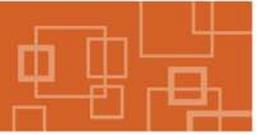
Such actions will improve the overall quantity and quality of available habitat for these species.

Due to the various potential impacts, the Coordinator-General is requiringⁱ extensive and interconnected measures to mitigate risk and improve habitat.

The measures will lead to:

- the revegetation, rehabilitation, enhancement and protection of riparian and in-stream habitats through the creation of 'protected riparian habitat' areas
- improved flow conditions downstream of the project, designed to improve water quality and movement opportunities for aquatic fauna, to coincide with an additional fishway and a new barrier bypass system for turtles at another existing barrier in the catchment
- an applied research program to help resolve residual scientific uncertainties relating to the biology of endangered, vulnerable and rare fish, frog and turtle species and to progressively improve mitigation measures to aid their recovery in the Mary Catchment
- specific and targeted measures to treat and reduce injury, disease and other risks from the project on fish, frogs and turtles
- the application of active aquatic weed control activities to ensure no sustained aquatic weed outbreaks throughout the project's inundation area, which extends for over 30 km along the main Mary River channel improved catchment water quality, riparian vegetation and farm productivity by providing funding to landholders within the Mary Valley to voluntarily develop individual farm management systems and associated farm improvements.

Connectivity between areas of habitat is broadly recognised as essential for the long term survival of fauna species.



The Coordinator-General has imposed conditionsⁱⁱ to provide a means for native species (including Mary River cod, lungfish and Mary River turtle) to move both upstream and downstream of the dam wall. The project includes a fishway and turtle bypass system to facilitate this required movement. In addition, project conditions supporting improved connectivity include: restoring large-scale riparian habitat and protecting and reintroducing snag habitat; improving flow conditions; and retrofitting a fishway and a turtle bypass system on an existing barrier in the catchment.

These items will improve attractiveness of the area to native species and substantially aid the movement of native fish and turtle species through the area and beyond.

In addition, to provide additional methods for land-based animals to move around the project area, the Coordinator-General has required the protection and enhancement of native vegetation corridors with a width of at least 100 metres to connect key areas near the project—such as the Imbil State Forest to the west, Amamoor State Forest to the north-east or West Cooroy State Forest to the east—with habitat inside the project area. New habitat must also be restored and protected adjacent to the inundation area.

There are risks and uncertainties associated with the complex biological needs of endangered and threatened species due to ongoing threats such as the loss of habitat. To manage these risks and uncertainties, the Coordinator-General has required measures for creating further precautionary habitat, over and above the creation of new habitat within the project area. The Coordinator-General requires the proponent to establish, protect and maintain extra protected riparian habitat and in-stream aquatic fauna refuge areas in areas of the catchment which are important to endangered and threatened species. This will be achieved through a catchment enhancement program, funded by the proponent to a total of at least \$10 million.ⁱⁱⁱ

The Coordinator-General also requires the proponent to implement and provide at least \$35 million funding for research to better understand the requirements for Mary River cod, Mary River turtle, lungfish and giant barred frog^{iv}. The outcomes of the research must be used to manage and improve effectiveness of the mitigation and offset measures.

ⁱ Conditions 4, 5, 8, 9, 11, 21, 22, 23, 31 of Schedule C, and Schedule A (Operational works that is constructing or raising of a waterway barrier works). Appendix 1

ⁱⁱ Conditions 22 & 23, Schedule C, Appendix 1

ⁱⁱⁱ Conditions 4 and 5, Schedule C, Appendix 1

^{iv} Condition 11 Schedule C, Appendix 1

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