

# Darwin River Dam – Frequently asked questions

## **In what ways has building the Darwin River Dam changed Darwin River?**

The construction of a dam wall across the Darwin River has changed the natural flow regime of the river. The dam is basically a big tank capturing the flow of the river and providing storage of a certain volume of water. When the storage is full, excess water from rainfall overflows from the dam's spillway into the natural course of the river downstream.

The dam is regulated in accordance with an Extraction Licence, issued by the Department of Natural Resources, Environment and the Arts (NRETA). Power and Water provides a small release of water from the Dam into the river downstream. This provides water for pumping by people living downstream along the river.

## **What was the land around Darwin River used for before the dam was constructed?**

Before the dam was built the land in the area that is now the catchment area of the dam was mostly natural bushland, probably used for grazing of cattle and other stock. The original North Australia Railway and Overland Telegraph Line used to cut through this catchment area, but the railway was diverted to the west and the telephone line no longer used.

Before the dam was finished, the area to be flooded was cleared of vegetation to prevent any slowly rotting vegetation from remaining in the dam and affecting the water quality.

## **What is the land used for now? How much of the change is due to the dam?**

The Darwin River Dam catchment is completely protected (a "closed catchment") and recreational use is restricted to ensure safe drinking water. This allows us to have better control over critical land management issues within the catchment such as weed control, feral animal control, erosion and bushfire management. The catchment area acts as a natural treatment system so we don't have to heavily treat or process the water like they have to in most Australian cities. Power and Water manages the land using a Catchment Management Plan which is specifically designed to maintain the natural ecosystem, to ensure high quality water in the dam.

Having a "closed catchment", and managing the land carefully for water quality has an additional benefit. Fauna and flora surveys over the last few years have shown that the catchment area has a very healthy ecosystem, and has become a safe refuge for many rare and endangered plants and animals which are fast disappearing from the rest of Darwin's rural area.

## **What are the threats to the river's health?**

The main threat to the river's health is the occurrence of weeds, especially aquatic weeds such as Cabomba.

Power and Water has recently partnered with NRETA to manage Cabomba in the Darwin River. Areas of the river have been quarantined to prevent accidental spreading and an extensive program of survey and herbicide application has been carried out.

Illegal access to the dam catchment and quarantine areas, for example by pig-hunters and quad-bike riders is also a significant threat to river health and water quality due to the risk of spreading weeds and causing bushfires.

### **What risks are there for the environment and people in the catchment area from the river and the dam?**

Power and Water's Catchment Management Plan addresses a range of risks to the land in the catchment, including risks associated with weeds, feral animals, fire and erosion.

The Dam is regularly inspected by independent specialists and has to meet international standards for dam design and safety. The dam has been designed to withstand the highest possible rainfall events. While large flood events, such as those caused by cyclones, will still cause flooding downstream of the dam, the dam reduces the extent and occurrence of flooding in the Darwin River area.

Finally, the highest risk for the people around the catchment and along the Darwin River is the presence of crocodiles!