



## Erosion at Millstream Chichester National Park

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The Department of Water, in partnership with the Department of Environment and Conservation and Water Corporation, will continue to monitor erosion at Millstream Chichester National Park. Our goal is to better predict the rate and impacts of erosion and where possible to develop strategies to minimise impacts on the river system.



Erosion occurring along the Fortescue River

7772 200 0411

Perth  
168 St Georges Terrace  
Perth WA 6000  
Phone: 08 6364 7600  
Fax: 08 6364 7601  
[www.water.wa.gov.au](http://www.water.wa.gov.au)

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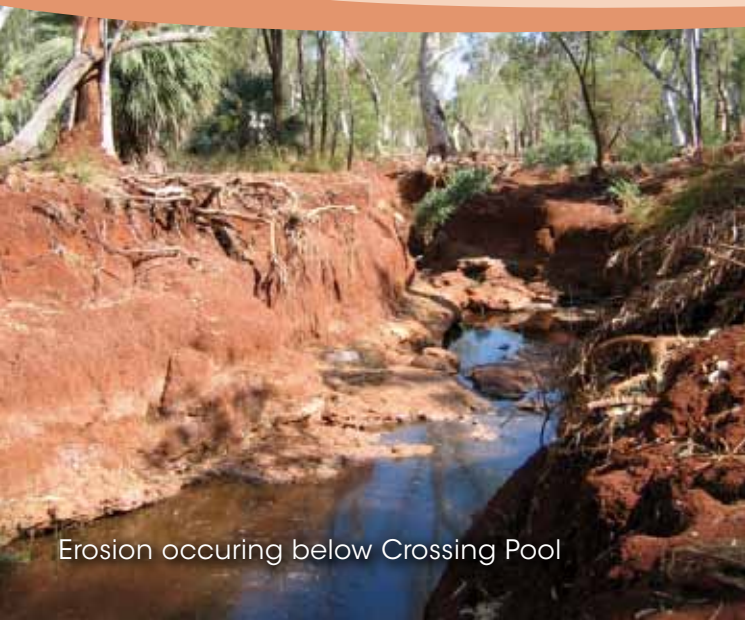
April 2011



Millstream, situated approximately 100 km south of Karratha within the Millstream Chichester National Park is a system of permanent pools and wetlands. The pools and wetlands are maintained by the Millstream aquifer which also supplies water to the West Pilbara water supply scheme.

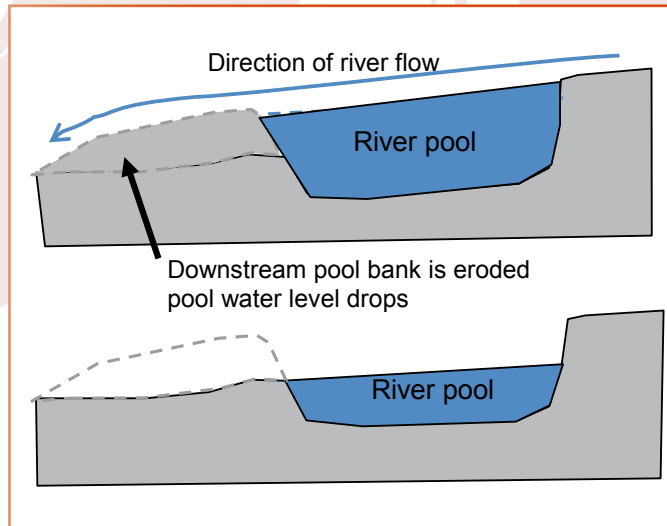
Erosion occurring along the Fortescue River and its tributaries at Millstream is the continuation of a natural process. However, human activities such as water management, cattle grazing, and construction of roads, weirs and recreational facilities may have accelerated the rate of erosion.

Erosion first became evident in the area in 1975 after Cyclone Joan caused massive flooding. Since then several investigations have been conducted to provide a better understanding of what is causing the erosion and what are the impacts on the local environment.



Erosion occurring below Crossing Pool

The major impacts includes loss of riparian vegetation, scouring of river channels and bank erosion at permanent pools. Bank erosion occurred at Crossing Pool in 1988 and more recently in 2009. As a consequence the water level of Crossing Pool is now about 2m lower with obvious impacts to this popular recreation site. Local groundwater levels have also dropped and surrounding vegetation is showing signs of water stress.



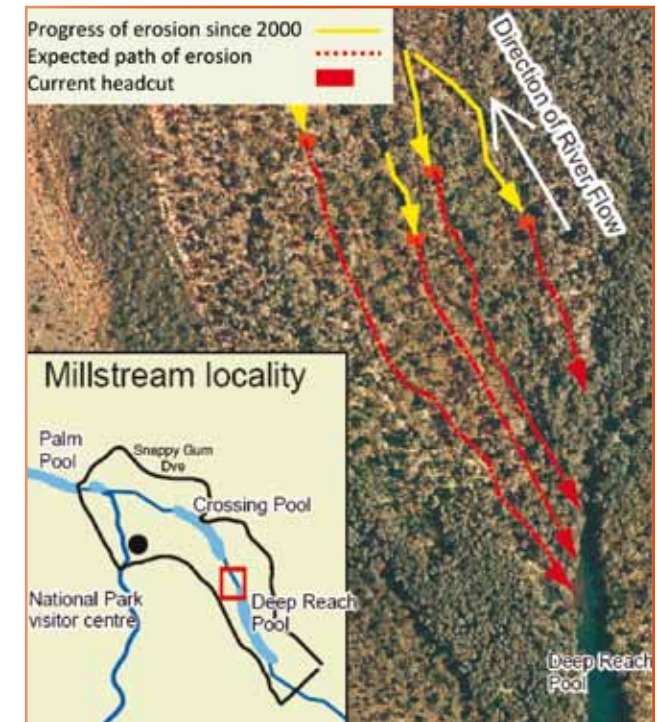
The Department of Water has been monitoring the progress of this erosion since 1979. In 2010 a survey conducted using remote sensing techniques provided a very accurate map of erosion. Erosion was shown to be active downstream of Deep Reach Pool, Palm Pool and Crossing Pool.

The Department of Water and the Department of Environment and Conservation manage human factors which may exacerbate erosion within the park.

This includes:

- Maintaining sufficient groundwater flows to the environment
- Controlling public access in erosion-susceptible areas
- Removing cattle from the park
- Implementing a fire management program

Efforts have previously been made to reinstate pool levels at Crossing Pool using sandbags and rubble to slow erosion along channels. These works have only proven effective in the short term and need considerable ongoing effort.



Erosion mapping below Deep Reach Pool  
Note: erosion is cutting upstream towards the pools