

SWAN AND CANNING RIVERS, ALGAE

2764. Mrs C.L. Edwardes to the Minister for the Environment

I refer the Minister to the ongoing algae problems in the Swan and Canning river system and ask -

- (a) have the 'oxygenation' trials in the Swan and Canning River system been completed;
- (b) has a review of the trials and their results been conducted;
- (c) have these results been tabled or published; and
- (d) is 'oxygenation' of the Swan and Canning Rivers to continue?

Dr J.M. EDWARDS replied:

- (a) Oxygenation trials in the Swan and Canning River system have been completed. In the Canning River oxygenation trials, a prototype oxygenation plant successfully oxygenated one kilometre of the Canning River upstream of the Kent St Weir from November 1998 to April 1999. A prototype mobile oxygenation plant was used to oxygenate sections of the Swan Estuary in the summers of 1999/2000 and 2000/2001.
  - (b) A review of both trials and their results has been conducted. Both trials were comprehensively monitored. After the field component of the project was completed, the data acquired was reviewed and then reported on.
  - (c) The results of both trials have been published. A number of publications detailing the results of these trials are available:

Greenop B., Lovatt K. and Robb M. 2001. The use of Artificial Oxygenation to Reduce Nutrient Availability in the Canning River, Western Australia. *Water Science and Technology* Vol 43 No 9 pp133-144. IWA Publishing 2001.

Greenop, B. and Robb, M. 2003. The Swan Estuary Oxygenation Project: A prototype mobile oxygenation barge for improving water quality, a summary report. March 2003. Swan River Trust, Western Australia.

Greenop, B. and Robb, M. 2003. The Swan estuary oxygenation project: A prototype mobile oxygenation barge for improving water quality. March 2003. Swan River Trust, Western Australia.

Swan River Trust. 2000. The Canning River Oxygenation Project: Summary report of the 1998/1999 operation. Swan River Trust, Western Australia.

Swan River Trust. 1999. The Canning River Oxygenation Project: Summary report of the 1997/1998 operation. Swan River Trust, Western Australia.

Swan River Trust. 2000. Report on the 1999/2000 Swan barge oxygenation trial. *Riverscience* #15. Swan River Trust.

Swan River Trust. 2000. Oxygenating the Swan and Canning Rivers. *Riverscience* #13. Swan River Trust.

Swan River Trust. 2000. 1998/1999 Canning River Oxygenation Trial. *Riverscience* #14. Swan River Trust.
  - (d) Oxygenation has continued on the Canning River but not on the Swan River. Following the successful oxygenation trial on the Canning River in 1998/1999, oxygenation has continued on an annual basis. Since the extension of the length of river oxygenated to 2.3km in December 1999, oxygenation has generally occurred from November to the end of April. Oxygenation of the Swan River was not continued, due to the scale of operation required to effectively increase oxygen concentrations over the middle and upper estuary.
- Publications reporting on the operation of the plants on the Canning River over this time are also available:
- Greenop, B. and Robb, M. 2002. The Canning River Oxygenation Project: Improving water quality in the Kent Street Weir pool with artificial oxygenation, 1999 - 2002. Swan River Trust, Western Australia.

Greenop, B. and Robb, M. 2003. The Canning River Oxygenation Project: Improving water quality in the Kent Street Weir pool with artificial oxygenation, 1999 – 2002, a summary report. June 2003. Swan River Trust, Western Australia.

Swan River Trust. 2000. Report on the 1999/2000 Canning River Oxygenation Project. Riverscience #18. Swan River Trust.