



# PIKE IMPLEMENTATION PLAN (PIP) PROJECT UPDATE

“Pike ..... It’s a place not a fish”

AUGUST 2009

## Signing of the Pike Memorandum of Understanding

The Pike Memorandum of Understanding (MoU) was first signed in January 2007 and represents a commitment by all project stakeholders to work together to improve the sustainability of the Pike River and its floodplains.

The MoU is due to be resigned on the 3rd of September 2009 6.00pm.

Representatives of all project partners will be in attendance including the Minister for the River Murray, the Hon. Karlene Maywald.

All interested community members are welcome to attend.

The signing will be followed by a free BBQ Dinner and Drinks

Invitations with a venue and RSVP date will be sent out shortly.

## Pike River Floodplain Committee Investigations Update

The objective of the Pike Floodplain Project is to enhance and where possible, restore the environmental values of the Pike by delivering ecological benefits to the floodplain and its wetlands. The South Australian Murray Darling Basin Natural Resource Management Board have placed a high priority upon floodplain protection and rehabilitation in combination with attempts to attract increased environmental flows.

### Hydraulic Model Development

*Project Manager: Brad Hollis*

*Consultants: Water Technology (Victoria)*

The main objectives of this project are:

- 1 To provide expert modeling services in order to develop and calibrate a detailed hydraulic model of the Pike River Floodplain.
- 2 To evaluate a number of water management options to improve the health of the floodplain and to assist in further development and modification of waterway management options. There are numerous opportunities for surface water management measures on the Pike River floodplain including:
  - Utilisation of raised Lock 5 weir pool to inundate the floodplain
  - Modify regulating structures to enable flexible environmental management
  - Modify regulating structures to allow fish passage
  - Seasonally manipulate water levels in creeks and wetlands, restoring a more natural cycle
  - Increase flowing habitat.



The hydraulic model developed by Water Technology Victoria will enable these surface water management measures to be modeled and tested before they are implemented.

### **Pike Waterway Cross sectional Survey Project—Completed**

*Project Manager: Brad Hollis*

*Consultants: Alexander Symonds*

Survey levels have been provided for input into the hydraulic model produced by Water Technology. Cross sectional surveys were undertaken from bank to bank in water bodies within the Pike Floodplain. Cross sectional surveys of water bodies is a key part in hydrographic engineering and when combined in a hydraulic model produces data such as:

- Electronic distance measurement
- Depth measurements
- Contours of banks and the ground beneath the water line

Theodolites and echo sounders are the main equipment used to record the surveys. The coupling of this new cross sectional information with previous bathymetric and topographic information will improve the accuracy of the hydraulic model of the Pike River and associated anabranches (see previous story).

### **Rapid Field Assessments—Completed**

*Project Manager: Brad Hollis*

*Floodplain Ecologist: Lara Suitor, South Australia Murray Darling Basin Natural Resources Management Board*

Lara Suitor and Jayme Peltz from the SAMDBNRMB conducted rapid field assessments within the entire Pike Floodplain area. The objective of the rapid field assessments is to assess the ecological assets of the Pike Floodplain. The assets include:

- Flowing water courses
- Temporary and permanent wetlands
- Lignum flats, Chenopod and grassland areas
- Red Gum and Blackbox woodlands



Assessment methods will be used as a snap shot of condition to assist with prioritising areas for management and long term condition monitoring of the floodplain. The objectives are to:

- Help quantify assets
- Assess riparian vegetation health visually
- Identify potential management actions

Altogether 51 sites were assessed within the Pike Floodplain.

### **Fish and Fish Habitat of the Pike River Anabranch and Floodplain Complex Waterways**

*Project Manager: Brad Hollis*

*Consultants: South Australian Research Development Institute (SARDI) and Murray Darling Freshwater Research Centre (MDFRC)*

The field work component for this project has been completed during March and April of 2009 and populations of Catfish, Silver Perch and Golden Perch were found throughout the system predominantly in fast flowing waters with diverse aquatic and fringing habitat.

Many introduced fish were also found including carp and goldfish. The findings are still being analysed to link specific fish species with certain habitat ie: vegetation type, snag density and flow velocities.



**Catfish caught in Pike River Anabranch**

The objectives of the project are to:

- Determine the distribution and community structure of fish assemblages in the Pike Anabranh system.
- Determine the distribution and community structure of in-stream habitat in the Pike Anabranh system.
- Investigate the relationship between fish assemblages, physical habitat and flow types.

Fish sampling was undertaken using a boat mounted electrofishing system. At each site, 12 electrofishing shots were undertaken during daylight. All fish were dip netted and placed in a recirculating well. Fish from each shot were identified and a sub sample of 20 individuals measured for length. Length was used to estimate age as a measure of recruitment for all species. Quantitative habitat assessments were carried out for every 90-second electrofishing shot. An observer visually estimated the percentage cover of each plant species, large woody debris and open water in the area covered by the electrofishing shot. This information will assist in identifying important fish habitat in the Pike and inform the design of fish passage structures.

### **Upgrade of Deep Creek and Margaret Dowling Creek**

*Project Manager: Brad Hollis*

*Consultants: Sinclair Knight Merz (SKM)*

Deep Creek and Margaret Dowling Creeks have been identified as requiring an upgrade. Concept Designs have been developed by SKM for consideration by the Floodplain Steering Committee and other stakeholders. The proposed upgrades will provide increased flexibility of operation and greater control of flow and water levels. This will enable the structures to operate more effectively under the changed flow and level conditions associated with weir pool manipulation regimes. The proposed upgrades will also provide for increased fish passage through the structures to allow native fish (and others) to move freely between the floodplain and the main River Murray Channel. This work will also result in improvements of the Lock 5 road crossings. Funding has been sort to progress with the upgrade of the structure.



### **Tree Health Monitoring for the Pike River Floodplain**

*Project Manager: Brad Hollis*

*Consultants: Murray Darling Freshwater Research Centre (MDFRC)*

The field work component of this project has been completed and a draft report is currently being assessed by the Pike Floodplain Steering Committee. The project requires the development of a statistically robust monitoring program that will be able to detect change in tree (River Red Gums, Black Box & River Coobah) condition and health to assist in determining future management actions and measuring their effectiveness. The project was undertaken during March and April 2009.

The assessment of River Red Gum (RRG), Black Box (BB) and River Coobah (RC) condition is fundamental to informing progress toward the ecological objectives of the Pike Floodplain Management Plan. The method used was initially developed by the MDFRC (Scholz et al. 2007) and the DWLBC (Souter et al. in prep.) and modified by Murray Darling Basin Commission to provide a common method for assessing RRG (BB and RC) condition within The Living Murray Icon Sites (ie: Chowilla).

## Pike History Project

“ Pike River Reflections. Dreamtime to 2009”  
by author Elizabeth Nicholls

The Pike Implementation Plan History Committee is proud to announce the completion of “Pike River Reflections. Dreamtime to 2009”. This is the culmination of many months of hard work, effort and research by the author and committee members with input from past and present Pike River residents. The committee assisting author Elizabeth Nicholls are Denis & Janyce Frahn, Pat Marschall, Terry Bediavas, John & Kaylene Letton, Kathy Hill and Peter Marschall.

Their dedication and input to this history book has been invaluable. Further information will be provided on the publishing and printing of the book.

## Staff Changes

*PIP Coordinator:* Frances Simes has taken a position with the Dept. Water Land & Biodiversity Conservation as Water Licensing Manager . We would like to take this opportunity to thank Frances for her invaluable input and dedication to this position. This position is yet to be advertised and has been actively backfilled by the Project Manager.

*Project Manager:* Renee Thompson will be taking maternity leave as of August 14th. This position has been advertised and Anne Fordham will be replacing Renee as of the 2nd of September for an 8 month period.

*Floodplain Ecologist:* Lara Sutor has accepted a position with Department for Environment & Heritage. This position has been advertised. And will be filled shortly.

## ***Are you interested in the Pike Implementation Plan Project?***

Are you interested in the Pike Project and want more information? If so please get in touch with Government Agency staff or the Renmark to the Border Local Action Planning Association.

Project Steering Committees meet approximately every six weeks and visitors are welcome.

### **Contact Details**

#### **Renee Thompson DWLBC**

(available until 14 August and will then be replaced by Anne Fordham who will start on the 2nd of September)

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Or visit

<http://www.rblap.org.au/PIP.htm>

### **Partners in the Pike Implementation Plan include :**

- *Department of Water Land & Biodiversity Conservation*
- *Department of Environment & Heritage*
- *SA Murray -Darling Basin Natural Resources Management Board*
- *Renmark to the Border Local Action Planning Association Incorporated.*
- *Renmark Paringa Council*
- *Riverland Aboriginal NRM Group*
- *Pike River Land Management Group*
- *Community Members living and working in the Pike Mundic area*