



## FIRE RECOVERY PROGRESS - December 2009

### Goulburn Broken Catchment Management Authority Region River Health program

**As caretaker of waterway health in the Goulburn Broken Catchment, the Goulburn Broken Catchment Management Authority (GB CMA) has prepared a recovery strategy and actions for waterways affected by the February 2009 bushfires.**

**This information sheet has been prepared to provide landholders and the community with an update on progress of the fire recovery program being undertaken relating to waterways.**

#### ***Funding***

Funding has been allocated from Caring for our Country (CfoC) for the provision of materials to undertake the protection of high priority waterways. We are working through options to support the labour component of this initiative. Funds are proposed to be used from the proceeds of the SOEW. Priority will be given to those areas identified as part of the detailed stream assessments.

There has been a recent announcement (last week in November 2009) that \$1.2M will be provided to the Authority to support works to protect rivers and streams. Works will include fencing, weed control and erosion and water quality initiatives.

#### ***Sediment Impacts***

SEDNET model has been re run (a sediment transport model) that will enable us to determine where major sediment transport processes will occur in the burnt areas. The post fire SEDNET results indicate that hillslope delivery and river bank erosion have doubled

in comparison to the pre fire modelling. Areas of high hillslope erosion and bank erosion include the Taggerty River and Murrindindi Rivers.

#### ***Detailed Sites Assessments and Designs***

A detailed assessment of high risk waterways and sites has been initiated. This will guide future detailed design of priority onground actions to prevent channel erosion, poor water quality and changes to channel alignment.

Nine investigations are in progress

#### ***Monitoring effects and recovery***

*A program has been established to monitor the impact of the fires on river health and the recovery of streams to a better state. This work will be closely linked to other monitoring activities and community programs.*

*The information gathered will assist*

- 1. With an assessment of the overall impact on ISC ratings of streams*
- 2. Be used in the recovery monitoring (as employed in 2006)*

The event has impacted significantly on river related assets (vegetation, threatened aquatic fauna and water quality). The following table summarise the changes in physical form and streamside zone at sites within the affected area:





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Waterway	Physical form			Streamside Zone		
	2004	2009	Change	2004	2009	Change
Acheron River	7.5	5.6	-25%	8.4	5.7	-32%
Big River	6.3	3.1	-51%	7.8	4.0	-49%
Bull Creek	7.5	6.3	-16%	7.3	5.1	-30%
Dabyminga Creek	6.9	3.1	-55%	6.7	4.5	-33%
Dry Creek	2.5	3.1	+24%	6.2	3.0	-52%
King Parrot Creek	5.0	5.6	+12%	7.5	5.1	-32%
Rubicon River	7.5	6.9	-8%	7.4	7.1	-4%
Taggerty River	6.9	5.0	-28%	8.1	5.2	-36%
Watering Creek	7.5	7.5	0%	7.8	5.3	-32%
Yea River	5.0	6.3	+26%	7.8	6.7	-14%

### Ashwatch

AshWatch has been developed to raise awareness of the importance of water quality in the areas affected by the bushfires. The program commenced following the 2006 fire events. The Goulburn Broken Catchment Management Authority and Goulburn Valley Water have provided support for the project by providing funding to see the project up and running in the Catchment post the recent fire event.

Sites selected along fire affected rivers will be tested on a fortnightly basis for the first six months and then on a monthly basis for the next 18 months. Event based sampling of water quality sites in fire affected areas will also occur.

### Publications

Three publications have been prepared to assist the community:

- *Management Of Instream Woody Habitat After Fire;*
- *Waterway Issues In fire affected areas; and*
- *Fire Recovery Progress June Update*

### Research Support

The CMA is investigating the opportunity to support research to determine the impacts of fire on the energy dynamics and trophic structures of upland streams. The work proposed by Ecowise will have the principal aims of assessing upland stream ecosystem response to the loss of riparian vegetation resulting from wildfire.





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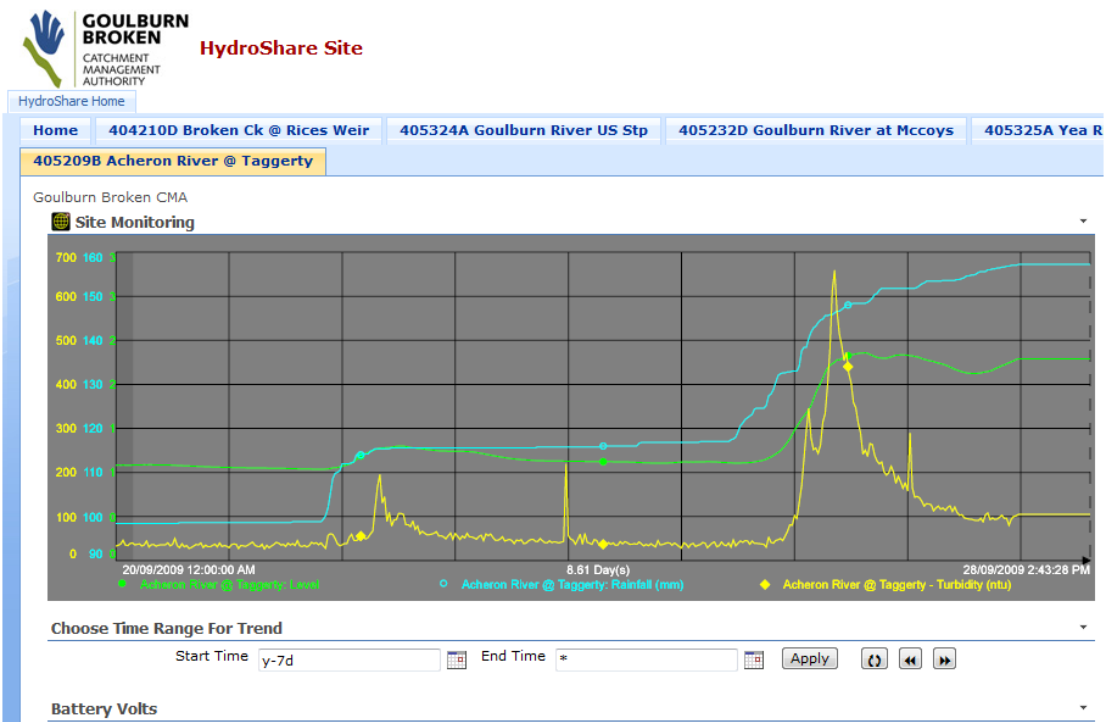
The key objectives of the project are to:

- Characterise the carbon energy transfer pathways and trophic structure in fire impacted and unimpacted waterways;
- Compare functional measures of ecosystem health within fire impacted and unimpacted waterways; and
- Define measurable parameters of ecosystem function against which ecosystem management and restoration can be determined in fire-impacted areas.

## Water Quality in Fire Affected Sites

Water quality monitoring sites on a number of key unregulated streams in the fire affected area are been upgraded to provide real time monitoring.

An example of the monitoring is shown in the figure below. Sites completed and planned is shown in Table 1.







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Table 1 – real time water quality monitoring

River	Site	Status
Acheron River	Taggerty	Turbidity sensor functioning
Yea River	Devlin's Bridge	Turbidity sensor functioning
Big River	Jamieson	Turbidity sensor functioning
Big River	Frenchman's Ck	Turbidity sensor functioning
Goulburn River	Trawool	Turbidity sensor functioning (recently)
Murrindindi River	Murrindindi	Turbidity sensor functioning (recently)
Sunday creek	Tallarook	To be installed with Modernisation Upgrade
King Parrot Ck	Flowerdale	To be installed. Awaiting confirmation who is to supply logger from GBCMA/BOM
Sugarloaf Ck	Ash Bridge	To be installed with Modernisation Upgrade
Rubicon R	Rubicon	To be installed with Modernisation Upgrade

### Further Information:

**Department of Sustainability and Environment (DSE)** Further information can be obtained at local DSE offices, the DSE website [www.dse.vic.gov.au](http://www.dse.vic.gov.au)



**Goulburn Broken Catchment Management Authority (GB CMA)** The GB CMA will be undertaking rehabilitation works on waterways in fire affected areas. If you require assistance with a waterway issue or are interested in finding out more about other bushfire recovery works, contact the GB CMA on **(03) 58 201100, 57 360100** or [www.gbcma.vic.gov.au](http://www.gbcma.vic.gov.au)

