

Chapter 2: CAMPFIRE program

2.1 CAMPFIRE monitoring strategy

1. Why are we monitoring?

Aim

To monitor the ecological affects of bushfires on our waterways.

Objectives

1. To assess how urban and rural streams have been affected by fire in their catchments.
2. To monitor how long it will take for streams to recover from such impacts.
3. What are the implications for stream ecology?
4. What are the implications for human uses?
5. What are the implications for stream rehabilitation?

2. Who will use our data?

Main users include Waterwatch, Parkcare, Landcare, Bushcare and catchment groups, government departments and NRM land managers.

3. How the data will be used?

1. To guide Catchment, Landcare, Parkcare and NRM groups in rehabilitation programs.
2. To increase understanding of bushfire affects on waterways.
3. To educate and raise awareness of waterway issues.

4. What will we monitor?

Monthly monitoring of the following parameters:

pH, conductivity, turbidity, phosphate, dissolved oxygen, water/air temperature, algae, habitat recovery, spring/autumn, Macroinvertebrates, Frogwatch.

5. How will we ensure information and data is credible?

1. Quality Assurance/Quality Control checks.
2. Comprehensive training for all community monitoring volunteers.
3. Cleaning and calibrating of all equipment.
4. Mystery solution testing of all equipment.
5. Refresher training when required.

6. Where will we monitor?

Monitoring sites include fire and non-fire affected areas.

2.2 ACT CAMPFIRE and Waterwatch monitoring sites

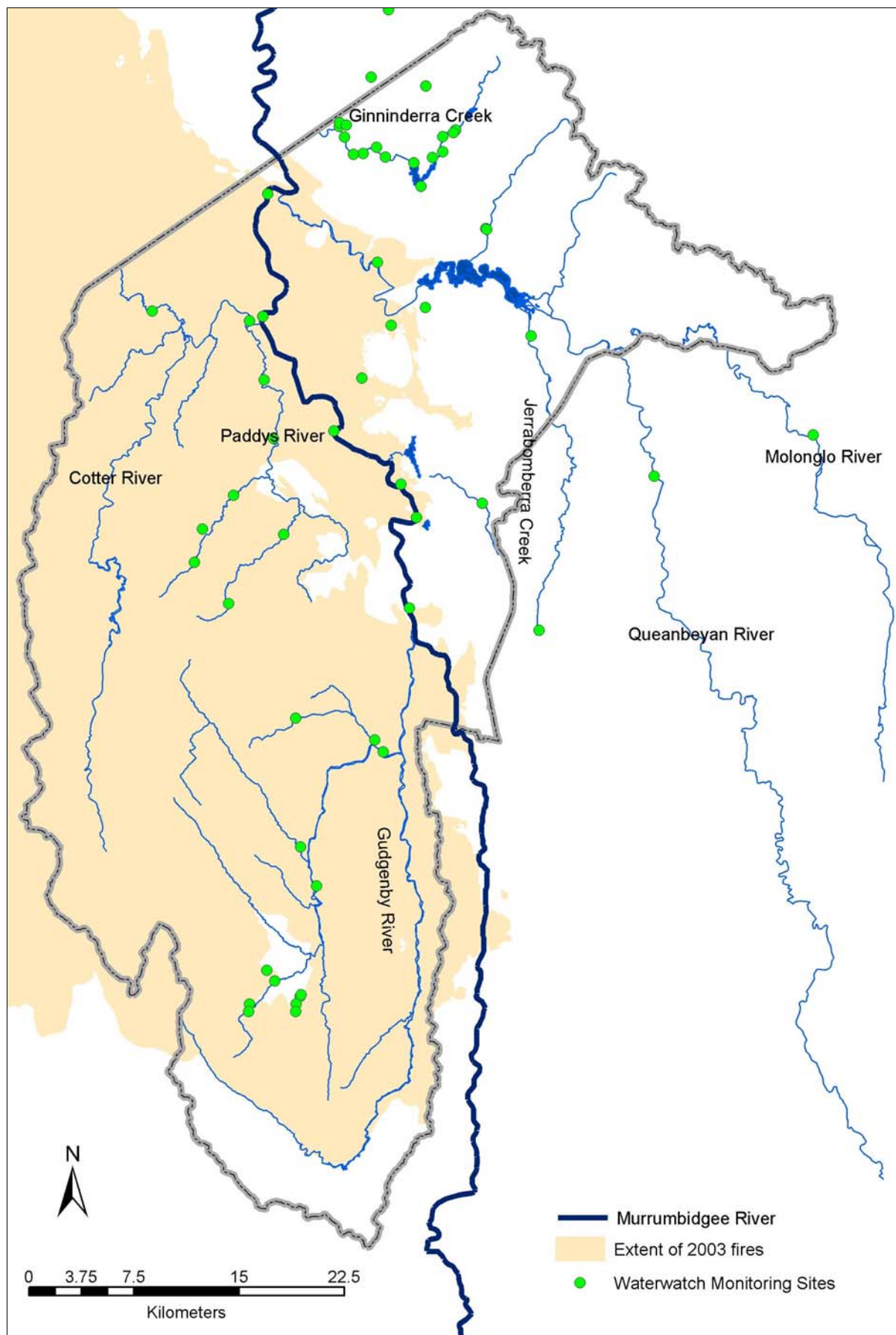


Figure 3: CAMPFIRE and Waterwatch monitoring sites

2.3 CAMPFIRE monitoring groups

Water body	Monitoring site	Land use	Monitoring group
Very high fire severity—complete canopy defoliation, no leaves remaining			
Tidbinbilla River	Tidbinbilla Upper Site	Nature reserve	Friends of Tidbinbilla
Gibraltar Creek	Gibraltar Creek Lower Site	Forestry	The Feds
Murrumbidgee River	Casuarina Sands	Nature reserve	The sands group
Condor Creek	Condor Creek	Nature reserve	V. Tanner
Gudgenby River	Glendale Crossing	Nature reserve	G. Hall
Orroral River	Orroral River campsite	National Park	J. Goodrum
High fire severity—total canopy scorched, leaves brown but remaining attached			
Paddy's River	Murray's Corner	Recreation	Paddys River Group
Tidbinbilla River	Tidbinbilla Lower Site	Rural grazing	Friends of Tidbinbilla
Murrumbidgee River	Uriarra Crossing	Nature reserve	Ginninderra Catchment Group
Murrumbidgee River	Kambah Pool	Nature reserve	Bidgee Group
Murrumbidgee River	Pine Island	Nature reserve	Pine Island Blue group
Murrumbidgee River	Point Hut Crossing	Nature reserve	Bidgee group
Murrumbidgee River	Angle Crossing	Nature reserve	Ron & Bernie
Molonglo River	Coppins Crossing	Nature reserve	Ginninderra Catchment Group
Weston Creek	Weston Creek GPT	Forestry	R. Taylor group
Coolleman Ridge Dam	Coolleman Ridge Dam	Nature reserve	Coolleman Ridge Parkcare Group
Moderate fire severity—partial canopy, upper canopy green			
Gibraltar Creek	Gibraltar Creek Upper Site	Nature reserve	The Feds
Tuggeranong Creek	Below Tuggeranong Dam	Nature reserve	Minders of Tuggeranong Homestead
Low fire severity—canopy intact, understory burn only			
Paddy's River	Flint's Crossing	Rural grazing	Paddys River group
Murrumbidgee River	Tharwa Bridge Crossing	Nature reserve	Bidgee group
Gudgenby River	Naas Crossing	National Park	G. Hall J. Goodrum
Bogong Creek	Bogong Creek North	Nature reserve	M. Chalk J. Goodrum
Bogong Creek	Bogong Creek Central	Nature reserve	M. Chalk
Bogong Creek	Bogong Creek South	Nature reserve	M. Chalk
Hospital Creek	Hospital Creek North	Nature reserve	M. Chalk
Hospital Creek	Hospital Creek Central	Nature reserve	M. Chalk
Hospital Creek	Hospital Creek South	Nature reserve	M. Chalk
Little Dry Creek	Little Dry Creek South	Nature reserve	M. Chalk
Rendezvous Creek	Rendezvous Creek	Nature reserve	J. Goodrum
Middle Creek	Middle Creek	Nature reserve	J. Goodrum

2.4 CAMPFIRE monitoring dates 2003

	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04
Gudgenby Catchment													
Hospital Creek South					17	14	13	9	20	11	8	23	17
Hospital Creek Central					17	14	13	9	20	11	8	23	17
Hospital Creek North					17	14	13	6,9, 25	15,20	11,20	8	23	17
Bogong Creek South				3	17	14	13	9	20	11	8	23	17
Bogong Creek Central					17	14	13	9	20	11	8	23	17
Bogong Creek North					17	14	13, 22	9,26	15,20	11	8	23	11,17
Little Dry Creek					17	14	13	9	20	11	8	23	17
Middle Creek							22	26	15	2,14			24
Rendezvous Creek							13	25	15	21	19	24	21,22, 24
Naas River Catchment													
Glendale Crossing						15,24	10, 13	6,9, 10, 14,25	14,15 24	7,21	8,19, 24	13	10,22
Naas Crossing						24	10	9,25	14,24	12	8,24	13	10
Orroral River Campsite							13	6,14	24	2,21	19,24	14	22
Murrumbidgee River													
Angle Crossing				26	17	21	20		21			20	17
Tharwa Bridge		26	25	29	20	21	15, 17	16,19	16,21	29	12	16,20	13,17
Point Hut Crossing		26	25	29	17,20	17	15	19	16	18	12	16	13
Pine Island		26	25	29	17	21	19	16	16	18	15	20	17
Kambah Pool		26	25		4,20	17,21	15, 20	16,19		29	12	16,20	13,17
Casuarina Sands			19	10,26		3,21	19	16	20	25	22		3,17
Uriarra Crossing		7	19	26	17	21		16	12	18	15	20	17
Tuggeranong Creek													
Tuggeranong Creek					5	2,30		4	1	7	3		5
Paddys River Catchment													
Upper Gibraltar Creek									19	17		19	19
Lower Gibraltar Creek									19	17		19	19
Upper Tidbinbilla River Site		8	19	26	17	21	19	16	20	18	15	20	17
Lower Tidbinbilla River Site		8	19	26	17	21	19	16	20	18	15	20	17
Flints Crossing			19	26	17	21	19	16	20	18	15	20	17
Murrays Corner			19	26	17	21	19	16	20	18	15	20	17
Cotter River Catchment													
Condor Creek								16	20	27	23	20	17
Molonglo River Catchment													
Weston Creek GPT		7,20	13,26		17,27	21	19	16	20	18	15	20	
Coppins Crossing		7	19	26	17	21	19	16	13	18	15	20	17
Dams/Wetlands													
Coolleman Ridge Dam				10	22	27	19		18	20	17		19

2.5 CAMPFIRE monitoring dates 2004

	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05
Gudgenby Catchment													
Hospital Creek South	17	23			7		5, 10	1		9		11	
Hospital Creek Central	17	23						5	9			11	
Hospital Creek North	17	12, 23					10	5		9		11	
Bogong Creek South	17	23		3	7		10	5		9		11	
Bogong Creek Central	17	23						5		9		11	
Bogong Creek North	17	23		3,5	7		10,11 25	5	1,9	6,9, 20		11	
Little Dry Creek	17	23						5		9		11	
Middle Creek			13										
Rendezvous Creek				5				31		20	2		
Naas River Catchment													
Glendale Crossing	10	13,14		5			11		30				
Naas Crossing	10	14	13	10				4,31			2,17		
Orroral River Campsite							11	4				11	12,30
Murrumbidgee River													
Angle Crossing	17												
Tharwa Bridge	13,17	19	18,25	15	20	17	15	18	21	19	16	15	
Point Hut Crossing	13	19	18	15	20	17	15	19	21	19	16	15	
Pine Island	17	21	20	25	17	15	17	15	19	19, 21	16	15	
Kambah Pool	17	19	18,20 25	15	20	17	15, 19		21	19	16	15	18
Casuarina Sands	17			25	22		17		4	6,23	27		
Uriarra Crossing	17	21		17									
Tuggeranong Creek													
Tuggeranong Creek	5	2	1	5									
Paddy's River Catchment													
Upper Gibraltar Creek	19	20	19					21	19	23	14	23	
Lower Gibraltar Creek	19	20	19					21	19	23	14	23	
Upper Tidbinbilla River Site		21	20	17	15	19	17	21	18	16	20	18	
Lower Tidbinbilla River Site	17	21	20	17	15	19	17	21	18	16	20	18	
Flints Crossing	17	21	20	17	15	19	18	28	19	17	21	18	
Murrays Corner	17	21	20	17	15	19	18	28	19	17	21	18	
Cotter River Catchment													
Condor Creek	17	21	27		14	19	17	22	17	22	18	18	
Molonglo River Catchment													
Weston Creek GPT		21	20	17	15	19	17	21	18	16	20	18	
Coppins Crossing		21	20	17						9			
Dams/Wetlands													
Coleman Ridge Dam	19	16		18	16		18	15		17,19	21		