

# Kilmore-Murrindindi Fire Victoria

BAER TEAM Update  
Tuesday 3 March 2009

Doug Beckers – Biodiversity Officer  
Central Coast Hunter Range Region



Department of Environment & Climate Change NSW



Doug Beckers (Central Coast Hunter Range Region), Geoff Kalwy (Sydney South Region) and Ian Jackett (South Coast Region) have all been working with the BAER Team.

What is the BAER Team?

**The BAER Team is the Burned · Area · Emergency · Response · (BAER) Team from the United States of America**

Two BAER teams are currently operating in Victoria, one on the Kilmore-Murrindindi Fire, the other on the Bunyip Fire. A third team will be arriving shortly to replace the Kilmore team. The team we are working with has already completed the Beechworth-Library Road Fire - Emergency Stabilisation and Rehabilitation Plan.

The BAER Team's mission is to "support and supplement Victoria State agencies in their analysis of the post-fire effects from as many fire areas as our deployment timeframe permits."

(See <http://www.inciweb.org/incident/1582/> for more info.)

The Teams specific objectives are to:

- Share a methodology and process for assessing post-fire impacts and identifying treatment objectives by sharing tools such as satellite imagery, erosion models, and monitoring methodologies
- Identify site specific treatment objectives and potential treatments for public and private lands
- Learn from our Australian counterparts about the tools and resources they use to respond to post-fire emergencies
- Incorporate our Australian counterparts and team members from the States of Victoria, New South Wales, Tasmania, and the Australian Capital Territory.



The Kilmore-Murrindindi BAER team is comprised of 17 members; 12 USA members, 3 NPWS personnel, John Costenaro (University of Melbourne/DSE Victoria) and Margaret Kitchin (Environment ACT) assisting the team with their assessments. The members are sourced from the US Department of the Interior; Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), Fish and Wildlife Service (F&WS), National Park Service (NPS); and the US Department of Agriculture agency: Forest Service (USFS).



The Team comprises; BAER Team Leader (Erv Gasser), Deputy Team Leader and Operations (Gavin Lovell), Documentation Specialist (Nora Caplette), Mike Dolan & Margaret Kitchen (Flora and Vegetation), Richard Easterbrook (GIS), Ken Griggs, Lisa Jameson, Doug Beckers & Ian Jackett (Fauna and Pests), Judy Hallisey (Hydrology) Chuck James (Cultural Heritage), Richard Pyzic (Geology), Bill Sims (Soils) Fred VonBonin (Forestry), Geoff Kalwy (Assets) and John Costenaro (Catchments).



The BARE team is divided into task groups, Fauna, Flora, Soils and Hydrology, Cultural, GIS, Operations and Assets. The first task of the Team is an evaluation of the major resource issues that are being affected by the fire. The Fauna group had discussions with local DES (Department of Environment and Sustainability) research, field and operational staff, wildlife carers, land managers, ANU researchers and local CFA members have all helped with the initial evaluation.



Grass trees resprouting after fire. 20 days of growth, the tips are blackened and the top 6 cm of the shoot is dead due to the heating of the soil by the fire

The Major Resource Issues identified for the Kilmore-Murrindindi Fires are:

**BAER Team**

**2-Mar-09**

Resource Issues

Flora -	Fire effect and recovery of vegetation communities	
	Fire effects and recovery of threatened species	
	Invasive weeds	
	Altered fire regimes	
	Potential salvage - non spec- related management Recommendation	
	Tree hazards	
Fauna -	Leadbeater's possum	Specs
	Galaxia species - Barred extraction, trout barriers	1. water quality monitoring for:
	Sooty owl and Powerful owl - loss of hollow bearing trees	potential Galaxia and
	Spotted tree frog - recommendation: water quality/sedimentation mon	perch removal
	Broad toothed rat, mastacomys - Belle Creek	Rehabilitation
	Regent honey-eater - no spec - edge of range	1. install trout barriers
	Brush-tailed phoebe - out of area, minimal habitat affected	2. Leadbeater's possum and
Macquarie perch - extraction and water quality degradation	Sooty owl monitoring	
Cultural -	Fire effects on different site types - historic and Aboriginal	
	"Hole" in site distribution - real or lack of survey?	
	Techniques to deal with smoke blackening on scorched trees - no spec - face burns out, non repairable	
Hydro-	Sedimentation and ash in the water supply	
	Increased run off driving sedimentation	
	Importance of Sunday and King Parrot catchments	
	Burn severity, high watershed response	
	Riparian weeds - assign to flora	
	Fishing and trout rearing industries	
	Debris flow and assets at risk	



After 7 days of field assessments covering most of the fire ground, the team is preparing a series of Emergency Stabilization and Rehabilitation Recommendations which detail:

**WORK TO BE DONE**

- A. General Description:
- B. Location/(Suitable) Sites:
- C. Design/Construction Specifications:
- D. Purpose of Treatment Specifications:
- E. Treatment consistent with Agency Land Management Plan:
- F. Treatment Effectiveness Monitoring Proposed:

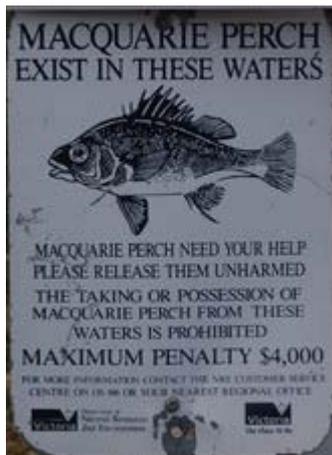
**LABOR, MATERIALS AND OTHER COST:**

- A. Personnel Services:
- B. Equipment Purchase, Lease and/or rent
- C. Materials and Supplies
- D. Travel Cost
- E. Contract cost

**RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS PLAN:**

**TOTAL COST BY JURISDICTION**

Specifications being compiled for the Kilmore-Murrindindi Fire



Specifications	Discipline
1 Tree hazard Identification and Mitigation	Flora
2 Noxious Weed Assessment and Monitoring	Flora
3 Sphagnum Bog Monitoring	Flora
4 Dry Heathy Forest Monitoring	Flora
5 Threatened and Rare Plant Surveys	Flora
6 Reforestation of Ash Stands	Flora
7 Assess Aboriginal and Heritage Sites	Cultural
8 Survey Dozer Tracks	Cultural
9 Survey High Sensitivity and Sample Areas	Cultural
10 Water Monitoring In Barred Galaxia and Macquarie Perch Creeks	Fauna
11 Trout Barriers In Barred Galaxia Creeks	Fauna
12 Leadbeater's Possum Monitoring	Fauna
13 Road Maintenance - Rolling Dips and Outsloping	Hydro
14 Road Debris Removal and Culvert Clean Out	Hydro
15 Stream Channel Large Woody Debris Removal	Hydro
16 Water Catchment Regulations - recommendation?	Hydro
17 Hazard / Flash Flooding Signs	Hydro
18 Water Quality Monitoring	
17 Public Safety Hazard Assessment and Mitigation	Ops
18 Suppression Damage Assessment and Repair	Ops
19 Recreational Fire Damage Assessment	Ops



The fauna team have been involved with several critical issues including:

- Loss of habitat and habitat degradation of the State and Nationally Threatened Leadbeaters Possum, Macquarie Perch and Barred Galaxis.
- Assessment of trout barriers.
- Water quality assessment.
- Loss of tree hollows for the threatened Powerful Owl, Sooty Owl and Brush-tailed Phascogale.
- Habitat fragmentation and loss of wildlife corridors.
- Potential loss of ground habitat due to timber salvage operations.



Leadbeater Possum, both dead and alive and a new nest box



Macquarie Perch – wild collection for temporary holding at Snob's Creek Hatchery. Trout barriers to protect barred Galaxis from predation from Brown trout.



The forests are already showing signs of recovery, although no rain has fallen.

Ferns are starting to shoot and seeds are beginning to germinate.

Some Eucalypts are beginning to shoot from their base from their lignotubers and ants are collecting seeds.

