

Landcare after the fires: Recovery and renewal of nature



Despite the initial destruction, pastures and bushland will soon recover. The process of recovery is amazing to follow, and the result will be a new and re-invigorated community of plants.

This information sheet includes principles applicable to most properties affected by fire, but includes details and actions specific to fire areas on the northern side of Melbourne in 2014.

The destruction of the fires in February 2014 has left many people shaken and distressed. In addition to the loss of plants, animals, fences, sheds and some houses, there has been destruction of native bushland.

Many families have moved into Mitchell Shire because of the native bushland, and have been caring for their patch of bush by fencing from stock, replanting and keeping it free of weeds.

After the 2009 fires, we spoke to several landholders who were very distressed by the impact of the fires and by the backlash against native vegetation, and who just wanted to walk away from their land and community.

So, it was good to hear from Graeme Lorimer, an enthusiastic ecologist at a series of community workshops in 2009. The workshops were organised by the Port Phillip and Westernport CMA, Mitchell Shire, Landcare and DPI.

Graeme spoke of the inspiration and hope that will come from the recovery and renewal of nature.

Despite the fire intensity, nature is recovering

There have been similar fires in the past and nature is well adapted to surviving fire. Only a tiny fraction of species and other natural assets may not recover.

Sprouting comes first. Trees that looked black and dead gradually sprouted but it took about a year to be sure whether a tree was dead or not. Spouting comes from the base and even young plants in revegetation sites were sprouting. Larger trees also showed fuzzy growth emerging through the protective layers of bark of the trunk and branches – this is called *epicormic growth*. Many plants such as Silver Wattles, Blackwoods and Cherry Ballarts sent up suckers from their roots.

Three weeks after the fire in 2009, Little Grass-trees in the forest had put on up to 20cm of new growth. At one site I visited, lilies had sprouted from bulbs held deep under the ground and safe from fire. Orchids also appeared from bulbs as winter progressed. And perennial grasses will emerge from shoots underground soon after rain and will rapidly provide cover over the bare ground.

Seed germination follows. Many plants need fire to regenerate - the heat or chemicals in the smoke to germinate and bare ground to establish. By the end of Autumn, small seedlings appeared in damp areas and became more widespread over winter and spring. Wattles appeared from hard seeds buried, with the assistance of ants, out of reach of the heat of fire. Eucalypts shed seed from gumnuts held in the canopy to form lawns of seedlings. Many annual species also appeared in Autumn and flowered over Spring. Surveys of threatened species in fire areas showed that all species survived and germinated well after the fires (*Recovery of Victorian rare or threatened plant species after the 2009 bushfires* by Arn Tolsma, Geoff Sutter, Fiona Coates, DSE).

So don't assume nature is dead – wait until more rain and the warmth of Spring to see what has recovered or regenerated before rushing into planting. You will be very pleasantly surprised.

Care and management of native vegetation affected by fire:

- Soils and vegetation are very susceptible to damage during the recovery. Keep stock out of burnt areas – in unburnt paddocks or stock containment areas. Ground cover will come back soon after the autumn break in grasslands with moderate burns, longer where fire has been hot.
- Consider which areas you want to continue to protect, and build or replace fences.
- Wait to see what recovers before planning any revegetation. You may be surprised. Delay any revegetation until at least winter 2015.
- Read “Restoring our Landscape; a basic revegetation guide for fire affected areas” prepared by the Upper Goulburn Landcare Network.
- Contact your local Landcare group or network or facilitator for support about looking after native bushland on your land.

Spring will see a wonderful display of wildflowers.

Graeme described how plants can be divided into opportunists and competitors. Opportunists thrive as a result of disturbance such as fire. Competitors will persist and gradually replace the opportunists. The fire has restarted the cycle.

In areas that have received a hot burn, particularly bushland areas, many competitors have been set back. In particular, native grasses have been thinned out and this has created gaps for orchids and lilies to emerge and many annual species to grow. All these plants will become obvious over spring, and we may even see some plants that we have never seen before. Graeme saw one species – *Pelargonium inodorum* – in bushland in April 2009. He last saw it after Ash Wednesday in 1983!

So this spring we will have a most exciting display of wildflower in our bush. Watch out for some wildflower walks in your area.

For more information on fires north of Melbourne:

<http://www.landcarevic.net.au/resources/for-land-managers/bushfire-recovery-resources-for-landholders>

www.mitchellshire.vic.gov.au/council/news-media-notices/news-updates/information-fire-affected-farmers-animals.html

Landcare in conjunction with other natural resource management agencies is organising a series of workshops on topics such as the care of soils, pastures and bushland, revegetation and weed management. Landcare is also seeking funding and support for internal fencing to protect bushland, pastures and waterways, and for revegetation works within fire areas. Watch out for details or lodge an “Expression of Interest” with your Landcare facilitator (below).

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