

### GINNINDERRA FALLS AND SURROUNDS

What's at stake

The area around the Ginninderra Falls has been considered very important for the natural, cultural and scenic values ever since the local Ngunnawal people first started



looking after the area.

The value was recognised also by early Europeans. Generations of visitors have been coming to this part of NSW to admire the river systems, rapids and waterfalls.





### THE PERFECT SCENARIO FOR A CATASTROPHE

(1) Ginninderra Creek and the Murrumbidgee River are set in deep sleep ravines that funnel wind and fire in unpredictable ways - dynamic fire propagation.

2 Steep slopes and confined terrain of the canyons increase the rate a fire spreads. Air pressures will make a fire plume 'hug' slopes of about 24° – transferring convective heat to unburnt fuel and creating an '*eruptive fire*'.

Eruptive fires pose a significant safety risk to fire crews as intense convective heat bathes the surface.

Vorticity-driven (3) lateral spread was а phenomenon experienced in the 2003 Canberra fires where the fire spreads perpendicular to the prevailing winds, creating a vortex and large fire whirls. It is driven by the interaction of winds and terrain and is characterised by dense spot fires for up to several kilometres.

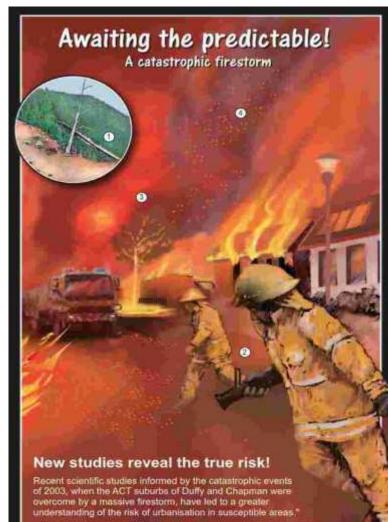
4 Embers can create spot fires well beyond the fire front for many kilometres.

5 Extreme fire weather processes are likely to be more common in future through the impact of climate change.

Fuel reduction burns and building standards cannot possibly protect a community on the edge of this environment.

Even if no houses are lost, the impacts of PTSD can last for years.

The evidence suggests that putting 30,000 people in an area known to be subject to such extreme fires is morally unconscionable.



- Risk Implications of Dynamic Fire Propagation A case study of the Grininderry engane Preliminary Report June 2017 - Jacon J. Sharpler, University of NSW Carderna Mign/growinders or gaz. Schapper - Ire-Report
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#### An awesome finale

Few people know that, after meandering through the ACT's north-western suburbs, Ginninderra Creek ends in a sublime manner, cascading over two sets of spectacular falls. First, into a deep gorge and then into a pool near the Murrumbidgee River. Those who have seen this dramatic landscape regard it as 'iconic'.

#### A volcanic past

About 420 million years ago, the region around Canberra was near a chain of active volcanic islands. This has left a range of volcanic and igneous rocks in the area, responsible for creating the falls and vertical-sided gorge below it.

A gorge of hazards, habitats and ancient pathways

Along the lower creek and the adjoining Murrumbidgee River steep slopes contribute to dynamic fire behaviour which presents an extreme risk to all life in the area.

However, since the steeper areas have been relatively undisturbed by European occupation, they provide a unique haven in the region for many plants and animals, including several threatened species.

They have also been a significant pathway for local Aborigines over the millennia with ceremonial and other significant sites dotted around the area.

## Seeking an effective strategy

A conservation zone is planned in this narrow area of steep slopes.

Balancing the needs of future residents while protecting the native species is a difficult task.

It requires an effective scientifically based buffer zone that:

- ) protects the suburban area and its residents from fire, whilst;
- ) protecting the conservation zone's local biodiversity from the effects of suburbia
- ) and providing sufficient foraging areas for all species.

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# AT FIRST GLANCE IT SEEMS LIKE A GREAT PLAN

Ginninderry aims to accommodate not only humans but also wildlife. It seems a great notion but basic ecological research points to a different future.

While some animal species occupy our urban areas, others simply avoid human activity or decline over time as the houses march closer. The more we encroach on their natural habitats, the greater the risk of local species declines, or even extinctions.

# A Ginninderry solution?

Century old gums make perfect homes for SOME of our wildlife. These aged sentinels, that are scattered across the open farmland, provided nests and habitat in the form of hollows, bark and fallen debris.

Even if large trees are preserved and nearby areas revegetated or restored, this will not counter the effects of the sea of houses.

Some common species will probably be okay, but threatened, declining and urban sensitive species will be 'collateral damage'.

Unless we act early, with precautionary planning, they may simply 'blip out' over time.

Some species simply avoid human activity!



### A TOP PREDATOR NEEDING AN APPROPRIATELY SIZED HOME

osenberg's Goanna is listed as vulnerable in NSW and South Australia and threatened in Victoria.

The unique mixture of habitats at the Ginninderra Falls, gorge and surrounds provides key shelter, foraging and breeding sites such as complex rocky habitat, hollowed fallen trees and termite mounds.

For years, the existing rural land surrounding the Falls area has allowed the survival of this species and a multitude of others, all delicately connected in a unique ecosystem.

All that could soon change if that land is rezoned for urban development!

The significance of Rosenberg's Goanna as a top terrestrial predator in this region makes it vital to the health and survival of the area so that it stays in balance.

Let's make sure we protect for future generations by ensuing environmental land stays zoned environmental land for the protection of this natural icon.



### LITTLE EAGLE

Until recently Little Eagles foraged and bred in this area and a young Little Eagle learned to hunt.

With much of their territory planned to be replaced by houses. this magnificent, vulnerable species might no longer breed in the north of the ACT. Ferguson-Lees & Christie (2001)

### Urban Expansion

As urban expansion covers the remaining woodland and open forest of the northern ACT (its preferred habitat), breeding territories of the Little Eagle are gradually disappearing. The apparent abandonment of the Little Eagle nesting tree at Strathnairn, near the Ginninderry Development, is one more step in that process They tend to slip away at the first sign of human intrusion' (Ferguson-Lees & Christie 2001)

The acquisition of farmland along the Lower Molonglo by the ACT Government most likely for more urban development, suggests that the loss of habitat will continue. (ACT Planning Strategy 2016)

## Competition from the Wedged-tailed Eagle

The main threats to the species are the destruction and degradation of its foraging and breeding habitat causing it to come into competition with the larger and more dominant Wedge-tailed Eagle. *Aquila audax*.

(Olsen and Fuentes, 2005).

The Wedge-tailed Eagle is not necessarily a predator of the little eagle but the two species share common habitat and prey and the large size and dominant nature of the Wedge-tailed Eagle could mean that the Little Eagle would be forced out of hunting and breeding grounds or even killed. (Ferguson-Lees & Christie (2001). Raptors; of the

World [Helm, London])