# GINNINDERRA FALLS AND GINNINDERRA CATCHMENT GROUP OVERVIEW

## **Ginninderry NSW Proposal**

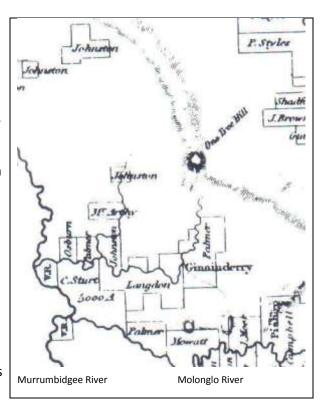
The proposed Ginninderry urban area, shown on blocks marked 'VR' and 'C. Sturt' in the bottom left of the map at right (an excerpt from the original map drawn in 1837) is bounded by the Molonglo and Murrumbidgee Rivers, and the Ginninderra Creek on the north. It covers some of the land granted to the explorer Captain Charles Sturt in 1835 and the area to the west, marked VR for Victoria Regina (Crown Land).

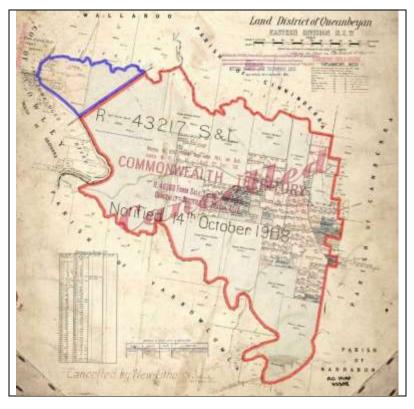
The property marked 'Ginninderry' is located where the current CSIRO Research Station of Ginninderra sits near the Barton Highway.

The ACT border passes diagonally through the Sturt grant, limiting the NSW portion of Ginninderry to a small section of grant land. The majority is land originally designated as Crown Land and reserved for public use, indicating that the landscape of falls and gorges was appreciated by the early surveyors.

The map on right, showing the proposed Federal Capital Territory and tenures of land within same, was compiled, drawn and printed at the NSW Department of Lands. The map was signed by Charles Robt. Scrivener, 22nd May, 1909.

The NSW section of Ginninderry is bordered in purple on this 1909 map of the Parish of Weetangera. The Sturt land grant is visible tinged in pale green, while the former Crown Land reserve is shown in beige. This reserve land was purchased from the State by James Kinloch Kilby in 1895 and included Ginninderra Creek and the Falls.





### Fire risk (Jason Sharples, Associate Professor, UNSW)

The fire risk assessment performed for this development applies Australian Building Standard AS3959 which is based on radiation thresholds determined by research into grassland fires and their rate of spread through low-lying vegetation. This standard does not reflect the state of the science for bushfire risk. The topography of this area requires an examination of the risk implications of dynamic fire propagation based on a consideration of fuel weight, drought factor, temperature, relative humidity, wind speed and topographic slope.

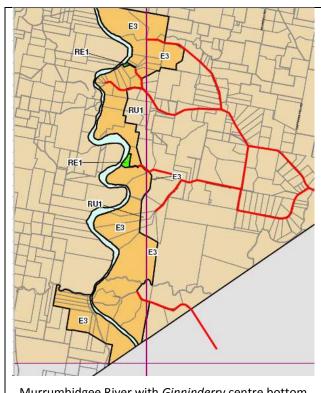
Extreme bushfires spread as highly dynamic events arising from highly complex interactions. The pertinent factors include: vorticity (driven lateral spread), eruptive fire behaviour and mass spotting. Highly turbulent fire produces embers that can be driven large distances. A calculation indicates that bushfire embers could create disastrous fires near the gorges, declining in intensity with distance but extending well into the ACT.

The slope of the gorge walls along the Murrumbidgee River is such as to create a major fire hazard in the right conditions. Research following the behaviour of the 2003 fires has shown that an "upslope wind" can lead to escalation of fire behaviour. This was raised with David Maxwell of Riverview Pty Ltd at a forum on 29 March 2017. Bushfire risk, as calculated in accordance with the Standard, may be considerably under-estimated for this particular case.<sup>2</sup>

## **General Issues** (John Connelly, GFA)

The current E3 (Environmental Management) zoning in neighbouring NSW, shown on the map at right, has protected native species to some extent in the Ginninderry area (centre bottom) over the years and allowed a range of movement for larger animals and birds. The conservation zone now proposed for Ginninderry restricts the area available for protection of the natural flora and fauna, and prevents regeneration and restoration. Noise, light and human presence will potentially impact on vulnerable species.

Rezoning to urban in the NSW portion needs considerable justification, especially being so close to the Murrumbidgee River. It will set a precedent for similar developments to occur elsewhere in E3 areas along the river in future.



Murrumbidgee River with Ginninderry centre bottom

<sup>&</sup>lt;sup>1</sup> Jason Sharples, Plume attachment thresholds for fire spread in canyon-like geometries, https://www.unsw.adfa.edu.au/school-of-physical-environmental-and-mathematical-sciences/researchhighlights

<sup>&</sup>lt;sup>2</sup> http://www.canberratimes.com.au/act-news/research-finds-grass-fires-a-serious-threat-on-windy-hills-20140103-309oj.html

The diagrams below show the current conservation boundary promoted for the NSW section of Ginninderry (left) and a boundary similar to E3 on the right. This latter includes the area upstream of the Ginninderra Falls which is important for aboriginal initiation ceremonies. It also removes housing from the extreme fire danger associated with the gorge walls and prevailing north-westerly winds, and it removes housing from proximity to vulnerable species.



Riverview's proposed conservation area (in green) with narrow section around the falls and no protection of upstream sites.



GFA's proposed conservation area provides space for grassland regeneration and wideranging species such as Rosenberg's Goanna.

### **Environmental Issues** (Dave Wong, GCG)

A range of experts from ANU, UC, UNE and Pelican Lagoon Research Centre (Kangaroo Island) have provided advice that retention of the E3 zoning as land managed for conservation along with some additions will greatly reduce the risk of impacts on threatened species. The Ginninderry proposal has been judged by these experts as likely to result in the local extinction or decline of a significant number of species. Even with the more precautionary scenarios presented to the expert (e.g. retaining E3 and beyond for conservation), there will be impacts on some species if development goes ahead.

The misrepresentation of the consultant's reports that have been commissioned as 'the science' is worrying and shows a lack of science literacy by the proponent. There is a large body of science that indicates that the proponent's proposal will result in poor ecological outcomes for threatened species and the natural values of the area.

A summary of the conservation issues was presented, focussing on the large movement range required by Rosenberg's goanna. Many bird species also have a wide range, some up to five kilometres. Presence of houses and associated urban activity will inevitably lead to the loss of bird species in the area. There is an opportunity to create an environmental/ecological park that would support many low-impact recreational and educational opportunities. Sightlines were also discussed as the sight of urban activity will discourage some species from the area.

#### **Aboriginal Issues** (Wally Bell)

The presence of initiation sites and other significant places and items of aboriginal culture warrants the preservation of the entire creek and river corridors for protection and education purposes.

#### Discussion

There was some brief discussion about the complexities of any cross-border agreement and the necessary interaction between Yass Valley Council and the ACT for provision of services by the ACT to new urban areas within Yass Valley that will be, effectively, dormitory suburbs of Canberra.

#### Contention

The landscape values of this land were recognised as worthy of preservation from the beginning of European settlement. It was originally reserved as Crown Land but alienated into private ownership sixty years later. Subsequently, it was protected by E3 zoning which limited how owners could use the land and, thus, preserved the natural character of the land along with the flora and fauna to some extent. Rezoning to urban would be a total contradiction of the principles and aspirations demonstrated over the past 190 years. Once urbanised, the decision can never be reversed and the opportunity to preserve the character of the Murrumbidgee and its immediate surroundings is lost forever.