



DRAFT GININI FLATS WETLAND COMPLEX RAMSAR MANAGEMENT PLAN

Thank you for the opportunity to comment on the draft [Ginini Flats Wetland Complex Ramsar Management Plan 2016](#).

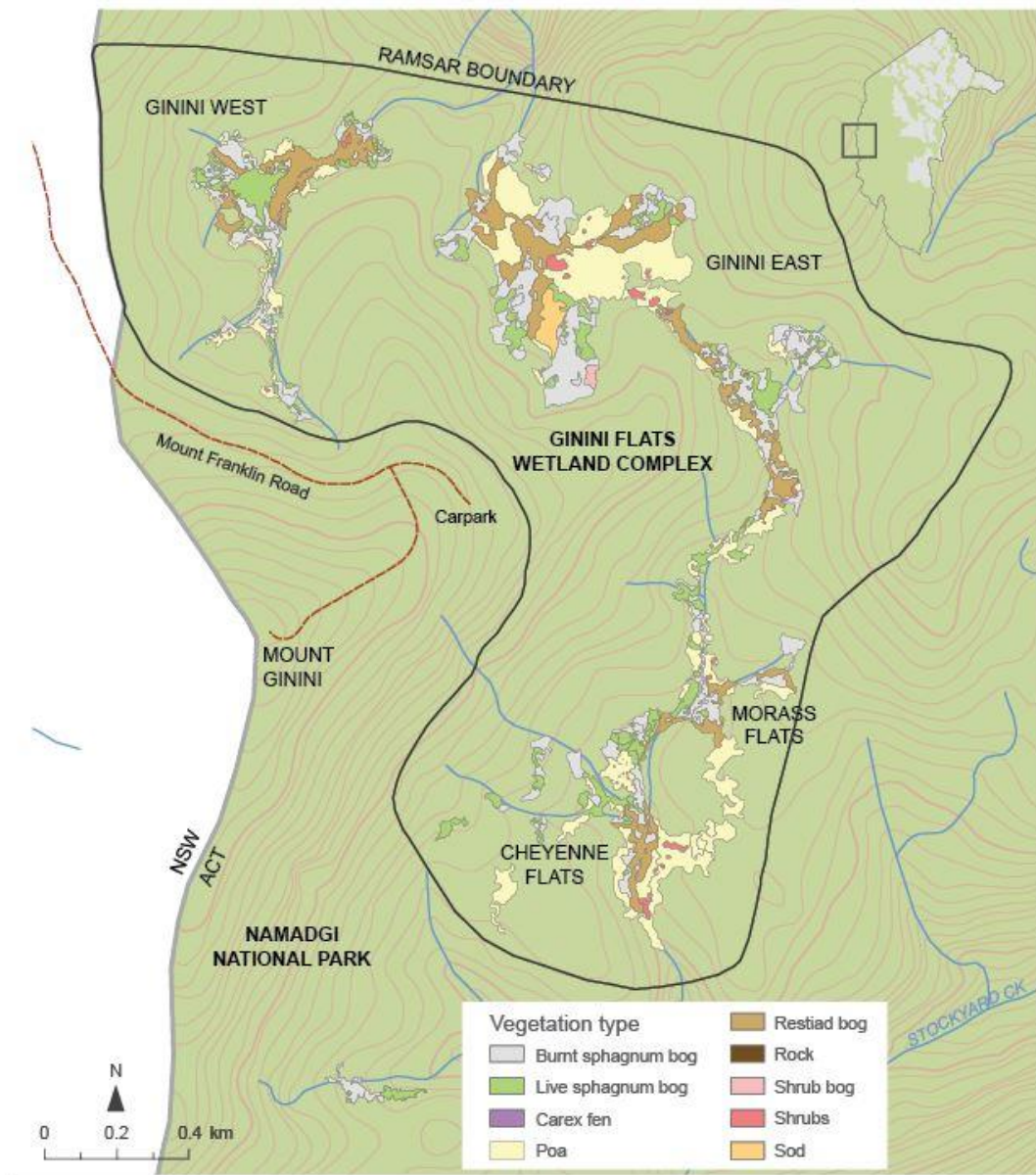
I understand that under new provisions of the *ACT Nature Conservation ACT 2014*, the ACT Conservator of Fauna and Flora must report to the ACT Environment and Climate Change Minister about the Plan at least once every five years.

Once finalised and approved by the Minister, the Plan will be tabled in the ACT Legislative Assembly. This will occur early in 2017.

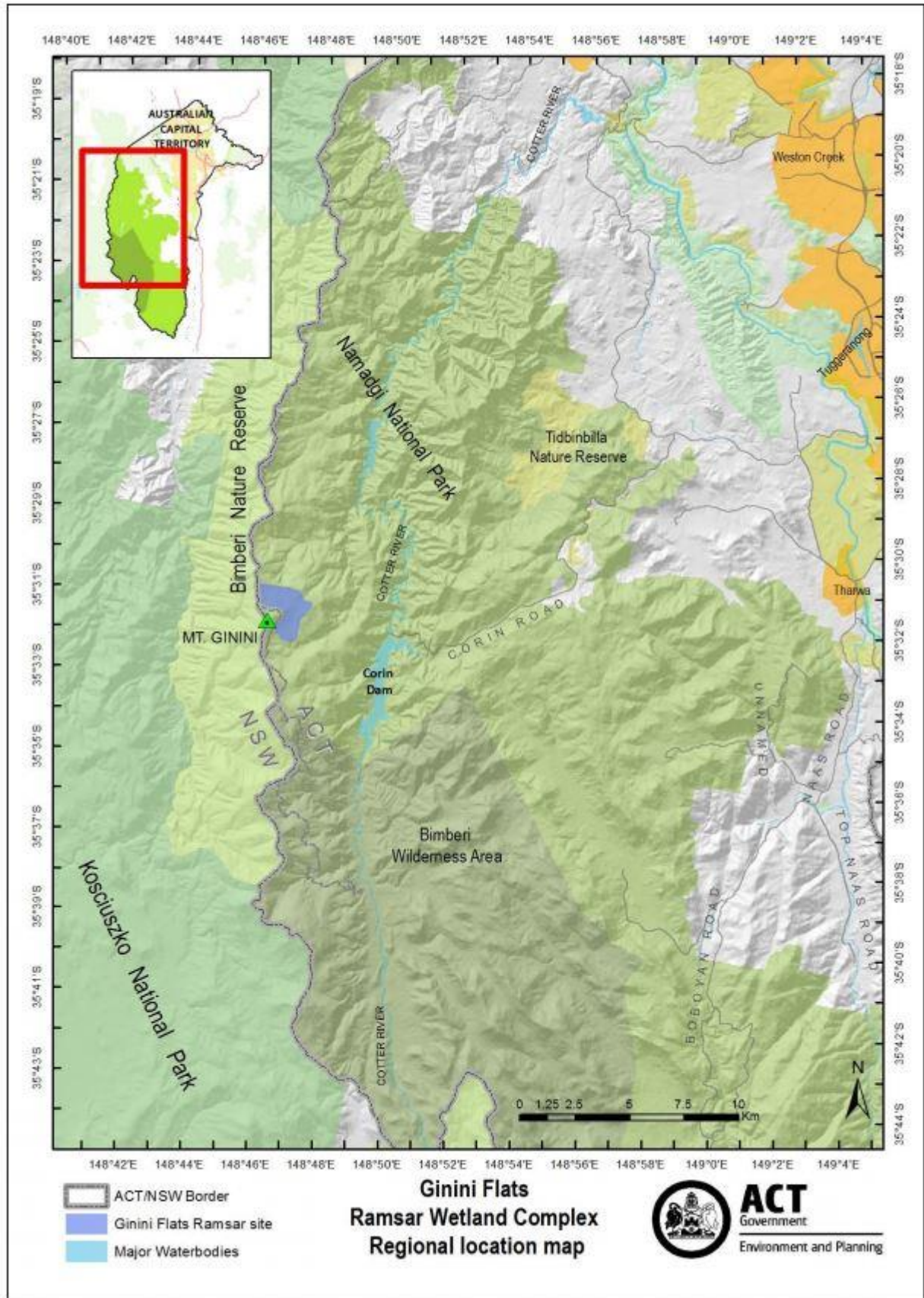
Summary Comments

Consistent with my role as ACT Commissioner for Sustainability and the Environment, my comments address the following aspects of the Plan:

- whether prescribed burning has been considered as a measure to protect the site;
- if the potential of cultural burning has been discussed with Indigenous ACT Government officers trained in this field;
- the importance of monitoring and recording all animal and plant species at the site, not just the Northern Corroboree Frog, Broad-toothed Rat and *Sphagnum* bog; and
- developing a communications strategy that employs a range of media, including a short video with drone footage promoting the importance of the site.



Ginini Flats Wetlands Complex by vegetation type from 2015 ACT State of the Environment Report



Context map of Ginini Flats. From the draft [Ginini Flats Wetland Complex Ramsar Management Plan 2016](#).

Ginini Flats Context

The Ginini Flats wetland is located within Namadgi National Park near the NSW/ACT border. It is bordered to the west by Bimberi Nature Reserve managed by the NSW National Parks and Wildlife Service (NSW NPWS). Ginini covers 350 hectares.

Ginini Flats cannot be considered in isolation and must be considered within the context of the broader landscape.



Ginini Flats. Image: ACT Government

Significance of Ginini Flats

- Ginini Flats Wetland Complex was designated as a Ramsar wetland of international importance in 1996.
- It includes vegetation communities of sub-alpine sphagnum bogs, associated wet heath and wet grassland habitats in a series of interconnected wetlands surrounded by snow gum woodland.
- The site is the *largest* intact *Sphagnum cristatum* bog and fen community in the Australian Alps.
- The wetland provides a range of ecosystem services – the wetlands are located in the upper reaches of the Cotter River Catchment. The Cotter River catchment is the main water source for Canberra. The wetlands play a role in water filtration and moderating run-off. *Sphagnum* bogs are also thought to play a role in carbon storage.



Sphagnum bog at the nearby Cotter Flats. Image: Mark Jekabsons

Plants of Ginini Flats

The site includes vegetation communities of sub-alpine sphagnum bogs, associated wet heath and wet grassland habitats in a series of interconnected wetlands surrounded by snow gum woodland.

The following plants have been identified at Ginini Flats (Wild 2010):

Bog

- *Sphagnum cristatum*
- *Richea continentis*
- *Baloskion austral*

Wet herbfield

- *Poa costiniana*
- *P. Clivicola*
- *Arthropodium milleflorum*

Wet Heath

- *Epacris paludosa*
- *Baeckea gunniana*
- *Callistemon pityoides*

Sedgeland

- *Carex gaudichaudiana*
- *Ranunculus spp.*

Tall Wet Heath

- *Sphagnum cristatum*
- *Leptospermum lanigerum*

Dry Heath

- *Bossaiaea foliosa*
- *Oxylobium alpestre*
- *Helipterum anthemoides*

Snow Gum Woodland

- *Eucalyptus pauciflora ssp. debeuzevillei*

Other species associated with the wetland include:

- *Podocarpus lawrencei*
- *Exocarpus nanus*
- *Oreomyrrhis argentea*
- *Craspedia species*



Richea continentis. Image: Wikimedia

Animals of Ginini Flats

Northern Corroboree Frog (*Pseudophryne pengilleyi*)

Probably the best known species of Ginini Flats is the Northern Corroboree Frog – listed as *critically endangered* under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC).



Northern Corroboree Frog. Image: Wikimedia.

The [2015 ACT State of the Environment Report](#) found that recordings of the frogs in the wild declined over the period 2011-2015. There are currently estimated to be fewer than 50 individuals remaining in the wild in this area.

Corroboree Frog monitoring occurs in February each year. Frogs are monitored by counting the number of calling males at breeding. In 1985, there were more than 500 males calling at Ginini Flat West but, since 2002, there have been fewer than five males calling during the surveys.

A captive breeding program was established for the Northern Corroboree Frog at Tidbinbilla Nature Reserve in 2003. The frog is threatened by the introduced Chytrid fungus, fire and pest animals.

[Corroboree Frog Fact Sheet](#)

Broad-Toothed Rat (*Mastacomys fuscus*)

The Broad-Toothed Rat is listed as *vulnerable* under the EPBC Act.

A report by the ACT Government (2016) [Distribution and Ecology of the Broad-Toothed Rat in the ACT](#) reported that only limited information is available on the species, therefore the Broad-toothed Rat has no special protection status.

The species is identified as being at *extreme risk to global warming* due to shifts in composition and distribution of alpine vegetation communities. Climate change has been identified as a *key threatening process* to the long-term viability of the species.

Latham's Snipe (*Gallinago hardwickii*)

Ginini Flats provides habitat for Latham's Snipe which use the wetlands as an over-wintering destination. The bird is protected by International Agreements on migratory birds.



Alpine Water Skink (*Eulamprus Kosciusko*)

This skink is restricted largely to *Sphagnum* bogs and sub-alpine wetlands and is likely to be impacted by climate change and fire.



Mountain Swamp Skink (*Noveoscincus rawlinsonii*)

Metallic Bug Cockroach (*Polzostera virridisma*)



Cockroach on sphagnum. Image: Mark Jekabsons.

Mountain Galaxias (*Galaxias olidus*)



Yabbies

Threats to the wetland

1. Climate change

Climate change is regarded as the greatest threat to Ginini Flats with increased summer temperatures and altered rainfall patterns. *Spaghnum cristatum* bogs and other plants dependent upon wet environments may *contract in range* due to hotter summer conditions. Heavy rainfall events may erode bare areas and increase turbidity.

The [2015 ACT State of the Environment Report](#) identified the following *threats* to alpine and sub-alpine systems within the ACT.

Alpine and subalpine ecosystems:

- increased threat to cold climate–adapted and narrow temperature–range species such as those in feldmarks, short alpine herbfields, and sphagnum bogs and fens; Southern Corroboree Frog and Mountain Pygmy Possum
- increased fire risk to groundcover and fire-sensitive species such as those in sphagnum bogs and alpine herbfields; Alpine Ash and Mountain Plum Pine
- invasion of more temperature and fire-tolerant species, including certain tree, heathland, shrubland and weed species (eg Ribbon Gum, Grevillea, Wild Parsnip).

Subalpine grassy woodlands:

- reduction in snow, groundcover and grasses, which will threaten some fauna (eg Broad-Toothed Rat, Alpine Skink, frogs, echidnas)
- more invasive species (eg rabbits, hares, cats) and increased grazing pressure (eg kangaroos, wallabies, horses, hares)
- changed seed germination, regeneration and recruitment periods (eg less cool time available for Alpine Ash and Snow Gum)
- earlier flowering of annuals and shrubs, which will disturb synchronicity for migratory birds (eg Flame Robin, Pink Robin)
- spring breeding season shortened (eg for Richard's Pipit, some honeyeaters)
- increased loss of microhabitats (eg tree hollows for Yellow-Bellied Gliders, leaf litter for ground-dwelling fauna)
- increased frost heave, which may decrease organic decomposition and soil nutrients effects on nutrient cycling by invertebrates and soil fauna.

2. Fire

One of the key threats to the Ginini Flats wetland is the risk of bushfire. With hotter temperatures and changes to rainfall fire may become more frequent and intense. In 2003 bushfires caused severe damage to the site – with a large proportion of the bog burned as well as underlying peat layers.

The main fire risk to the wetlands comes from lightning strikes from the west from Kosciusko National Park, Bimberi Nature Reserve, and from the north-west via Brindabella Valley, New South Wales.

The ACT Parks and Conservation Service prepares annual Bushfire Operations Plans (BOP) to help manage bushfire risk. These plans are required as part of the ACT strategic bushfire management plan 2014 (version3).

BOPs can be found at www.environment.act.gov.au. As part of the 15-16 BOP the Mt Franklin Rd within Namadgi National Park was upgraded to provide fire fighting vehicles better access to the site.

In 2015, control burns were conducted in the adjoining Bimberi Nature Reserve by the NSW NPWS. The NSW NPWS prepares bush fire management plans for adjoining areas – the [2008 Strategy for Bimberi](#).

3. Invasive animals

Key invasive species of threat to Ginini Flats are feral horses, feral pigs and European wasps.

Feral Horses

It has been estimated there are 6,000 feral horses in nearby NSW. The draft [Kosciusko National Park Wild Horse Management Plan 2016](#) aims to halve this number by 2026.

In the past, feral horses have entered Namadgi National Park and caused damage to wetland ecosystems, endangering species like the Northern Coroboree Frog and threatening water quality from the catchment.

Feral Pigs

Feral pigs dig up the ground in search of food and wallow in bogs, degrading the bog ecosystem. Pig numbers are controlled by using 1080 baits and traps.



Feral pigs captured in traps in Namadgi. Image supplied.

European wasps

European wasps, a declared pest animal were found in Namdagi National Park in 2003. The Namadgi National Park Plan of Management 2010 identified European wasps as likely to be a threat to native biodiversity, especially insects and spiders. The most effective approach to reducing numbers of this species is likely to be a baiting program at picnic areas and at biodiversity hotspots, like Ginini Flats.

Invasive Plants

Following the 2003 fire the following weeds were identified at the site:

- Sheep's sorrel (*Rumex acetosella*)
- Thistle (*Carduus* spp.)
- Cat's ear (*Hypochoeris* sp.)
- Sweet Vernal Grass (*Anthoxanthum odoratum*)
- Willow (*Salix* spp.)
- Blackberry (*Rubus* spp.)

Comments on actions from the draft Ginini Flats Wetland Complex Ramsar Management Plan 2016.

Objective: Prevent fire from entering the Ginini Flats wetlands so the values of the ecological community are protected.

Action 1: Incorporate appropriate management guidelines for fire suppression in the ecological community, as outlined in the ACT Ecological guidelines for fuel and fire management operations into current ACT Strategic Bushfire Management Plan and regional fire management plans (e.g. for Bimberi Nature Reserve). All future fire management plans will continue to protect the Ginini Flats wetlands from planned fire and wildfire.

Bushfire poses a serious risk to the ecological character of Ginini Flats. Most of the fires that start in this area occur as a result of lightning strikes.

The recently released State of the Climate 2016 report found that "there has been an increase in extreme fire weather, and a longer fire season, across large parts of Australia since the 1970s. <http://www.bom.gov.au/state-of-the-climate/>

Fire preparation can include track maintenance, fuel reduction burns, maintaining and constructing fire breaks, enforcing Total Fire Ban days, response to fires and fire recovery work.

The draft Ginini Flats Wetland Complex Ramsar Management Plan states "The current Regional Fire Management Plans (2014-2019) do not include ecological burning or prescribed burning for fuel reduction within vegetation communities surrounding areas of *Sphagnum* bogs and fens." (page 34).

It is unclear from the Plan whether prescribed burns have been considered by the NSW and ACT agencies responsible for fire planning in areas adjoining the Ginini Flats Wetland Complex. Nor is it clear whether prescribed burns are conducted within Bimberi Nature Reserve to reduce fuel load and reduce the chance of a fire spreading eastwards towards the wetland. (Note: a prescribed burn was conducted in the Bimberi Nature Reserve in 2015 by NSW NPWS.)

No mention is made in the Plan if ACT Government Aboriginal staff trained in cultural burning have been consulted about protecting Ginini Flats.

It appears as if the management of fire is dependent upon mobilising fire crews once a fire has started rather than reducing fuel sources. With the concurrent risk of a drying climate (See State of the Climate Report 2016 BOM and CSIRO) and the bog still recovering from the 2003 fires could the bog

recover from an intense fire in the next 10 or 20 years? Will this ecological community be lost forever?

Proposed additional action under this Objective – during droughts monitor the dryness of peat beds

Objective: Maintain and improve habitat for the Northern Corroboree Frog and other native fauna species

Action 22: Continue implementing the Northern Corroboree Frog Action Plan. Assess populations of other threatened or endangered species at the site, including Broad-toothed Rat (M. fuscus).

Given the interdependence of plant and animal species within an ecosystem like Ginini Flats Wetland complex it would be prudent to record and monitor all animal species found on site not just the Northern Corroboree Frog and the Broad-toothed Rat. This will require ongoing funding.

Objective: Communicate effectively with partners, stakeholders and the community.

Action 36: Develop and implement a Ginini Flats Wetland Complex Ramsar Site Communication, Education and Public Awareness Plan.

Development of a comprehensive communication strategy for the Ginini Flats Wetland Site is very important. The strategy should include the use of social media and a range of digital technology.

A short video which includes drone footage would be an excellent tool to explain the values of the site.

Further reading

Peat forming mires of the ACT