



Ramsar Information Sheet

Published on 9 August 2018

Update version, previously published on : 1 March 1996

Australia

Ginini Flats Subalpine Bog Complex



Designation date	1 March 1996
Site number	793
Coordinates	35°31'29"S 148°46'53"E
Area	350,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

1.1 - Summary description

Please provide a short descriptive text summarising the key characteristics and internationally important aspects of the site.

You may prefer to complete the four following sections before returning to draft this summary.

Summary

(This field is limited to 2500 characters)

Ginini Flats Subalpine Bog Complex Ramsar Site is located in the Namadgi National Park in the Australian Capital Territory (ACT), Australia.

The Ginini Flats Subalpine Bog Complex consists of a composite of subalpine sphagnum bogs and associated wet heath and wet grassland habitats occupying a series of interconnected wetlands known as West Ginini, Ginini Flats, Morass Flats and Cheyenne Flats within Namadgi National Park in the ACT, Australia. The Ginini Flats Subalpine Bog Complex is in the upper reaches of the Cotter River catchment in the Murrumbidgee River Drainage Basin in south-eastern Australia. The Cotter River catchment is the primary water source for Canberra, ACT, the capital city of Australia. The site is located at the northern extreme of the climatic range for sphagnum bog wetlands in the Australian Alps. The 'Alpine Sphagnum Bogs and Associated Fens' ecological community and the Northern Corroboree frog (*Pseudophryne pengilleyi*) community on site are both nationally threatened. The site is also of hydrological importance due to the role the wetlands play in maintaining water quality and, to a lesser extent, moderating runoff.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Kathryn Tracy/Lisa Evans
Institution/agency	Australian Capital Territory Government Environment and Planning Directorate
Postal address (This field is limited to 254 characters)	GPO Box 158, Canberra ACT 2601
E-mail	Kathryn.Tracy@act.gov.au
Phone	+61 2 6207 5111.
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Compiler 2

Name	
Institution/agency	
Postal address (This field is limited to 254 characters)	
E-mail	
Phone	
Fax	

2.1.2 - Period of collection of data and information used to compile the RIS

From year	1996
To year	2016

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Ginini Flats Subalpine Bog Complex
Unofficial name (optional)	Ginini Flats Wetland Complex

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The boundary has been extended	<input type="checkbox"/>
(Update) The boundary has been restricted	<input type="checkbox"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	<input checked="" type="checkbox"/>
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input type="checkbox"/>

Important note: If the boundary of the designated site is being restricted/reduced, before submitting this updated RIS to the Secretariat the Contracting Party should have followed:

- the requirements in Article 2.5 of the Convention; or
- the procedures established by the Conference of the Parties in the annex to Resolution VIII.20 (2002); or
- where appropriate instead, the procedures in the annex to Resolution IX.6 (2005). Contracting Parties should also have provided to the Secretariat a report on changes prior to the submission of an updated RIS.

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No
(Update) Are the changes	Positive <input type="radio"/> Negative <input type="radio"/> Positive & Negative <input checked="" type="radio"/>

What extent of the Ramsar site is affected (%)

(Update) Positive %	<input type="text"/>
(Update) Negative %	<input type="text"/>
(Update) No information available	<input type="checkbox"/>

(Update) Optional text box to provide further information

(This field is limited to 2000 characters)

Are changes the result of (tick each category which applies):

(Update) Changes resulting from causes operating within the existing boundaries?	<input type="checkbox"/>
(Update) Changes resulting from causes operating beyond the site's boundaries?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?	<input type="checkbox"/>

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

(This field is limited to characters)

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change)	Yes <input type="radio"/> No <input checked="" type="radio"/>
(Update) Has an Article 3.2 report been submitted to the Secretariat?	Yes <input type="radio"/> No <input checked="" type="radio"/>

2.2 - Site location

2.2.1 - Defining the Site boundaries

a) GIS boundaries [link](#)

Materials presented on this website, particularly maps and territorial information, are as-is and as-available based on available data and do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Ramsar Convention concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

b) Digital map/image

 [AU793_map170116.jpg](#)

Former maps

<no file available>

Boundaries description

(This field is limited to 2500 characters)

Following technological advances since the nomination of the site in 1995, the boundary is being updated. The previous area was incorrectly documented as 125 ha and only included the areas of wetland complex and open flats, instead of the whole catchment. The original boundary (which should have been 323.6 ha) was an estimate based on small scale mapping. The area has been more accurately delineated through improved mapping, on-ground surveys and ground truthing. The new boundary encompasses a larger area of 350 ha.

The revised boundary description is as follows:
 The boundary commences at point A (35° 32' 01.69"S, 148° 46' 35.55"E) on the map, lying 10 m east of the eastern road edge of Mt Franklin Road.

From point A it follows Mt Franklin road maintaining its position 10 m east from the eastern road edge, heading in a north easterly, then north westerly direction (circumventing Mt Ginini, which lies to the west) to ACT border at point B (at the point nearest to 35° 31' 17.91"S, 148° 46' 04.85"E).

From point B the boundary heads in a northerly direction along the border of ACT, to the most north westerly point of the site, still on ACT border, at point C (at the point nearest to 35° 30' 54.21"S, 148° 46' 0.99"E).

From there the boundary heads in an easterly direction from ACT border and runs 10 m inside (below and to the south of) the catchment ridgeline through point D (35° 30' 57.66"S, 148° 46' 46.16"E), where it crosses Ginini Creek, to point E (35° 31' 03.277"S, 148° 47' 19.39"E).

From point E the boundary heads in a generally southerly direction, paralleling (and 10 m below and to the west of) the ridgeline to point F. Between points E and G the ridgeline boundary changes from Ginini Flats ridgeline to Cheyenne Flats ridgeline (still part of the wetlands complex) near point G (35° 31' 21.17"S, 148° 47' 42.78"E).

From point G the boundary continues in a southerly direction to Point H at the most south easterly point of the site (35° 32' 15.93"S, 148° 47' 13.90"E). The boundary line then heads generally west to point I (35° 32' 17.88"S, 148° 47' 06.72"E). Near point I the boundary crosses an unnamed tributary of Stockyard Creek. From point I the boundary then heads in a generally westerly direction to point J (35° 32' 14.04"S, 148° 46' 45.59"E). From point J the boundary continues on in a straight line to meet the starting point 10 m off the eastern road edge of Mt Franklin road (point A), encompassing the southern end of Cheyenne Flats.

Coordinates of the centre of the site, as automatically estimated from the GIS boundaries (for information only)

2.2.2 - General location

- a) In which large administrative region does the site lie?
- b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

- a) Does the wetland extend onto the territory of one or more other countries? Yes ☐ No ☒
- b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ☐ No ☒
- c) Is the site part of a formal transboundary designation with another Contracting Party? Yes ☐ No ☒
- d) Transboundary Ramsar Site name:

2.2.4 - Area of the Site

If you have not established an official area by other means, you can copy the area calculated from the GIS boundaries into the 'official area' box.

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Please provide the biogeographic region(s) encompassing the site and the biogeographic regionalization scheme applied:

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	Murray Darling Basin Division

Other biogeographic regionalisation scheme

(This field is limited to 2500 characters)

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

Tick the box against each criterion applied to the designation of the Ramsar Site. All criteria which apply should be ticked. Please explain why you selected a criterion by filling in the relevant fields on this page, on the three other pages of this section 'Criteria & justification' and on the 'Wetland types' page of the section 'What is the site like?'. More guidance on how to justify a criterion will appear when you tick it as well as in the help box.

☒ Criterion 1: Representative, rare or unique natural or near-natural wetland types

To justify this Criterion, please select at least one wetland type as representative, rare or unique in the section What is the site like? > Wetland types and provide further details in at least one of the three boxes below.

Hydrological services provided
(This field is limited to 3000 characters)

The Ginini Flats Subalpine Bog Complex is of hydrological importance due to the role the wetlands play in maintaining water quality and moderating runoff. The Ginini Flats Subalpine Bog Complex is located in the Cotter River catchment which is the primary water supply for the city of Canberra.

Other ecosystem services provided
(This field is limited to 3000 characters)

The ecosystem services of the site and the benefits derived from them include the provision of drinking water catchment to the city of Canberra; climate regulation through being a carbon sink; filtration of flow through the wetland; erosion protection from frost heave; recreation and tourism; spiritual and inspirational services; scientific and educational services; source of biodiversity; peat soil formation and nutrient cycling.

Other reasons
(This field is limited to 3000 characters)

The Ginini Flats Wetland Complex incorporates one wetland type as defined by the Ramsar Classification System for Wetland Type (Ramsar Convention 2008): U - Nonforested peatlands which includes shrub or open bogs, swamps and fens. See Justification for criterion 3 for more details on this wetland type.

☒ Criterion 2 : Rare species and threatened ecological communities

Justification, see: - relevant plant species in the section Criteria & justification> Plant species (3.2) - relevant animal species in the section Criteria & justification> Animal species (3.3) - relevant ecological communities in the section Criteria & justification> Ecological communities (3.4)

Optional text box to provide further information
(This field is limited to 3000 characters)

☒ Criterion 3 : Biological diversity

Justification, see: - relevant plant species in the section Criteria & justification> Plant species (3.2) - relevant animal species in the section Criteria & justification> Animal species (3.3)

Justification
(This field is limited to 3000 characters)

The Ginini Flats wetland complex is at the northern biophysical limit of this habitat type within the Murray-Darling Drainage Division and is of importance in maintaining the genetic and ecological diversity of a number of endemic and restricted species found in subalpine wet heaths and bogs.

The Ginini Flats wetland complex is a composite of subalpine sphagnum bogs and associated wet heath and wet grassland habitats occupying a series of interconnected wetlands. The Ginini Flats Wetland Complex is known to include a nationally listed ecological community (Alpine Sphagnum Bogs and Associated Fens) and threatened fauna species: the Northern Corroboree frog (*Pseudophryne pengilleyi*).

Sites with extensive bog development dominated by Sphagnum are uncommon on the mainland of Australia. Significant plant species associated with the wetlands include the peat moss (*Sphagnum cristatum*), alpine plum pine (*Podocarpus lawrencei*), alpine ballart (*Exocarpos nanus*), dwarf buttercup (*Ranunculus millanii*), silver caraway (*Oreomyrrhis argentea*), and *Craspedia* sp.

☒ **Criterion 4 : Support during critical life cycle stage or in adverse conditions**

Justification,see:- relevant plant species in the section Criteria & justification> Plant species (3.2) - relevant animal species in the section Criteria & justification> Animal species (3.3) and explain the life cycle stage or nature of adverse conditions in the accompanying 'justification' box.

Optional text box to provide further information

(This field is limited to 3000 characters)

The site provides critical habitat for breeding cycles of the Northern Corroboree frog (*Pseudophryne pengillei*). The Northern Corroboree frog relies on the availability of small ponds in the wetlands for nests; with suitable ponds formed by a high water table accompanied by suitable hydrological conditions such as low flow rates. The site supports greater than one per cent of individuals in the wild of the Northern Corroboree frog.

☐ **Criterion 5 : >20,000 waterbirds**

Justification,see:- the total number of waterbirds and the period of data collection - relevant waterbird species, and if possible their population size, in the section Criteria & justification> Animal species (3.3)

Overall waterbird numbers

Start year

End year

Source of data:

Optional text box to provide further information

(This field is limited to 3000 characters)

☐ **Criterion 6 : >1% waterbird population**

Justification,see:Criteria & justification> Animal species (3.3)

Optional text box to provide further information

(This field is limited to 3000 characters)

☐ **Criterion 7 : Significant and representative fish**

Justification,see:Criteria & justification> Animal species (3.3)

Justification

(This field is limited to 3000 characters)

☐ **Criterion 8 : Fish spawning grounds, etc.**

To justify this Criterion, please give information in the box below. Completion of details on relevant fish species in the section Criteria & justification> Animal species (3.3) is optional.

Justification

(This field is limited to 3000 characters)


☒ **Criterion 9 : >1% non-avian animal population**

To justify this Criterion, please give details on relevant non-avian species and their population size in the section Criteria & justification> Animal species (3.3)

Optional text box to provide further information
(This field is limited to 3000 characters)

Criterion 9 is met based on the presence of greater than one per cent of the wild population of the Northern Corroboree frog in the Ramsar Site. At the time of the survey in February 2009, the Ginini Flats wetland population, despite its low numbers, represented nearly 50% of the higher elevation population of Northern Corroboree frogs at the known breeding sites (Murray Evans 2015 pers. comm.). Once abundant, this species now has very low population numbers overall and faces the threat of extinction (estimated to be less than 50 individuals remaining from the original population in the ACT). The Ginini Flats site is one of two sites in the ACT where captive-bred Northern Corroboree frogs are being released to bolster wild populations. Thus the Ginini Flats wetland complex is a significant site for the recovery program for the species (M. Evans 2015 pers. comm.).

3.2 - Plant species whose presence relates to the international importance of the site


Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Sphagnum cristatum</i> 	Peat moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Characteristic of bogs in the ACT. ACT bogs are listed under the EPBC Act.

Optional text box to provide further information on plant species of international importance:

(This field is limited to 3000 characters)

Criterion 3 continues to be met based on the presence of regionally significant species, and nationally significant flora species and vegetation communities. The Ginini Flats Subalpine Bog Complex is at the northern biophysical limit for this habitat type, and is of importance in maintaining the genetic and ecological diversity of a number of endemic and restricted species found in subalpine wet heaths and bogs. Sites with extensive bog development dominated by Sphagnum are uncommon on the mainland of Australia.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	%	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
Others																		
CHORDATA / AMPHIBIA	<i>Pseudophryne pengilleyi</i>	Northern Corroboree frog	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50	2015	50	EN 	<input type="checkbox"/>	<input type="checkbox"/>	Listed as critically endangered under the Australian Environment Protection and Biodiversity Conservation Act.	The population at Ginini Flats was one of the largest known populations of this uncommon species, however it is now almost locally extinct due to Amphibian Chytrid fungus. The population is being supported by the release of captive bred individuals.

1) Percentage of the total biogeographic population at the site

Optional text box to provide further information on animal species of international importance:

(This field is limited to 3000 characters)

Criterion 2 and 4 continue to be met as Ginini Flats Subalpine Bog Complex provides important habitat for the Northern Corroboree frog (*Pseudophryne pengilleyi*). The Northern Corroboree frog is an endemic species found only at high altitudes in the Southern Highlands between Smiggin Holes in Kosciusko National Park (NSW) and the northern end of the Brindabella Range near Canberra (ACT). The numerous pools scattered throughout the bogs and wet heaths at Ginini Flats provide an important variety of potential breeding sites for the species. Suitable ponds are formed by a high water table accompanied by suitable hydrological conditions such as low flow rates. Females briefly enter the bogs to lay approximately 25 eggs above the water line in these nests. The eggs continue to develop in the nest over a two month period until a phase of suspended development is triggered. Tadpoles of the northern corroboree frog can hatch in autumn if there is sufficient rainfall and the tadpoles develop in the pools over winter. After hatching, tadpoles feed on small amounts of organic detritus and, later as frogs, small invertebrates including black ants (Carey et al., 2003). The frogs move from the bog communities to shelter under logs and amongst leaf litter in surrounding woodland over the winter.

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Alpine Sphagnum Bogs and Associated Fens	<input checked="" type="checkbox"/>	The ecological community can usually be defined by the presence or absence of <i>Sphagnum</i> spp., the most common of which is <i>Sphagnum cristatum</i> . Refer to ECD at 6.1.2ii for comprehensive description.	Listed as an endangered ecological community under the Australian Environment Protection and Biodiversity Conservation Act.

Optional text box to provide further information
(This field is limited to 3000 characters)

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Please summarize the ecological components, processes and services which are critical to determining the ecological character of the site. Please also summarize any natural variability in the ecological character of the site, and any known past or current change

(This field is limited to 4000 characters)

Key components and processes :

Biophysical setting - The underlying geology consists of deformed granitic rocks of Silurian age overlain by Ordovician metasediments, which are extensively folded..

Hydrology - The site is located at the headwaters of Ginini Creek which forms the base of a small catchment of 410 ha that has relatively high rainfall (circa 1250 mm/yr).

Peat formation - The peat is comprised of two main layers, the surface, living Acrotelm that experiences fluctuations in water levels and the lower, anaerobic Catotelm which is typically saturated.

Vegetation - The peatland provides a variety of vegetation types within the wetland complex including sphagnum bogs, wet heath and wet grassland (or fen). On top of the living Sphagnum layer there is substantial variation in vegetation composition in the bog complex, including a mosaic of bog, wet heath, wet herbfield, sedgeland, dry heath and tall wet heath.

Water quality - The surface water within the site is unpolluted and slightly acidic, and has low conductivity and very low turbidity.

Frogs - At Ramsar designation in 1996, the Northern Corroboree frog (*Pseudophryne pengilleyi*) was recognised as important value of the site which was believed to hold one of the largest known populations of this species.

Mammals, birds and reptiles - Vertebrate fauna species recorded in the area, are wetland dependent and are expected to have been present around the time of listing include broadtoothed rat (listed as vulnerable under the Australian Environment Protection and Biodiversity Conservation Act), Latham's snipe, alpine water skink and mountain swamp skink.

Fish - The native mountain Galaxias (*Galaxias olidus*) inhabits the small streams that bisect the site. There is no evidence that exotic fish species have colonised the site.

Invertebrates - The site contains habitats that support invertebrates.

Key ecosystem services:

Wetland products - The site is part of Cotter River Catchment - the primary water supply source for Canberra.

Climate regulation - Peat may be a significant carbon sink or source depending on climatic and hydrological conditions.

Erosion protection - Protection of soil surface from frost heave and accelerated erosion processes.

Water quality maintenance – Water filtration, buffering of nutrients and sediments.

Biodiversity - Supports a significant subset of regional flora species and an ecologically significant vegetation community.

Soil formation - Supports peat soil formation.

Recreation and tourism - Skiing, walking and wildflower viewing.

Spiritual and inspiration - The wetland is likely to have been used on route to traditional harvest sites for Bogong moths by Aborigines.

Scientific and educational - Studies on the northern corroboree frog and provision of eggs for captive breeding . Paleological studies of vegetation, climate and fire histories in peat sediments. Monitoring of restoration trials of post-fire recovery techniques in sphagnum bogs.

Further information on the natural variability in the ecological character of the site is contained in the Ecological Character Description attached at 6.1.2ii.

4.2 - What wetland type(s) are in the site?

Please list all wetland types which occur on the site, and for each of them:

- rank the four most abundant types by area from 1 (greatest extent) to 4 (least extent) in the third column,
- if the information exists, provide the area (in ha) in the fourth column
- if this wetland type is used for justifying the application of Criterion 1, indicate if it is representative, rare or unique in the last column
- you can give the local name of the wetland type if different from the Ramsar classification system in the second column

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
<no data available>				

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Marshes on peat soils >> U; Permanent Non-forested peatlands	Pp3 Peat bogs and fen marshes	1	65	Rare

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
<no data available>				

What non-wetland habitats are within the site?

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Temperate Montane Grassland	
Subalpine Woodland	291

idem

(EOD) Habitat connectivity

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

RIS for Site no. 793, Ginini Flats Subalpine Bog Complex, Australia

Scientific name	Common name	Position in range / endemism / other
<i>Baloskion australe</i>		Unique to montane bogs and fens community
<i>Richea continentis</i>	Candle Heath	Unique to montane bogs and fens community

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Rumex acetosella</i>	Sheep's sorrel	Actually (minor impacts)	No change

Optional text box to provide further information

(This field is limited to 2500 characters)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	<i>Acripeza reticulata</i>	Mountain grasshopper				
CHORDATA/ACTINOPTERYGII	<i>Galaxias olidus</i>	Mountain galaxias				
CHORDATA/AVES	<i>Gallinago hardwickii</i>	Latham's Snipe				Found in a range of habitats in Australia including bogs
ARTHROPODA/INSECTA	<i>Kosciuscola tristis</i>	Alpine Chameleon Grasshopper				
CHORDATA/MAMMALIA	<i>Mastacomys fuscus</i>	Broad-toothed rat				This species is endemic to sub-alpine bogs and fens in NSW, Vic and the ACT.

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	<i>Equus ferus</i>	feral horse	Potentially	unknown
CHORDATA/MAMMALIA	<i>Oryctolagus cuniculus</i>	European Rabbit	Potentially	unknown
CHORDATA/MAMMALIA	<i>Sus scrofa</i>	feral pig	Actually (minor impacts)	No change
ARTHROPODA/INSECTA	<i>Vespula germanica</i>	European wasp	Potentially	unknown
CHORDATA/MAMMALIA	<i>Vulpes vulpes</i>	fox	Actually (minor impacts)	No change

Optional text box to provide further information

(This field is limited to 2500 characters)

Some species could not be added to the species lists above as they were either identified only to genera or the species name was not available in the drop down list. These were:

Carduus sp.
Hypodioeris sp.
Yeelanna sp.
Lycosa sp.
Eulamprus kosciuskoi
Niveoscinus rawlinsonii
Polyzosteria viridisma
Acripeza reticulata

The Ecological Character description at 6.1.2ii provides details.

4.4 - Physical components

4.4.1 - Climate

Please indicate the prevailing climate type(s) by selecting below the climatic region(s) and subregion(s), using the Köppen-Gieger Climate Classification System.

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm summer)

If changing climatic conditions are affecting the site, please indicate the nature of these changes:

(This field is limited to 1000 characters)

The Mt Ginini meteorological data for precipitation is restricted to a short period of time and is not reliable. Rainfall interpretation from climatic maps undertaken by Osborne (1990) concluded that average annual rainfall is in the vicinity of 1250 mm; around half of the rainfall of many other sphagnum bog sites in the Australian Alps.

Ginini Flats Subalpine Bog Complex is situated at the northern extreme of the climatic range for sphagnum bog wetlands in the Australian Alps. Given the wetland is already at the limit of climatic tolerance, the greatest threat to it relates to the global scale process of climate change and the myriad impacts and potential positive feedback mechanisms that can occur. Climate change has the potential to alter all critical components and processes, for example hydrology, vegetation, habitat availability, water quality, groundwater recharge, and thus the services that characterise the ecological character of the wetland.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

1520

a) Maximum elevation above sea level (in metres)

1600

b) Position in landscape/river basin:

Entire river basin

☐

Upper part of river basin

☒

Middle part of river basin

☐

Lower part of river basin

☐

More than one river basin

☐

Not in river basin

☐

Coastal

☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.
(This field is limited to 1000 characters)

The Ginini Flats Subalpine Bog Complex is in the upper reaches of the Cotter River catchment in the Murrumbidgee River Drainage Basin in southeastern Australia.

4.4.3 - Soil

Mneral

☐

(Update) Changes at RIS update

No change

☒

Increase

☐

Decrease

☐

Unknown

☐

Organic

☒

(Update) Changes at RIS update

No change

☒

Increase

☐

Decrease

☐

Unknown

☐

No available information

☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

Yes

☒

No

☐

Please provide further information on the soil (optional)
(This field is limited to 1000 characters)

Ginini Flats Subalpine Bog Complex has relatively high rainfall (around 1250 mm/yr) and has freely draining alpine humus soils that are typical of much of the Australian Alps subalpine areas. Key threats affecting the integrity of the soil in the Ramsar Site include soil erosion and frost heave.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from rainfall	<input type="checkbox"/>	unknown
Water inputs from surface water	<input type="checkbox"/>	unknown
Water inputs from groundwater	<input type="checkbox"/>	unknown

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
To downstream catchment	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	unknown

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.
(This field is limited to 2000 characters)

Ginini Flats Subalpine Bog Complex is located at the headwaters of the Ginini Creek, part of the Middle Cotter Catchment within the Cotter River Catchment (the primary water supply for the city of Canberra). The Cotter River Catchment extends over 481 square kilometres and includes three subcatchments: the Upper Cotter (Corin Dam Catchment), Middle Cotter (Bendora Dam Catchment to Corin Dam) and the Lower Cotter (Cotter Dam Catchment to Bendora Dam). Ginini Flats Subalpine Bog Complex is located at the headwaters of the Ginini Creek which forms the base of a small catchment of 410 ha that rises from 1520 mASL to a maximum elevation at the summit of Mt Ginini of 1762 mASL.

Ginini Flats Subalpine Bog Complex has relatively high rainfall (circa 1250 mm/yr). Ginini Flats Subalpine Bog Complex is of local scale hydrological importance due to the role the wetlands play in maintaining water quality and, to a lesser extent, moderating runoff.

(EOD) Connectivity of surface waters and of groundwater

Surface water and groundwater fed wetland.

(ECD) Stratification and mixing regime **N/A**

4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Significant accretion or deposition of sediments occurs on the site ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Significant transportation of sediments occurs on or through the site ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Sediment regime is highly variable, either seasonally or inter-annually ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Sediment regime unknown ☒

Please provide further information on sediment (optional):

(This field is limited to 1000 characters)

(ECD) Water turbidity and colour

Water flowing through and out of the wetland has very low turbidity because of the intact, dense catchment vegetation.

(ECD) Light - reaching wetland

The wetland itself does not have a canopy as the vegetation across the wetland is shrubs and moss with occasional pools.

(ECD) Water temperature

Seasonally dependant. Wetland can have snow cover in winter.

4.4.6 - Water pH

Acid (pH<5.5) ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Circumneutral (pH: 5.5-7.4) ☒(Update) Changes at RIS update No change ☐ Increase ☐ Decrease ☐ Unknown ☒Alkaline (pH>7.4) ☒(Update) Changes at RIS update No change ☐ Increase ☐ Decrease ☐ Unknown ☒Unknown ☐

Please provide further information on pH (optional):

(This field is limited to 1000 characters)

pH has remained relatively stable at Ginini Flats Subalpine Bog Complex, ranging from 4.5-9.5 pH from 1999 to 2010.

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☒(Update) Changes at RIS update No change ☐ Increase ☐ Decrease ☐ Unknown ☒Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Euhaline/Eusaline (30-40 g/l) ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Hyperhaline/Hypersaline (>40 g/l) ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Unknown ☐

Please provide further information on salinity (optional):

(This field is limited to 1000 characters)

(ECD) Dissolved gases in water

(This field is limited to 1000 characters)

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Mesotrophic ☐(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐Oligotrophic ☒(Update) Changes at RIS update No change ☐ Increase ☐ Decrease ☐ Unknown ☒

Dystrophic ☐

(Update) Changes at RIS update No change ☒ Increase ☐ Decrease ☐ Unknown ☐

Unknown ☐

Please provide further information on dissolved or suspended nutrients (optional):

(This field is limited to 1000 characters)

(ECD) Dissolved organic carbon	
(ECD) Redox potential of water and sediments	
(ECD) Water conductivity	Low conductivity

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ☒ ii) significantly different ☐ site itself:

If the surrounding area differs from the Ramsar Site, please indicate how: (Please tick all categories that apply)

Surrounding area has greater urbanisation or development ☐

Surrounding area has higher human population density ☐

Surrounding area has more intensive agricultural use ☐

Surrounding area has significantly different land cover or habitat types ☐

Please describe other ways in which the surrounding area is different:

(This field is limited to 2000 characters)

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Please select below all relevant ecosystem services/benefits currently provided by the site and indicate their relative importance in the right-hand column.

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Erosion protection	Soil, sediment and nutrient retention	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climatic processes	Medium
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Inspiration	High
Spiritual and inspirational	Spiritual and religious values	High
Scientific and educational	Major scientific study site	
Scientific and educational	Type location for a taxon	Medium
Scientific and educational	Long-term monitoring site	Low
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Accumulation of organic matter	Medium
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	Medium
Nutrient cycling	Carbon storage/sequestration	Medium

Optional text box to provide further information
(This field is limited to 2500 characters)

Other ecosystem service(s) not included above:
(This field is limited to 2000 characters)

Please make a rough estimate of the approximate number of people who directly benefit from the ecological services provided by this site (estimate at least in orders of magnitude: 10s, 100s, 1000s, 10 000s etc.):

Within the site:

Outside the site:

386,000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ☐ No ☒ Unknown ☐

Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies may be located (e.g. website links, citation of published literature):
(This field is limited to 2500 characters)

4.5.2 - Social and cultural values

Is the site considered internationally important for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? If so, please describe this importance under one or more of the four following categories. You should not list here any values derived from non-sustainable exploitation or which result in detrimental ecological changes.

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

Description if applicable
(This field is limited to 2500 characters)

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

Description if applicable
(This field is limited to 2500 characters)

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

Description if applicable
(This field is limited to 2500 characters)

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

Description if applicable
(This field is limited to 2500 characters)

4.6 - Ecological processes

This section is not intended for completion as part of a standard RIS, but is included for completeness as part of the agreed format of a "full" Ecological Character Description (ECD) outlined by Resolution X.15

(ECD) Primary production	N/A
(ECD) Nutrient cycling	Peat bogs such as Ginini Flats can be important components of aquatic and terrestrial systems as they are able to influence ecosystem function by storage of organic matter, alteration of hydrology and interception or transformation of nutrients.
(ECD) Carbon cycling	
(ECD) Animal reproductive productivity	

(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	
(ECD) Notable species interactions, including grazing, predation, competition, diseases and pathogens	
(ECD) Notable aspects concerning animal and plant dispersal	
(ECD) Notable aspects concerning migration	
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
<no data available>		

Other

Category	Within the Ramsar Site	In the surrounding area
<no data available>		

Provide further information on the land tenure / ownership regime (optional):

(This field is limited to 1000 characters)

Ginini Flats Subalpine Bog Complex is encompassed within the Namadgi National Park in the Australian Capital Territory (ACT), which is managed by Parks and Conservation Service (PCS), a branch within the ACT Government, Environment and Planning Directorate. The western edge of the site extends close to the boundary between the ACT and NSW. Bimberi Nature Reserve is located on the NSW side of the border, offering similar protection to that of a national park. All of the upper and middle sub-catchments of the Ginini Flats Subalpine Bog Complex are protected in Namadgi National Park.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

(This field is limited to 1000 characters)

ACT Parks and Conservation Service | Environment and Planning Directorate | ACT Government
Murrumbidgee River Corridor Parks and Conservation Depot.
1541 Cotter Rd Casuarina Sands ACT 2611

Provide the name and title of the person or people with responsibility for the wetland:

Tim Chaseling, Area Manager

Postal address:

(This field is limited to 1000 characters)

GPO Box 158 Canberra ACT 2601

E-mail address:

tim.chaseling@act.gov.au

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	unknown impact	unknown impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Unspecified/others	unknown impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
<no data available>						

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts	unknown impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Temperature extremes	unknown impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Unspecified	unknown impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Please describe any other threats (optional):

(This field is limited to 3000 characters)

The Ginini Flats Subalpine Bog Complex is protected within a National Park, limiting potential human threats to the site such as development and upper catchment impacts. Threats to the ecological character of Ginini Flats Subalpine Bog Complex include climate change, fire, feral animals, weeds, chytrid fungus and changes to catchment infrastructure.

5.2.2 - Legal conservation status

Please list any other relevant conservation status, at global, regional or national level and specify the boundary relationships with the Ramsar Site:

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
<no data available>			

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
<no data available>			

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Park	Namadgi		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
<no data available>			

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☒

III Natural Mbnument: protected area managed mainly for conservation of specific natural features ☐

IV/Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Implemented
Catchment management initiatives/controls	Implemented
Habitat manipulation/enhancement	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Reintroductions	Implemented
Control of invasive alien plants	Implemented
Control of invasive alien animals	Implemented

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Research	Implemented

Other:

(This field is limited to 3000 characters)

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Is the management plan/planning implemented? Yes ☐ No ☒

The management plan covers

Is the management plan currently subject to review and update? Yes ☐ No ☒

Has a management effectiveness assessment been undertaken for the site? Yes ☐ No ☒

Please give link to site-specific plan or other relevant management plan if this is available via the Internet or upload it in section 'Additional material':

(This field is limited to 500 characters)

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ☐ No ☒

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

(This field is limited to 1000 characters)

URL of site-related webpage (if relevant): http://www.tams.act.gov.au/_data/assets/pdf_file/0007/387934/WEB_Namadgi_National_Park_Summary.pdf

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, the site has already been restored

Has the plan been implemented? Yes ☐ No ☒

The restoration plan covers:

Is the plan currently being reviewed and updated? Yes ☐ No ☒

Where the restoration is being undertaken to mitigate or respond to a threat or threats identified in this RIS, please indicate it / them:

(This field is limited to 1000 characters)

Further information
(This field is limited to 2500 characters)

Restoration was undertaken post the 2003 fires. Restoration has been finalised.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant community	Implemented
Animal community	Implemented
Water regime monitoring	Proposed

Please indicate other monitoring activities:

(This field is limited to 3000 characters)

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

(This field is limited to 3000 characters)

Please refer to the bibliography contained in the bibliography contained in the Ginini Flats Wetland Complex Ramsar Site management plan at 6.1.2v.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

 [AJ793ECD.pdf](#)

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

 [AJ793_mgt170629.pdf](#)

vi. other published literature

<no file available>

Please note that any documents uploaded here will be made publicly available.

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



West Ginini (ACT Government, 11-02-2013)



Peat flow (ACT Government, 11-02-2013)

6.1.4 - Designation letter and related data

Designation letter

 [AJ793_DesLet170814.pdf](#)

Date of Designation 1996-03-11