



ACT Heritage Council

Entry to the ACT Heritage Register

Heritage Act 2004

20076. Bendora Arboretum

Namadgi National Park

District of COTTER RIVER

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This entry which was previously part of the old heritage places or the old heritage objects registers (as defined in the *Heritage Act 2004*), as the case may be, is taken to be registered under the *Heritage Act 2004*.

Conservation Requirements (including Specific Requirements), as defined under the *Heritage Act 2004*, that are contained within this document are taken to be Heritage Guidelines applying to this place or object, as the case may be.

Information restricted under *the old heritage places register or old heritage objects register* is restricted under the *Heritage Act 2004*.

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ACT Heritage Council

**AUSTRALIAN CAPITAL TERRITORY
PROPOSED ENTRY TO AN INTERIM HERITAGE PLACES REGISTER
FOR:**

BENDORA ARBORETUM, NAMADGI NATIONAL PARK

For the purposes of s. 54 of the *Land (Planning and Environment) Act 1991*, this heritage assessment for the above place has been prepared by the ACT Heritage Council as the basis for its inclusion within an interim Heritage Places Register.

Notification effective: 3 September 2004

Background material about this place and additional copies of the entry are available from:

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BENDORA ARBOTETUM

LOCATION OF PLACE:

Bendora¹ Arboretum is located in Namadgi National Park, approximately 9 km by road south of the junction of Mount Franklin Road and Brindabella Road (Piccadilly Circus) in the Brindabella Ranges to the west of Canberra. Access is via a 1.4 km gravel road (Chalet Road) intersecting with the Mount Franklin Road 4.6 km south of the gate at Bulls Head, or midway between Bulls Head and Mount Franklin. (Refer Figure 1 below).

The boundary points for Bendora Arboretum are as follows, starting at the North West point and moving in a clockwise direction:

- 662 984 E 6 078 708 N
- 663 312 E 6 078 611 N
- 663 262 E 6 078 407 N
- 662 987 E 6 078 499 N
- 663 012 E 6 078 624 N
- 662 974 E 6 078 633 N

All coordinates are Zone 55 MGA metres on GDA datum.

Bendora Hut is located within the nominated boundary for the Bendora Arboretum (District of Cotter River, Block 18 (part) as indicated on the Territory Plan Map by the Heritage Places Register Overlay H57). The hut has been registered as an individual item on the ACT Heritage Places Register (Refer Figure 2 below).

FEATURES INTRINSIC TO THE HERITAGE SIGNIFICANCE OF BENDORA ARBOTETUM :

The place comprises an arboretum, being a series of approximately fifty-five planted and four vacant plots (refer A1) usually of 0.04 hectares, each typically planted with up to 81 specimens of a single species, in nine rows of nine trees (Refer Figure 3). The varieties of exotic trees were planted for silviculture and forestry scientific purposes between 1940 and 1969. Bendora Hut is located within the nominated precinct, and was originally built as a shelter for those establishing the arboretum.

The features which contribute to the heritage significance of the Bendora Arboretum, and which require conservation, comprise:

- The plots (approximately 60), including the trees;
- The layout of the plots;
- The relationship of the plantings to the nearby Bendora Hut; and
- The aesthetic qualities of the arboretum being the contrast between the exotic planting and the surrounding bush land.
- Records that document establishment of the arboretum and subsequent scientific research.

¹ An alternative spelling “Bendoura” is found on older maps.

Glossary

Arboreta	a plot of land where different trees or shrubs are grown for study or popular interest.
Silviculture	the cultivation of forest trees
Provenance	different localities within a species' natural range

STATEMENT OF SIGNIFICANCE

Bendora Arboretum is the only remaining example of a series of 21 arboreta established in the Brindabella Ranges by successive Commonwealth bodies charged with the setting up of research stations to investigate silviculture and forest management in Australia. The arboretum is a tangible outcome of Commonwealth forest research activities, which were aimed at producing softwood timber in Australia to substitute for imported materials.

The arboretum demonstrates the scientific thinking of the time at which it was established (1940). Fifty-two different species were planted, formally laid out, typically in blocks containing eighty-one trees. The plantings allow assessment of the species performance under similar site conditions, and comparison with other sites, and also enable assessment of the susceptibility of particular species to snow and wind damage.

The arboretum demonstrates the continuity of forest research in the ACT. In 1969, a trial of five provenances of Weymouth pine (*Pinus strobus*) was established in the arboretum along with a trial to assess and compare the survival and growth of four species of *Pseudotsuga* (including Douglas-fir and two species from Asia) and a fir, *Abies pindrow* (from Asia). The site continues to be visited by forestry students from the Australian National University, and to be used as a research site.

The arboretum is valued by the public as the last remaining example of arboreta in the Brindabella Ranges. It is also valued for its near-mature examples of famous tree species from other parts of the world, mainly from the Northern Hemisphere. The arboretum contains many excellent examples of exotic conifers established 50-60 years ago. Interesting species include two larch and their hybrid, an unusual stand of mature Lawson's cypress, spruce pine (*Pinus glabra*), sugar pine (*Pinus lambertiana*) and *Widdringtonia juniperoides* (unfortunately almost dead). The arboretum is also valued for its aesthetic qualities and the contrast of exotic species with the surrounding eucalypt forest.

Bendora Arboretum is an excellent example of an arboretum and its function. Forestry research is now able to take a different approach and it is unlikely that a conifer arboretum of this scale and standard would again be established in Australia purely for research purposes.

The arboretum is associated with Bendora Arboretum hut (separately listed). It was constructed for protection of the workers establishing the arboretum and is located at the track entrance to the arboretum. It is the only remaining shelter hut constructed by the Commonwealth Forestry Bureau.

The CSIRO Division of Forestry and Forest Products currently stores the records that document establishment of Bendora Arboretum and subsequent scientific recordings. These records are largely hand written notes, detailing such things as plant origins, planting methods and periodic growth measurements (1940-70), which enable the scientific values of the arboretum to be realised.

SPECIFIC REQUIREMENTS FOR THE CONSERVATION OF BENDORA ARBORETUM

In accordance with s.54 of the *Land (Planning and Environment) Act 1991*, the following specific requirements are identified as essential to the conservation of the heritage significance of the place. The guiding Conservation Objective is:

The features of Bendora Arboretum that contribute to its heritage significance, including the planted trees and the associated hut, shall be managed to conserve the significance of the place as a research site.

Any action relating to these requirements may require approval prior to undertaking the activity. It may be an offence to undertake an activity without approval.

Conservation Objective 1.

Conserve the Arboretum for the length of its natural life.

Conservation Objective 1.1

Provide a framework for the protection, management and use of the Arboretum.

Specific Requirements for Conservation Objective 1.1:

- (a) A Conservation Management Plan (CMP) should be developed for the place to guide its conservation and future use.

Conservation Objective 1.2

Protect the Arboretum from destruction by fire from inside or outside the site.

Specific Requirements for Conservation Objective 1.2:

- (a) Firebreaks shall be maintained around and between the plots by the land manager. Firebreaks should be renewed at least biannually.
- (b) Within the arboretum:
- trees should be pruned to a height of 3-4 metres, where feasible
 - standing dead trees should be removed and debris should be cleared, either by burning in heaps under safe conditions, or by other appropriate means
 - wildings should be removed
 - internal firebreaks should be maintained to prevent fire hazard developing and to retain easy access for people who wish to visit the arboretum

- (c) Relevant ACT Bush Fire Fuel Reduction Management Plans should address protection of the Bendora Arboretum from fire.

Conservation Objective 1.3

Conserve the health of the Arboretum trees for their natural life.

Specific Requirements for Conservation Objective 1.3:

- (a) Periodic thinning and removal of deadfall wood and wildings should be carried out by, or with advice from an experienced arboriculturalist.
- (b) Stands of particular species within the Arboretum that come to reproductive maturity and can be demonstrated, to the satisfaction of the Conservator, to be the source of substantial wilding spread beyond the boundaries of the arboretum, may be removed.
- (c) The plots may be cleared in the future when the trees in the plots reach senescence and die (est. c.2050). The plots may then be cleared to allow the arboretum site to return to the local native species of mountain gum (*Eucalyptus dalrympleana*), and alpine ash (*Eucalyptus delegatensis*) and their associated understoreys. Prior to clearing of any plots a heritage assessment shall be commissioned by the land manager and undertaken by a professional heritage consultant.

CONSERVATION OBJECTIVE 2.

Conserve the scientific significance of the place.

Conservation Objective 2.1

Complete the forestry research experiment

Specific Requirements for Conservation Objective 2.1.

- (a) The quantitative and scientific interpretation of performance and selection of the best seed sources for future plantings shall continue to completion. The plots of trees established in 1969 viz. provenance trial of *Pinus strobus* and the trial of four species of *Pseudotsuga* shall be measured, and thinned as necessary.
- (b) The condition and measurements of trees in all plots shall be periodically assessed by the land manager. This task shall be undertaken at intervals of not more than ten years.
- (c) The arboretum records shall be copied and archived in safe conditions and in suitable locations by the land manager. (These largely hand written notes, detailing such things as plant origins, planting methods and periodic growth measurements (1940-70), are currently stored at the CSIRO Division of Forestry and Forest Products, Yarralumla).
- (d) Research outcomes should be published.

MANAGEMENT RECOMMENDATIONS:

In assessing this place for the interim Heritage Places Register, the Council recommends that a number of actions and activities should be undertaken which will enhance the heritage values of the place. They are made as recommendations and have no legal effect.

It is recommended the heritage values of the arboretum be interpreted to the public, as follows:

- (a) provide a sign board to inform people about the arboretum;
- (b) provide labels for the plots;
- (c) provide a leaflet to describe the various tree species in the plots, and include a map of the plots, and
- (d) provide a signpost to the arboretum at the track junction with Mt Franklin road.

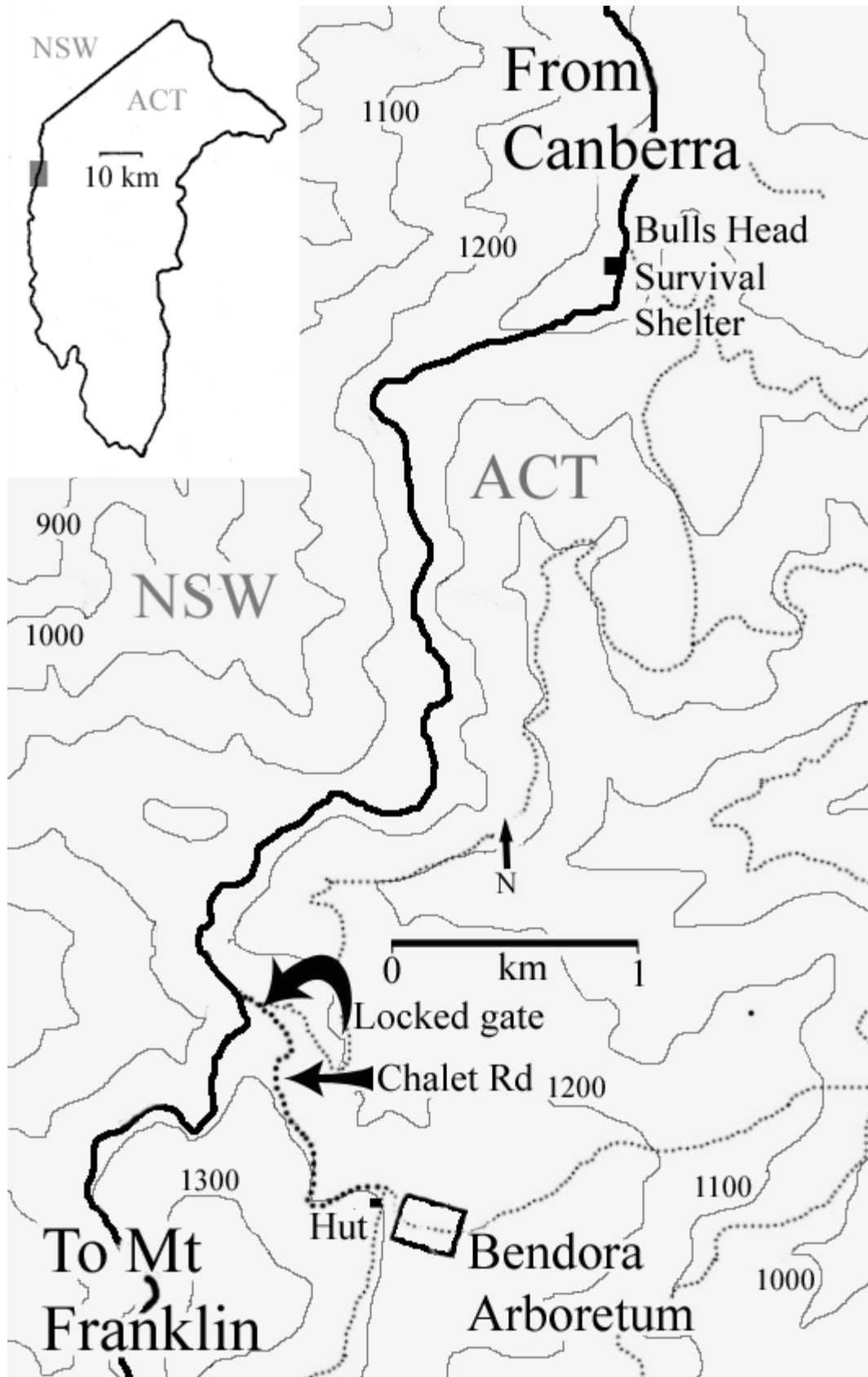


Figure 1
 Bendora Arboretum, Location Plan, Alan G. Brown - FACTA, 2004

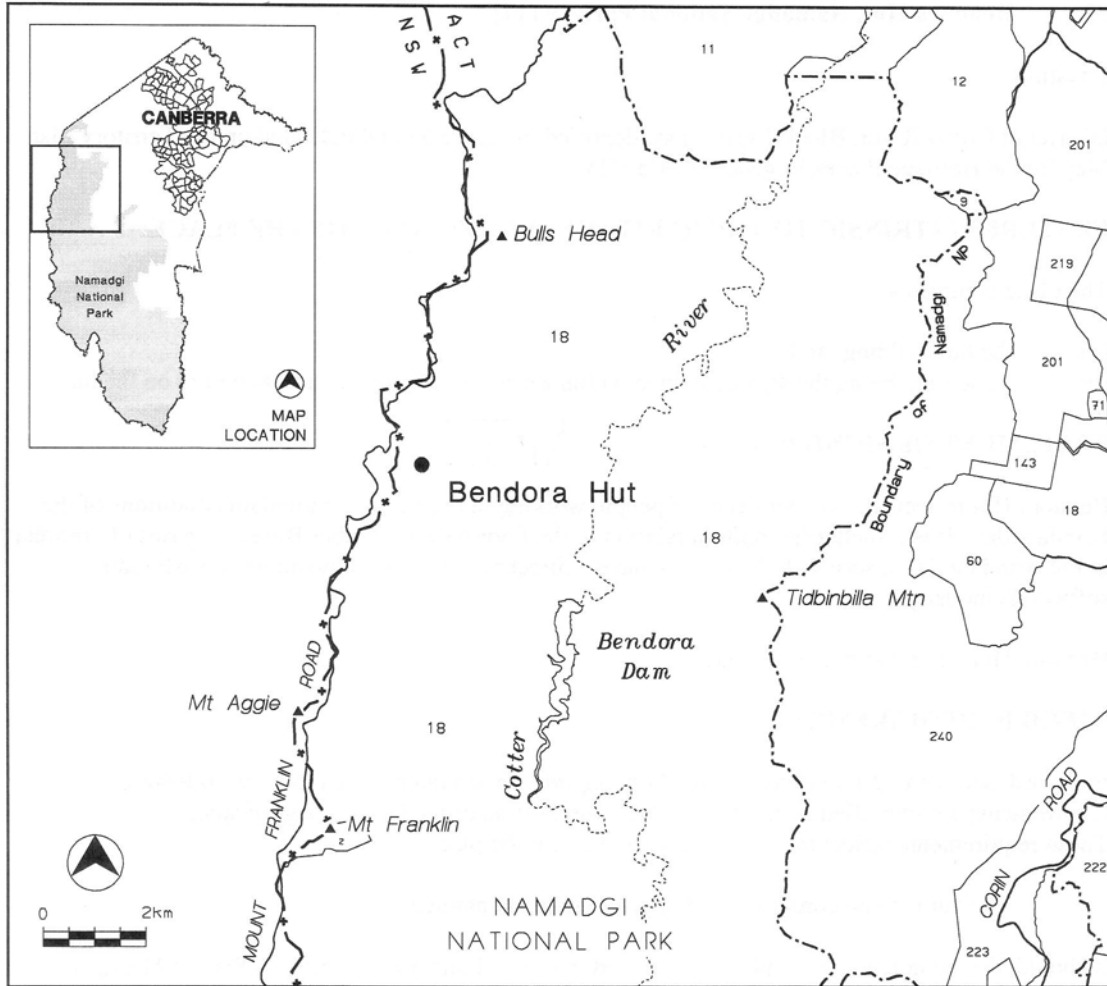


Figure 2
 Locational Plan for Bendora Hut : District of Cotter River, Block 18 (part).
Territory Plan Map Heritage Places Register Overlay H57.

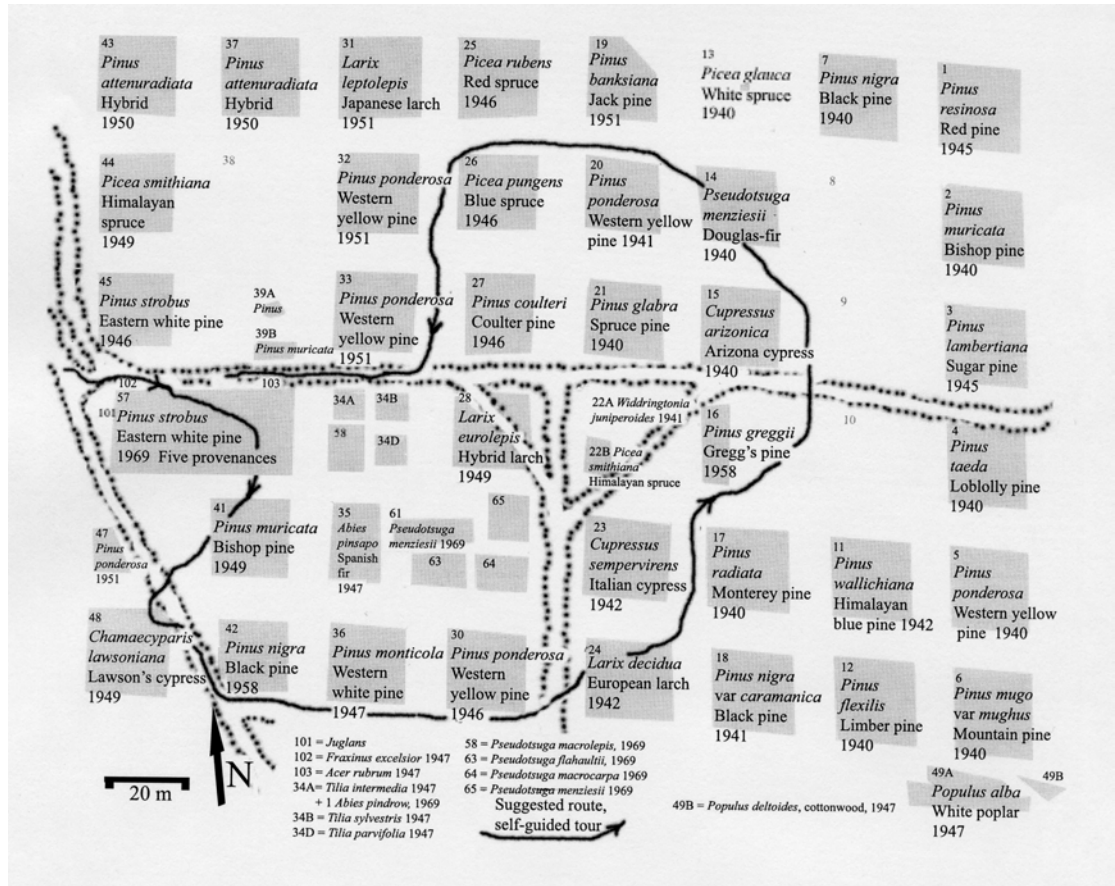


Figure 3
 Post-fire revised layout of plots at Bendora Arboretum
 Alan G. Brown – FACTA, 2004.