3.0 Cultural Features Overview & Description

3.1 The ~~Yarrangobilly Caves Precinct~~Yarrangobilly Caves House Precinct

3.1.1. Study Area

The ~~Yarrangobilly Caves Precinct~~Yarrangobilly Caves House Precinct comprises the area roughly bounded by Mill Creek and a minor tributary to the north, the Snowy Mountains Highway [the flanks of the Fiery range below 1100 metres] to the east, the west side of the Yarrangobilly River to the west and a line through the valley of Little Glory Hole Creek roughly following the one way traffic exit road to the south.

The large precinct includes Aboriginal cultural features, the natural environment and fauna and items introduced by European occupation and technology. The readily visible surviving items are associated with European occupation including introduced exotic plantings. Located roughly from north to south the main features are:

1. The Show Caves -The Jillabenan
   -The Castle Cave
   -The Harrie Wood Cave
   -Jersey Cave and
   -The Glory Hole Cave, -North and South branches
2. The Hydro Electric Scheme and infra-structure
3. The Picnic Grounds
4. The Caves House Complex
5. The two Rangers Cottages
6. The Workshop
7. The Thermal Pool and Change Rooms
8. The Glory Hole Farm site and
9. Infrastructure in the form of roadways, tracks, water storage tanks, and so on.

Aboriginal sites have also been identified in the Picnic Grounds and along the watercourses. Exotic plantings mainly in the form of avenues along existing roadways and feature plantings within managed grounds are addressed in ~~????~~ 3.3.7 and 3.3.9. The site also includes sub-surface archaeological deposits associated with former buildings, which are addressed in ~~????~~ 3.5.

The outer areas of the precinct are generally native bushland.

3.1.2 Section Layout

This Section is divided into ~~three~~ four subsections:

Aboriginal Cultural Heritage [Section 3.2]

Natural Heritage [Section 3.3]

European Cultural Features [Section 3.4]

Chronological Development of the Caves House Complex [Section 3.5]

3.2 Aboriginal Cultural Heritage

3.2.1 Local Archaeological Context

~~There has been only one comprehensive archaeological survey for Aboriginal sites within the precinct.~~ Barber (1999) surveyed a straight line transect between the radio hut and the Rules Creek valley floor for the proposed ~~installation~~replacement of a Telstra cable. An open camp site was known to be located along this route. A site plan accompanying the ~~recording~~NPWS Site Form, places the site at the eastern end of the main picnic area. The artefact scatter commences at the end of the gravel portion of the road and extends along and adjacent to the dirt portion for 90m in an easterly direction.

Riley also noted isolated artefacts along the access road, which veers off in a westerly direction to the western portion of the main picnic area. Here artefacts are scattered amongst the picnic tables along the creek to the footbridge.

Feary investigated this site in 1985 for an impact assessment of a proposed picnic shelter in the eastern part of the picnic area. She described the assemblage along the road as having been disturbed by vehicle traffic and water run-off but that it was likely to extend over a wider area presently obscured by grass cover. She described the assemblage as late Holocene consisting mainly of unretouched flakes on quartz and fine grained siliceous rock but unusual in their size suggesting a nearby stone source or that the smaller pieces remain undetected. Feary noted that some systematic archaeological investigation in the area was necessary to determine the relative significance of the site. She argued the site had significance because of its relative rarity. She recommended sub surface testing to determine the lateral and vertical nature of the site and local stone sources. She also recommended collection for display in the Visitors Centre. Neither of these recommendations appear to have been enacted. The picnic shelter has been constructed.

In 1991 Ian Johnson made additional recordings of twelve [12] artefacts at this site, including 2 artefacts at the toilet block in the western portion of the picnic area. The artefacts are described

as comprising two cores and flakes on silcrete and chert, most < 2-3cm. These recordings are appended to Riley's 1985 NPWS Ssite Fform.

In 1999 Barber investigated this area as part of a survey for thea proposed Telstra Cable route between the Visitors centre and a Radio Hut 800m to the north along a pre-existing cable route. Barber found no evidence of this site. He concluded it had been destroyed or collected or both despite there having been no investigation as recommended by Feary. He recommended a Consent to Destroy. The Tumut Bungle LALC did not agree to this course of action. The Telstra cable has not yet been installed.

This site is still in existence. During the present study an inspection of the area located stone artefacts along the dirt -portion of the access road, -adjacent to the car park [closed off by a log barrier], around the area of the new picnic shelter and along the western access road to the toilet block as Riley had described the site. The site is currently being actively managed and preserved with the introduction of log barriers to keep traffic, both vehicular and pedestrainpedestrian away from it.

A further survey was completed as part of the proposed sewerage upgrade program by Kuskie and Webster (2001). This survey covered areas around the Visitor Centre, Caves House, Thermal Pool and the large cleared area around Cottage 1 and 2 and the Workshop. Two additional sites were found, one at the Thermal Pool and one in the cleared area between Cottage 1 and Cottage 2.

3.2.2 NPWS Recorded Sites

1. Leo Hoad Gates Site: NPWS Site # 57-6-321

This site is near the Leo Hoad Gates about 80m from Rules Creek. Barber (1999) described this site as containing a visible scatter over 10x35m and up to 20cm deep in section. 2 artefacts had been collected from this site. Although registered, there is no site form in the NPWS Register of Aboriginal Sites for this site. It is likely Riley recorded this site.

This site was inspected during the present study. The artefact scatters in this area appear to be fairly limited and are visible where subsurface disturbance has caused their exposure. Further disturbance is unlikely if the access road is to continue in its current use.

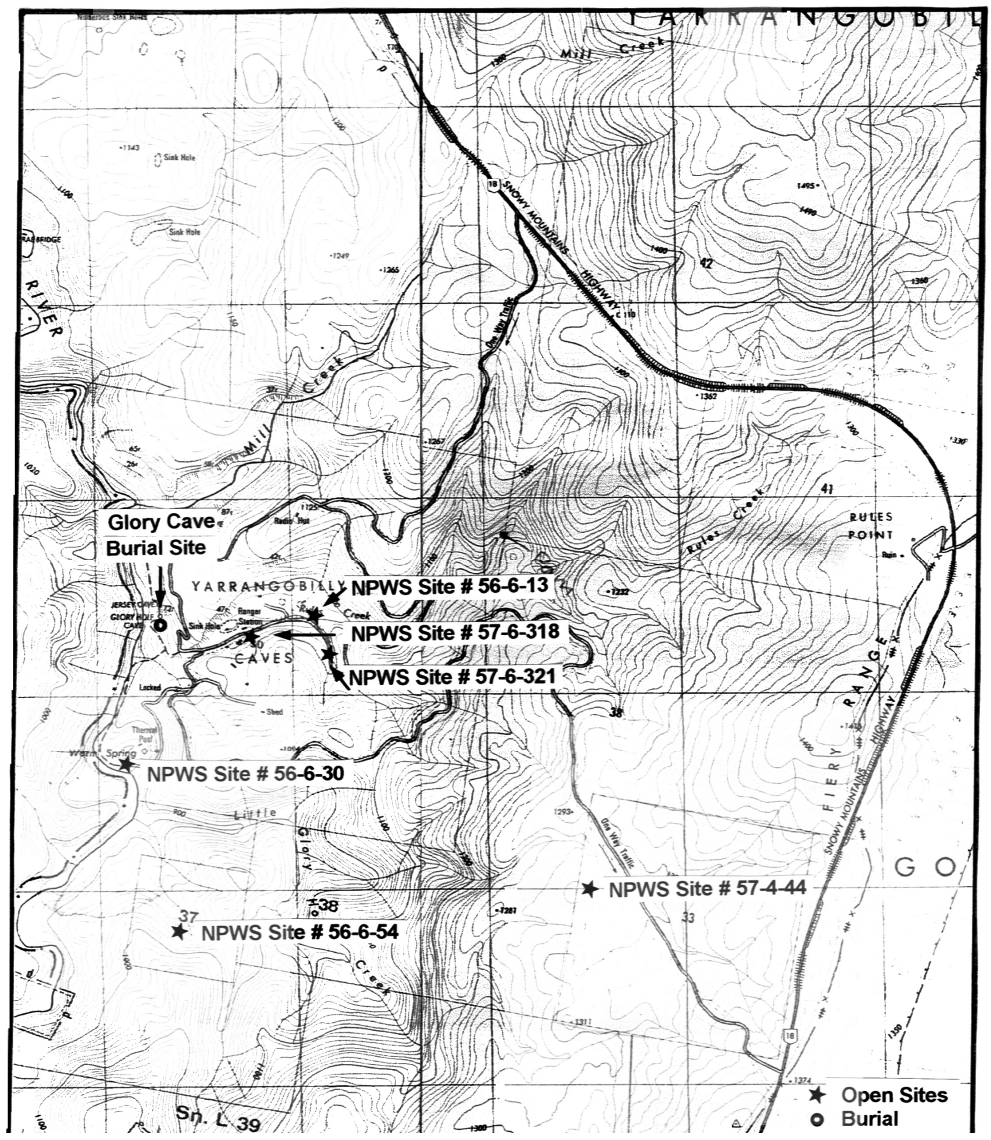
-There are additional level areas adjacent [south] to the main access roadroad, which also have potential to contain additional material.

2. Caves House Open Artefact Scatter Site: NPWS Site # 57-6-318

There is an open scatter of artefacts opposite the Visitors Centre around Caves House and its access track on a gently inclined slope about 80m from Rules Creek. The visible open artefact scatter in this area is restricted to the dirt road exposure along the access road to the c.1966

cottage. There is low potential for intact subsurface potentially artefact bearing deposit in this location. Although registered, there is no site form in the NPWS Register of Aboriginal Sites for this site. It is likely Riley recorded this site and it is possible Johnson provided additional artefact recordings.

There is an open scatter of artefacts opposite the Visitors Centre around Caves House and its



access track on a gently inclined slope about 80m from Rules Creek. The visible open artefact scatter in this area is restricted to the dirt road exposure along the access road to the c.1966 cottage. There is low potential for intact subsurface potentially artefact bearing deposit in this

~~location. Although registered, there is no site form in the NPWS Register of Aboriginal Sites for this site. It is likely Riley recorded this site and it is possible Johnson provided additional artefact recordings.~~

Figure 3.1 Known Aboriginal site locations.

~~Figure 3. 1 Shows the known Aboriginal site locations .~~

3. Thermal Pool Open Artefact Scatter Site: NPWS Site #56-6-30

This is an open scatter of artefacts over 300m at the Thermal Pool end of the River Walk. Recorded by Riley in 1985. The site comprises 22 chert flakes, one of which had signs of secondary working. A good site plan is attached to the NPWS Site Form~~site form~~.

The artefacts subsequently recorded by Johnson in 1991, included seven [7] artefacts located at NPWS Site 56-6-30 around the Thermal pool suggesting a broader scatter than that recorded by Riley at the beginning of the River Walk.

4. Addition to Thermal Pool open artefact scatter Site YC15

This site is located along the vehicle track to the original amenities block. The site consists of two chert flakes.

45.

Glory Hole Farm Artefact Scatters: NPWS Site # 56-6-54

The~~is~~ NPWS Site Form ~~site form~~ refers to detailed artefact recordings made by Johnson during his 1991 Kosciusko National Park baseline heritage study (Johnson 1992). Four [4] artefacts were recorded along the Glory ~~[~~Hole~~]~~ Farm Track; a further thirteen [13] artefacts were recorded on tracks at the Farm; and, six [6] artefacts located 40m north west of Farm. No site plans and minimal contextual information was supplied.

56. Glory Cave Burial Site

There is no NPWS Site form for this well known site. ~~This site was visited by T.A. Murray and S.M. Mowle~~T.A. Murray and S.M. Mowle visited this site as early as 1839. ~~The Aboriginal~~The ~~burial~~Aboriginal burial was located in the Self Guided cave. They reported many human bones and reportedly removed two skulls, probably from the Glory Hole or North Glory Cave. There are conflicting reports about where this material ended up [either in the Melbourne Mining Museum or in Mowles' private collection].

Flood[1] ~~(1980:179ff see also Plate 29)~~ surveyed a number of the Yarrangobilly Caves, specifically to inspect this location but found no further evidence of Aboriginal occupation, art or

[1] ~~Flood 1980, p179ff see also Plate 29.~~

burial. She dug 'small test pits' into the earth floors of the north and south Glory Cave and the Castle Cave. The pits contained no Aboriginal cultural remains. It is not known which of the other caves she surveyed nor the extent of her surveys. It is known she inspected cave entrances 1.5km upstream and similarly found them sterile. She argued these caves were too cold even in summer to have afforded an ~~attractive place~~attractive place to camp, particularly given their general context in a narrow damp and sunless gorge.

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~~Figure 3.2 shows areas of archaeological sensitivity identified during the present study along the Rules Creek valley.~~

~~6~~7. Little Plain Open Camp Site: NPWS Site # 57-4-44

This is an extensive open camp site located on Little Plain at a proposed helipad site. Spate and Sullivan of the NPWS recorded the site as present on all exposures and ground

disturbances over an area of 1km square around the helipad site. The grid reference places the site at the north western corner of the Freehold land on Little Plain acquired c. 1970's. The site was assessed as having high research value. Artefact densities ranged between 1-5/m2 [up to 10/m2] demonstrating a "blade" ~~–~~technology, possibly Bondaian. There were flaking or work floors of quartz, acid volcanics, silcrete and indurated mudstone. No site plan was provided. It is not presently known whether the location of the current helipad site [an emergency refuelling site] took into account the full extent of this site or whether the current refuelling site location was comprehensively surveyed for A~~a~~boriginal sites.

8. Cottage 2 and 2 Artifact Scatter – YC13

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This site is located on the gentle slopes surrounding the former market garden situated between the 1956 Guides Accommodation Cottage and the 1968 Manager's Residence. Artefacts were found on the northern, eastern and south eastern slopes of the survey area. Chert was the material used for all seven [7] artefacts and two [2] lithic fragments. The site was assessed as being of low archaeological significance within a local and regional context.

~~Figure 1 shows the known site locations.~~

3.24.3 Small Area Reconnaissance Findings in February, 2000

The present study did not involve systematic survey for Aboriginal sites. Some small area reconnaissance was conducted in known site locations to verify or amend previous recordings.

The current survey identified artefact scatters at the following locations:

1. **The Leo Hoad Gates Site: NPWS Site # 57-5-321.**

Detailed comparison with the original recording could not be made. However adjacent areas include relative flat and slightly elevated ground, which have good potential for additional artefact scatters.

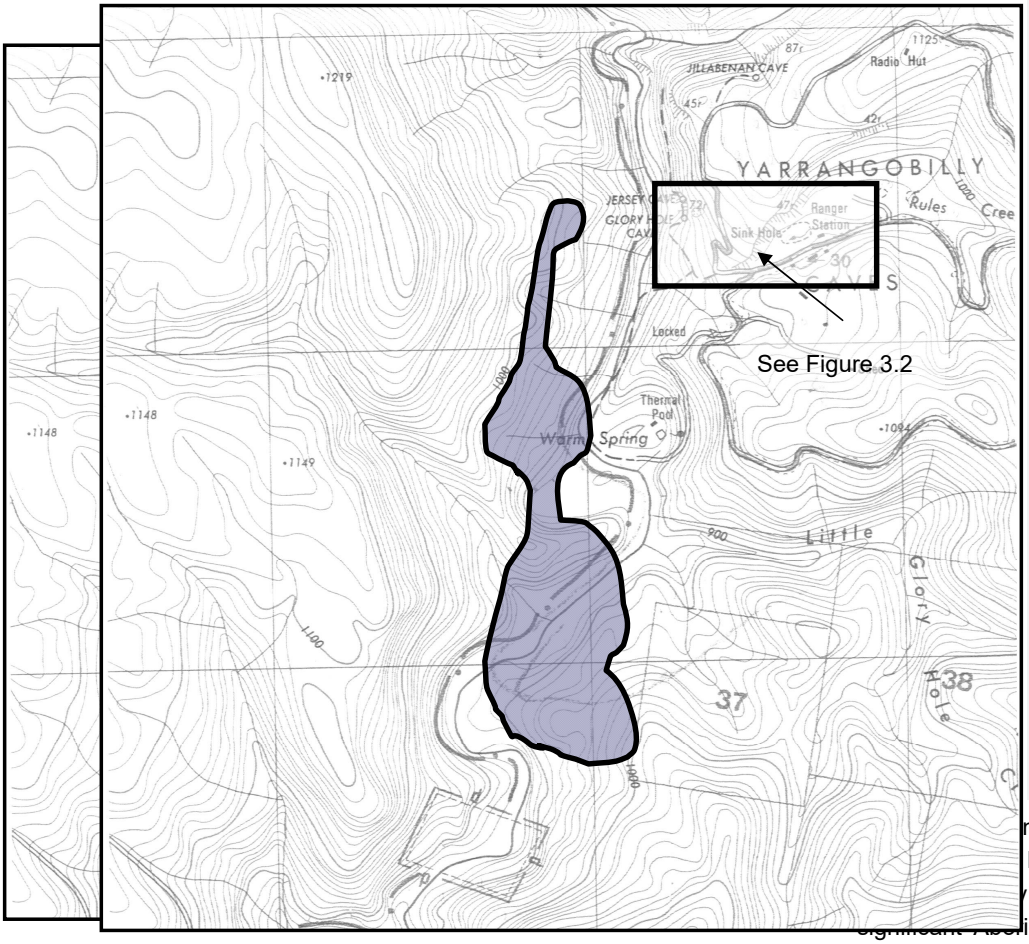
2. **Picnic Shelter and Car Park Site: NPWS Site # 57-5-13.**

Additional artefacts were noted on the road up to and adjacent to the new Toilet Block [western end of picnic area]. It is considered the entire northern creek flats throughout which the main picnic area is situated has potential subsurface artefact bearing deposit. Potential deposit could extend to and include portions of the lower slopes

3. **Vicinity of Caves House**

Along saddle above Caves House along the access road to ~~Guides House~~the formerly asbestos cement clad Rangers cottage. ~~[Do you mean the Rangers House?].~~ Aartefacts were observed on road exposures over about 50m along the saddle immediately above Caves House. The

saddle is relatively narrow and it is likely in situ artefacts are confined to the level upper portion of the saddle.



nimal have

iginal deposits

Area of High Archaeological Sensitivity containing known sites and areas of sub-surface potential

Areas with minimal potential to have archaeologically significant Aboriginal deposits

Area of Low Archaeological Sensitivity-disturbed landforms

~~Figure 3.3 Shows the area of Aboriginal archaeological sensitivity in the vicinity of the Thermal Pool and Glory [Hole] Farm.~~

Figure 3.3 Shows the area of Aboriginal archaeological sensitivity in the vicinity of the Thermal Pool and Glory [Hole] Farm.

~~Figure 3.3 Shows the area of sensitivity at the Thermal Pool and Glory [Hole] Farm.~~

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4. Camp Sites in the Vicinity of the Thermal Pool

Additional artefacts were observed on the disturbed flat below the Thermal pool towards the confluence of the old meander and the River within 50m of the start of the River Walk. The thermal pool is situated on the edge of the limestone belt in a dry meander of the Yarrangobilly

River. The springs contain little calcium carbonate[2] and may feed a number of swamps within the meander. It is likely the artefacts present represent the partially disturbed remains of a more extensive camp site which utilised the springs and was favoured by its proximity to the swamps and the river.

5. Harris Family Cemetery at the Glory Hole Farm

Additional artefacts were identified at the Harris family cemetery at Glory ~~[~~Hole~~]~~ Farm and along a track leading down slope to the Farm over a distance of approximately 30m.

[2] Rose 1964, p. 417

Figure 2 shows areas of archaeological sensitivity identified during the present study along the Rules Creek valley.

~~Figure 3 shows the area of sensitivity at the Thermal Pool and Glory [Hole] Farm.~~

3.3 Natural Heritage

3.3.1 Bioregion Location

Yarrangobilly Caves is located in the South Eastern Highlands Bioregion. The Caves are within the Southern Tablelands Botanical Subdivision. Reference as to where these bioregion and botanical ~~subdvisions~~subdivisions come from.

The Caves lie close to the Yarrangobilly River. The source of this River is the Fiery Range almost 20 km to the North of the Caves. The upper sections of the River are within the Goodradigbee wilderness area. Downstream from the Caves the River flows below Toll Bar Ridge before bending north-west to meet the Tumut River in the stored waters of Talbingo Reservoir.

The Caves House is located on a flat above Rules Creek, a minor tributary of the River. The source of Mill Creek is the southern slopes of Yarrangobilly Mountain.

The Yarrangobilly Caves House Precinct is the study area for the purposes of this report. The ~~Precinct is bounded by the Yarrangobilly River~~Yarrangobilly River bound the Precinct to the west, Mill Creek and a minor tributary to the north, the flanks of the Fiery Range below 1100 metres to the east and a line through the valley of Little Glory Hole Creek (also known as Tom's Creek) to the south.

The developed part of the Precinct is concentrated on the Rules Creek valley. To the north of this valley are steep limestone bluffs over Mill Creek. Further south there are steep slopes. Slopes become more gradual in the vicinity of the former settlements at Glory Farm and Little Plain.

3.3.2 Regional Context

The Yarrangobilly Caves House Precinct is within the Australian Alps Bioregion. This bioregion consists of "A series of high elevation plateaux capping the South Eastern Highlands and the southern tablelands of NSW. The geology consists of granitic and basalitic rocks. Vegetation is dominated by alpine herbfields, and other treeless communities, snow gum woodlands and montane forests dominated by alpine ash."3.

Table 3.1 identifies the sub-regions and provinces within the Australian Alps Bioregion (Denny 1999). Yarrangobilly Caves lie within the Yarrangobilly Province.

TABLE 3.1~~:~~ AUSTRALIAN ALPS BIOREGION – SUB-REGIONS AND PROVINCES

LANDFORMS	SUB-REGIONS	TOPOGRAPHY	PROVINCES
Relief: Greater than 360m. Very high mountains	SNOWY MOUNTAINS PEAKS	Mountainous country with steep slopes, above 1000m	MOUNT KOSCIUSKO
		Mountainous country with steep slopes, below 1000m	YARRANGOBILLY
Relief: 90-180/5-30m. Moderate hills and undulating plains	SNOWY HILLS WEST	Mountainous country with steep slopes and a multicyclic erosional landscape of hills and plains dissected by stream valleys	SNOWY HILLS WEST

The Yarrangobilly Province covers an area of 259 085Ha~~?~~. [For the extent and boundaries of the area see Appendix F] ~~Is this what we know as the management unit as per the KNP POM ie the catchment for the yarrangobilly River?.~~ It is characterised by mountainous country with steep slopes, V-shaped valleys and narrow stream valleys with small floodplains, and small open flats below 1000m altitude. The geology includes deeply weathered granite with exposed granite masses. The Province contains the Snowy Mountains Highway, Tumut River, Kiandra and Yarrangobilly Caves, as well as several reservoirs. ~~A map would be good here~~

[3] R. Thackway and I.D.Cresswell 1995 An Interim Biogeographic Regionalisation for Australia: A Framework for Setting Priorities in the National Reserves System Cooperative Program. Version 4.0 Environment Australia, Canberra

TABLE 3.2 CHARACTERISTICS OF THE YARRANGOBILLY PROVINCE

Geology	Palaeozoic Sediments 48%; Acid/Intermediate Intrusives 35%; Acid/Intermediate Volcanics 16%; Basic Volcanics 1%
Soils	Shallow Loams 98%; Deep Structured Red Clay Loams 2%
Present-day Cover	Moist Forest 60%; Dry Forests and Woodlands 23%; Frost Hollows 12%; Disturbed Forest 2%; Cleared 2%; Water bodies etc 1%
Conservation Areas	Kosciusko NP 236895ha; Bimberi NR 6500ha; Scabby Range NR 2011ha TOTAL 94.7%

3.3.3 Climate

~~The closest weather station to Yarrangobilly is at Kiandra what about the weather station at the caves. At Kiandra temperatures range from a daily average maximum of 21oC in summer to 5oC in winter. Average minima range from 6oC in summer to -4oC in winter.~~ At Yarrangobilly ~~minimum temperatures are likely to be somewhat higher than those at Kiandra as the valley is less exposed.~~the weather records for the caves show a mean summer maximum of 27.5°C falling to 8.1°C in winter. The maximum mean rainfall in winter is 146.1 mm in August with a mean low of 52.5 mm in February. By comparison, the weather station at Kiandra which is more exposed shows temperatures ranging from a daily average maximum of 21°C in summer to 5°C in winter. Average minima range from 6°C in summer to -4°C in winter at Kiandra.

The Yarrangobilly area has an annual precipitation of approximately 1300mm with a pronounced winter peak. The driest period is mid-late summer.

3.3.4 Geology

The karst area at Yarrangobilly is associated with the Silurian Yarrangobilly Limestone. The underlying strata consist of Ordovician sediments and volcanics, which were deposited into deep oceanic basins either side of a volcanic island arc. The Yarrangobilly River follows along a boundary between the Yarrangobilly Limestone and the sedimentary Silurian Ravine beds to the west. Recent alluvium is restricted to thin strips along the River and creek banks.

There is a larger alluvial basin at the junction of Yarrangobilly River and Brownleys Back Creek upstream from the Yarrangobilly Caves House Precinct and close to the Snowy Mountains Highway.

East of the Yarrangobilly Limestone the Silurian Goobarragandra Volcanics, including the Goobarragandra Porphyry beds, extend across a wide area from Long Plain and Rules Point, well to the north.

The Mill Creek waterfall, north of Caves House demonstrates a point of contact between the Goobarragandra Porphyry beds and basalts which is of particular geological interest.

The Yarrangobilly Limestone forms a north-south trending belt 12 km in length and 1 km in width. This karst area includes a full range of caves, dolines and areas of disrupted drainage.

The cave systems began to develop during the Pleistocene period. The karst area includes at least ~~269~~ 280 known caves. Four of these caves are developed tourist caves. The Yarrangobilly karst has been the subject of a significant amount of speleological research including karst hydrology, cave systems and cave fauna. ~~(NPWS 1983).~~[4]

3.3.5 Soils

Soils associated with Yarrangobilly Limestone are calcareous, red or brown clay loams. Soils are typically shallow, with rapid infiltration of surface water and of moderate to high erosion potential. These soils are of restricted distribution along the highlands of New South Wales, due to the restricted nature of limestone geology within the highlands.

3.3.6 Vegetation

A study of the vegetation of the Yarrangobilly catchment for the Jounama Pine plantation Environmental Impact Statement identified eight vegetation units, seven of which were natural vegetation units. These vegetation units are:

- Dry Sclerophyll Forest dominated by Red Stringybark (*E. macrorhyncha*) and Western Scribbly Gum (*E. rossii*)
- Wet Sclerophyll Forest dominated by Brown Barrel (*E. fastigata*) and Ribbon Gum (*E. viminalis*)
- Montane Sclerophyll Forest dominated by Mountain Gum (*E. dalrympleana*) and Alpine Ash (*E. delegatensis*)
- Montane Sclerophyll Forest of Alpine Ash
- Montane Savannah Woodland of Snow Gum (*E. pauciflora* ssp. *pauciflora*) and Black Sallee (*E. stellulata*)
- Subalpine Woodland dominated by Alpine Snow Gum (*E. pauciflora* ssp. *nipophila*)
- Montane Grassland dominated by Snow Grasses (*Poa* spp.), *Danthonia nudiflora* and Kangaroo Grass (*Themeda australis*).

[4] NPWS 1983

The mapping of these units was at a scale of 1:100 000 and does not provide adequate detail regarding the distribution of plant communities within the Yarrangobilly Caves House Precinct. The vegetation map indicates that four of these communities occur at Yarrangobilly Caves, Dry Sclerophyll Forest, Montane Sclerophyll Forest (Alpine Ash), Montane Sclerophyll Forest (Mountain Gum & Alpine Ash) and Wet Sclerophyll Forest.

Observations made during the field inspection indicate that a finer scale detailed assessment of the vegetation of the Yarrangobilly Caves House Precinct would identify additional vegetation map units within the Precinct.

The Draft Karst Area Management Plan indicates that that area supports several species identified as endemic to the area and a number of other species that occur within the Yarrangobilly area as disjunct populations. Detailed information on the actual species involved is not provided and these species are not discussed within the Jounama EIS (NPWS 1983). CHECK ANDY SPATE

Those plant communities known to be present in the Yarrangobilly Caves House Precinct are widespread within Kosciusko National Park and considered to be adequately preserved. It is considered possible that more detailed survey may reveal the presence of species associations that are restricted to the Yarrangobilly Limestone and which, accordingly, are of restricted distribution.

It has been claimed that the stand of Silver Banksia (*Banksia marginata*) near Jillabenan Cave is of particular significance as it was thought to have been at an altitudinal limit for the species (Draft Karst Area Management Plan)[5]. However, the species is known from the Boyd Plateau in Kanangra-Boyd National Park, where it occurs at an altitude of above 1200 metres. Hence the stand of Silver Banksia is only of local significance.

Four plant species of conservation significance have been recorded from the Yarrangobilly Caves area. A fifth, *Galium roddii*, occurs on limestone in the Cooleman Caves area and may occur at Yarrangobilly. Targetted searches for this species at Yarrangobilly have not detected the species. These species, their conservation status and habitat requirements are presented in Table 3.3*.

TABLE * THREATENED FLORA SPECIES OF THE YARRANGOBILLY CAVES AREA

Family	Scientific Name	Common Name	Risk Code	Location & Habitat Notes
Rhamnaceae	*Discaria nitida*	Alpine Anchor Plant	E1	Rocky situations, along streams in sand or gravel, often on limestone; Cooleman Caves, Yarrangobilly Caves
Rhamnaceae	*Discaria pubescens*	Australian Anchor	3RCa	Woodland, forest and grassland, often in rocky situations;

[5] Draft Karst Area Management Plan

		Plant		Yarrangobilly Caves, Snowy Mtns Highway
Rubiaceae	*Galium roddii*		2RCi	Crevices and gravel at foot of clefts in limestone; Cave Creek
Santalaceae	*Thesium australe*	Austral Toadflax	V	Grassland or woodland, often in damp sites; Yarrangobilly Caves
Scrophulariaceae	*Euphrasia scabra*		E1	Open, damp grassy situations; Yarrangobilly Caves

Austral Toadflax, *Thesium australe* was first collected from Yarrangobilly Caves in 1897. There are also records from 1952. A targetted search for this species has been undertaken recently. The presence of the species in the e Caves Precinct area was confirmed. Further targetted searches for this species should be undertaken to determine whether other populations still exist within the Yarrangobilly Caves House Precinct. It is possible that control of weed species may allow the species to recover.

There is only one record for *Euphrasia scabra*, dating from 1897. This species has also been recorded at Jenolan Caves. It was though to be extinct in New South Wales (Harden 1992), however recent surveys have located the species close to the Victorian border. Further targetted searches for this species should be undertaken to determine whether the species still exists within the Yarrangobilly Caves House Precinct, although its preferred habitat now supports dense stands of the exotic species, Blackberry (*Rubus ulmifolius*) and Tutsan (*Hypericum androsaemum*). As *Euphrasia scabra* seed is viable for a short period (McDougall pers.comm.) it is possible that the species no longer exists at Yarrangobilly Caves as competition from these exotic species has limited its chances of survival.

TABLE 3.3 THREATENED FLORA SPECIES OF THE YARRANGOBILLY CAVES AREA

Family	**Scientific Name**	**Common Name**	**Risk Code**	**Location & Habitat Notes**
Rhamnaceae	*Discaria nitida*	Alpine Anchor Plant	E1	Rocky situations, along streams in sand or gravel, often on limestone; Cooleman Caves, Yarrangobilly Caves
Rhamnaceae	*Discaria pubescens*	Australian Anchor Plant	3RCa	Woodland, forest and grassland, often in rocky situations; Yarrangobilly Caves, Snowy Mtns Highway
Rubiaceae	*Galium roddii*		2RCi	Crevices and gravel at foot of clefts in limestone; Cave Creek
Santalaceae	*Thesium australe*	Austral Toadflax	V	Grassland or woodland, often in damp sites; Yarrangobilly Caves
Scrophulariaceae	*Euphrasia scabra*		E1	Open, damp grassy situations; Yarrangobilly Caves

Risk Code Legend

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E – Endangered:	Is likely to become extinct if threats continue or numbers have reduced to critical levels or habitats have been drastically reduced.
V – Vulnerable:	Likely to become endangered unless the circumstances and factors threatening its survival or evolutionary development cease to operate.
3RC:	Range over 100km but occurs only in small populations in specific habitat, RARE, occurs in National Park.
2RC:	Range less than 100km, RARE, occurs in National Park.

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In addition to a diverse range of flowering plants, the Yarrangobilly area supports large numbers of lichen, moss and liverwort species. Many of these species are endemic to the Yarrangobilly karst area, whilst a number of others are present as disjunct populations. The diversity of these lower plants is comparable to other karst areas in New South Wales, including Abercrombie and Jenolan Caves.

~~No mention of mosses and lichens~~

3.3.7 Vegetation History ~~&~~ and Impacts of Development

European discovery of the Yarrangobilly area occurred in 183 used for grazing.

The Yarrangobilly Caves House Precinct was developed from Creek valley were cleared to construct buildings, to allow pas crops for supply of Caves House. The rugged nature of the la restricted to the flatter parts of the valley and natural vegetatio Precinct.

Photos of the Yarrangobilly Caves House Precinct around the the native vegetation of the time tended to have a grassy unc density of shrubs.

Figure 3.4 A c.1906 view of the Caves House complex with the garden on the lower ground north of the complex and surrounding bushland with a blaze cleared for the telegraph line.
[Historic Postcard reproduced courtesy of the Tumut Historical Society]

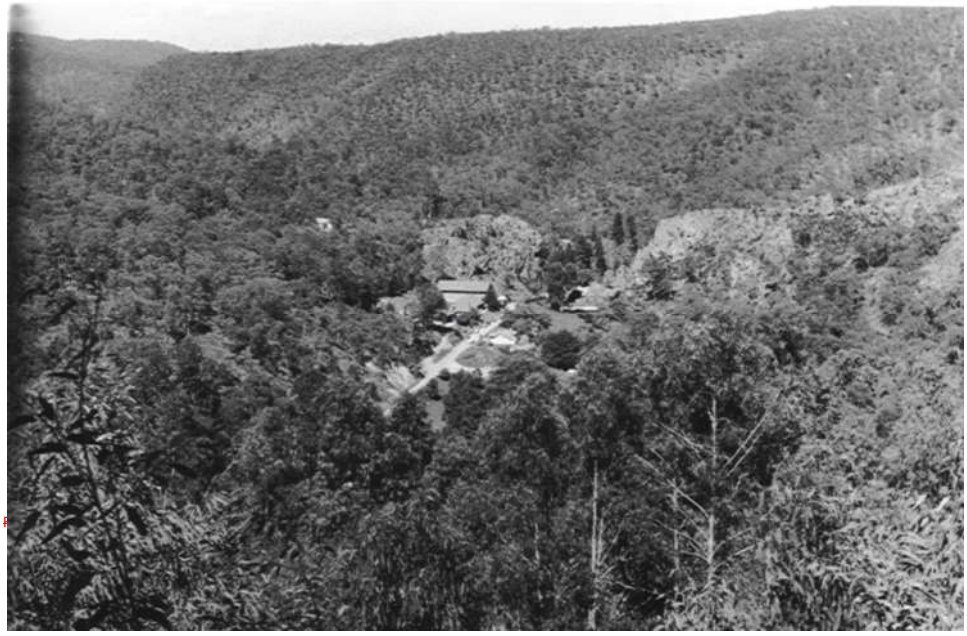

Figure 3.5 A distant c.1920 view of the Caves House complex showing rugged bush setting including the cleared areas around the complex planted with exotics and the avenue of poplars along the road leading to the caves west of the complex. In this photograph the two storey wing is complete and the 1919 caretakers cottage

~~Figures 3.4 and 3.5~~

The current situation is that these communities have an understorey where the shrub layer is more dense and the ground layer less dense. This change may be due to the following causes or a combination of these causes:

- grazing by introduced stock at the turn of the century

- changed fire regimes
- climatic change over the period
- gradual change resulting from changed land management practices since displacement of Aboriginal people from the valley

The introduction of exotic plants to the Precinct and grazing has led to invasion of the natural bushland by environmental weeds. ~~Fire regimes may also have been affected by development and use of the area~~Development and use of the area may also have been affected by fire regimes. Exotic species are estimated to constitute up to 33% of the flora species present within the Yarrangobilly Caves House Precinct.

There are extensive areas of weed invasion by exotic species including Blackberry (*Rubus ulmifolius*) and Tutsan (*Hypericum androsaemum*) along the lower sections of the Rules Creek valley, downstream from Caves House and along the Yarrangobilly area. These weeds are having a serious detrimental impact on flora and fauna habitats in the areas affected, and are reducing the quality of experience for visitors to the Caves and detracting from the scenic quality of the Yarrangobilly River valley.

In recent years there has been some increase in the extent of natural vegetation in the Rules Creek valley due to changed management practices in the valley including a reduction in grazing and mowing. These areas of regeneration generally have a higher proportion of exotic species than less disturbed areas of bushland.

3.3.8 Fauna

Fauna records for the Yarrangobilly Caves area include files with fauna species lists held at Yarrangobilly Caves, records in the NPWS Atlas of NSW Wildlife and information contained within other documents relating to Yarrangobilly Caves and nearby areas.

Data from the Atlas of NSW Wildlife indicate that in the vicinity of Yarrangobilly Caves, fauna recorded includes 4 species of frogs, 12 species of reptiles, 85 species of birds (including three exotic species) and 18 mammal species.

Table 3.4~~*~~ lists threatened fauna species recorded within 5 km of the Yarrangobilly karst area. Most records are obtained from the Atlas of NSW Wildlife (data for the Yarrangobilly sheet - map 8526).

Figure 3.6 A current view from the Bluff Lookout down to the Caves House complex showing the dense understory and ~~thisk~~ thick surrounding bush. [Photograph by Sheppard, February 2000]

Figure 3.7 A current view looking west from the carpark at the exit from the Self-Guiding Cave, showing the mature surviving poplars from the avenue and other exotics. [Photograph by Sheppard, February 2000]

Figure 3.8 A current view of the Picnic grounds looking north west and showing the dense new growth. [Photograph by Sheppard, February 2000]

Figure 3.9 A current view of the road west of Caves House showing the dense vegetation along the sides of the roadway. [Photograph by Sheppard, February 2000]

~~Figures 3.6-3.9~~

TABLE 3.4 * - THREATENED FAUNA OF THE YARRANGOBILLY CAVES AREA

Scientific Name	Common Name	Status	Location & Habitat Notes
FROGS			
Pseudophryne corroboree	Southern Corroboree Frog	E~~1~~	Sphagnum bogs & marshland; Snowy Mtns Highway, SE of Yarrangobilly Village
Litoria booroolongensis	Booroolong Frog	E~~1~~	Rocky streams in mountainous areas; Yarrangobilly River, Jounama
BIRDS			
Pachycephala olivacea	Olive Whistler	V	Dense, closed habitats in forest and woodlands, blackberry thickets; Spring-summer migrant; Yarrangobilly Caves
Ninox strenua	Powerful Owl	V	Moist and dry sclerophyll forest; roosts by day in dense foliage close to creeks and minor drainage lines
Climacteris picumnus	Brown treecreeper	V	Dry woodlands, forest clearings and eucalypts along streams often on ground and in fallen timber
MAMMALS			
Miniopterus schreibersii	Common Bent-wing Bat	V	Shelters in caves, forages in timbered valleys; Yarrangobilly Caves
Nyctophilus timoriensis	Greater Long-eared Bat	V	Dry woodlands; Yarrangobilly Caves
Mastacomys fuscus	Broad-toothed Rat	V	Alpine & subalpine heathlands and open woodlands, close to streams and steep banks; Jounama
Pseudomys fumeus	Smokey Mouse	E~~1~~	Forest and woodland with a diverse understorey; Yarrangobilly River
Petaurus australis	Yellow Bellied Glider	V	Wet schlerophyll forests

Status Legend

E – Endangered: Likely to become extinct if threats continue or numbers reduced to critical levels or habitats have been drastically reduced.

V – Vulnerable: Likely to become endangered unless the circumstances and factors threatening its survival cease to operate.

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Fossil remains of the Smoky Mouse has been recorded from one of the caves in the Yarrangobilly area and their continued presence in the area was confirmed in a 1999 survey for the species. It appears the blackberry infestations along the Yarrangobilly River are providing some level of protection for these species (Linda Broome pers com)

The restoration of native forest habitats and the increase in density of shrub cover within the Yarrangobilly Caves House Precinct is likely to have improved habitat conditions for several of the threatened fauna ~~species which~~species that occur in the area.

Invertebrate cave fauna have been studied by Eberhard & Spate (1995). They describe 33 taxa, of which two are endemic to the Yarrangobilly area and 4 are troglobotic taxa. They also found an unspecified number of new genera and species. Follow-up work on these species and other aspects of the invertebrate cave fauna of the caves ~~appears~~ has not ~~to have~~ been undertaken to-date.

3.3.9 Cultural Plantings

During the early days of European use of the Yarrangobilly Caves House Precinct plantings were apparently restricted to the supply of fodder for stock, vegetables and fruit trees. An 1897~~5~~ plan of cottages at Yarrangobilly Caves [See Figure 2.5] shows vegetable and flower gardens on the flat between the cottages and Rules Creek. Ornamental plantings were further developed in 1906 when the caretaker received a shipment of 32 plants from the Director of the Royal Botanic Gardens and planted them in appropriate locations. These plantings coincided with the construction of an additional accommodation building to the east of Cave House.

The developed area in the Rules Creek valley includes a number of planted exotic deciduous trees of significant size. [See Figure 3.7] The main exotic species are Elm (*Ulmus* sp.) and Pine. There is an avenue of trees extending from the Leo Hoad Memorial Gates towards Caves House. On the existing access road to Caves House, this avenue gives a sense of arrival, although individual trees are in decline or have died (apparently due to disease).

There are some plantings in the front of Caves House including a large Holly (*Ilex europaea*). The holly has been removed, I think in 1995 or 1996 but the plant has spread throughout the Precinct (bird distribution).

The Elms at Yarrangobilly freely sucker and have invaded bushland areas around the edge of the cleared part of the Rules Creek valley. Invasion of bushland by Elms is a particular problem in the avenue leading down Rules Creek from the Glory Hole Cave car park.

Willows (*Salix babylonica*) were planted near the Thermal Pool at an early stage. These have now spread along the Yarrangobilly River and, with blackberries and Tutsan, pose a threat to the Ribbon Gum Forest and associated species, which occur on the alluvial flats beside the River. ~~Include Site plan here noting/locating main species of cultural plantings within the precinct.~~

3

~~3~~.3.10 Scenic Grandeur

The karst area ~~is (either it is or it isn't)~~ is a place of considerable aesthetic value set in an area of high scenic quality. The views from the Precinct up Yarrangobilly Gorge and across to the associated cliff lines are of high scenic value.

3.42 European Cultural Features

3.42.1 Introduction

The fabric of extant structures covers a period from c.1901 to c.1990. It consists of historic buildings associated with tourist accommodation, associated infrastructure and buildings associated with the National Parks and Wildlife Services' management needs. Unfortunately the removal of many buildings by NPWS during the period 1974-82 has meant that the surviving structures no longer represent a comprehensive picture of the former extent of the tourist accommodation operation. Items demolished and removed include, the school house, freezer room, the Nissen Hut used for storing skis, the eight car garage, the workshop, blacksmith's shop and the kitchen.

This section addresses the surviving European cultural features in the form of existing buildings and infra-structure. ~~as outlined above.~~ A specific chronological historic background of each item/group is either provided or referred to elsewhere within this report. A physical description is briefly outlined then a table is provided which ~~provides~~ gives the name of the item, significant dates, its condition and integrity and relative significance.

Condition

Condition is assessed as being either:

- In good condition requiring only cyclical maintenance
- Moderate condition requiring some catch up works
- Poor condition requiring catch up works to more than 30% of the fabric.

Integrity

Integrity is assessed according to the following scale:

- High, more than 90% of readily apparent original fabric,
- Moderate, more than 60 % of readily apparent original fabric,
- Low, less than 60% of readily apparent original fabric.

Relative Significance

Relative significance is assessed in Section 5.4~~?~~ a~~A~~nd the findings of the assessment are provided in the Relative significance column according to the following scale:

Very high significance ~~value 5~~

High significance

~~value 4~~

Some significance ~~value 3~~

Low significance

~~value 2~~

No significance

~~value 1~~

Detracting element

Significance Assessment is generally arrived at in a two-stage process. The item is firstly judged against the NSW State Heritage Inventory Criteria in terms of Historical Significance, Association with a Person or Area, Aesthetic or Creative Significance, Community Regard and Technical of Research significance. The item must also be considered in terms of ots Rarity or Representativeness within any of those categories. Only when these judgements are made does the condition and integrity of the item come into consideration.

For example, an item may be very rare and of great historical significance, but if it has very low integrity (for example its original configuration has been so altered that the significant building is hardly recognisable or it has been repaired so often it has very little original material left), or it is in very poor condition (such that much of the original fabric will need to be replaced to repair the item), then it is still significant historically and it is still rare, but it cannot be compared with a similar item that is intact, in good condition and with high integrity. In such a situation it is a judgement about how the level of significance is impacted by the integrity and condition of the item

~~value 0~~

3.42.2 The Show Caves

Historical Background

The Show Caves are scattered around the northern and western edges of the precinct accessed via walkways leading off a one way road encircling the ridge line to the north. [See Figure 1.2] The Glory Cave was the first noted by a European when John Bowman discovered its entrance in 1834. In 1861 1862 the Marshall brothers from Rankin Springs discovered the entrance to the Jersey Cave. Jack Gibb and a New Zealand friend named Dickson explored the caves in the area discovering the beautiful part of the Jersey Cave in 1884, and writing their names on a stalactite near the large shawl formation known as the Lady Jersey Shawl. In 1886 the Government Geologist W Anderson recommended gates be fitted to the cave entrances, that a full-time guide /keeper be employed and that an accommodation house be built downstream from the caves. Henry Bradley, of the Prince of Wales Hotel in Kiandra and his sons discovered the Castle, River and Harrie Wood caves in 1891 and in the same year the caves reserve area was created. Lord Jersey the Governor of New South Wales officially opened the Jersey Cave in 1892. Many features within the caves were named by Charles KerryCharles Kerry named many features within the caves at the request of Mr Murray, the caretaker at the time. Kerry was a nationally famous photographer at the request of Mr Murray, the caretaker at the time. In the 1890s work was carried out on the Castle, Harrie Wood and Easter and River Caves by a blacksmith named Pollack from Wombeyan Caves. In 1901 two new chambers were found in the Jersey and Castle Caves. In 1906 additional dry wall tracks to the caves were constructed during Walter Hoad's time as guide/caretaker. The Jillabenan Cave was discovered in 1910 by either Leo Hoad or the Bradley family and was opened to the public. The Jersey and Jillabenan Caves were lit in December 1926, in 1927 the two Glory Caves were lit and street lighting was provided to the Glory and Jersey Caves. A works program using prison labour commenced in March 1967 and Yarrangobilly was closed and gazetted as the Yarrangobilly Place of Detention on 30 June.6.1967. The initial work was to the Jersey and Jillabenan Caves re-opened in 1967 and then on the Glory Caves. Prison labour being used to develop the Glory Hole as a Sself Gguiding Ccave, the first in Australia. The Caves were officially re-opened on November 3, 1973 with $70,000 expended on the restoration program. Caves were re-wired, tracks were repaired and Caves House was modified. Shortly after the Department left aA 60kva hydro- electric generating system was installed in 1975. In 19892000 Yarrangobilly Caves were the only tourist cave system within a National Park in New South Wales.

Physical Description

The Yarrangobilly limestone extends from half a mile south of Caves House to a point about one mile north east of the village of Yarrangobilly, in all a distance of 10.46 kilometres [6 and a half miles] with an average width of outcrop of 1.2 kilometres [three-quarters of a mile]. The belt at its northern end splits and degenerates into a zone of calcsilicate contact rocks. Along most of the outcrop the limestone is very massive rock, frequently well crystallised. The Yarrangobilly

River has cut an impressive gorge on the western margin of the southern portion of the limestone belt and numerous caves, including the four show caves developed in this part of the limestone[6]. (See Ssection 4.2.3?? For a detailed description of the special qualities of the caves.

TABLE 3.5 THE SHOW CAVES

Name	**Date Discovered [Date Lit]**	**Condition**	**Integrity**	**Relative Significance**
Glory Cave/s & Arch	1834 [1927]	Moderate	Moderate	Very High Significance
Jersey Cave	1861 [1926]	Good	High	Very High Significance
Castle, River & Harrie Wood Caves	1891	Good	High	Very High Significance
Jillabenan	1910 [1926]	Good	High	Very High Significance

~~* See Section 5.?~~

[6] P53 Extract from Reconnaissance Geology of the Snowy Mountains Area NSW Dept of Mines Technical Reports Vol 3 1955 [Report No.11 Yarrangobilly by CL Adamson]

3.42.3 The Hydro Electric Scheme and Water Supply

Historical Background

The earliest hydro electric schemes in Australia were associated with mining enterprises and cave lighting. Jenolan's 1887 plant is the earliest surviving intact hydro–electric plant in AustraliaNSW [See Appendix G]. Other caves developments clearly looked to Jenolan's lead and after interest shown by the Hoads, plans were drawn for a hydro system to be developed for Yarrangobilly. In 1926 a 32 kva Pelton Wheel plant which was the second hydro scheme installed in a cave site and a rare technology was installed. It was sited in its current location near the Leo Hoad gateway on Rules Creek opposite the 1897 stables initially providing power for the lighting in the Jersey and Jillabenan Caves and in 1927 for the Glory Caves. The Hoads, Mr Dunn and Mr Swan were responsible for most of the cave lighting design and installation. The system was expanded to provide lighting for Caves House as well and to provide street lighting but was in the long term considered inadequate. A larger dam was built at a higher altitude on Rules Creek in 19561926 (see Figure 2.24). Initially it serviced the original generator unit until a larger 60 kva system was installed in a new generator building in 1975. That system is still in service.

Prior to 1901 the flow of Rules Creek was the source of fresh water. The first dam for water supply purposes was constructed in 1901 over Rules Creek and the 1901 dam was used with the Pelton wheel. [(See Figure ??2.24)]. A small weir was built in 1901 to supply water to Caves House until about 1919. The weir was located on Rules Creek – opposite the rock bluff on the caves entrance road. Two dams are shown north of the loop road on a c.1915 plan by Trickett [See Figure 3.11].; Since 1926 when the hydro scheme was introduced, the water supply and the hydro have been based on the same dam infra-structure with the water piped to header tanks then on Caves Houseto the rest of the Precinct. Surface and underground header tanks were provided behind the ridgeline south of Caves House in the 1960s. This was decommissioned when A new Ttwo two new 100,000L concrete tanks wereas installed in 1989 to replace the underground tank.

TABLE 3.6 THE HYDRO ELECTRIC SCHEME, WATER SUPPLY AND INFRA-STRUCTURE

Name	Date Installed	Condition	Integrity	Relative Significance
Pelton Wheel	1926	Moderate	Moderate	Very High Significance
Original dam site	1901, 1926 Pelton Wheel	Poor	Low	Some Significance
60kva system and building	1975	Good	Good	Low Significance
Rules Creek Dam	c.1915, 1956	Good	High	Some Significance

Name	Date Installed	Condition	Integrity	Relative Significance
Diesel Back-up system	c.1990??	Good	High	Low Significance
Light poles along the roadways	From c.1926	Moderate	Moderate/ High	Some significance
Early Cave Lighting Schemes	From c.1926	Moderate/ Low	Moderate/ Low	Some Significance

3.~~4~~2.4 The Picnic Grounds

The area north of Rules Creek, north east of Caves house and below the line of cliffs was originally the horse paddock that came to be used as part of the farm lands supplying Caves House. The east side of the area was a cow and horse paddock accessed over a small pedestrian bridge. The barbecue area is the site of the Caretakers cottage relocated from the Caves House area in 1913 and subsequently occupied by the Bradley and Dunn families. The first tennis court on the site, built around 1913 ~~and~~ was located there adjacent to the site of the present toilet block where it remained until at least 1922. The north west section of the picnic grounds housed the second stables building, the cow yard, milking ~~bales~~ bail and calf pen, the gallows used for slaughtering stock and the piggery. The original forge was located on the south west side of the picnic grounds across the creek roughly north of the Information Centre.

This area was converted to picnic/camping grounds ~~c.1980~~during the State Park trust years from 1966 to 1968, but is no longer available for camping.~~.~~

A number of trees were introduced as part of the farm operations and later as part of the site beautification measures. The exotic trees in the picnic grounds and the manicured grounds serve to identify the area as a public space. [See Natural Heritage Section 3.3.9~~?~~]

~~One Aboriginal site ??? [See Aboriginal Heritage 3.3.?]~~

European ~~A~~archaeological sites are identified in the Site Chronology, Section 3.5 and in ~~????~~Figure 8.3.

Site Description

This is an area of roughly five acres of cleared and mown gently undulating ground around which clumps and single exotic trees are scattered. There is a substantial single modern toilet block and a barbecue/picnic shelter building located on the north side of the site. The area is bordered to the south by Rules Creek and to the north by the line of cliffs. The area west of this site has historically been the vegetable garden for Caves House and in the vicinity of the sink hole into which Rules Creek flows is overgrown with weeds which are currently the subject of a

spraying program. ~~I'm a bit lost which area is overgrown with weeds, most of this area is mown?~~.

TABLE 3.7 THE PICNIC GROUNDS

Name	Date Installed	Condition	Integrity	Relative Significance
Picnic Grounds	c. ~~1980~~1960s & 1970s	Moderate	Moderate	High Significance
Original tennis Court site	1913	Poor	Low	Some Significance
Relocated Cottage Site	1913-1972	Poor	Low	Some Significance
Archaeological sites associated with former farm operations	Early 2oth Century	Poor	Low	Some Significance
Toilet Block	19~~8~~60s	Good	High	Low Significance
Barbecue/ Picnic Shelter	1980s	Good	High	Low Significance
Footbridge (modern)	1980s & 1994/5	Good	High	No Significance

3.~~4~~2.5 Built Heritage [Accommodation]

Historical Background

For the chronological overview of the accommodation and support infra-structure built on the site ~~see ???~~see section 3.5. In essence the site was first occupied c.1877 by a slab hut constructed to accommodate Murray the first caretaker and by inference any visitors who needed more weatherproof overnight accommodation than could be provided by tents. A period of rapid construction and relocation of timber accommodation buildings followed, from 1888 to 1936. The site was then essentially stable but degrading until c. 1966 when prison labour carried out preservation and restoration works on the one storey section of Caves House. Then in ~~1972~~ 1978 and 1982 the site was rationalised with the demolition of outbuildings and structures considered non-essential and high maintenance at the time by NPWS. Most recently [1999-2000] the one storey Caves House building has been subject to considerable works, including painting and the installation of a fire sprinkler system. It is ~~practically~~almost ~~-~~at the stage where only cyclical maintenance is required.

Physical Description

The present Caves House complex consists of the single storey wing composed of the 1980s toilets at the east end, the 1938 dining room bar and lounge, and the staff sitting room, the altered 16 bedroom 1901 building and the two storey 1917 accommodation wing. The whole complex is made up of timber framed and weatherboard clad pitch roofed buildings with sweeping verandahs along the north face of the 1901 and 1917 buildings. The verandah along

the 1901 building was widened to 11 feet in either 1924 or 1937/8 ~~(should be in history section as well).~~

The 1901 building is a simple gable roofed asymmetric Italianate Federation structure flanked by the two storey gable roofed 1917 Federation Arts and Crafts addition in the somewhat romantic Tudor influenced mode associated with alpine holiday making in the early twentieth century. The 1938 hip roofed addition [bar, dining room staff sitting room] to the east is ~~also~~ a single storey Federation style structure. The window detailling generally reflects the Federation and Arts and Crafts features of the adjacent buildings except for ~~a curious~~the semi-circular entrance to the east side of the dining room which is a modern c.1980s alteration. It is associated with access requirements resulting from the demolition of the adjacent wing and installation of the new toilet block at the rear of the dining room. The semi circular door was designed so that it was clear that the door was a new addition to the older building.

TABLE 3.8 ACCOMMODATION BUILDINGS

Name	**Date Constructed**	**Condition**	**Integrity**	**Relative Significance**
Caves House	1901	Good	Moderate	Very High Significance
Two Storey Accommodation Wing	1913-17	Poor	High	Very High Significance
Ticket Office & bell	1926	Good	Moderate /Low	Very High Significance
Bar, lounge and staff sitting room and dining room [east]	1938	Good	Moderate	High Significance
Dining Room Toilets [east]	1980	Good	High	Low Significance
Information Centre/ Caretakers Cottage	1919	Good	Moderate	High Significance
Rangers Cottage Cement Clad	1963?	Moderate	High	Low Significance
Rangers Cottage	1966-68	Good	High	Low Significance
NPWS Vehicle Workshop	C1972	Good	High	Low Significance
Hoad Gates	1957	Moderate	High	High Significance

3.42.6 The Thermal Pool and Change Rooms

Historical Background

The thermal pool was first enclosed in 1894-95 with wooden slats plugged at the back with clay and the earliest dressing sheds were a slab structure. Crayfish, which bred in the water used to eat holes in the clay in the wooden sides. The pool was excavated and the pool structure was walled with wood in 1897 and it was photographed and surveyed by Oliver Trickett for his 1897 annual report. The Department of Mines went to considerable lengths to analyse the water, water flow and water quality, possibly because it was a period when health spa's in Europe were based around such waters. The Mines Department may have anticipated potential for future development as a health spa as the waters were said to have 'curative powers'.

Between 1905-6 the pool was further enlarged and new dressing sheds were built. Again in 1915-16 the size of the pool was further expanded to measure 30 feet square. The sides of the pool were concreted and the 1905-6 sheds were replaced. In 1925 the dressing sheds were upgraded again.

In 1966 the prison labourers from the Department of Corrective Services rebuilt the pool and its associated facilities. The pool was enlarged again and divided into two pools, a larger swimming pool and a small wading pool at the outlet. A new change room incorporating toilets was built at the summit of the adjacent hill to the north and the access track that which had been incrementally upgraded and relocated during earlier works was also rebuilt. See Section 3.5 for a graphic analysis of the development of the pool.

Physical Description

A steep gravelled roadway, which is only open to the public for use as a pedestrian pathway is the main access to the thermal pool complex although there is also a riverside walk from the road in the vicinity of the Glory Hole Cave.

Two pools and an outlet stream, adjacent picnic grounds and a change shed and toilet block occupy the pool site. The pools are surrounded by narrow concrete paths and have concrete side walls with the base of the pool left in the natural grey clay and gravel. The main swimming pool measures 20 metres [60 feet] x 65 metres [25 feet16 ½ feet]. CHECK and is around two metres deep at the west, outlet end and around 1200mm deep at the east, inlet end. The wading pool is a small pool with quite swiftly flowing water, which is around 500mm deep that overflows as a stream feeding into the Yarraengobilly River nearby. The adjacent picnic grounds are mown lawns with stands of native trees dotted around the site. The barbecue area is to the west of the site adjacent to the river. The changing room and toilet block dominates the site being located up a broad, steep flight of concrete steps, on the summit of the small hill to the north. The building is a rectangular form with a shallow spreading gable roof. It is made of mortared rubble blade walls with glass and villa board gable fronts and timber panel entry leaves. It contains male and female changing rooms and toilets.

TABLE 3.9 THE THERMAL POOL

Name	Date Constructed & Altered	Condition	Integrity	Relative Significance
Thermal Pool [Main swimming pool]	1894-5, 1905-6, 1915-16, 1966	Good	Moderate	Very High Significance
Thermal pool [Outlet & wading pool]	1966??	Good	High	High Significance
Access Road	Incrementally altered from 1890s	Good	Moderate/ Low	Some Significance
Picnic/ Barbeque grounds	c.1966	Good	Moderate	Some Significance
Change/ Toilet Block and access steps	1966	Good	High	Low Significance

~~3.2.7 The Glory Hole Farm Site~~

3.42.7 The Glory Hole Farm Site

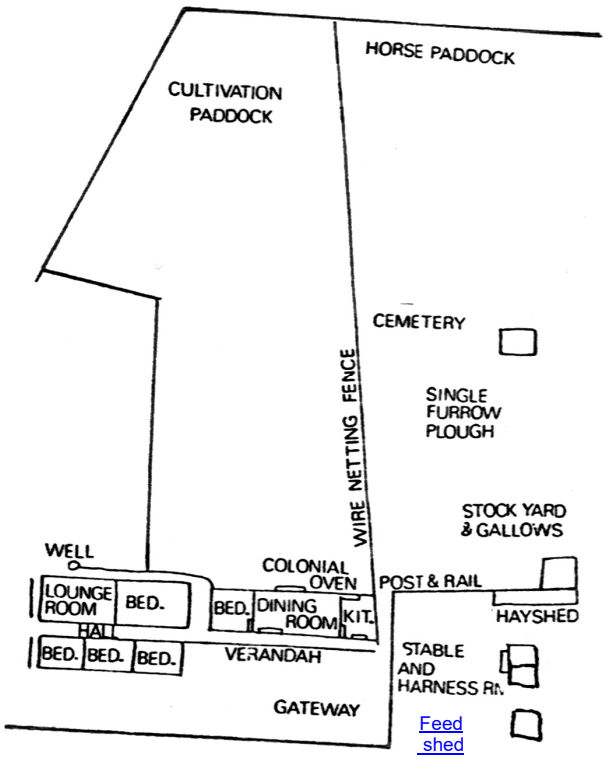


Figure 3.10 Plan of the Glory Hole farm house site drawn by Phyllis Dowling. [a descendant of the Harris family]

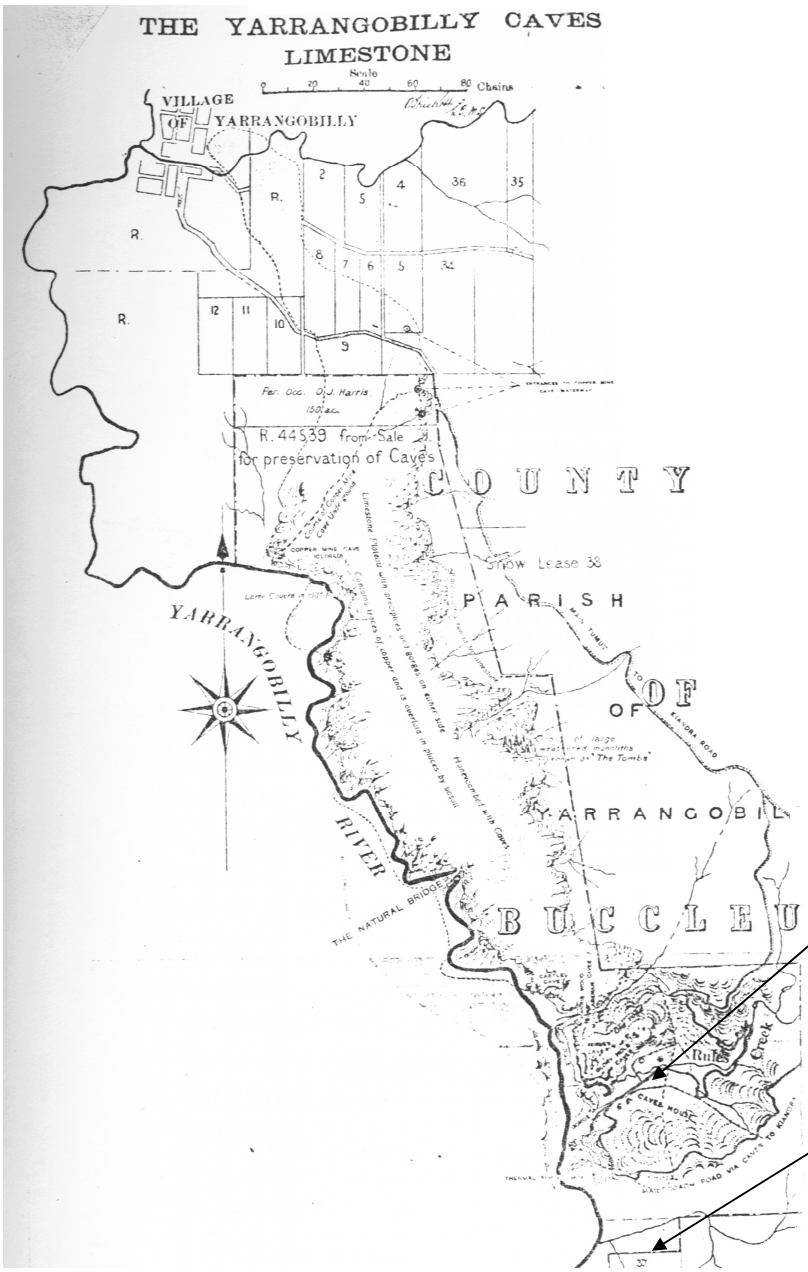


Figure 3.1~~10b~~ Glory Hole farm is located in relation to the Rules Creek basin and Yarrangobilly Village in an early undated survey drawing.

Figure 3.10b

Historical Background

See Section 2.6.12.7 for a detailed description of the historical development of the Glory Hole Farm site.

In terms of the historic built fabric, the original weatherboard log cabin home was built in 1863. From the 1870s to 1900 the homestead was expanded with additional structures including a two-roomed building used as a school, a dairy, stable and hayshed. The original log cabin home was later used as a school room. In 1939 the homestead and its outbuildings were destroyed by a bushfire.

Physical Description

The Glory Hole Farm is located south of the Yarrangobilly Caves House precinct, but forms an integral component of the historical background of the site and is provided as a walking destination from the Thermal Pool site. The Glory Hole farm site is a cleared area bounded to the east by a feeder stream to Little Glory Hole Creek which itself flows into the Yarrangobilly River to the west. Various clumps of exotic plantings including some remnants of what appears to have been an orchard and clumps of blackberries growing over brick scatters, remnant tin ware and an oven remnant are the readily visible surviving features indicating former occupation. There is also a family cemetery located on a small rise west of the homestead site. BThe bushfire appears to have destroyed all memorial markers and the cemetery is now surrounded by a low post and rail fence erected by NPWS and the burials are recorded on NPWS signage. The cemetery was used for five burials:- in 1893 1898 for Henry Josiah Harris [77 years]; in 1904 for his wife, Harriet Harris [81 years]; for two of their grandchildren, George Adam Harris in 1893 [3 days] and John Harris in 1904 [10 hours] and the child Thomas Arthur Rees [6 months] who was not a relation, in 1906.

TABLE 3.10 THE GLORY HOLE FARM SITE

Name	Date Constructed & Altered	Condition	Integrity	Relative Significance
OrignalOriginal Weatherboard Log Cabin homeCottage	1863, expanded to 1900; burnt down in 1939	N/A – Sub-surface archaeological resource only	Archaeology- Moderate, items removed by visitors	Some Significance
Outbuildings	1863-1900	N/A – Sub-surface archaeological resource only	Archaeology- Moderate	Some Significance
Exotic Plantings	1863-1910	Moderate/Poor	Moderate/ Low	Some Significance

Name	Date Constructed & Altered	Condition	Integrity	Relative Significance
Harris Family Cemetery	1898-1906	Moderate	Moderate	High Significance

3.42.8 Infrastructure

Walking and Cave Access Tracks

The first reference to stone walkways to the tourist caves was made in the 1897 Annual Report of the Department of Mines. By 1896 the Glory Hole Caves north and south, the Jersery Cave, and the Grotto Cave were known as well as the Castle, River, Easter, Harrie Wood which were being worked on by a blacksmith named Pollack from Wombeyan Caves, presumably building pathways through the caves. In 1904 the pathway, which ran through the Flower Garden in the Jersey cave was remodelled and constructed around the garden.

AHM Bradley was employed in 1905 to cut a new track to the old Glory Hole Cave in 1905 as the existing track was very steep and the work was completed in 1907. Trout had been released into the river in 1897 and the River Walk was built in the winter of 1905 by Leo Hoad and George dDay for Premier Carruthers, a keen fly fisherman. All of the scrub between the Glory Track and the Thermal Pool was clear felled.

Most of the work of Walter Hoad [from 1904] who was a stone mason by profession appears to have been associated with building routes within the caves. Additional dry stone walls were constructed in 1906 and in the winters of 1907-10 AHM Bradley constructed the pathways to the Glory Hole, Harrie Wood and Castle Caves and the dry stone walls that support them. In 1908 the track in the South Glory Cave were repaired throughout and in 1910 new stairs were built in the Jersey and Harrie Wood Caves. In 1916 the stairway near the entrance to the Jersey Cave was remodelled.

The walkways were substantially repaired and upgraded by prison labourers during the late 1960s and early 1970s and the Bluff Lookout was also constructed during this period in 1969-70 on an old viewing site where many historical photographs were taken. The existing footbridge and vehicle bridge were installed during the 1970s by NPWS to reflect earlier infra-structure.

~~Walking Tracks???~~
~~Suggest that Glory Hole Farm track was probably part of exisitng bridle track.~~
~~Castle~~
~~River walk~~
~~Glory Hole track~~
~~Bluff lookout trac~~TABLE 3.10 WALKING AND CAVE ACCESS TRACKS~~k~~

Name	Date Constructed	Condition	Integrity	Relative Significance

Name	Date Constructed	Condition	Integrity	Relative Significance
Glory Farm Walkway**	c.1970	Good	High	Low Significance
Glory Hole Caves access track	1905	Good	High	High Significance
Dry stone walled pathways to caves	Mainly 1906-10	Good/ Moderate	High	High Significance
River Walk	1905	Good	Moderate	High Significance
Bluff Lookout	Used from c.1880s	Good	Moderate	High Significance
Footbridge and Vehicle Bridge	1970s	Good	High	Low/ No

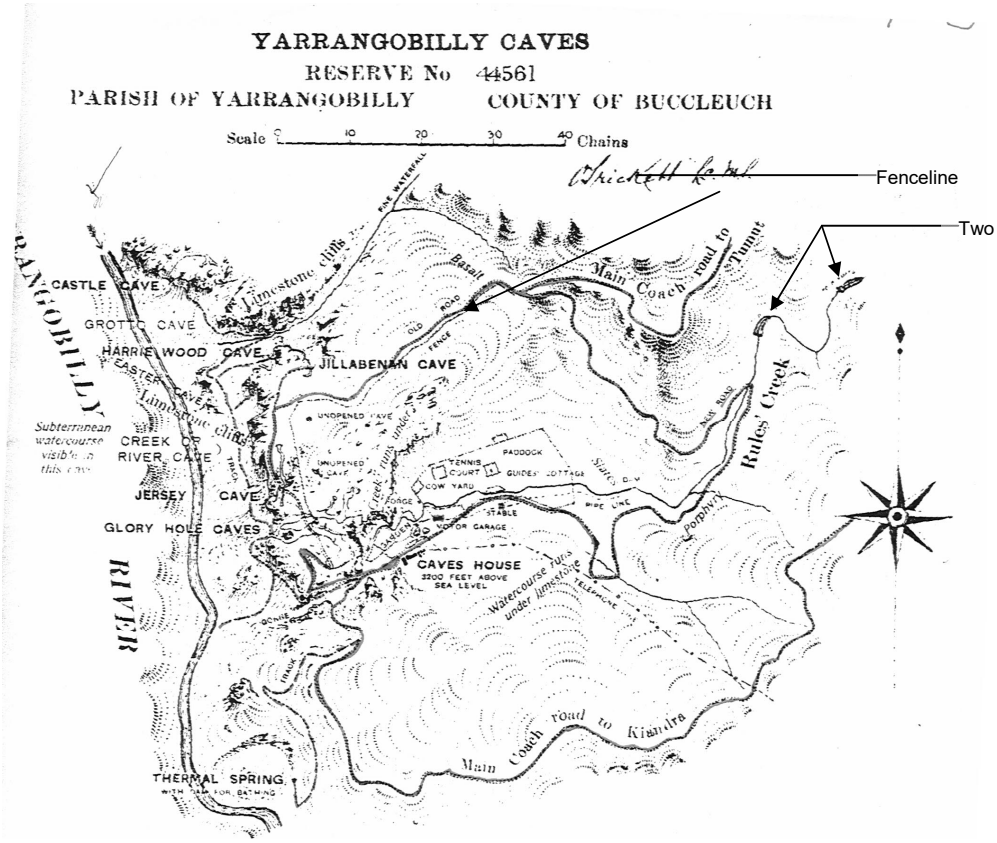


Figure 3.124 A survey of the Caves drawn by Oliver Trickett. It is thought to be c.1915 based on the features present. Note the two dams on the upper reaches of Rules Creek, the new connecting section of road to the east creating a loop and the fenceline south of the old road to the north near the Jillabenan Cave label and the cave access tracks.

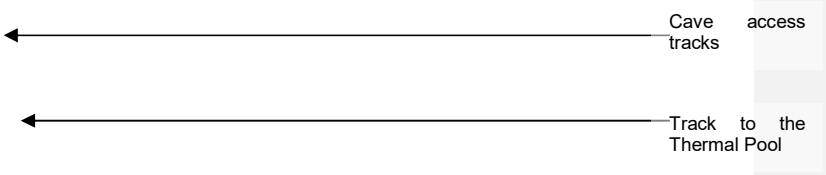


Figure 3.11

Roadways and Fence Lines

Historical Background and Description

Fencelines

Early fencelines within the Yarrangobilly Caves House Precinct are associated with the horse paddock and the gardens. A very early fence line described as an 'old chock and log fence' is shown well south of Yarrangobilly on a c. 1860s plan See Figure ~~2?.~~ 3.12 and it is likely that the earliest fences at Yarrangobilly were of similar materials. Because the area was heavily timbered there seems to have been no hesitation in building great lengths of timber fenceline braced with angled logs [chocks]. In the early period of the development of the Yarrangobilly Caves House Precinct fencelines which included great lengths of paling fence that were braced with additional angled posts were constructed. See Figure 3.13. They were principally located around vegetable gardens and the orchard, in front of the Caves House complex, probably to try and keep out the native animals. Timber and wire fences were carried around the very large horse paddocks, which were around 40 acres. However, as the precinct developed the paddock in the vicinity of the Picnic Grounds was reduced in size and subdivided for specific uses, the second stables and cattle yards c. 1900, a tennis court in 1913, the caretakers cottage in 1913.

Rules Creek is named after Rhule, the grazier who had the lease around Rules Point. There were yards for sheep at Rules Point, above and to the north of the hotel site.

The sharp bend of the river on the River Walk was known as Apple Tree Flat and Greg Day had a potato patch and fenced garden there. Downstream of the Thermal Pool between Tom's Creek and the next river crossing probably around the turn of the century there had been an old garden of three or four acres with fruit trees right on the river and vegetables which is also likely to have been fenced.

No readily visible evidence of the former fencelines remains on any of the former sites.

Tracks and Roadways

~~-~~The c. 18~~86~~60s plan also showed the Henry Harris allotment [Glory Hole Farm] ~~as a grant of 100 acres and an existing bridle track.~~ The first permanent track in the area was the ~~bridle track~~route to Yarrangobilly ~~to Glory Hole Farm~~ from the Kiandra goldfields via Oliver Harris' land at Little Plain. ~~, it was in use in the early 1860s.~~ The earliest ~~access~~ road to the Caves Precinct built in 189~~10~~ was the coach road from Kiandra, which was still the only route at the time of Governor Jersey's visit in 1892 along what was described as a 'new road'. A coach road to Tumut was in existence soon after by 1894-5. ~~and the two roads met near the current Self Guiding cave outl et.~~

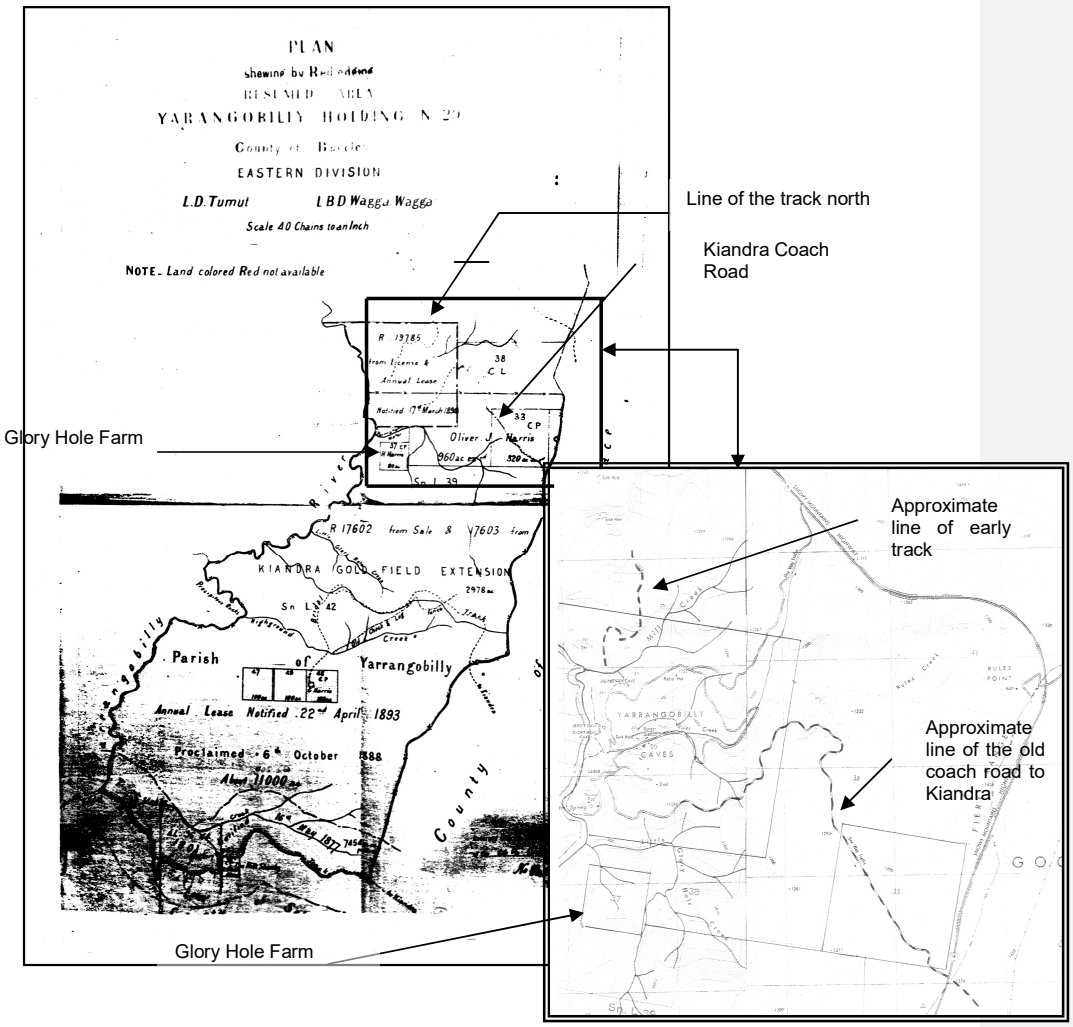


Figure 3.13~~2~~ A c.1880s map of the Yarrangobilly area showing existing roads and land grants. A section of the current 1:25000 Topographic map of the area is inset to show the relationship to modern ~~features~~ features. [Map reproduced from a copy in the appendices of the **adg** Yarrangobilly Conservation Plan]

~~Figure 3.12~~

~~current Self Guiding cave outlet, T~~the Tumut connection ~~running~~ ran along the western and northern ridgeline above the Yarrangobilly River then north east to Tumut. By 1913 and the two coach roads were joined by a new link road on the eastern side of the Rules Creek basin. ~~The construction of the connecting road is probably associated with the 1911 excavations to open the Jillabenan Cave.~~ The current road system basically reflects the pattern set c. 1913 See Figure 3.12. During the 1960s the coach road from Kiandra was converted into the current exit road. The government also cut a track from Yans Crossing to the Caves and then on to Lobb's Hole. The track was mostly on the western side of the Yarrangobilly River, joining up with the corner of the River Walk.

~~In the early period of the development of the Caves House Precinct fencelines which included great lengths of paling fence that were braced with additional angled posts were constructed. They were principally located around vegetable gardens and orchard, in front of the Caves House complex probably to try and keep out the native animals. Timber and wire fences were carried around the very large horse paddocks, which were around 40 acres. However, as the precinct developed the paddock in the vicinity of the Picnic Grounds was reduced in size and subdivided for specific uses, the second stables and cattle yards c. 1900, a tennis court in 1913, the caretakers cottage in 1916 CHECK. No readily visible evidence of the former fencelines remains on the site.~~

The Thermal Pool has been developed for public use since 1894-5 and was accessed down a steep track off the Kiandra Coach Road. The earliest known plan of the track is a c. 1913 survey drawing by Trickett that shows a track slightly north of the present roadway See Figure 3.13 ~~??~~. By 1915 a track roughly along the present roadway was in use. The stone bedding that can be seen in the distance on the way down to the Thermal Pool was known as 'Gibraltar' and there was a copper mine there. However, it is not known when the area was worked or if any surviving tracks are associated with the former mine.

Because the Rangers cottages on the plateau south of Caves House were constructed in the period 1966 to 1968 and the Vehicular Workshop was built in 1972 most of the roadways in that area are assumed to be associated with those buildings. They are most likely to have been constructed in the late 1960s or early 1970s. However, they may overlay earlier tracks associated with the use of the plateau for grazing the stock that were maintained there as stores~~Because the Rangers cottages on the plateau south of Caves House were constructed in the period 1966 to 1968 and the Vehicular Workshop was built in 1972 most of the roadways in that area are assumed to be associated with those buildings. They are most likely to have been constructed in the late 1960s or early 1970s. However, they may overlay earlier tracks associated with the use of the plateau for grazing the stock that were maintained there as stores for the Caves House patrons.~~ ~~Other tracks associated with access to the caves were present~~

from the early 1900s. From 1905 to 1907 a new walking??? track was cut to the Glory Hole Cave to replace the very steep existing track and Bradley was in the process of making a track to the Harrie Wood Cave. In 1908 the Aladdin cave (not sure wherethis is was opened and the Jillabenan was discovered in 1910. Tracks to various caves were finished in 1910. The substantial dry stone walling supporting the tracks was a product of this era being mostly built by AHM Brqadley during the winter months of 1907 8. Most of the work of Walter Hoad [from 1904] who was a stone mason by profession appears to have been associated with building routes within the caves. A plan was prepared for an easy grade track to the Thermal Pool in 1913 but it was not built. By the period 1913 1915 most of the tracks leading to caves were established and it was not until 1966 1973 when prisoners were working on the site that the existing paths received maintenance works and were upgraded.

TABLE 3.11 ROADWAYS AND FENCELINES

Name	Date Constructed	Condition	Integrity	Relative Significance
Glory Farm Track	c.1970 **	Good	Not Known	Some Significance
Kiandra Coach Road now exit route	1890 1960s	Good	Low [much altered]	Some Significance
Tumut Coach Road now entrance road	c.1894-5	Good/ Moderate	Moderate/ Low	Some Significance
Track to thermal pool	1915	Moderate	Moderate	Low Significance
Connecting RoadConnecting Road	c.1913c.1913	GoodGood	HighHigh	Some SignificanceSome Significance
Former fencelinesFormer fencelines	From 1860-1920From 1860-1920	Archaeological resourceArchaeological resource	Archaeological resourceArchaeological resource	Some SignificanceSome Significance

** May lie over an earlier bridle track

** May lie over an earlier bridle track

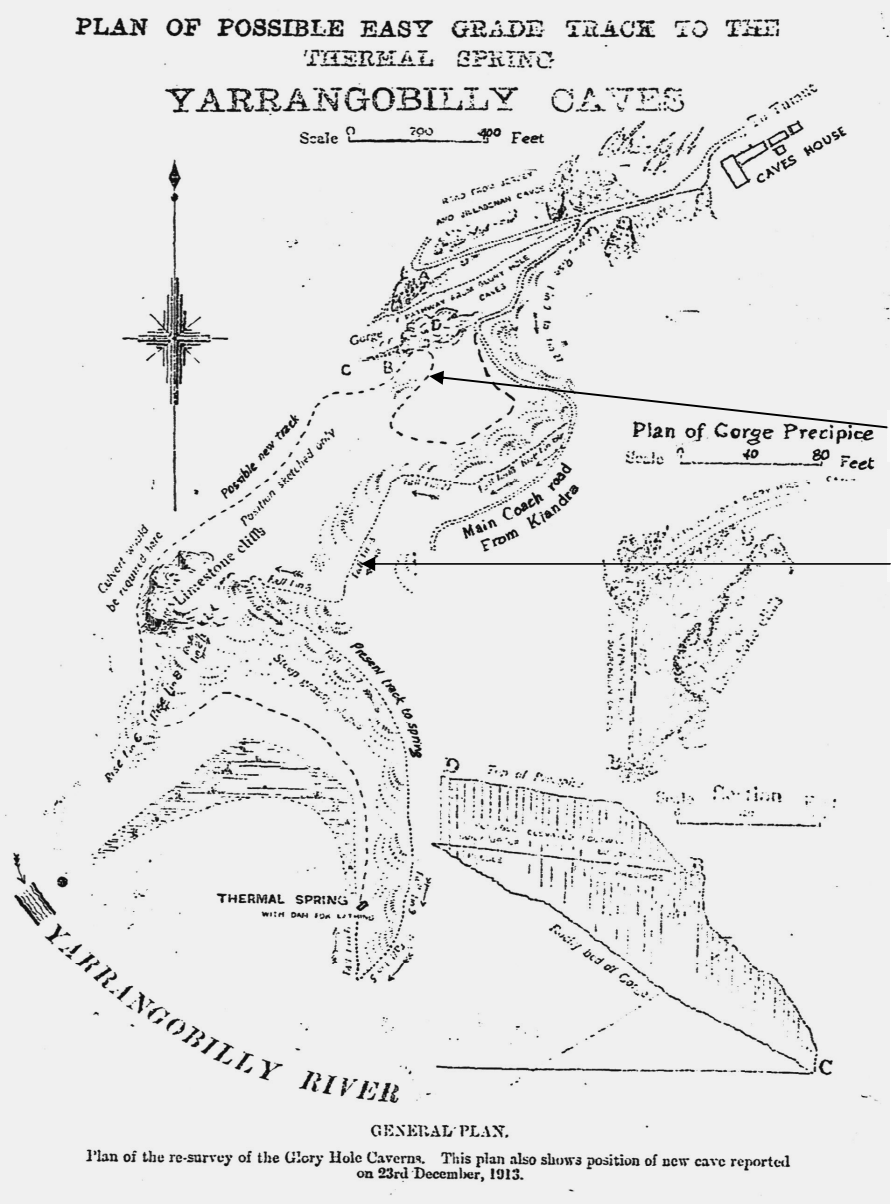
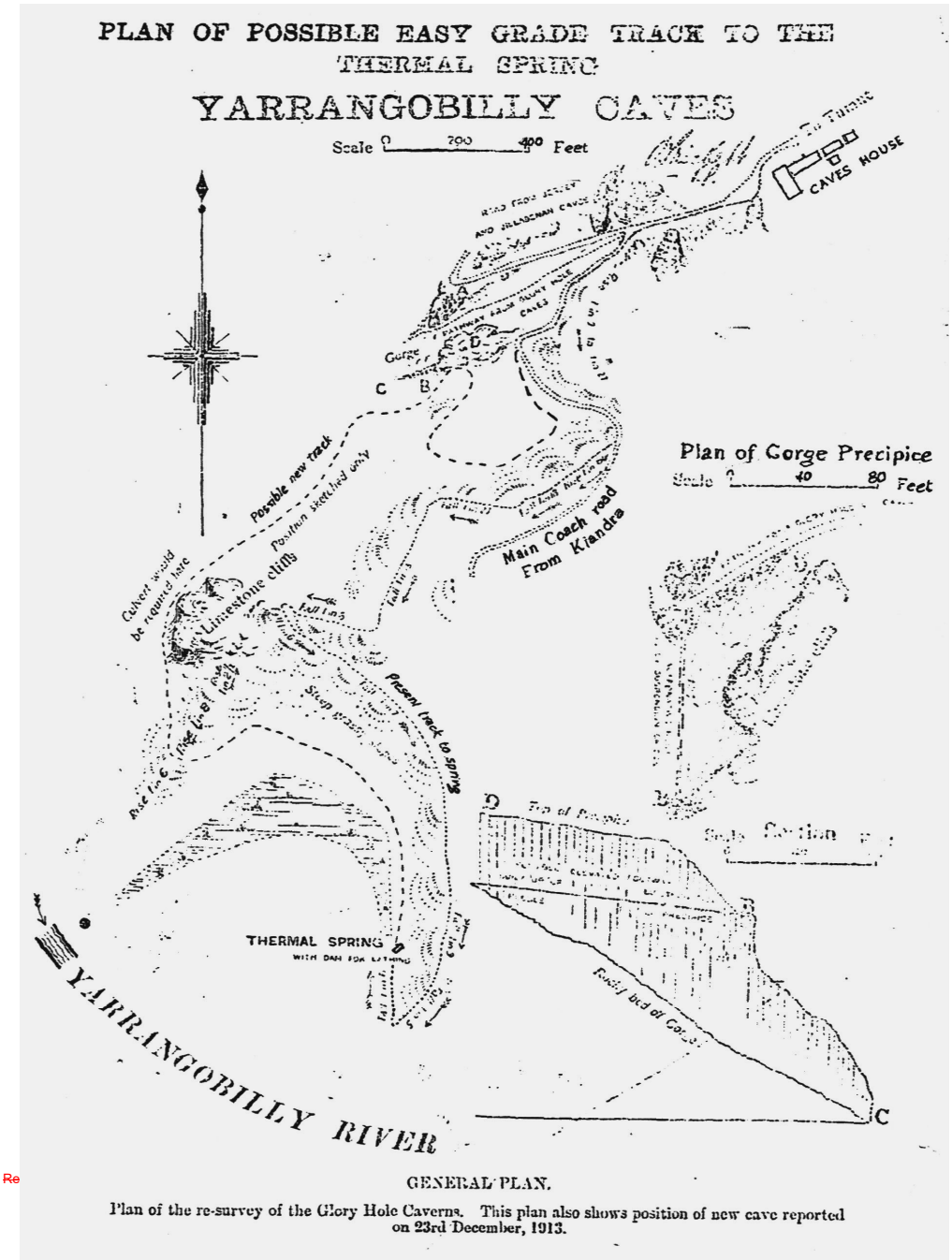


Figure 3.1~~3~~4 A 1913 Survey Plan showing the existing track to the Thermal Pool and a proposed track which roughly follows part of the River walk route.



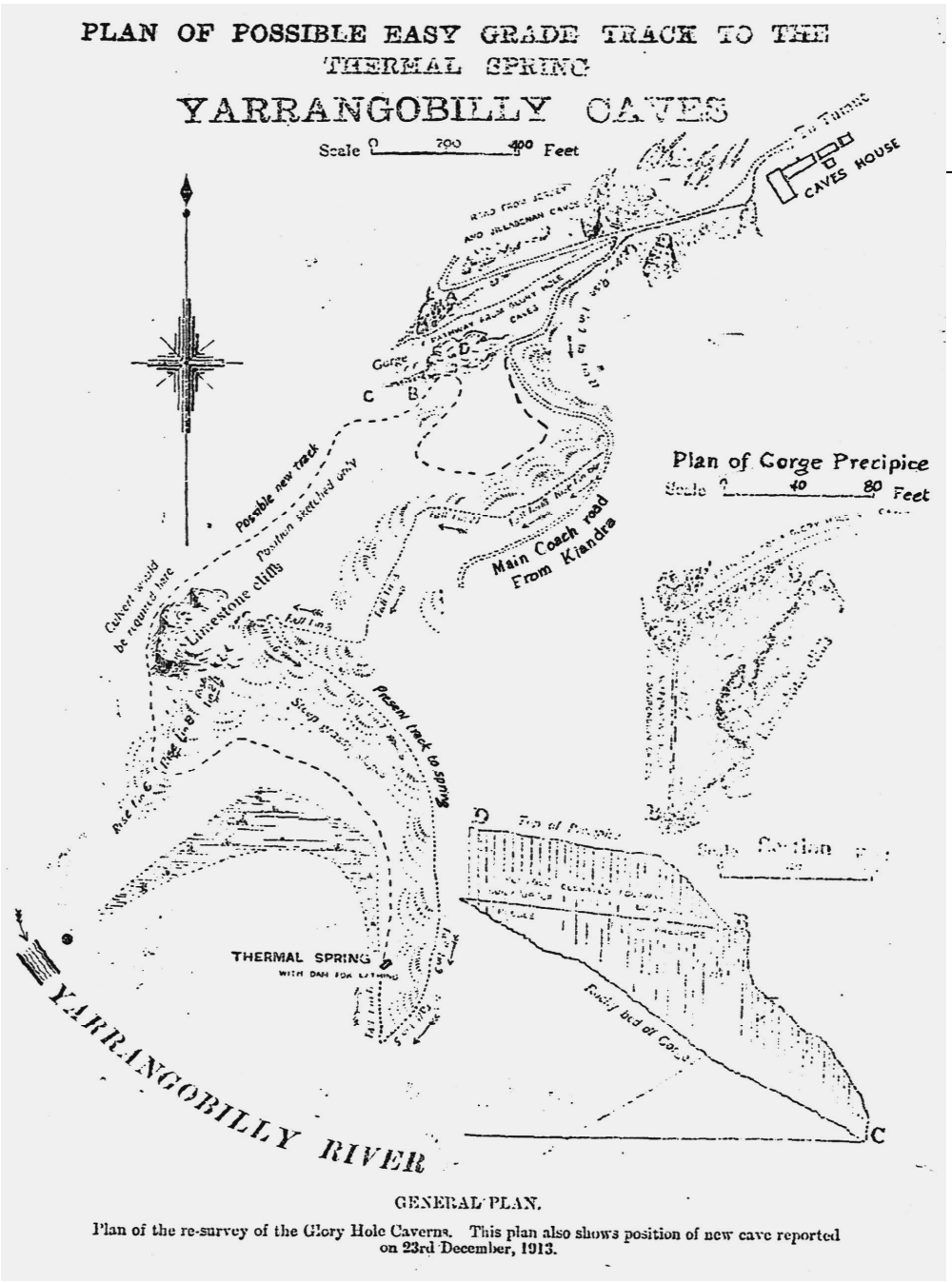
GENERAL PLAN.

Plan of the re-survey of the Glory Hole Caverns. This plan also shows position of new cave reported on 23rd December, 1913.

~~Fig 3.13~~

The Telegraph and Telephone Lines

Historical Background



The telegraph and telephone line linking Yarrangobilly with Kiandra was opened on June 30 1890. It was the first regional telegraph link and has been identified by an unknown source as the first telephone/ telegraph line outside Sydney. The line has been replaced with a radio telephone tower and has fallen into disrepair. See Section 2.3.4 for a detailed historical background.

Figure 3.143 A
proposed track v

Physical Description

The route of the line is readily identifiable by the blaze of lower forest growth over the hillside south east of Caves House [See figure 3.4]. There are likely to be telegraph posts surviving along the route of the former line.

Name	Date Constructed	Condition	Integrity	Relative Significance
Telegraph Line Route & poles	1890	Poor	Low	High Significance

32.42.9 Other Items

Other minor items on the site and former items have been described throughout Section 2.0 Historical Background and were comprehensively described including a brief history in the 1989 ~~Yarrangobilly Caves Precinct~~Yarrangobilly Caves House Precinct Conservation Plan prepared by **arch design group** for NPWS. A copy of the relevant section is included as Appendix ~~H~~E

32.42.10 Works Since 1992

Since 1992 a comprehensive program of works and planning for future works has been undertaken.

- The 1901 single storey Caves House building and the 1938 additions on its east end have all been refurbished. The whole building has been repainted and a sprinkler system and fire extinguishers have been installed. New kitchens ~~are proposed to replace the existing kitchens in the near future.~~have been installed.
- All Sewerage lines from the ~~amenities~~ buildings to septic tanks have been replaced.
- Considerable areas of weeds and blackberries have been sprayed notably along Rules Creek in the vicinity of the sink hole.
- Planning for the Installation of new telephone lines ~~is currently underway~~has been completed and works are to commence in spring 2000.
- The Jersey Cave ~~has been~~was rewired and relit in 1991 and was officially reopened in February 1992.~~, 1994~~
- The Jillabenan cave has been modified for wheelchair access and emergency lighting works completed
- NPWS managed roads and tracks have been subject to maintenance.
- The asbestos clad cottage has been reclad in Hardiplank and ~~–~~refurbished for staff accommodation.

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- The MR286 road maintained by the RTA is currently being upgraded.
- A system for filtering and ultra violet disinfection of water has been installed.

3.5 The Chronological Development of the Caves House Complex

The chronological development of the Precinct within the Rules Creek basin has been traced based on historical documentation, available plans and photographs. Unfortunately the size of the Precinct is such that change within the Precinct as a whole cannot be graphically represented in a meaningful way.

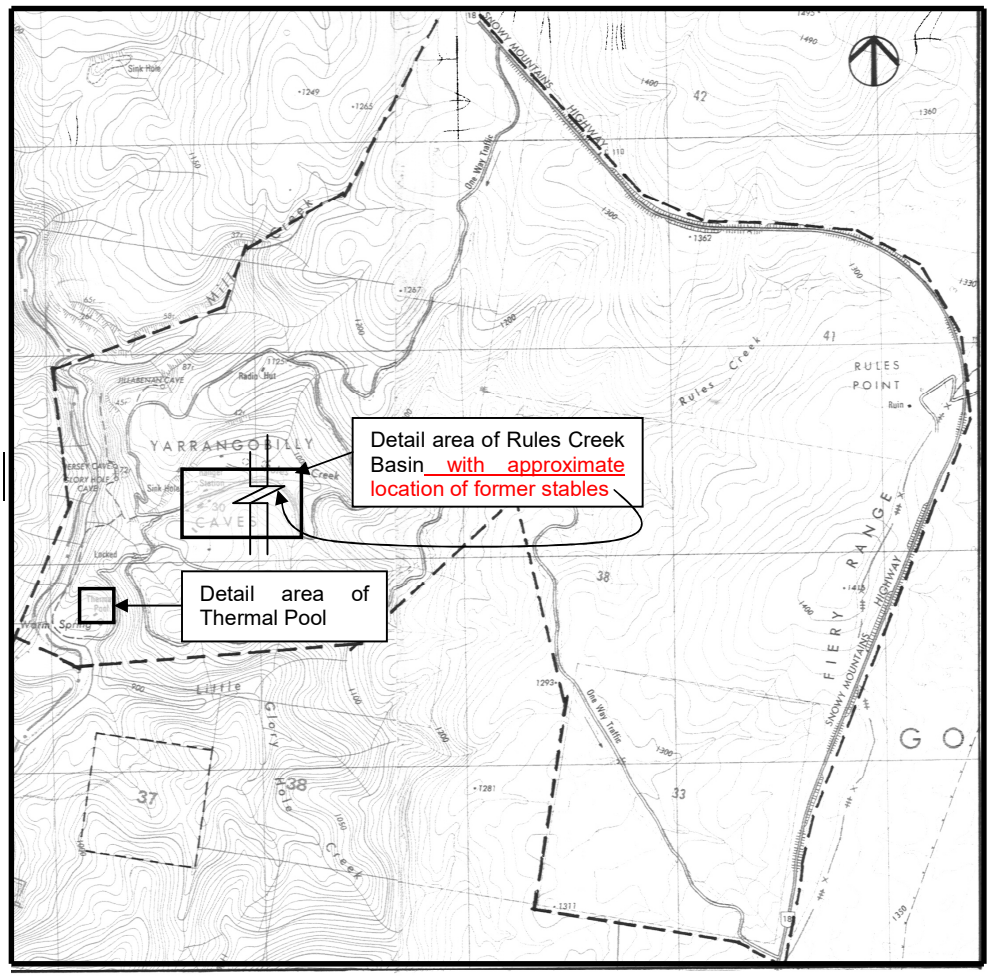
However as there are only two main areas of building development, both located within the Rules Creek basin they have been traced within this development analysis.

The analysis shows rapid building and infrastructure development until 1938 followed by a long period of stagnation when, over time, the buildings were not maintained and fell into disrepair. In 1972 and in the early 1980s numerous standing buildings, many of which were dilapidated, were demolished by NPWS. The current status of the site shows historical buildings from 1901 and new c.1970s NPWS structures.

The thermal pool is also examined in detail to establish the main sequence of known enlargements and improvements to the associated facilities.

~~Figure 3.14 shows the location and context of the areas that are subject to detailed analysis.~~

~~Figure 3.14 The location and context of the areas analysed to establish the sequence of chronological developments.~~

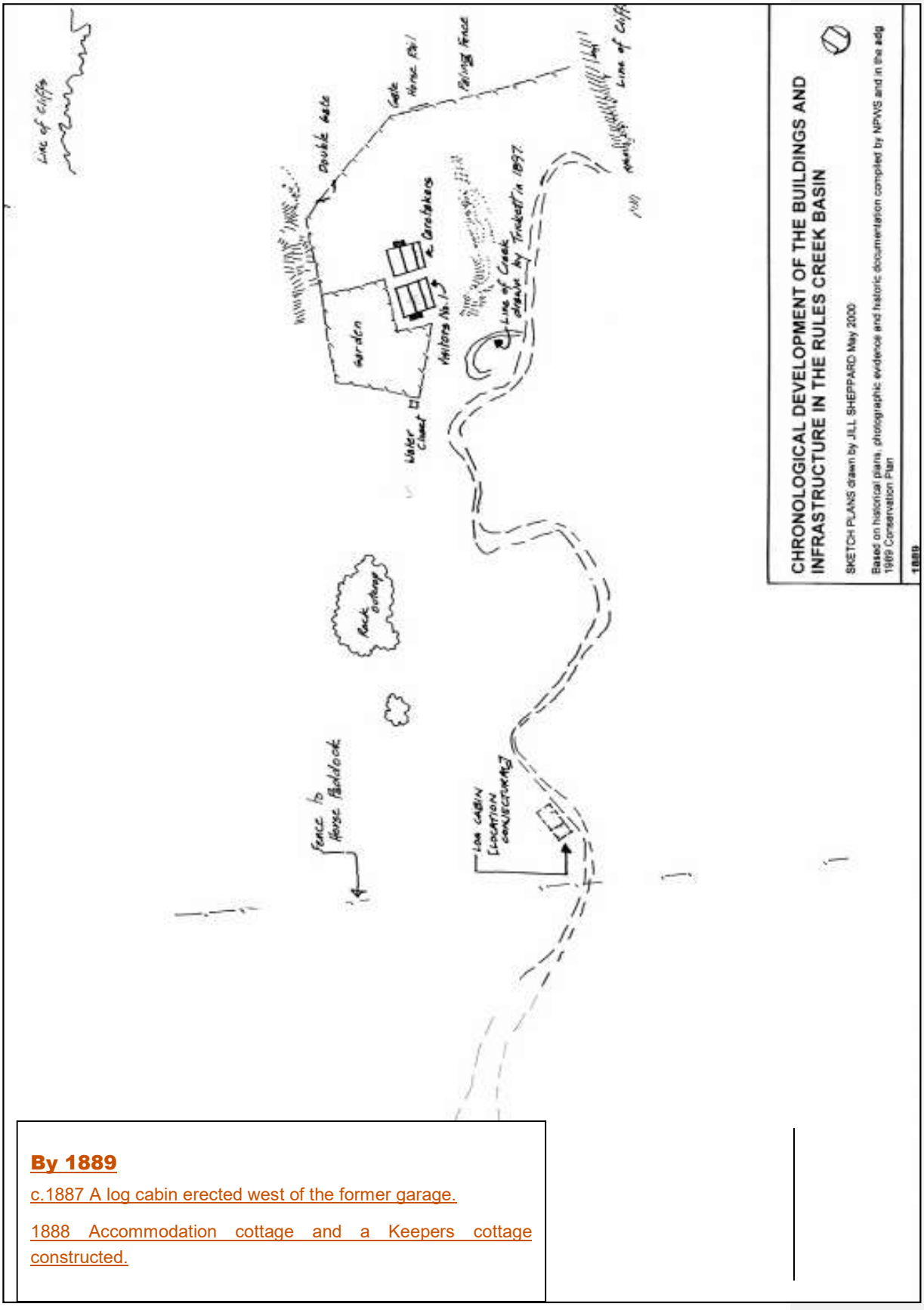


1:25,000 Scale

25000

Precinct Boundary

Figure 3.15 Showing the location and context of the areas subject to detailed analysis in the following section.



By 1889

c.1887 A log cabin erected west of the former garage.

1888 Accommodation cottage and a Keepers cottage constructed.

By 1892

1890 Jersey Cottage constructed.

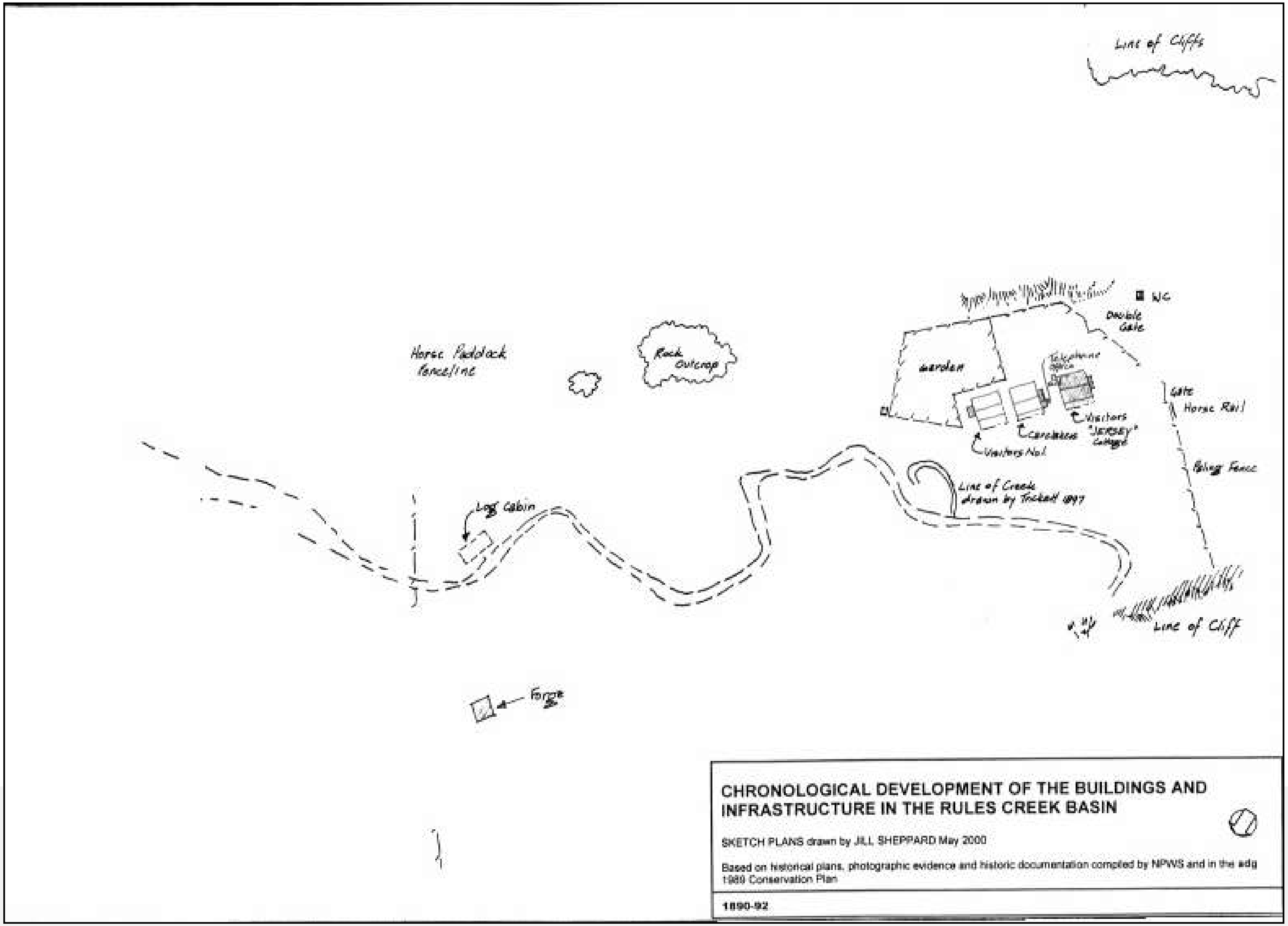
1890 A telephone line installed and a telegraph office opened later in the year.

c.1890 Lime kilns used in building the Chalet at Kiandra located near the site of the first stables.

1891 A new northern access road built.

Forge may have been erected by this stage to assist with building.

Figure 3.1~~6~~5 Photograph c.1892 showing the three cottages on the banks of Rules Creek with the Murray and Bradley families. Note the stone retaining wall, the timber fence and the garden frames.



CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN

SKETCH PLANS drawn by JILL SHEPPARD May 2000

Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan

1890-92

~~THE CHRONOLOGICAL DEVELOPMENT OF THE SITE WHICH HAS BEEN GRAPHICALLY PREPARED IS~~

~~-BUILT FABRIC ASSOCIATED WITH THE CAVES HOUSE COMPLEX~~

~~-THE THERMAL POOL~~

~~-TRACKS, ROADWAYS AND DAMS~~

~~IT CAN BE INTERLEAVED HERE OR SUPPLIED AS AN APPENDIX AND REFERRED TO WITHIN THIS SECTION? Appendix probably better~~

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~~Sketch Plans Drawn by Jill Shepperd May 2000~~

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1888 Accommodation cottage and a Keepers cottage constructed.

~~By 1892~~

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~~c.1890 Lime kilns used in building the Chalet at Kiandra located near the site of the first stables.~~

~~1891 A new northern access road built.~~

~~Forge may have been erected by this stage to assist with building.~~

1901/2

1897 A wash house was constructed west of the existing Visitors Centre to serve the accommodation cottages. It was shown on Oliver Trickett's 1897 survey plan.[7]

By 1897 a stable was built of timber from the cottage located behind the original Caretaker's Cottage~~Cumberland Sawmill~~. It was sited by Rules Creek in the centre of the horse paddock, north-east of the cottages.[8] [Note the horse paddock was a very large area over both sides of the creek. See Figure 3.12 the c.1915 Trickett survey for the location of the stables].

1897 A forge was built on a site some distance to the north of the accommodation area. It produced much of the railings and other ironmongery features, which still exist in some caves.

1897 New kitchens were built [presumably onto the cottages].

1897 A new caretakers cottage was built and new kitchen built in readiness for 1901 buildings.

1898 A bathing shed was built near the thermal spring.[9]

1899 Additions were made to the caretaker's quarters 'by the erection of a structure containing three rooms'.[10]

1900 A 40 acre paddock fence was erected in which the caretaker could keep sheep to supply fresh meat for visitors.[11]

1901 Caves House a single storey accommodation building with sixteen bedrooms was constructed.

1901 A ~~new dam~~small weir was constructed on Rules Creek to supply water to the ~~building~~Caves House.

1901 A stone wall was built at the back of the garden and a section of the garden fence was wire-netted to keep out hares, 'which are somewhat numerous'.[12]

1902 A postal receiving office was added to the telephone office about May.[13]

[7] Plans reproduced with article - Gary Bilton, 'Early History of Yarrangobilly Caves.', *Helictite,* 1986, 24(1/2): 33.

[8] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), Primary Precinct Feature Review: Structures.

[9] Annual Report of the Department of Mines, New South Wales for the year 1898, p192.

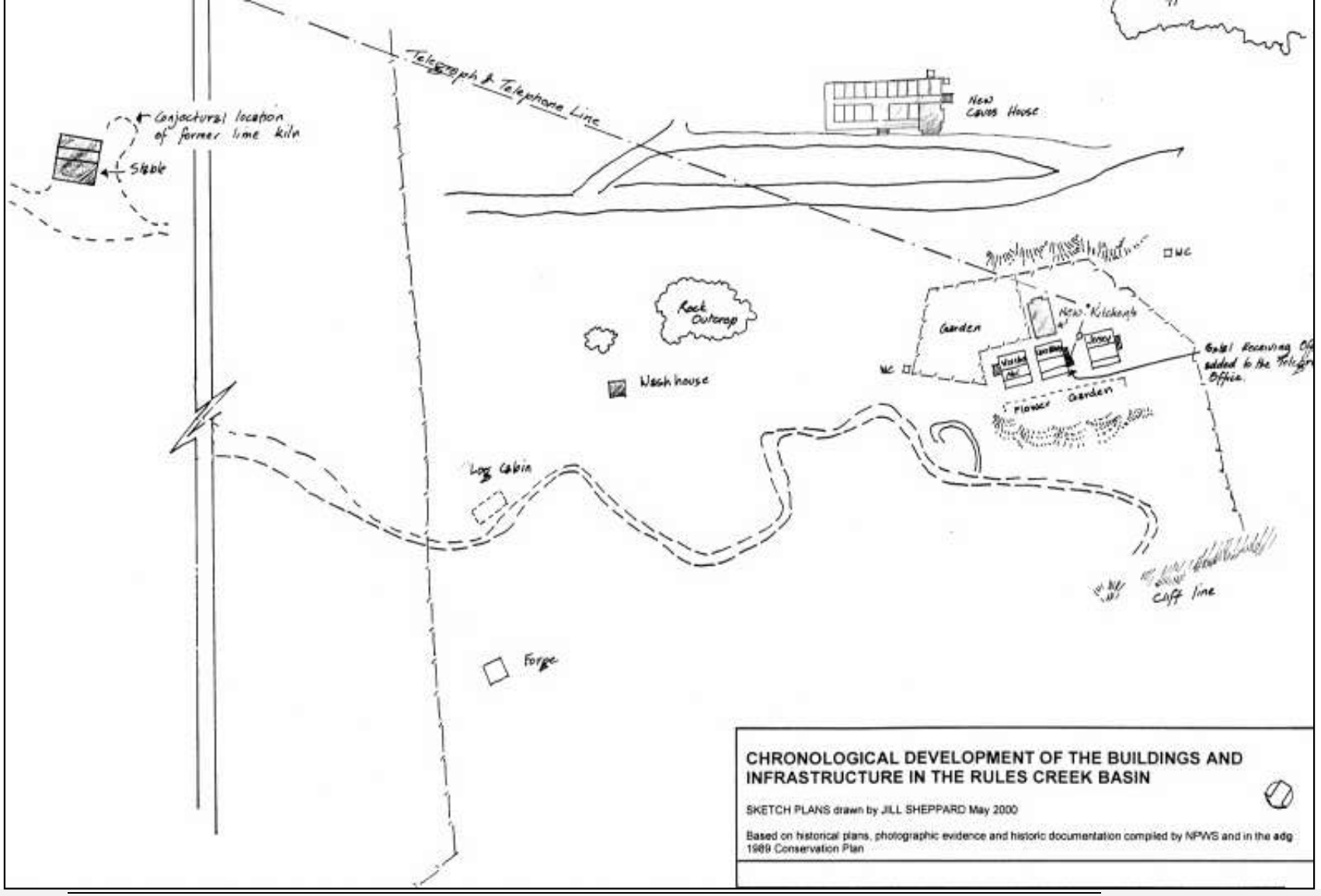
[10] Annual Report of the Department of Mines, New South Wales for the year 1899, p212.

[11] Annual Report of the Department of Mines, New South Wales for the year 1900, p198.

[12] Annual Report of the Department of Mines, New South Wales for the year 1901, p176.

[13] Annual Report of the Department of Mines, New South Wales for the year 1902, p129.

Figure 3.16 An early photograph of the main stable building with a group of men possibly including Walter Hoad senior. The tall man on the right hand side is Norman Buchanan, driver of the mail coach (P.Dowling pers comm) [Photograph from the ~~NPWS Yarrangobilly Photographic~~Hoad Collection]


Telegraph & Telephone Line
Conjectural location of former lime kiln
Stable
New Caves House
Rock Outcrop
Wash house
Garden
New Kitchen
WC
Flower Garden
Log Cabin
Forge
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan

~~Figure 2.16~~

1903-4

1903 Jersey Cottage and the Kitchen were removed and re-erected near the new accommodation house.[14] It was positioned adjacent and to the east of the Caves House, and linked to it by a covered way. Jersey Cottage was then used as a dining room/ kitchen adjunct to Caves House.[15]

1903[16] The third cottage, the original caretaker's cottage, was moved to a more north-easterly position in the vicinity of the present BBQ shelter and used by the Bradley family as a Caretaker's cottage. It was later used by Mr. Jack Dunn and his family.[17]

1904 Caves House comprised four cottages and the 1901 [16 bedrooms, two bathrooms and a lounge] Caves House.

Figure 3.17 A c.1903-4 Charles Kerry postcard view showing the new 1901 Caves House and the relocated Jersey Cottage and the Kitchen building. [Photocopy held in the Yarrangobilly file Collection]

[14] Annual Report of the Department of Mines, New South Wales for the year 1903, p136.

[15] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p39.

[16] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan.* (October 1989), Primary Precinct Feature Review: Structures.

[17] M. Commins, Yarrangobilly Caves NSW, p30.

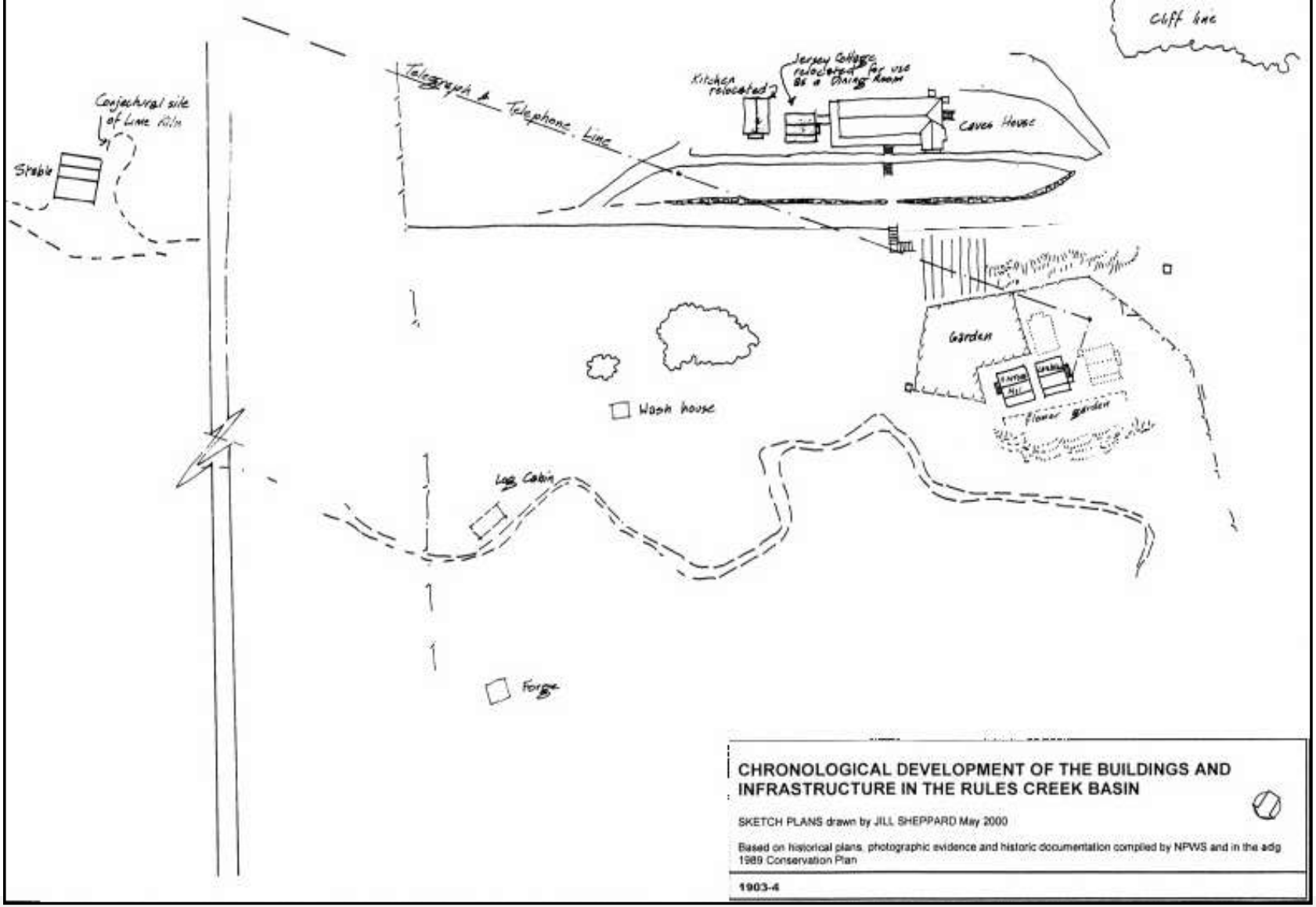

Cliff line
Jersey Cottage relocated for use as a Dining Room
Kitchen relocated?
Caves House
Telegraph & Telephone Line
Conjectural site of Lime Kiln
Stable
Garden
Flower garden
Wash house
Log Cabin
Forge
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
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Figure 3.17

[18] Annual Report of the Department of Mines, New South Wales for the year 1903, p136.

[19] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p39.

[20] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan.* (October 1989), Primary Precinct Feature Review: Structures.

[21] M. Commins, Yarrangobilly Caves NSW, p30.

1906

1906 The horse paddock fence was renewed.

1906 An additional accommodation building, initially used as a staff residence, was constructed further to the east of the Cave House and its Jersey Cottage addition.

1906 An additional dining room was added.

~~Figure 3.18 A photograph looking down on the 1906 Caves House complex showing the additional dining room and giving a clear view of the semi-permanent tents, of the telephone and telegraph line and of the garden. [Photograph courtesy of the Tumut Historical Society]~~

Figure 3.18 A photograph looking down on the 1906-13 form of the Caves House complex showing the additional dining room. The tents are thought [pers comm G Bilton 10/9/00] to have been used to house the builders of the two storey wing, which was constructed between 1913 and 1917. The telephone and telegraph line ~~and the~~and the garden are also visible in the photograph. [Photograph courtesy of the Tumut Historical Society]

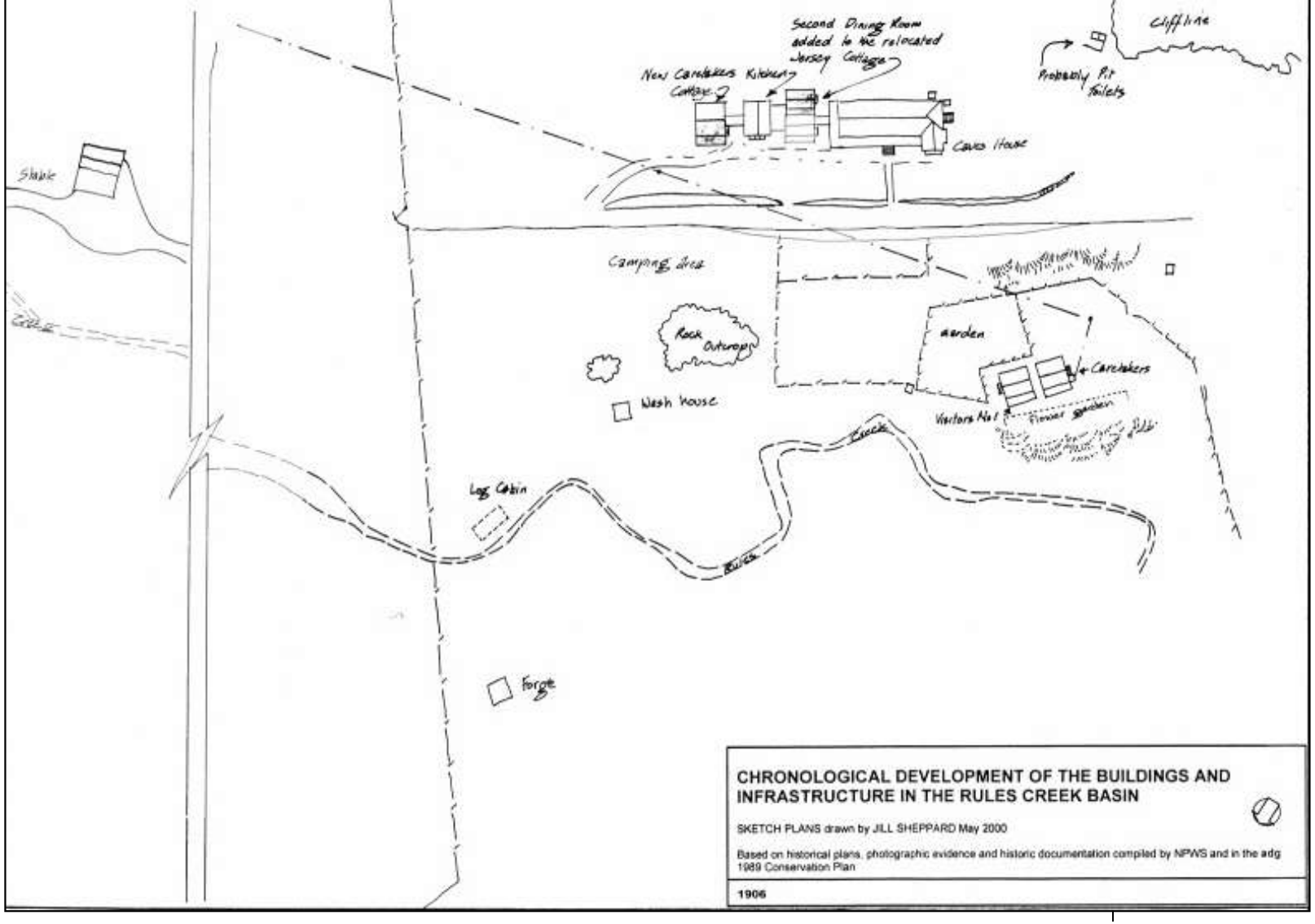
Second Dining Room added to the relocated Jersey Cottage
New Caretakers Cottage
Kitchen
Caves House
Cliff line
Probably Pit Toilets
Shade
Camping Area
Rock Outcrop
Garden
4 Caretakers
Wash House
Visitors Nat
Flower garden
Creek
Log Cabin
Forge
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan
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Figure 3.18

1913-17

1911-13 A new connecting road was built.

1913-17 The Two Storey Accommodation Wing was constructed. Work commenced in 1913 but, because of the war, progress was slow and it was not until 1917 that the new wing was finished.

1913 A general plan of the area was prepared, perhaps a redraft of an earlier one.[22] See Figure 3.11

1913 A tudor style multi-bayed [8] garage was built [demolished in the 1970s].

c.1913 A tennis court was built to the north of the garage for use by guests and was in use until at least 1922. A second one, possibly built at the same time, was to the north-west of the Caves House group.[23]

1913 Two cottages removed and one relocated.

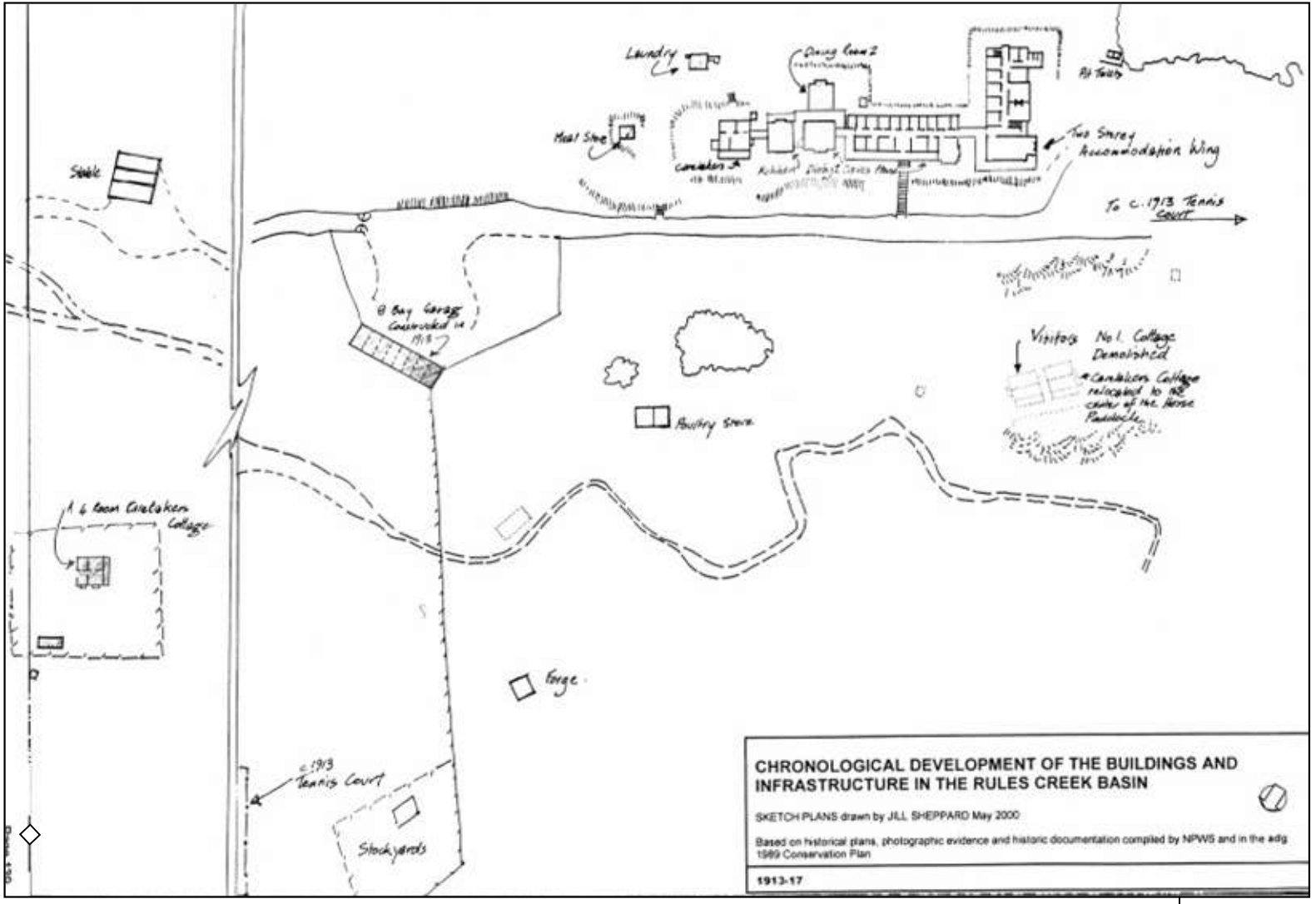
1913: A four-roomed cottage was built in the home paddock in 1913. Two additional bedrooms were added in 1924 when, after the construction of a new caretakers cottage (now the Visitors Center), it became a guides cottage. The building was demolished in 1972. In 1992 there were remnants of cottage garden trees on the site.[24]

Figure 3.19 showing the Two Storey Wing under construction with Caves House (note the narrow verandah) and Jersey Cottage adjacent to the new building. [Photograph from the ~~NPWS Yarrangobilly Photographic~~Hoad Collection]

[22] Annual Report of the Department of Mines, New South Wales for the year 1913, quoted in: Gregory J. Middleton, Oliver Trickett. Doyen of Australia's Cave Surveyors 1847-1934, (Sydney Speleological Society in association with the Jenolan Caves Historical and Preservation Society, 1992.), p68.

[23] Architecture Design Group, *Yarrangobilly Caves House Precinct Conservation Plan*. (October 1989), pp28, 29.

[24] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p45.


Laundry
Dining Room 2
Meat Store
Two Storey Accommodation Wing
To c.1913 Tennis Court
Stable
@ Bay Garage Constructed in 1918
Visitors No 1. Cottage Demolished
Caretakers Cottage relocated to the centre of the Horse Paddocks
Poultry Store
1 & two room Caretakers Cottage
Forge
c.1913 Tennis Court
Stockyards
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan
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1913: A four-roomed cottage was built in the home paddock in 1913. Two additional bedrooms were added in 1924 when, after the construction of a new caretakers cottage (now the Visitors Centre), it became a guides cottage. The building was demolished in 1972. In 1992 there were remnants of cottage garden trees on the site.[27]

Figure 3.19

[25] Annual Report of the Department of Mines, New South Wales for the year 1913, quoted in: Gregory J. Middleton, Oliver Trickett. Doyen of Australia's Cave Surveyors 1847-1934, (Sydney Speleological Society in association with the Jenolan Caves Historical and Preservation Society, 1992.), p68.

[26] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), pp28, 29.

[27] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p45.

1926-37

1919: Caretaker's cottage that became the Visitors' Information Office was built. It was used for a variety of purposes until the 1970s when the verandah was enclosed and it became a management office and information centre. In 1990 it was modified internally to allow for display and office space.[28]For an unknown period the northern head office of the Kosciusko National Park was based in the building.[29]

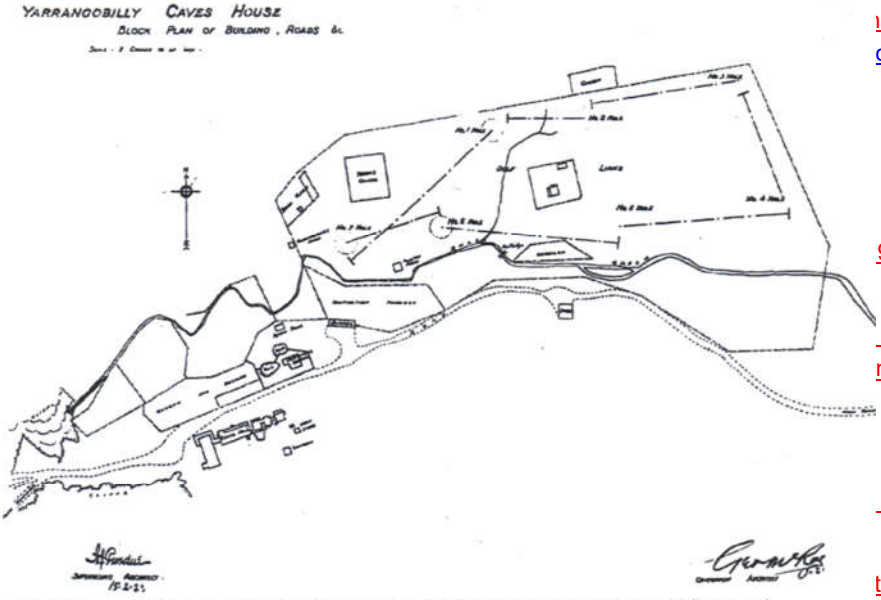

Figure 3.20 The plan of Yarrangobilly in 1922 showing the existing buildings and fencelines and the proposed golf course.

Figure 3.21 The Yarrangobilly Caves House complex with the new dining room constructed c.1937, but prior to the major alterations in 1938 which included a new bar and widened verandah. [Photograph from the NPWS Yarrangobilly Photographic Collection]

a battery set for d storage shed.

926 along with a

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time (two storey

two roomed suite

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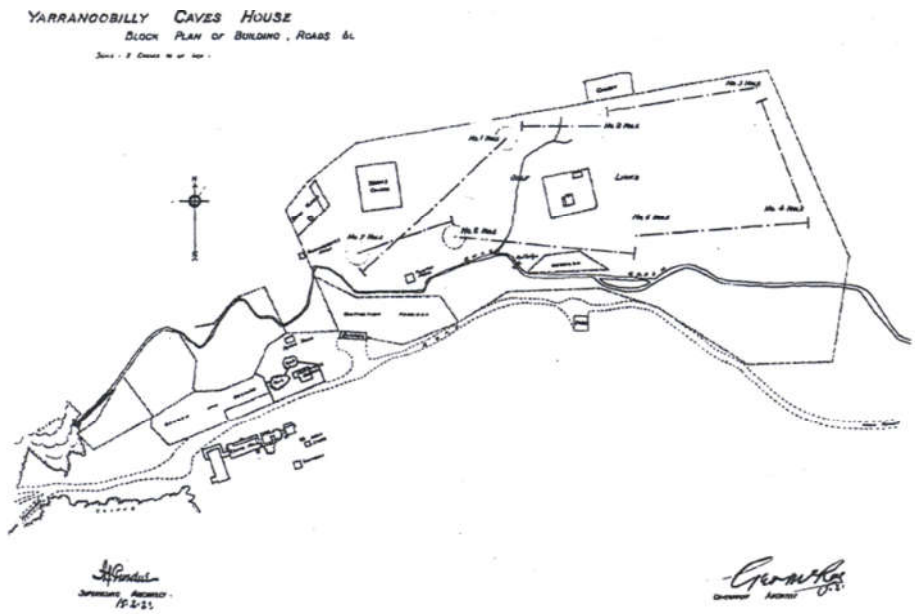

Figure 3.20 The plan of Yarrangobilly in 1922 showing the existing buildings and fencelines and the proposed golf course.

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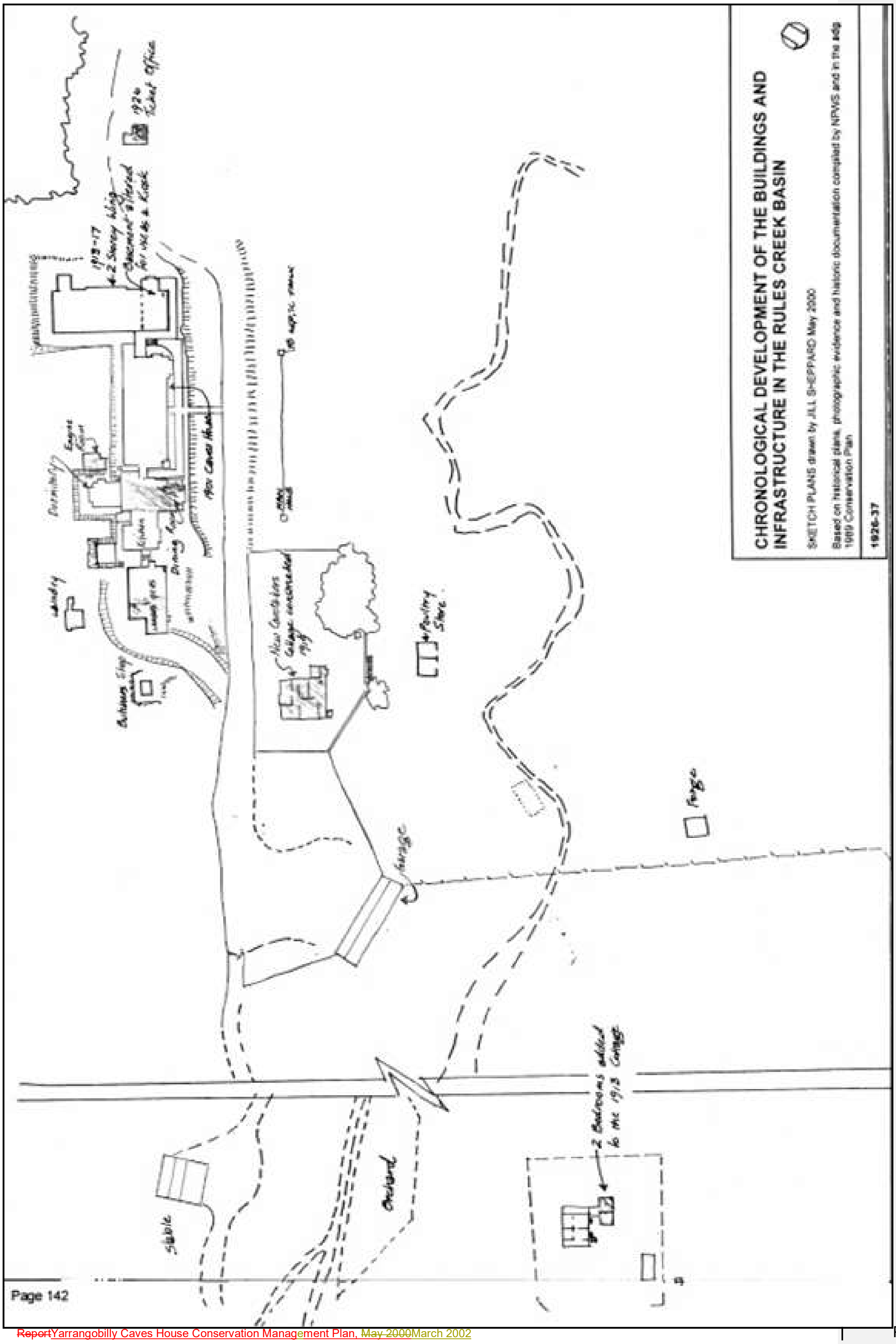
[Photograph from the Hoad Collection]


CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan
1926-37
1924 Ticket Office
1913-17 2 Storey Wing
1901 Caves House
Poultry Shed
Garage
Forge
Stable
Orchard
2 Bedrooms added to the 1913 Cottage
Page 142

Sketch Plans Drawn by Jill Shepperd May 2000Figure 3.20 & Fig 3.21

~~**1938**~~

~~1938 A bar and a bar lounge were built by W. W. Beavan, when the Caves House lessee, Mrs. Gertrude Day, acquired the Liquor Licence, then held by the Rules Point Guest House. It had been the original hotel licence at Yarrangobilly Village.~~[34]

1938

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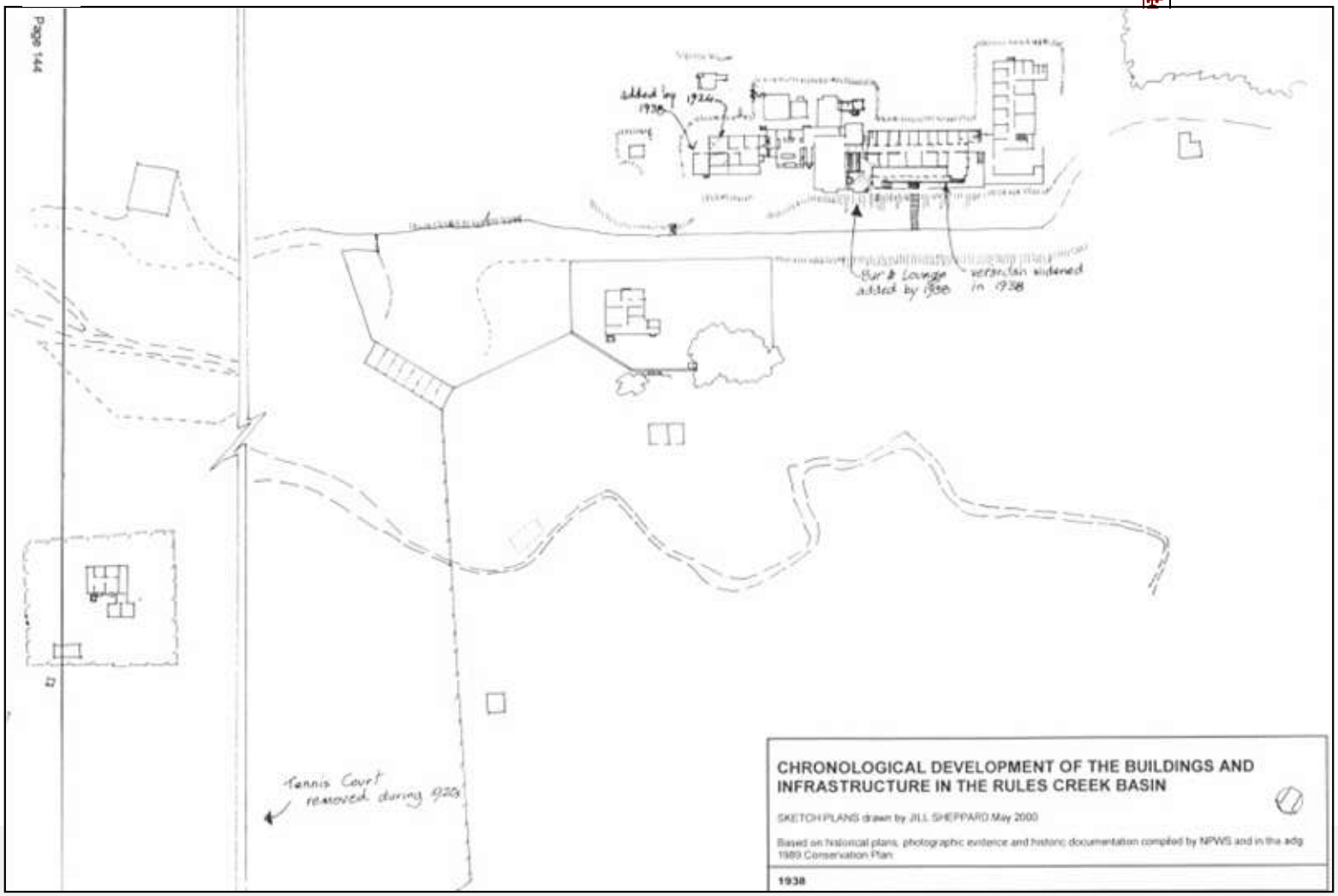
Figure 3.2~~2~~2 A view of Caves House with the c.1920s tennis court in the foreground. Note the pair of hipped roofs over the new dining room [c.1937] to the east and over the new bar between Caves House and the new dining room. The verandah has been widened to 11'6'' as part of the 1938 works.[Photograph from the Hoad Collection]

[34] '150th anniversary of discovery of Yarrangobilly's magnificent Caves.', *Tumut and Adelong Times*, 18 December 1984.

~~[35] '150th anniversary of discovery of Yarrangobilly's magnificent Caves.', *Tumut and Adelong Times*, 18 December 1984.~~

Sketch


Page 144
added by 1926 1938
Bar & Lounge added by 1938
verandah widened in 1938
Tennis Court removed during 1926
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan
1938

~~Figure 3.22~~

To 1990

1950s A kiosk established under the two storey wing of Caves House.

1953 The asbestos cement clad Cottage 1 was a very early kit home built in1953 and lived in for a time by the Dunn family. This cottage was completely renovated in 1999 for use by staff. The asbestos cladding was removed and replaced with Hardiplank.

1957 The entrance gates on the approach road from Tumut, at the western entry, were built and named to acknowledge the contribution of Hoad to the Yarrangobilly Caves House Precinct.

1960s Fire protection services (hose, reels, etc.) were installed. Since the 1960s the systems have been maintained on a regular basis and in 1999 an automatic fire sprinkler system, smoke detectors and emergency lighting has been installed in the one storey section of Caves House.

1960s an underground diesel tank was located in front of the workshop. ~~The tank was bunded and a hand pumping system established to the diesel generator fuel tank after a major spill in the early 1980s.~~

1966 September Caves House is closed and Yarrangobilly is gazetted Yarrangobilly Place of Detention.

~~c.1956 The asbestos cement clad Cottage 1 is thought to be a very early kit home built 1955/6 and lived in for a time by the Dunn family. This cottage was completely renovated in 1999 for use by staff. The asbestos cladding was removed and replaced with Hardiplank.~~

1966-8 [c1968] Cottage 2, the Rangers House, also known as the 'married quarters' was located some 100m south-east of Caves House. Prison workers built it on the plateau. The plateau was earlier a garden and there had been a meteorological station there. The cottage faces on to a cleared area that is used for emergency helicopter (management) services and upon which there have been a number of sheds and outhouses.[36]

1960s &70s: The picnic facilities were built in the 1960s and 1970s by both prison labour and the NPWS.[37]

1970s The Bluff Lookout is built by prison labour.

1972 The smaller buildings east of the main complex were removed by NPWS.[38] The 1913 caretakers cottage was demolished. The area near the workshop functioned as an open air

[36] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), p34.

[37] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p50.

[38] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p43.There is some conflicting evidence in the 1989 adg CMPp 5 which states that the Precinct was closed in 1982 by inference for demolition works.

storage area for relics from the 1901-1917 accommodation facilities. The area was established in conjunction with the cottage and workshop developments.[39]

1972 Vehicular Workshop: This was built in 1972 as a works depot for the northern section of the Kosciusko National Park.[40]

1975 A second hand [60KVa] generator was swapped with Jeremy Blyth from Yasuk for the original hydro plant.

1978 By this time NPWS had removed the school house, freezer room, Nissen hut, garage, workshop, blacksmith's shop and kitchen and Caves House was modified for NPWS staff use.

1980's The powerhouse diesel tank was bunded and a hand pumping system established to the diesel generator fuel tank after a major spill in the early 1980s.

1982 Two new Deutz diesel generators purchased.

1982-4 Changes were made to the eastern end of Caves House to convert the dining room into a Visitors Information Centre, and to provide new toilets for use by tourists.[41]

1985 The present hydro system renovated.

1989 Two concrete water tanks (100,000L each) replace the open, in ground water tank constructed in the 1960s.[42] The original in ground header tank for the system was removed in May 1989.[43]

1984 & 1994-5: The vehicular bridge was installed before 1984 and the footbridge was installed in 1994-5.

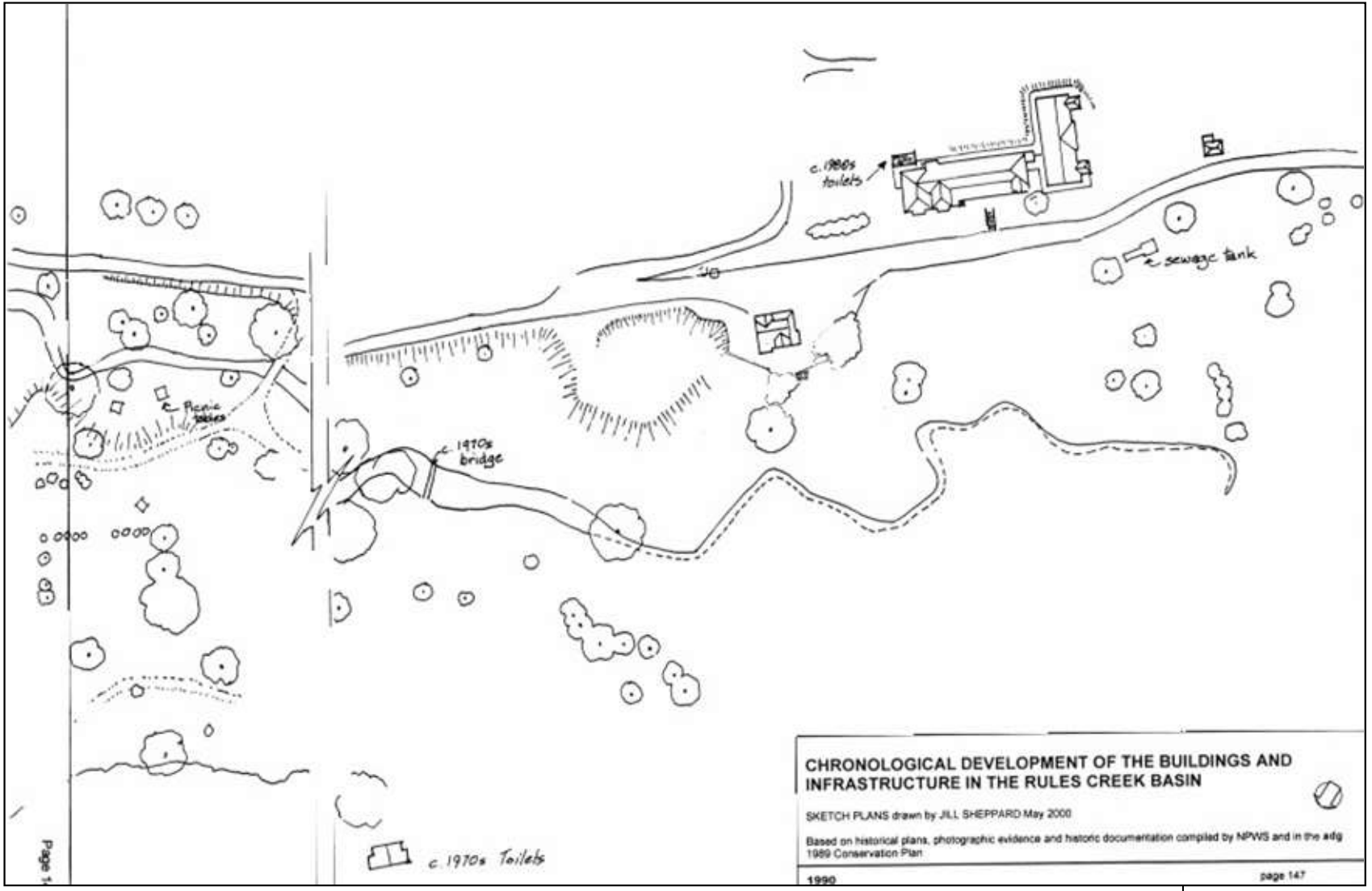
[39] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p50.

[40] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), Primary Precinct Feature Review: Structures.

[41] Freeman, Collett & Partners, *Yarrangobilly Caves House Precinct Conservation Plan*, (August 1992), p42.

[42] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), p20.

[43] Architecture Design Group, *Yarrangobilly Caves Precinct Conservation Plan*. (October 1989), p20.


c. 1980s toilets
c. sewage tank
c. Picnic tables
c. 1970s bridge
c. 1970s Toilets
CHRONOLOGICAL DEVELOPMENT OF THE BUILDINGS AND INFRASTRUCTURE IN THE RULES CREEK BASIN
SKETCH PLANS drawn by JILL SHEPPARD May 2000
Based on historical plans, photographic evidence and historic documentation compiled by NPWS and in the adg 1989 Conservation Plan
1990
page 147

3.5.1 The Thermal Pool – Chronological Development

1894: The swimming pool is established with the sides lined with wooden slats.

1897: The Thermal pool is excavated and timbered.

1898: A bathing shed is built near the pool.

1901: The bath at the thermal spring is improved.

1906: The bath at the thermal spring is further improved.

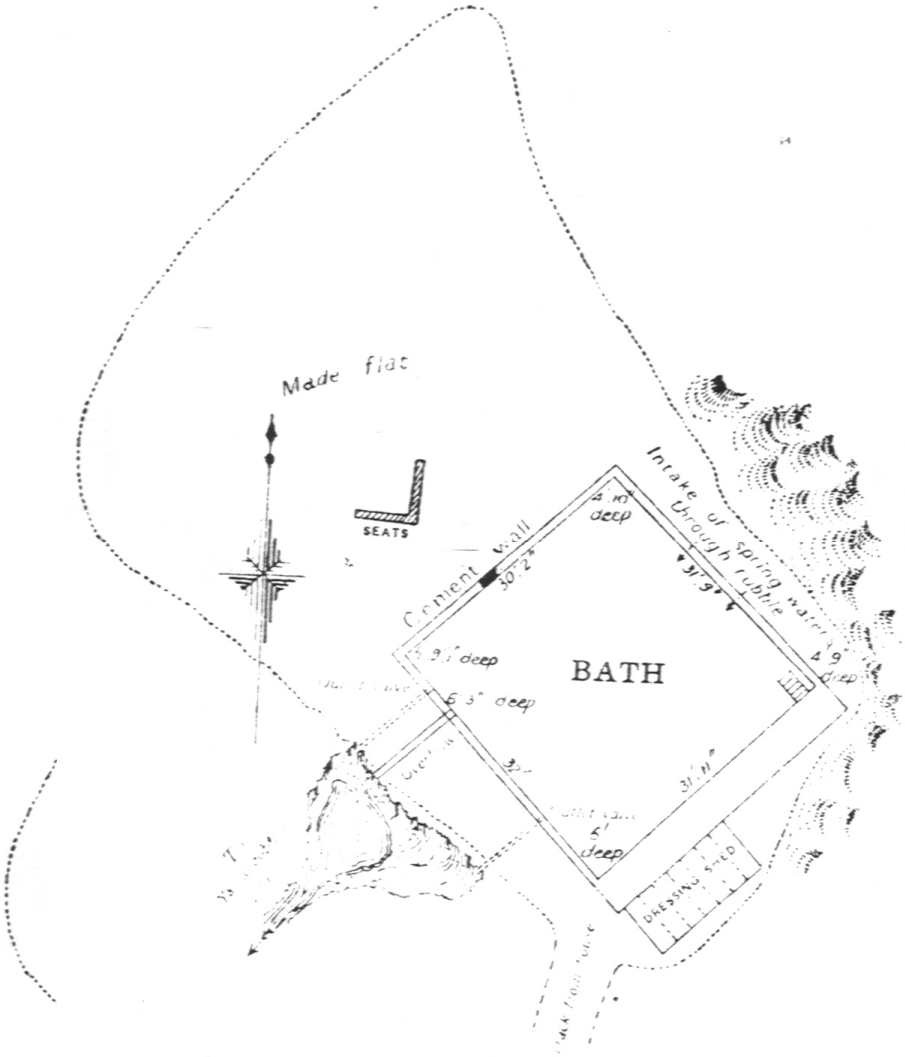
1915: 'An enlargement of the bath at the Warm Spring, Yarrangobilly was arranged for and completed. [44]

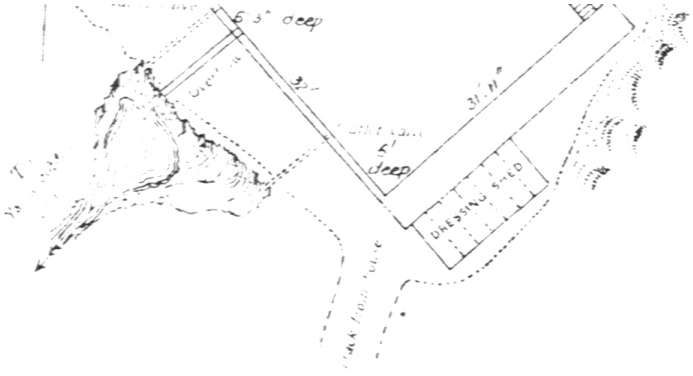
1916: The sides of the Thermal pool are cemented.

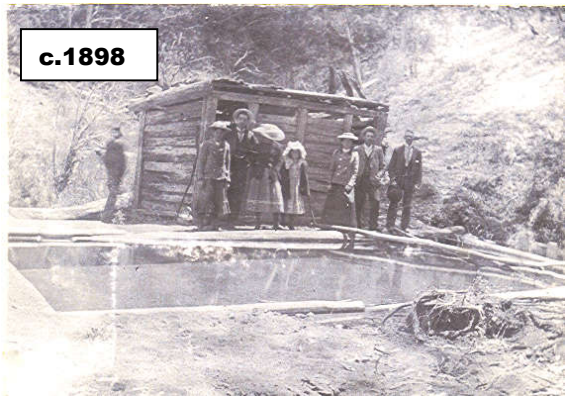
1960s: The car park for the thermal pool is built.

1968: The thermal pool is reconstructed in its present two pool form.

[44] At the date of Mr. Trickett's last visit, in December, 35,000 gallons of water per hour was flowing through the bath. To this flow an added 2,800 gallons per hour find their way through the strata surrounding the bath. Steps will be taken to determine whether any of the drainage from the swamp above the bath finds its way into it.


Made flat
SEATS
Cement wall
30'-2"
Intake of spring water through rubble
4'-10" deep
31'-3"
4'-9" deep
9'-1" deep
BATH
6'-3" deep
31'-11"
5' deep
DRESSING SHED

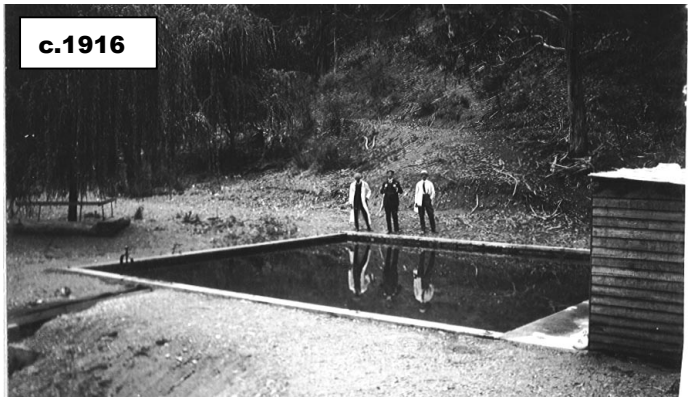

6'-3" deep
31'-11"
5' deep
DRESSING SHED



1894-1916

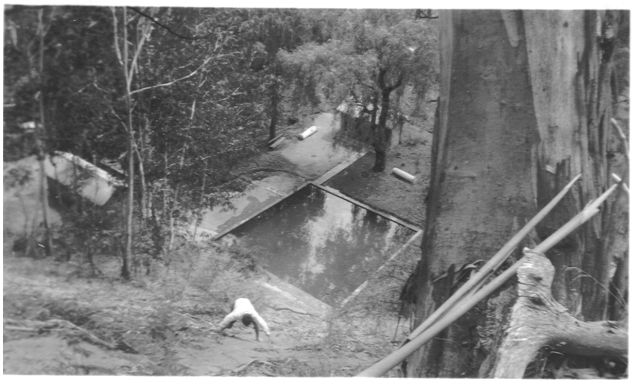
C.1898 photograph showing a slab sided change room and the pool lined with timber.
[Photograph courtesy of the Tumut Historical Society]

C1900 photograph showing improved dressed timber changing rooms with the pool still sided with large timbers.
[Photograph from the ~~NPWS Yarrangobilly Photographic~~Hoad Collection]



C1916 photograph showing the Thermal Pool with cement sides and the changing room in the foreground with weatherboard or lapped timber sides.
[Photograph courtesy of the Tumut Historical Society]

1947



1947 photographs showing the enlarged cement sided pool and gable roofed changing rooms. One being weatherboard and the other corrugated iron.
[Photographs from the NPWS Yarrangobilly Collection donated by Mr and Mrs McConnell]

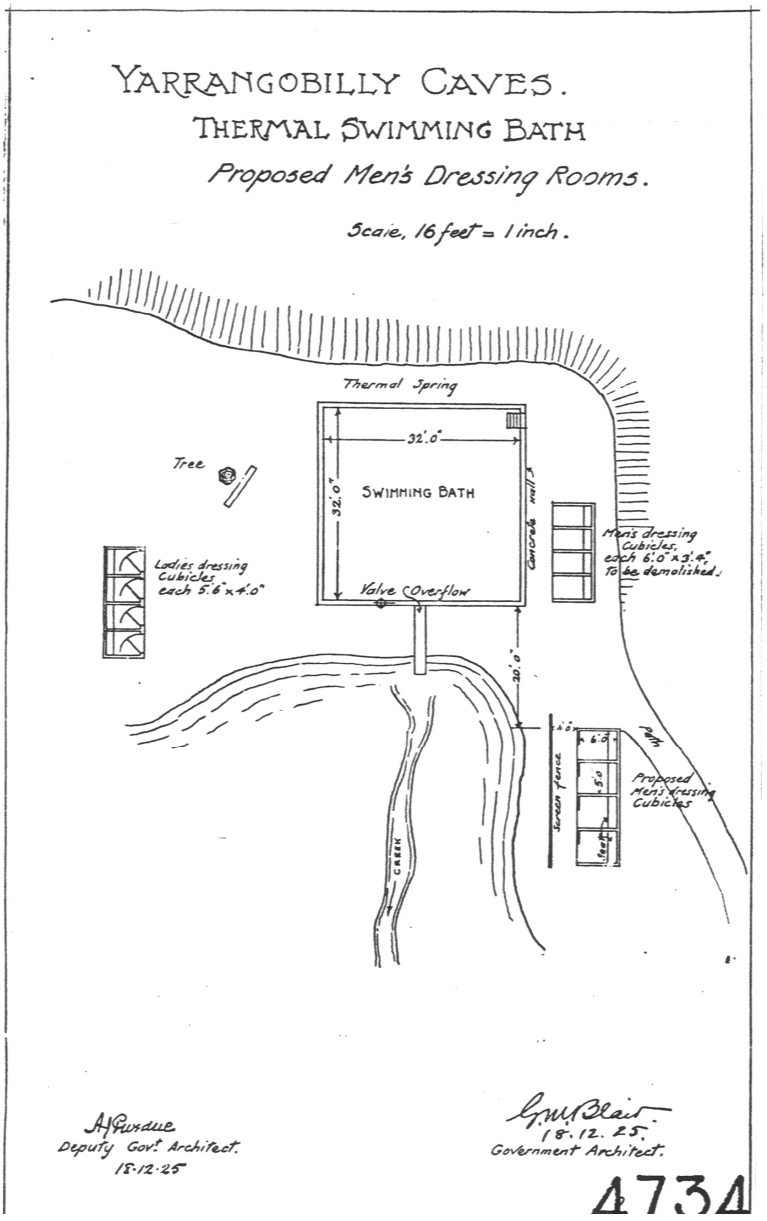
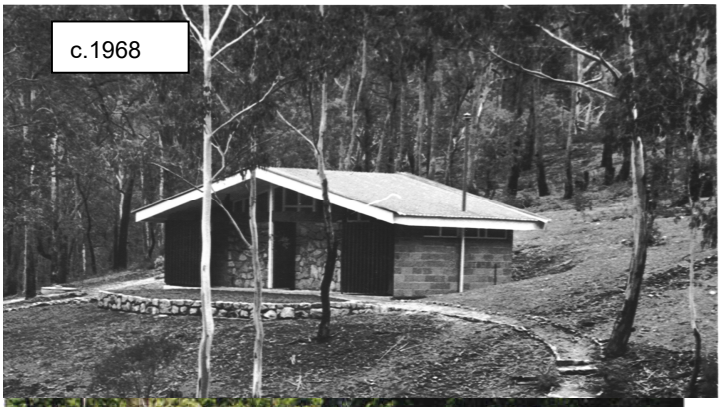


Figure 2.254 A 1925 plan of the Thermal pool showing two rows of dressing sheds and an enlarged pool.



c.1968 photograph showing the new changing rooms and toilets built on the rise north of the pool and accessed via a long run of concrete steps.
[Photograph from the NPWS Yarrangobilly Photographic Collection]

2000 photograph showing the wading pool located below the out flow.
[Photograph by Sheppard]

2000 photograph showing the wading pool located below the out flow.
[Photograph by Sheppard]

Fig al pool showing two rows of dressing sheds and an enlarged poo