

Yalwal / Danjera Dam Tourism Precinct
Preliminary Site Assessment Report



prepared for

Shoalhaven Water

by

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1. Introduction

1.1 Purpose of the Report

This report provides an overview of key considerations and preliminary outcomes of investigations relating to the potential for development of land near Danjera Dam for the purposes of camping, eco-tourism accommodation and associated activities. An Initial Concept Sketch Plan has also been developed for the purposes of discussion and to enable further examination of key issues (see Appendix A).

The report is structured as follows:

- o Section 1 provides an overview of the site and project;
- o Section 2 reviews some similar project case studies and draws comparisons with the subject proposal;
- o Section 3 identifies the constraints and opportunities presented by the project site;
- o Section 4 reviews the “Initial Concept Sketch Plan” as a basis for discussion; and
- o Section 5 identifies overall conclusions and recommendations for the next steps in considering the potential for development.

The report is general in nature and should not be considered as an endorsement of the proposal or suggest that it would be a viable proposition without more detailed studies.

1.2 Project Background

The Yalwal / Danjera Dam camping and eco-tourism concept is understood to have been initiated by early discussions between a local land owner and Shoalhaven Water, seeking to reintroduce and expand on the existing tourism potential of the area.

The site subject to the proposal adjoins the eastern side of Danjera Dam some 30km to the west of Nowra, being partly owned by the Shoalhaven City Council (**Council**) and partly privately owned by a single landholder. Large areas of Crown Land adjoin the site to the south and south-west, whilst National Parks and Wildlife Service (**NPWS**) adjoins to the north and west.

Given the sensitive nature of the site adjoining Danjera Dam (being a water supply storage dam), and the prevailing “environmental” land use zones over the land, development for camping and eco-tourism purposes would appear to be the only option for development of the area at the current time.

1.3 Site Description

The land subject to consideration for development of the Yalwal / Danjera Dam camping and eco-tourism proposal, is located between Danjera Dam on the west and Yarramunmun Creek and tributary in the north and east and Crown Land to the south. The Council owned land portion is understood to be classified as “operational” land under the *Local Government Act 1993*, and is administered by Shoalhaven Water.

The total area of the land is around 100ha in size (excluding Crown and NPWS land), legally described as Lots 1-6 DP252335, Lot 17 DP755931 (Por 17) and Lot 1 DP217080. The land has a frontage to Danjera Dam of more than 1km and is undulating with some steep areas and a ridge line generally along the Yalwal Road alignment. The site can be described in a number of parts as follows:

- o *Council operational land*: owned by Council and classified as operational land, this area broadly incorporates the “operational dam”, “existing camping, picnic and day use areas” and “entry road site” (further details of these are provided below), as well as extensive areas of Grey Gum Forest/Woodland or Scribbly Gum-Slivertop Ash Forest/Woodland¹. Yalwal Road extends, as an unsealed road, through the area in creating a “loop” through the site (though the loop road has been blocked beyond the existing camping/day use facilities).
- o *Existing camping / day use facilities*: Located along the western portion of the Yalwal Road “loop” with frontage to Danjera Dam. The area is the primary camp ground location with existing toilets (two each of male/female), refuse bins (x12) and fire places. The area has a gentle slope to the dam, with no formalised camping locations or internal roads;
- o *Other camping areas*: At various locations along the access and loop roads comprising of disturbed areas and including fire places in all locations, as well as refuse bins and a toilet (one each of male/female) in the area below the dam wall (to the north of the dam wall);
- o *Operational dam area*: including spillway and dam wall at the northern end of the dam. The area is steep in some locations, with a waterfall along the creek resulting from the spillway;
- o *Entry road site*: located on the Yalwal Road access prior to the Yaramunmun Creek bridge crossing. Council owned land which has been previously cleared and appears to have been used for cattle grazing or similar in more recent times. Generally well cleared understorey with some limited tree canopy. It is understood that a dwelling house was previously located on the site but burnt down some time ago;
- o *Privately owned land*: extending to the east of Yalwal Road, with two dwelling houses and numerous gullies / watercourses. Incorporates large areas of cleared land, as well as forested areas and some areas of historical interest. The entire area is currently under single ownership;
- o *Crown land areas*: extending to the south and south-west of the subject site, incorporating areas of abandoned mines, historical cemetery and otherwise forested areas including dam frontages. Small portion of crown land also exists to the north-east of the access road;
- o *NPWS land areas*: extending across the north of the site, and stretched along the western side of Danjera Dam. Includes small day use and camping areas off Yalwal Road. Also incorporates various walking trails / tracks including the Two Rivers Walk between the Shoalhaven and Clyde Rivers.

Photography of the site is provided in Figure 1, with the portions of the site as described above, as well as other site features, being shown in the aerial photo in Figure 2.

¹ According to Council’s State of the Environment Mapping



NPWS day use area



Existing bridge over Yarramunmun Creek



Camping area below Dam wall



Main camping area adjoining Danjera Dam



Dam launching area



Main camping area toilet block



Historic cemetery on Crown Land



Mining relics adjoining Dam (Crown Land)

Figure 1: Site Photographs

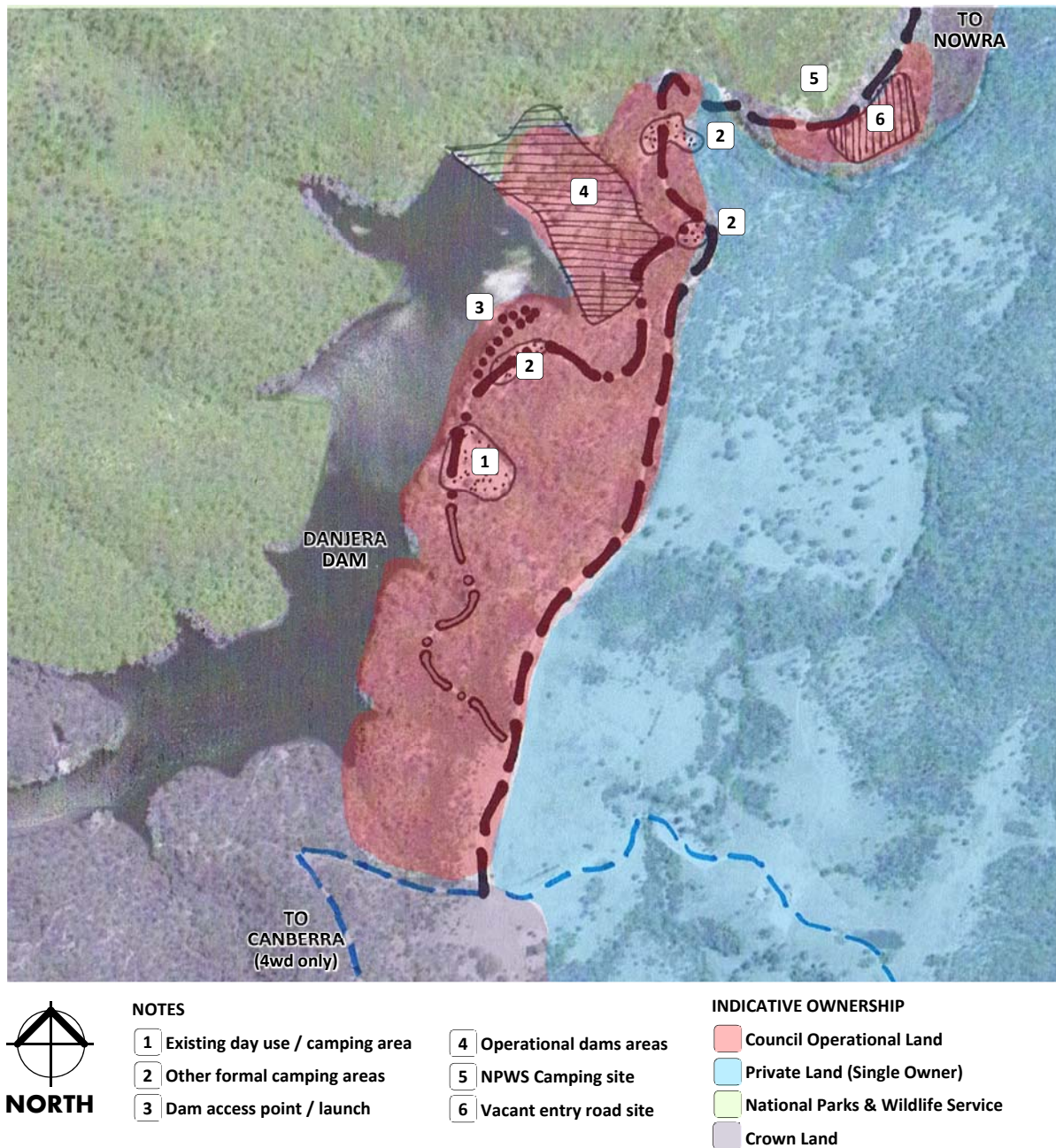


Figure 2: Existing Site Areas

1.4 Previous Investigations and Plans

The Council owned part of the site, as well as the Crown land to the south, was investigated in 1999 in preparation of the *Draft Yalwal Management Plan* (the “**Draft Management Plan**”). This draft document does not appear to have been formally endorsed and is not considered to be a statutory document. A *Yalwal Post Contact Heritage Investigation and Conservation Management Plan* (**Yalwal CMP**) was also produced in 1998, reviewing the heritage significance of the site and providing recommendations for future use. Key aspects of these documents are highlighted below.

1.4.1 Draft Yalwal Management Plan

The Draft Management Plan essentially states that the purpose or vision for the area is to be a place:

- o for people to capture the pioneering spirit;
- o to enjoy pristine bushland; and
- o where public visitation and tourism may be managed without damage to the natural, cultural and water supply environment.

It then goes on to describe potential future actions or proposals for upgrades to the area including:

- o Camping above the wall of the dam be restricted to picnic ground, with upgrade of that area to better cater for group camping (including a basic covered eating shelter and kitchen);
- o As an interim measure, permit camping on designated areas downstream of the dam wall where run off can't enter the stored waters, with NPWS to establish overnight camping / visitor facilities on the eastern side of Yaramunmun Creek bridge (north of the Dam);
- o Reserve the area for heritage and environmental purposes in LEP/ REP and take steps to protect the historic and cultural values (*note: this has been achieved through application of an environmental land use zone and heritage listing*);
- o Suitable walking routes be established through the mines and delineate sites that may be suitable for public inspection.
- o Place information signs at all significant historical sites and exclude all vehicles from these areas.
- o Economic viability and other aspects of constructing and operating built tourist accommodation be assessed. Design, materials and operation be compatible with environmental and cultural values.

“Stage 1” and “Future Plan” drawings from the Draft Management Plan are replicated in Figure 3 below to illustrate the location of the various elements associated with the report recommendations.

As outlined above however, in broad terms the Draft Yalwal Management Plan considered many of the issues currently being examined, and at that time concluded that the viability of “built tourist accommodation” be assessed. It is therefore considered reasonable to conclude that the concept of providing upgraded camping, day use and potentially built accommodation at the site is therefore one that has been present for at least 15 years.

It is also noted that subsequent to the Draft Yalwal Management Plan being completed, an amendment was made in 2002 to the then Shoalhaven Local Environmental Plan (**LEP**) 1985 to enable tourism accommodation options to be established subject to water quality controls. Despite an apparent working partnership between Crown Lands, National Parks and Wildlife Services and Council, progress on the concept does not appear to have progressed following this change.

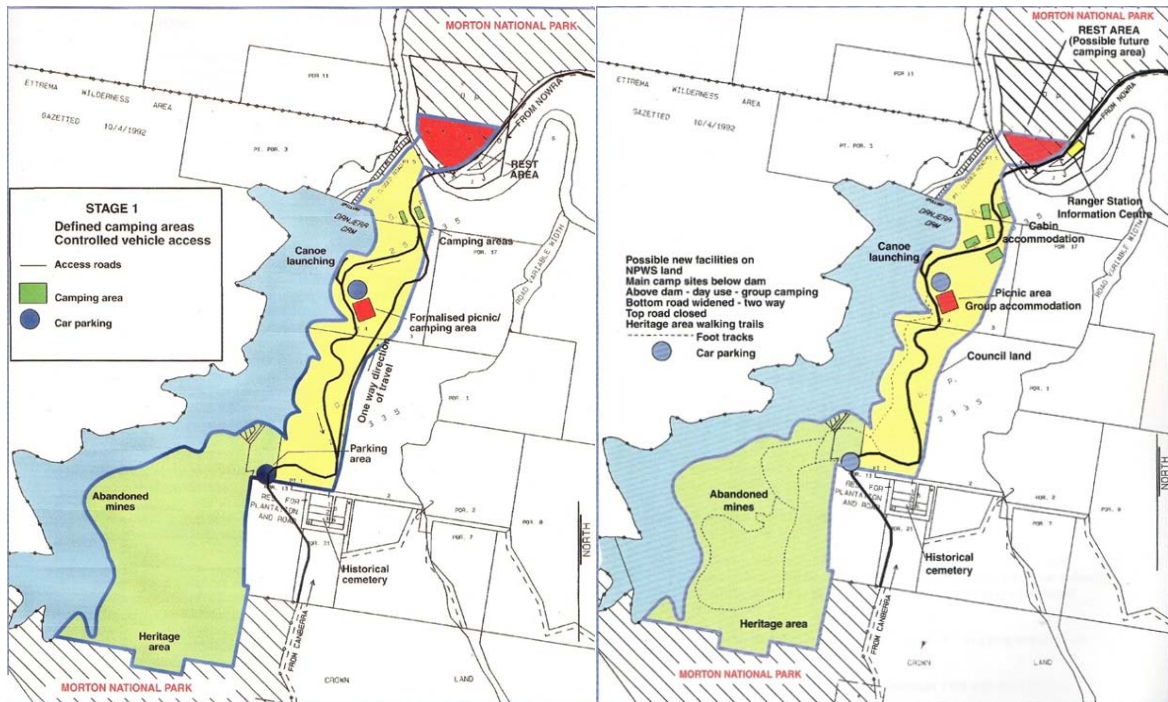


Figure 3: Draft Yalwal Management Plan Future Development Drawings

1.4.2 Yalwal Conservation Management Plan

The Yalwal CMP document provides some background as to the existing facilities, their importance and which of those items were (at the time) suitable to be incorporated into public walking tours. The document provided a number of relevant recommendations including that:

- o Two self-guided walking track routes (one short, one long) be constructed around the abandoned mines area. It is noted where safety barriers and guard rails are required, but specifies that detailed safety matters were beyond the scope of the report;
- o All existing structures and features of post contact heritage significance be maintained and conserved; and
- o Special conservation strategies for the Chapman stamping battery, tramways and cemetery be developed (with these items seen as having the most significance of the remaining mining related infrastructure).

Any consideration of utilising the area for public access would obviously necessitate the review of this information for currency with best practice public risk management, as well as ensuring the items are still in a condition suitable to attract visitors. The report does however confirm that the potential exists for these heritage items to be made more accessible and to be of interest to many people – a situation which is likely to have increased since the document was produced.

2. Project Case Studies, Comparisons and Potential

There are a number of examples of public and privately operated / proposed camping and eco-tourism facilities that have characteristics similar to those present at the Danjera Dam site. Some of these examples are outlined in Table 1 below with comparisons or lessons from these drawn into the context of the subject proposal.

It is also noted that Council's *Tourism Master Plan 2012-2017*, and anecdotal evidence as discussed with Council's Tourism Manager², also suggest that there are opportunities for the development of camping and eco-friendly or nature based facilities. The Master Plan found that many industrial and community participants thought that this was a key market direction for the Shoalhaven. However it was found that the area has a very limited supply of "Eco-certified" accommodation. Council's Tourism Manager believes there is opportunity in this area, including at the basic end of the market, including both camping and accommodation options.

Table 1: Case Studies and Comparison Comments

Case Study Example	Comparison / lessons for Danjera Proposal
<i>Newnes Industrial Ruins</i> – Free campground (80 sites) and glow worm tunnels. - o Located on the western side of Wollemi National Park (35km from Lithgow). - o Around 2.5 hours from Sydney via Blue Mountains. - o Contains heritage relics of shale oil mining and sensitive fauna. - o Site by site risk assessment carried out annually. - o Relies heavily on advisory warning signage. - o Key issue: threatened species in mine shafts etc (particularly bats). - o Campgrounds heavily utilised all year round.	Provides a similar set of circumstances as the Danjera Dam site, though relics are more accessible. Demonstrates popularity of this type of facility, particularly within the 2-3 hour radius of Sydney (weekend / day trip market). Significant long-term planning and co-ordinated approach based on National Parks and Wildlife (NPWS) operations. Free camping available with basic facilities similar to the existing situation at Danjera.
Bendeela Recreation Area - Camp ground / day use area - o Located to the west of Kangaroo Valley. - o Operated by the Sydney Catchment Authority. - o Popular location for camping and day use, particularly associated with activities on the Kangaroo River. - o Recent draft Master Plan prepared, including on-site managers residence and "hub area" for information / reception. - o Camping fees are to be introduced as part of future upgrades.	Bendeela is under a similar operational situation as Danjera Dam, in that it is being operated by a water authority (Sydney Catchment Authority). The site is however very large, catering for up to 400 camp sites (6 people per site). This scale enables improvements and introduction of more on-site facilities, along with fees to recoup some of these costs. The site is operated as a "primitive camping ground" under the <i>Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005</i>

² Pers Comm. 27 August 2014, Steve Lawson, Shoalhaven City Council Tourism Manager

Case Study Example	Comparison / lessons for Danjera Proposal
Yerranderie Private Town – Camp ground (10 sites), silver mining ruins, self-guided walks and built tourist accommodation (in former town buildings) - o Located in Yerranderie Regional Park (90kms from Oberon), around 5 hours from Sydney. - o “Private Town” came into NPWS ownership in 2012 and the Regional Park was created. - o Was the subject of a precinct plan that included map based issue identification and risk assessment (including operational options) and basic geotourism investigation. - o Caretaking/ management being leased out by NPWS for an initial 5 year period, with NPWS still taking bookings through their existing booking systems. - o Camp grounds and old town buildings heavily booked all year round (budget accommodation).	Several similarities, however the Yerranderie site contains a number of existing buildings used for accommodation purposes. It does however again demonstrate the popularity of this type of facility, despite being a greater distance from Sydney. Since becoming part of the NPWS has been operated under the broader NPWS operational framework.
Proposal eco-tourist resort and function centre (42 accommodation units, restaurant, swimming pool, wildlife centre, etc) (Regional JRPP Application No. RA14/1001) - o Located on Kangaroo Valley Road, Bellawongarah. - o Around 2 hours from Sydney. - o Application lodged March 2014. - o Withdrawn July 2014 – applicant stated a need to resubmit the application as ‘designated development’. - o Key issues included: noise, roads/ access, flora & fauna, bushfire, stormwater management and wastewater management.	A current/future application for up-market eco-tourism, likely to focus on functions, weddings and the like. Similar key issues with bushfire and flora and fauna constraints, though set within a much more modified landscape (not wilderness).

2.1 Case Study Conclusions

The case study examples provide a number of examples of similar situations. It is noted that many of the basic camping sites have no or low fees, with basic facilities. The Bendeela example provides a particularly interesting comparison in terms of being operated by the SCA and having similar issues such as vandalism and a lack of passive surveillance. The Draft Master Plan identifies that the proposal to incorporate an on-site manager and manager’s residence is to create a “central hub area” where buildings and facilities can be congregated and have a level of passive surveillance. This office would be a central point for information and for contacting the site manager. The Draft Master Plan identifies that *“costs associated with this new role will be partially offset by a reduction in requirements for security, grounds maintenance and repairs due to vandalism”*.

In the instance of Danjera Dam, there would need to be careful consideration of the ongoing costs and income, with the potential for an ongoing operational subsidy being required (and Council’s

willingness to entertain such a cost to address other issues, such as vandalism and illegal activity, which occur on the land).

Consultation with key external stakeholders (including the Crown, NPWS and the private landowner) to gauge interest in contributing to initial and ongoing costs, followed by the preparation of a full master plan would be required to fully establish the potential for the feasible development of the site. The relationship of the subject site to the adjoining Crown and NPWS land is an important factor if moving forward with the project.

3. Constraints and Opportunities

There are a number of significant constraints and unique opportunities presented by the subject site. These are briefly examined in the following sections.

3.1 Site Constraints

The subject site provides for a number of key challenges that would need to be overcome to enable development to proceed beyond the existing basic facilities. These constraints are summarised in the following table, along with comment on the implications for the project.

Table 2: Site Constraints and Implications

Constraint Description	Implication for Eco-Tourism Development
Bushfire - o The site and adjoining land is mapped as being almost entirely within Category 1 vegetation, and is therefore considered to be bush fire prone land. The site has been subject to two fires recorded on Council online mapping tool, being the Touga fire in 2002, and Hylands fire in 2001. - o Bushfire threat is present from all directions. - o Strict and thorough emergency procedures would be needed given the site has a single 2wd access road that would become unavailable during fire events.	Preliminary review from Council's Environmental Operations Officer identifies that Eco-Tourism development is required to meet Asset Protection Zones (APZ) equivalent to residential subdivisions and construction standards (Section 4.1.3 of the Planning for Bushfire Protection (PBP) publication). They are also required to meet the Special Fire Protection Development requirement for access, services, emergency and evacuation planning, and other specifications in Section 4.2.7 of PBP. These requirements are likely to include as a minimum (subject to a detailed bush fire assessment that would consider the type of surrounding vegetation and topographic conditions): - o 15m+ of defensible space between vegetation and accommodation buildings; - o 50m of "under-scrubbing" around any accommodation building (together with above providing an APZ); - o Provision of a Bushfire Emergency Evacuation Plan that may include options such as: - A refuge building with a 100m APZ; - Restrictions on days of use (e.g. avoiding use of the site on days of "catastrophic" fire alert); and - Provision of static water supply. Clustering of development, and utilising existing cleared areas would obviously reduce the impacts on establishing bushfire protection measures such as APZs.

Constraint Description	Implication for Eco-Tourism Development
Flora and Fauna Impacts - o Bushland areas are likely to contain, or be habitat for, threatened species. - o Clearing potentially required for bushfire purposes may trigger significant studies. - o Potential for aquatic impacts relating to adjoining dam environment.	Detailed assessment may be required for terrestrial flora and fauna, particularly in areas of vegetated land that may be subject to vegetation removal associated with bushfire protection measures (should new accommodation or managers residence be required on Council land for example). Should large areas be impacted, these studies could take up to 12 months to complete and are often costly. Impacts may be offset by retaining key environmental assets and utilising previously disturbed areas wherever possible, and otherwise clustering of uses as a secondary preference (in the existing day use area for example). Aquatic flora and fauna, and potential impacts would need to be assessed resulting from implementation of any water based facilities (jetties etc) and use of the dam thereafter.
Ownership patterns - o Site area includes private, Council and potentially Crown Lands (heritage sites) and NPWS land (existing NPWS camping area). - o Potentially complicates management regimes and infrastructure requirements. - o May also provide opportunities for shared investment.	Whilst development may be possible across the whole “site”, any development applications (DAs) should be retained over single lots (or owners). A DA that ties Council and private land would necessitate Council entering into some form of long term agreement with a private land owner, which may be acceptable in the short-term, but result in long-term complications. For example, bushfire infrastructure may be necessary within the cleared areas of private land (refuge building), which would then tie the public and private land for the purposes of the development. Should the private land become “unavailable”, the public component would be compromised. Ultimately, the development proposal and any subsequent DA or camping ground licence would preferably be separable, and only be linked through a management agreement rather than the DA itself.
Site Risks - o Structural stability of heritage items and abandoned relics. - o Access and egress in emergencies such as bushfire. - o Development agreement risks.	A number of elements of the proposal relate to heritage infrastructure and underground mining, all of which have inherent safety risks. Utilising similar examples, a range of safety messages, combined with regular assessment and inspection would be required. Consideration of public risk, as well as risks associated with development partnerships where applicable, should be further reviewed in conjunction with Council’s Risk Manager as appropriate and required.

Constraint Description	Implication for Eco-Tourism Development
Vehicle access - o Existing unsealed access road from intersection with Burrier Road (around 20km unsealed). - o Existing low level bridge near entry to site. - o 4wd access from Braidwood Road (Main Road 92).	Access roads from Nowra are relatively well maintained, but with low creek crossing and minimal width in some sections, any substantial development may require upgrade of parts of this road. Within the dam area, previous management plans have suggested partial closure of the upper loop road, though unlikely to be possible (or practical) given this provides access to private land. Part of the lower loop has since been closed. As a low impact cabin based proposal, upgrades may be kept minimal – any existing approvals or licences may need to be considered in this regard. An existing unsealed access road from the south (Canberra / Braidwood Road) is also available, but only 4wd accessible. As a secondary route, any form of upgrade is unlikely to be considered necessary, though signage upon entry to the area may need to be upgraded.
Access to dam as a drinking water storage facility - o Areas suitable for swimming / launching available from day use area. - o As a driver of demand for accommodation, easy access to the water is considered to be important.	Potential for increased use of the Dam and therefore risk of some form of contamination. However existing facilities already utilise the Dam and given the level of refuse dumping and the like, any increased density of accommodation is likely to be relatively minor in terms of water risk. Care to be taken in siting and detailed design of future camping areas/tracks to avoid exacerbated sediment run-off – and to reduce existing impacts where possible. Potential upgrade to water access facilities (jetties for example) to minimise impacts and direct users to lesser sensitive areas.
Isolated Site Character - o Site is significantly separated from urban development. - o Obtaining services at the site may be difficult and expensive.	The site is relatively isolated from urban amenities, meaning that the site will need to be relatively self-contained. Water, electricity and communications are likely to be limited and potentially costly to access. Nevertheless, an inherent advantage of the eco-tourism / camping based potential is that it negates the need for many facilities/ services/ utilities that may otherwise be expected for other tourist accommodation. Where needed (a managers residence for example), self-sufficient on-site solutions may need to be established.

Constraint Description	Implication for Eco-Tourism Development
Planning - o Limited development potential in Environmental zone, though eco-tourism is permissible. - o Camping on Council “E2” land not permissible (adjoining Dam). Permissible with Consent on “E3” land. - o Areas of listed heritage importance, though would be integral to the proposal. - o Nearby habitat corridor on Crown land. - o Any camping changes to be considered within the constraints of “primitive camp grounds” definition.	Planning encumbrances would include ensuring that the proposal conforms to the requirements of eco-tourism as identified in the LEP (see Clause 5.13 for details) Much of the land is also heritage listed and whilst this will form an important part of the overall scheme, it also adds planning requirements and potentially, costs (see Clause 5.10 of Shoalhaven LEP 2014 for details). Habitat corridor requirements may also need to be considered in any flora and fauna studies, dependent on siting of proposed accommodation and other facilities (see Clause 7.5 of Shoalhaven LEP 2014 for details). Perhaps most importantly, any consideration to changes to camping requirements may need to be restricted to those that are consistent with the <i>Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005</i> or otherwise as approved under an existing DA or licence. At this stage the existence of such approvals have not been determined and will need to be confirmed as the current LEP would not enable camping on the Council land zoned E2 unless existing use rights can be demonstrated. Alternatively, a clause similar to that excluded in the change-over between LEP 1984 and LEP 2014 would again need to be considered (that is a clause to allow camping grounds at the locality).
Flood / Stormwater Impacts o Potential access impacts associated with flooding over bridges.	Whilst much of the site is not expected to be subject to flood / stormwater impacts, access to the area is constrained by a low level bridge over Yarramunmun Creek. The bridge is often flooded during heavy rain periods and access restrictions / evacuation procedures may need to be considered during such times.

3.2 Site Opportunities

Whilst a number of site constraints are recognised, the site is also located in relatively good proximity to the regional centre of Nowra and within 2.5 – 3 hours of Sydney, which is likely to be the major geographic tourist market. The site also offers a number of existing facilities and attractions from which a base level of facilities could be established. These and other key opportunities are outlined in the following table.

Table 3: Site Opportunities and Implications

Opportunity Description	Implication for Eco-Tourism Development
Existing infrastructure o Key infrastructure such as road access, day use/ camping facilities and the dam itself creates a firm basis for additional uses.	Key infrastructure is available in the form of road access, day use and camping areas (and their associated information signage and facilities), as well as the dam itself. The area is maintained by Council for other purposes (water supply), meaning the development of accommodation and any other facilities can be undertaken in a staged process with relatively small upfront costs.
Interesting location with multiple attractions - o Dam and associated water based activities including fishing and non-powered boating. - o Bushwalking and other land based natural attractions (gorges etc.). - o Historical attractions in mines, cemetery and like relics.	Multiple attractors make the site more attractive in commercial terms, such as attracting: - o families for water and nature-based activities over the summer months; - o anglers during key fishing periods; - o canoers/ kayakers all year round; - o those interested in the history of the site during “off-peak” periods etc.; and - o low or no cost travellers (self-contained RVs etc.) Providing a range of supporting infrastructure for each of these uses would be an important consideration moving forward.
Land ownership o Land owned by Council and classified under <i>Local Government Act 1993</i> as “Operational” land.	Whilst constrained by multiple ownership across the whole “site” (see section 3.1), the Council land being “operational” means that Council is much more open to ways that it can be developed and leased for the purposes of management. Under a “community” classification, the site would require statutory instruments like a “Plan of Management” or similar before leasing could be contemplated.
Existing vandalism and uncontrolled recreational uses - o Impetus for upgrade of the site is supported by the need to address issues of anti-social behaviour. - o Increased use can assist in self-management of the area.	A number of existing issues (and the costs associated with them) provide the impetus to improve the facilities and to create an area in which there is an improved level of passive surveillance to monitor use. Attracting users interested in key attractions such as fishing, kayaking/ canoeing, historical relics and nature-based walks may assist in reducing the level of anti-social behaviour.
Several areas of informal camping already in use - o Options for selection and type of camping areas. - o Options to close some locations for rehabilitation.	Subject to confirmation via planning approvals, and whilst the number of locations currently being used is of concern due to non-compliance with existing signage, this distribution of use does provide some opportunity to selectively choose what areas may be used into the future. The number of locations in use means that the number and size of the sites can be maximised if desired, or otherwise become more compressed and managed.

3.3 Constraints and Opportunities Plan

A summary of the key constraints and opportunities identified in the preceding sections are summarised graphically in the plan at Figure 4.

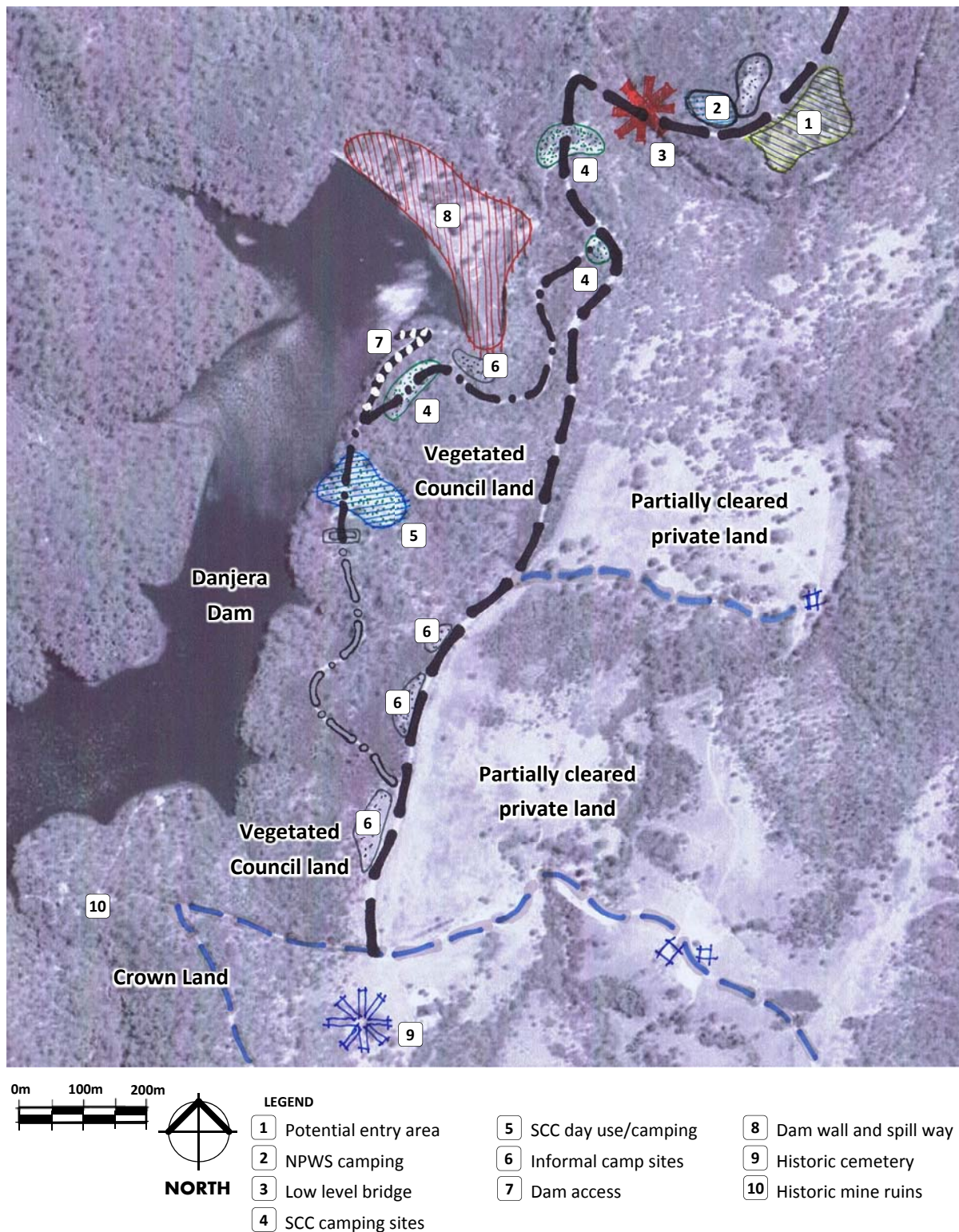


Figure 4: Constraints and Opportunities Plan

4. Initial Concept Sketch Plan

The Initial Concept Sketch Plan shown at Appendix A is a suggested direction encompassing a range of constraints and opportunities as discussed in the previous section. This initial work provides a potential way forward for the purposes of discussion and assessment, but would be subject to additional broad and detailed investigations before being considered feasible. The purpose of the Initial Concept Sketch Plan is to provide a basis for discussion and should not be interpreted as being a fixed proposal.

4.1 Sketch Plan Elements

Key elements of the Initial Concept Sketch Plan include a range of accommodation and site use options, as well as balancing key site constraints that are, or may be, present including bushfire and ownership constraints. The key elements of the site are discussed in subsections below:

4.1.1 Eco-tourism Cabin Clusters

Incorporating accommodation units (eco-tourism cabins for example) within the land owned by Council is likely to be difficult given the likely cost associated with assessment and implementation of facilities that are bushfire compliant and have minimal impact on surrounding environmental land. Areas within privately owned land may however be possible subject to appropriate location and setting given that much of this land has previously been cleared and maintained for grazing purposes.

The number of accommodation units to be provided would be a consequence of more detailed studies and given the extent of private land available, this number could be quite high and a number of potential locations have been identified on the Initial Concept Sketch Plan (and others are also likely to be available/nominated by the landowner). It is however noted that the larger the proposed facility, to higher the impact is likely to be on access roads and use of adjoining facilities. This may consequently result in the need for costly upgrades to access roads / bridges and the like and may result in the facility start-up costs not being viable.

As a result of the above comments, and in the interests of creating a clear delineation between the accommodation unit component and existing camping areas, it is also recommended that there be no connection between development applications over private and public land, unless the private development can make so form of improvement to the public facilities at their cost (under a voluntary planning agreement arrangement for example).

4.1.2 Camping Clusters

Despite potential restrictions on provision of built accommodation units, there are already a number of existing primitive camping sites that could be modified to create a more controlled environment. Existing camping areas, along with potential new sites have been identified. The provision of these may be contingent on an existing planning consent being available (and the conditions thereof), as camping grounds are not permissible in the E2 land use zone (being the prevailing zone on the majority of Council's land). Such a facility may however be possible on the parcel of E3 land at the site entry, or over the entire site following an amendment process to the Shoalhaven LEP 2014.

In any case the extent of camp sites is likely to be restricted by relevant *Local Government Act* regulations regarding "primitive camp grounds". These restrictions allow for two sites per hectare of land area, or approximately 80 sites in total over the extent of Council's land (estimated at around 40 hectares). Assuming up to 12 people per site, the extent of occupancy may be up to 960 people at any one time (or as otherwise restricted by choice or approval conditions).

The full extent of this allowance may be possible within the four existing and potential new camping site at the site entry (on which camping grounds are permissible with consent). These areas, and an indicative potential layout of the entry area, are provided in the Initial Concept Sketch Plan. Options may exist to consolidate the camping locations to the entry, and two large site areas that are currently used, and removing camping from all other areas (for examples areas 4 and 5 on the Initial Concept Sketch Plan). This would mean that the site is more manageable, but may be met with some resistance and may require active enforcement. These options – the scattered (existing) approach and a consolidated approach - are outlined in the table below. It is noted that several other camping site locations may also be available but which are informal at the present time. These other sites have not been included at this time but could be considered as further detailed planning progresses.

Table 4: Camping Area Options

Camping site location (refer Initial Concept Sketch Plan at Appendix A)	Scattered (Existing Sites) Option	Consolidated Option
Site 1 - Council owned entry area. No used for camping at present	Up to 25 sites	30-35 sites
Site 2 - NPWS Toorooroo camp ground and day use area	3 sites (existing)	5 sites (or more if day use functions could be moved to entry site)
Site 3 – Existing camping area with some services	15-20 sites	20-25 sites
Site 4 – Small camping area at intersection of loop road	Up to 5 sites	No sites – closed for rehabilitation
Site 5 – Camping area along existing loop road	Up to 10 sites	No sites – closed for rehabilitation
Site 6 – Main camping site area	20-25 sites	25-30 sites

Details of bushfire, flora and fauna and servicing of these sites (amongst other issues) would need to be considered in further details to confirm this potential.

4.1.3 Supporting Infrastructure

At present there are toilets and basic facilities at some of the existing camp grounds/sites, with many other camp sites scattered around without such facilities. Supporting infrastructure can be expensive, particularly where designed to avoid damage from vandalism. However to support an improved situation and attract those that have an interest in caring for the site, addition or improved facilities may be considered. In this regard, providing better facilities in fewer locations may be preferable, as per the consolidated approach outlined above. In this regard, camping areas 2, 3 and 6 already contain some facilities, which could be improved with upgrade of these areas. Sites 4 and 5 have little services and these may be required to suit a more controlled environment.

Site 1 may be the determining factor, particularly if gate charges, on-site management and a paid camping system can be introduced. This area has the potential for substantial facility improvements and to become a camping facility adjoining Yaramunmun Creek. Consolidating facilities in strategic locations would assist in management and enforcement should issues persist.

In addition to camping facilities, consideration could also be given to improvements to water access, particularly if a concerted effort is to be made to attract those interested in fishing, kayaking/ canoeing and as an improvement to summertime enjoyment of the area. Again, should a paid system be introduced, those at the park may want to see some notable improvements. This could also be subject to recreational and environmental grants.

4.1.4 Other Site Uses

In addition to the camping, day use and eco-tourism accommodation, efforts should be made to engage with Crown Lands and NPWS to re-establish the previous Management Plan process that commenced in the late 1990's. It is apparent that some support of for the process was available at the time, though it is unclear when and why this process did not proceed further.

Key to these discussions would be the following considerations:

- o Providing access and information to the history of the site and associated mining and other ruins / heritage sites (on Crown Land) – including initial and annual risk assessments, construction of walking tracks and trails;
- o Co-ordinating NPWS camping and day-use with that of Council, potentially re-orientating some areas to consolidate uses in particular areas; and
- o Establishing on-going management arrangements including potential to utilise NPWS booking systems and access to Crown Land management funds.

4.2 Management Options

It is noted at the outset that the most effective management option would need to be determined in conjunction with legal advice should the project progress further – the comments below are not legal advice and further detailed work would be needed before the most effective management option is agreed. It is also noted that discussions with other external parties, such as the NPWS or Crown Lands, may identify or determine alternative options for management and it is in Council's interest to remain open to these potential opportunities. Nonetheless, three management options for Council's land have been reviewed below for consideration – options are not in any order of preference.

Option 1: Council / Shoalhaven Water Operate Site – this option would involve Council operating the site through existing means. Consideration would need to be given to the resourcing implications of this, including for example increased patrols/ inspections from rangers, camp site/ accommodation reservations, and general management and maintenance of the site. The Initial Concept Sketch Plan identifies potential for an entry area that may contain a manager's residence, again incurring an ongoing resourcing impost. On-site management (such as a dedicated Council employee) may only be viable should the density of use match ongoing costs and would need to be determined at a detailed feasibility stage.

Option 2: Management contract arrangement – A contract arrangement could be developed for the management of the site. This may be similar to contract arrangements used by Holiday Haven for example, though the type of facility and income associated with the area is likely to be vastly different. Management requirements could be developed, potentially also incorporating the NPWS camp sites, which may vary depending on the level of management required (from basic management services, to broader full time management arrangements incorporating on-site accommodation for example). This option could also potentially involve the neighbouring land owner who has raised an interest in managing the site. It is however noted that any arrangement would be subject to normal tendering processes under the *Local Government Act* as well as

Council's internal procurement policy and the level of experience and capability to manage the site would need to be carefully considered.

Option 3: Council lease the site – This arrangement would be a “hand-off” approach, with the entire operation being leased to an operator who then manages the site for a fee (or at a cost) to Council. This form of management process would again be subject to tendering requirements under the *Local Government Act* and may restrict Council's control over the facility including access to the Dam. However should an operator such as NPWS or the Crown be interested in long-term management, this may be a viable option to enable a single entity to operate the site for a longer period. Long-term leasing arrangements may be possible in this situation due to the Council land being “operational” and not “community” land which is more difficult to manage in these circumstances.

Given the likely separation of public land and the private development area as described in the previous section, the involvement of any private land owner in development of the Council owned land is not considered to be desirable and may prejudice future opportunities to apply for management rights. This situation may change if some form of voluntary planning agreement is envisaged whereby the private land owner is to contribute to the public facilities. In either instance, appropriate frameworks are in place and should be followed to avoid real or perceived conflicts of interest.

5. Conclusions and Recommendations

A number of detailed planning, environmental and engineering discussions/investigations would be required to further confirm the potential for the site. However, given the existing base infrastructure available, and the need to maintain infrastructure such as road access for operational purposes, there is potential for upgrade of many aspects of the site to facilitate the broader enjoyment of the area for local residents of the Shoalhaven and those travelling to the area to stay at the locality.

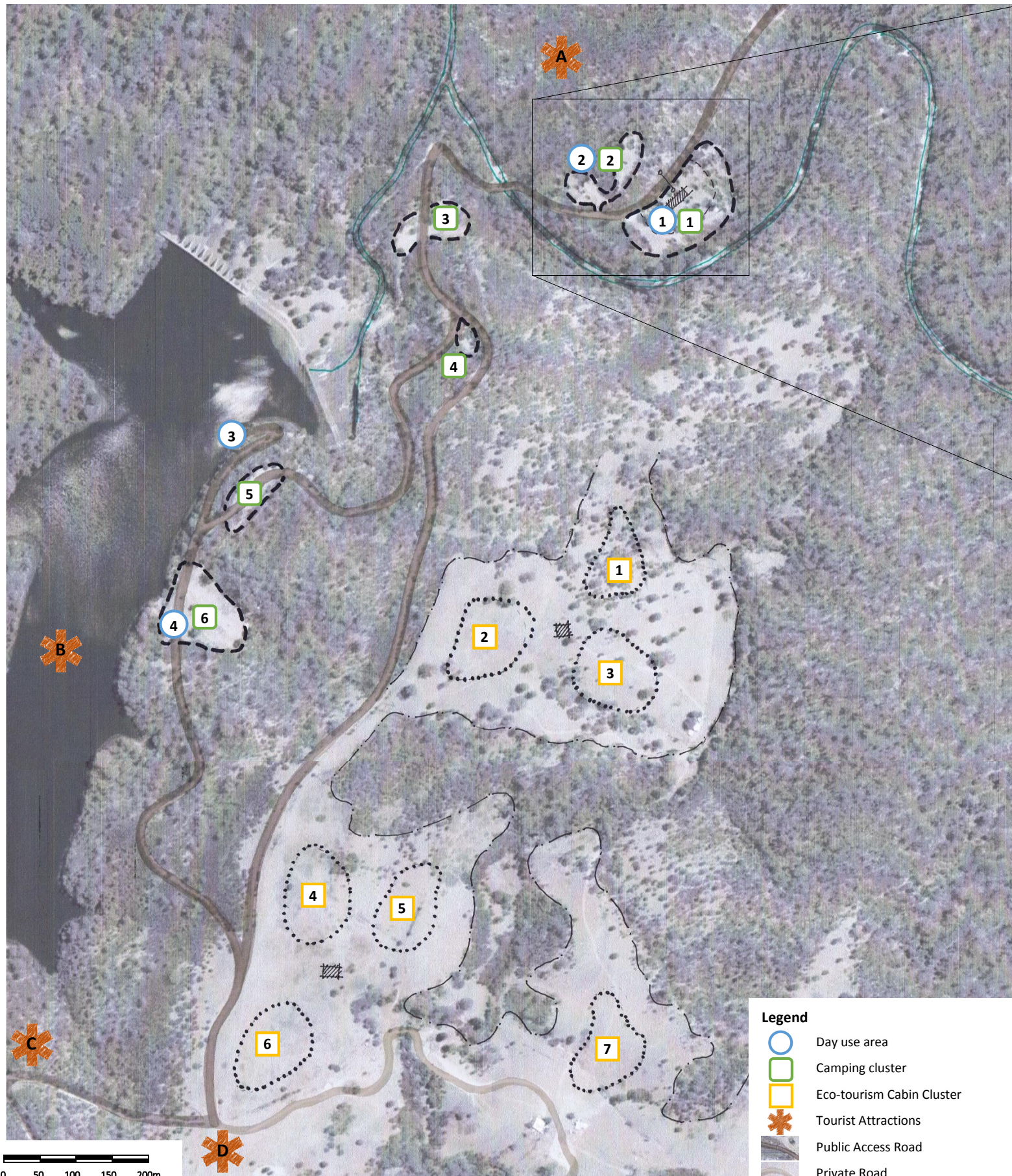
Any proposal to increase use of the site, if only in frequency rather than in terms of density, should be accompanied by consideration of detailed risk assessments and emergency procedures, particularly associated with bushfire. Where consideration is being given to implementation of built accommodation, issues of bushfire and flora/fauna assessment will become critical and may render the project cost prohibitive unless carefully sited in locations that are already heavily disturbed or cleared. Locations such as these are very limited on existing Council land and are only considered to be possible on the adjoining private land.

Nevertheless, our assessment leads to the conclusion that there are unique opportunities and potential associated with the site and that the “do nothing” option is likely to lead to a worsening situation of anti-social behaviour and resultant increasing enforcement and infrastructure management costs. The following recommendations are therefore suggested to further explore the opportunities and to seek a balance between costs and improvements:

- o *Recommendation 1:* Council establish the currency and compliance of existing facilities with any approval or whether existing use rights exist over the site to enable improvements to be lawfully made – noting that if no current approval is in place, the current use of the site may need to be addressed;
- o *Recommendation 2:* Following review of any internal files regarding the previous Management Plan process, Council seek early engagement with NPWS and Crown Lands to re-establish the Yalwal Management Plan working party to explore cross-government opportunities for the site;
- o *Recommendation 3:* More detailed site plans (site master plan for example) be prepared to enable a more controlled environment to be established, including options and feasibility for:
 - o Servicing the site with electrical and communications needs;
 - o Dealing with bushfire and other risks;
 - o Installation of controlled entry devices;
 - o Installation of an on-site management residence (or other management model);
 - o Access to associated facilities (dam, heritage areas etc.); and
 - o Costing and funding of the proposal.

Appendix A

Initial Concept Sketch Plan



0 50 100 150 200m
Approximate Scale

Legend	
	Day use area
	Camping cluster
	Eco-tourism Cabin Cluster
	Tourist Attractions
	Public Access Road
	Private Road



ENTRY AREA INSERT NOTES:

- Upgrade entry road with potential for boom gate type access or other self-managed sign-in type system.
- Information and day use buildings or camp kitchen facilities integrated with potential caretaker cottage or similar.
- Camping area adjoining creek, with new access loop road (potentially one way). Approx. 25 camp sites shown of around 300 - 500sqm each. Additional sites at smaller sizes would be possible.
- Existing NPWS camping and day use facility. Shown as existing, but could be integrated to Council operation.

SITE NOTES:

CAMPING CLUSTERS

- Entry area camp site: Potential to integrate entry facility and "information hub" with caretaker residence and facilities (basic toilet, refuse collection etc.), along with camping facilities on existing un-used Council land. 25-30 sites suggested.
- Existing NPWS camp site: Two large areas with potential for additional sites through re-allocation of areas if desired. 3 existing and up to 5 sites suggested.
- Existing camping area: Well utilised area, but in poor condition. Down-stream of dam catchment. Toilets and refuse bins available. Potential to provide more formalised arrangement. 15-20 sites suggested.
- Existing camping site: Relatively small area likely to be utilised by one single and larger group. No facilities at the location. Could be re-configured for say 3-5 sites or rehabilitated due to lack of services available.
- Existing camping site: Adjoins both side of access road along track to Dam. No facilities at the location, though space available for say 5-10 sites or to be rehabilitated.
- Existing camping and day use area: Main existing camping site with potential to formalise with small access loop road via toilet facilities located to the rear of the area. 20-25 formalised sites suggested.

ECO-TOURISM CABIN CLUSTERS

- 1-7. Clusters of eco-tourism cabins in areas with separation from bushfire source (shown as dot-dash line). Several clusters to share potential bushfire refuge (100m from bushfire source). All locations and distances to TBC following detailed studies.

DAY USE AREAS

- 1+2. Entry area / NPWS day use facilities: Potential to combine or integrate facilities and camping locations between sites.
3. Existing dam launching area: Potential to upgrade to enable increased level and ease of use. Consider electric powered boats, swimming and passive water craft. Consider second access at main camp ground area and funding via better boating program.
4. Existing camping and day use area: Consider formalising day use area as separate area from camping sites. Potential to utilise portion of area to the west of the access road to capture views and installation of shelter and like picnic facilities.

TOURIST ATTRACTIONS *

- Walking trails in Moreton National Park: Improve and co-ordinate information on walking trails and tracks around the area (including new).
- Danjera Dam fishing and water activities: Promote safe use of the Dam for a range of water based activities, including secondary access point and launching facilities.
- Historic mining ruins and history: Establish and maintain the safety of mining ruins, including information signage and establishing heritage walks.
- Heritage cemetery: Provide signage, information and walking trail to historic cemetery (where on Crown land or with private landowner agreement).