

ITEM 2 PLANNING PROPOSAL REQUEST FOR 117 DARKES FOREST ROAD DARKES FOREST

A planning proposal request has been submitted seeking to change planning controls relating to the former Darkes Forest Mine site. It is proposed to re-use existing buildings on the site to produce cider from apples grown in the nearby Glenburnie orchard, whilst maintaining the environmental values of the site. The orchard is seeking to centralise their cider production operations (their cider currently undergoes processing in three separate locations) as well as provide a unique tourist attraction for the region. In addition to producing cider, the proposal seeks to permit a variety of associated uses including:

- Cellar door sales premises and visitors centre,
- A cooking school and café, and
- Bed and breakfast accommodation (associated with the existing dwelling on the property).

As the northern section of the property (north of Darkes Forest Road) is located within the Sydney Drinking Water Catchment, a key objective of the proposal is to ensure that any future development will have a neutral or beneficial impact on water quality. Whilst further information to assess the environmental impacts of the proposal (in particular wastewater management) is necessary should a Gateway Determination be issued, the proposal represents an opportunity to showcase sustainable water management in the food processing industry.

RECOMMENDATION

- 1 A draft Planning Proposal be prepared for 117 Darkes Forest Road, Darkes Forest (Lot 86 DP 752054) and submitted to NSW Planning and Environment for a Gateway Determination, proposing to:
 - a Amend Schedule 1 Additional Permitted Uses of Wollongong Local Environmental Plan to include:
 - agricultural produce industry (fruit crushing, fermenting and bottling facility)
 - information and education facility (visitors centre)
 - industrial retail outlet (cellar door premises)
 - food and drink premises (and ancillary cooking school)
 as additional permitted uses (with consent) for land at 117 Darkes Forest Road, Darkes Forest, being Lot 86 DP 752054; and
 - b Rezone parts of Lot 86 DP 752054 (the areas surrounding the existing dwelling and existing mine-related infrastructure) from E2 Environmental Conservation to E3 Environmental Management to reflect the existing and potential future land uses over parts of the property; and,
 - c Introduce a height restriction of 9 metres over the areas proposed to be rezoned to E3 Environmental Management.
- 2 The following additional investigations be requested as part of the Gateway determination:
 - a A Potable Water and Wastewater Assessment that includes a Neutral or Beneficial Effect (NorBE) assessment.
 - b A Bushfire Hazard Assessment.
 - c An Aboriginal cultural heritage due diligence assessment
 - d An Ecological Impact Assessment.
 - e An Contamination Assessment, due to the former mine use.

- 3 Should a Gateway Determination be issued, consultation be undertaken with the following agencies:
 - a Water NSW
 - b NSW Office of Environment and Heritage
 - c NSW Rural Fire Serviceand the draft Planning Proposal be exhibited for a minimum period of 28 days.
- 4 The NSW Department of Planning and Environment be requested to issue authority to the General Manager to exercise plan making delegations.

REPORT AUTHORISATIONS

Report of: Tony Miskiewicz, Manager Environmental Strategy and Planning (Acting)
Authorised by: Andrew Carfield, Director Planning and Environment - Future City and Neighbourhoods

ATTACHMENTS

- 1 Site/Aerial Photograph
- 2 Historical Photographs
- 3 Context Map
- 4 Site Photographs 5 December 2016
- 5 Current Zoning Map
- 6 Proposed Zoning Map

BACKGROUND

This planning proposal request applies to the former Darkes Forest Coal Mine site, known as Lot 86 DP 752054, 117 Darkes Forest Road, Darkes Forest (Attachment 1).

The property measures 41.4 hectares and is located on either side of Darkes Forest Road, to the west of the Princes Highway. The portion north of Darkes Forest Road contains former mine infrastructure and is part of the Sydney Drinking Water Catchment. The area south of Darkes Forest Road contains a dwelling house as well as remaining effluent irrigation infrastructure associated with the former mine (no longer in use). The dwelling was approved in 2006 under the (now repealed) Wollongong Local Environmental Plan No.38. This area drains to Maddens Creek to the south and does not form part of the Sydney Drinking Water Catchment but forms the headwaters of the Georges River, which flows to Sydney's Botany Bay (Attachment 3).

The Darkes Forest Mine operated from the site between 1971-1991. The site was extensively cleared as part of the coal mining operations and supported a mine shaft, ventilation stack, large administration building and bathhouse/shower block, effluent oxidation lagoons and disposal area and a large car park (Attachment 2). Much of this infrastructure remains today, although is no longer in use. It is noted that the site was used as an entrance to the mine and for ventilation, but was not used for coal extraction.

The site is bounded by the Dharawal State Conservation Area to the south, a natural area which supports a wide variety of flora and fauna. Whilst the area surrounding the dwelling and former mine buildings consist of managed land, large parts of the site have revegetated and areas of Coastal Upland Swamp (an endangered ecological community) have been identified (Attachment 3).

The Darkes Forest area contains a number of recreational facilities including the Maddens Falls bush walking tracks, Dharawal National Park and State Conservation Area, Darkes Forest Horse Riding Ranch, Boomerang Golf Course and Glenburnie Orchard (fruit picking, orchard tours & sales), which support nature-based and agricultural tourism in the area.

The subject site is currently zoned E2 Environmental Conservation under Wollongong Local Environmental Plan 2009 (Attachment 5) which limits development opportunities on the site and options for reusing the former mine buildings. No land uses have been found and approved for the north of the site since the mine's closure, except for State Government Major Project approval for exploratory coal seam gas boreholes in 2007 (a subsequent application to extend the licence period for boreholes was

refused in 2010, and this approval has now lapsed). Due to the site lying vacant, there currently exists limited incentives to manage the site and vandalism is evident.

Unauthorised clearing and importation of fill was carried out in a number of locations across the property in 2005. Wollongong Council and the Sydney Catchment Authority (SCA) investigated the matter. The SCA issued a clean-up notice under the Protection of the Environment Operations Act in October 2006 with requirements to remove fill and submit a Revegetation Management Plan. Council issued an Order in June 2006 under the Environmental Planning and Assessment Act requiring works to assist natural regeneration of the site and maintenance until 2011.

In accordance with the SCA and Council's requirements, a Vegetation Restoration Plan was prepared and a qualified bush regeneration company was engaged to carry out the works. Council and the SCA carried out maintenance inspections and Council closed the Order in 2011.

The current landowners of the site also own the nearby Glenburnie Orchard (located 1.3km to the west of the site) which produces apples, stone fruit and a variety of products such as honey, jams, oil and juice. Glenburnie Orchard also produce alcoholic and non-alcoholic cider from apples grown on the orchard. The processing of the cider currently happens at three separate locations – crushing at Thirlmere (30km west of the site), fermenting at Sutton Forest (70km south-west of the site) and bottling at Prestons in Western Sydney (35km north of the site). To increase efficiency and produce the cider locally in a centralised location close to the orchard, it is proposed to retrofit the existing mine building to allow for production of boutique cider.

The applicant has also proposed a number of associated, complementary land uses, to support the orchard's primary production and cider manufacturing and to maximise the tourism potential of the proposed facility. These include a visitors centre and cellar door sales premises, a cookery school and bed and breakfast accommodation. A small café, to which the cooking school would be ancillary, is also considered an appropriate possible complementary use for the site.

The applicant has requested to rezone the entire property from E2 Environmental Conservation to E3 Environmental Management and to include 'agricultural produce industry (apple crushing, fermenting and bottling)' and 'uses ancillary to agricultural produce industry' as additional permitted uses for the subject property in Schedule 1 of the Wollongong Local Environmental Plan 2009. Following assessment of the proposal, and due to the environmental sensitivity of the site, it is believed that a better outcome would be achieved by partially rezoning portions of the site from E2 Environmental Conservation to E3 Environmental Management and including specific land uses as additional permitted uses in Schedule 1 of Wollongong Local Environmental Plan (Attachment 6). This would ensure areas of higher environmental sensitivity retain the E2 Environmental Conservation zoning whilst allowing for reuse of the existing buildings on site. The E3 Environmental Management zone allows 'bed and breakfast accommodation', but does not allow 'agricultural produce industries', 'industrial retail outlets' (cellar door premises), 'information and education facilities' or 'food and drink premises'. To achieve the proposed land uses on the site, whilst retaining an environmental zoning, an amendment to Schedule 1 Additional Permitted Uses of Wollongong Local Environmental Plan 2009 is necessary.

The applicant has proposed to include 'uses ancillary to the cider processing' within Schedule 1; however, ancillary development can be difficult to define and it is considered more transparent to include the specific proposed land uses within Schedule 1. In addition, uses that are ancillary to the primary use (and that are not considered additional [separate/stand-alone] uses) are permitted where the primary use is existing and lawful – for example the infrastructure associated with wastewater treatment and disposal from a cider processing plant would be considered ancillary to the primary use of producing cider.

To allow for some flexibility in utilising the former mine site and to support nearby local food producers, it is also proposed to include the following uses as additional permitted uses for the property (Lot 86 DP 752054): agricultural produce industry, information and education facilities, food and drink premises, and industrial retail outlet as additional permitted uses for the subject site to permit a cider processing facility, café and cookery school, visitors centre and a cellar door.

The applicant is also seeking to permit a two lot subdivision along Darkes Road, splitting the southern portion of the property containing an existing dwelling-house from the northern section which houses the

former mine infrastructure. It is noted that this subdivision is not currently supported by Water NSW as it could lead to future wastewater arrangements being contained on separate properties under different ownership, should the effluent associated with the cider processing facility be disposed of on the southern part of the lot (not within the Sydney Drinking Water Catchment). For this reason, it is recommended that an amendment to the minimum lot size map to facilitate a future subdivision application not be supported at this stage.

PROPOSAL

It is proposed to prepare a draft Planning Proposal for 117 Darkes Road, Darkes Forest (Lot 86 DP 752054) seeking to amend planning controls applying to the site to allow for the existing buildings to be reused as a cider processing facility and other associated uses.

Specifically the draft Planning Proposal will recommend:

1. Amendment of Schedule 1 Additional Permitted Uses of Wollongong Local Environmental Plan 2009 to include:
 - agricultural produce industry (fruit crushing, fermenting and bottling facility)
 - information and education facility (visitors centre)
 - industrial retail outlet (cellar door premises)
 - food and drink premises (and ancillary cooking school)as additional permitted uses (with consent) for land at 117 Darkes Forest Road, Darkes Forest, being Lot 86 DP 752054.
2. Rezoning parts of the property from E2 Environmental Conservation to E3 Environmental Management to better reflect the existing and proposed land uses over parts of the property (but to retain the E2 Environmental Conservation zoning across the most environmentally sensitive parts of the site).
3. Introducing a height restriction of 9 metres over the areas proposed to be rezoned E3 Environmental Management.

The proposal will not change the minimum lot size for subdivision applying to the site, which is 40 hectares, and the site will not be able to be subdivided. The proposal will not create an additional dwelling entitlement, although a secondary dwelling (granny flat) would be permitted (with consent) in the E3 Environmental Management zone. Secondary dwellings cannot be subdivided from the primary dwelling without meeting the minimum lot size requirement and are limited to a floor space 67% of the primary dwelling (in this case 162.81m²). The E3 Environmental Management Zone also permits (with consent) bed and breakfast accommodation. Any future secondary dwelling or bed and breakfast accommodation would require additional environmental studies, especially related to wastewater treatment and disposal and would be subject to development assessment.

The proposal is considered to have strategic merit in that it will allow the last apple farm in Wollongong to diversify their offerings and remain viable by enabling them to produce boutique cider close to their orchard, provided potential environmental impacts are able to be mitigated. By providing this former coal mine site with a new and viable use, incentives to protect and restore the natural environment are created, as visitors to the site will also be attracted to the unique and beautiful setting.

The scale of any additional permitted uses would be determined at development application stage and would need to take into account the constraints of the site. The proposed additional permitted uses are defined under Wollongong Local Environmental Plan 2009. For example, restaurants and cafes fall within the definition of 'food and drink premises'; however a large restaurant would have larger environmental impacts (in terms of water and wastewater requirements) than a small café.

A cider processing facility is not a definition found in Wollongong Local Environmental Plan (LEP) 2009, however could legally be defined as an 'agricultural produce industry'. Wollongong LEP 2009 states that an:

agricultural produce industry means a building or place used for the handling, treating, processing or packing, for commercial purposes, of produce from agriculture (including dairy products, seeds, fruit, vegetables or other plant material), and includes wineries, flour mills, cotton seed oil plants, cotton gins, feed mills, cheese and butter factories, and juicing or canning plants, but does not include a livestock processing industry.

Note.

Agricultural produce industries are a type of **rural industry**—see the definition of that term in this Dictionary.

The proposed visitors centre would be defined as an ‘information and education facility’:

information and education facility means a building or place used for providing information or education to visitors, and the exhibition or display of items, and includes an art gallery, museum, library, visitor information centre and the like.

Presently, the definition of ‘cellar door premises’ is very specific to the wine industry and industrial retail outlet is considered a better definition for the proposal, although it could be suggested for the Department of Planning and Environment to change the standard definition of ‘cellar door premises’ to include cider:

cellar door premises means a building or place that is used to sell wine by retail and that is situated on land on which there is a commercial vineyard, and where most of the wine offered for sale is produced in a winery situated on that land or is produced predominantly from grapes grown in the surrounding area.

Note.

Cellar door premises are a type of **retail premises**—see the definition of that term in this Dictionary.

industrial retail outlet means a building or place that:

- (a) is used in conjunction with an industry or rural industry, and
- (b) is situated on the land on which the industry or rural industry is located, and
- (c) is used for the display or sale (whether by retail or wholesale) of only those goods that have been manufactured on the land on which the industry or rural industry is located,

but does not include a warehouse or distribution centre.

Note.

See clause 5.4 for controls relating to the retail floor area of an industrial retail outlet.

It is recommended that the draft Planning Proposal be submitted to the NSW Department of Planning and Environment for a Gateway Determination. Should a Gateway Determination be issued, the applicant will be asked to complete the following additional environmental studies, prior to the proposal being placed on public exhibition:

- A Potable Water and Wastewater Assessment for all the proposed uses that includes a Neutral or Beneficial Effect (NorBE) assessment which considers both stormwater and wastewater (process wastewater and sanitary wastewater) treatment and disposal. The NorBE assessment will need to illustrate that the proposed uses will have a Neutral or Beneficial impact on water quality.
- A Bushfire Hazard Assessment that considers the required bushfire protection measures for all the proposed uses and the extent of any required asset protection zone.
- A Due Diligence Assessment (the first stage in conducting an Aboriginal cultural heritage assessment).
- An Ecological Impact Assessment that identifies the extent of biodiversity constraints for the site and assesses the potential impact of the proposal on state or federally listed species, populations, communities and their habitat. This Assessment must consider the potential impacts associated with the onsite management and disposal of wastewater on matters of ecological significance including the Sydney Drinking Water Catchment, the Georges River Catchment and the Coastal Upland Swamp endangered ecological communities. The Ecological Impact Assessment should also take into account the requirements of relevant legislation and

policies, and assess whether vegetation removal will be required (due to bushfire protection) and the potential for koala habitat near the development areas.

- An Contamination Assessment, due to the former mine use.

These additional studies will allow for a more comprehensive assessment of the potential environmental and health impacts of the proposal, which is vital given the ecological sensitivity of the area.

CONSULTATION AND COMMUNICATION

The planning proposal request has been forwarded to a number of State Government Agencies for their preliminary comments that are summarised below.

Water NSW

The northern portion of the site (north of Darkes Forest Road) drains to the Woronora River and is located in the Sydney Drinking Water catchment. Water management in this area is administered by Water NSW.

The State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 and the Section 117 Direction 5.2 (issued under the Environmental Planning and Assessment Act 1979) require that changes to planning policy must ensure that any new development will have a neutral or beneficial effect (NorBE) on water quality in the catchment.

Water NSW noted that the applicant's current NorBE assessment deals only with storm water runoff and does not consider the whole water cycle, including wastewater generated from the cider processing facility and sewage from the associated uses.

Based on the current information and a desktop analysis, Water NSW have no objections to the proposed rezoning, stating 'it would be in accordance with the existing land use pattern along Darkes Forest Road'. Water NSW also support the amendment of Schedule 1 of WLEP 2009 to include 'agricultural produce industry' (cider processing) as a permissible use.

Water NSW do not support the bed and breakfast component as 'ancillary to the agricultural produce industry' at this stage because additional information is required considering the implications for wastewater treatment and effluent disposal. Water NSW states that should Council support permitting bed and breakfast accommodation that a NorBE assessment is required and an onsite system would need to cater for the maximum predicted load or the existing system would need to be augmented to these standards.

Water NSW opposes the applicant's proposal to subdivide the property along Darkes Forest Road. This is because the proposal currently states that water treatment will occur on the northern portion of the site (on the Sydney Drinking Water Catchment) but be disposed of (via irrigation) on the southern portion of the site as occurred when the mine was in operation. However, should the property be subdivided and sold separately, the wastewater treatment and effluent disposal would be contained on two separate titles under two different owners making good management more difficult.

Water NSW also opposes a 'pump out' effluent disposal system. In their letter of 29 November 2016, Water NSW also opposed the option of reusing wastewater to irrigate the nearby apple orchard, however this position was clarified in correspondence dated 16 December 2016 where it was stated that, with the appropriate safeguards, if process wastewater (waste water from cider processing) was kept separate from sanitary wastewater (effluent from bathrooms) and treated separately, recycling process wastewater for irrigation on the remote orchard could be supported.

Assessing Officer's Comment

Should a Gateway Determination be issued, additional information will be required, including a NorBE assessment that considers stormwater and wastewater from the following uses: cider processing facility, visitors centre and cellar door sales premises, café and cooking school and bed and breakfast accommodation. This information will be forwarded to Water NSW for comment as part of the public exhibition stage.

NSW Rural Fire Service (RFS)

The majority of the site is mapped as bushfire prone land. The NSW RFS noted that limited detail is available at this stage and that a bushfire assessment has not been carried out. Nonetheless, the RFS has no objection to the proposal subject to the following being considered:

- Any proposed bed and breakfast accommodation is defined as a 'Special Fire Protection Purpose (SFPP)' under section 100B of the *Rural Fires Act 1997*. This means that a Bush Fire Safety Authority issued by the RFS would be required to be obtained at Development Application stage for any tourist accommodation component. In issuing an Authority, the RFS needs to be satisfied that appropriate bush fire protection measures would be in place, including necessary asset protection zones (APZs), water supply for firefighting purposes, and satisfactory access and emergency and evacuation plans.
- The provision of necessary APZs may require the removal of substantial amounts of vegetation. Given the current and proposed environmental zonings and that 'bushfire and tree removal' has been cited as a reason for refusal of a previous application, this may be a problematic issue.

Assessing Officer's Comment

The applicant has stated that tree removal would be minimal to establish an Asset Protection Zone and that this should be assessed at development application stage.

However, a Bushfire Hazard Assessment has not been undertaken to support the planning proposal so it is unknown what Asset Protection Zones and other bush fire management measures would be required for the proposed uses, and how much, if any, vegetation removal will be necessary. As such, the potential environmental impacts cannot accurately be quantified at this stage.

It is recommended that should a Gateway Determination be issued, a Bushfire Hazard Assessment Report be required to be submitted, detailing the extent of the hazard and required APZs and other bushfire management measures. This report would be forwarded to the NSW Rural Fire Service for comment as part of the public exhibition period.

NSW Office of Environment and Heritage (OEH)

The NSW Office of Environment and Heritage (OEH) do not raise any major objection to the proposal overall, however recommend that further information be submitted following the issue of a Gateway Determination, including a detailed bushfire assessment and ecological impact assessment.

In relation to the proposed zoning amendments, OEH have no major issue with the northern portion of the site (containing former mine buildings) being rezoned to E3 Environmental Management, however recommend that Council be satisfied with the proposed rezoning on the southern side from E2 Environmental Conservation to E3 Environmental Management. In particular, Council should consider Section 5.1.3 of the Illawarra Shoalhaven Regional Plan and S117 Direction 2.1 Environment Protection Zones and the accompanying LEP Practice Note (PN09-002).

A key component of the ecological impact assessment should include an assessment of any impact associated with the management and disposal of onsite wastewater and sewer. This is of particular importance given the presence of Coastal Upland Swamp, an important Endangered Ecological Community (EEC).

OEH note that the site is mapped as part of a biodiversity corridor under the Illawarra Shoalhaven Regional Plan 2015. The actions outlined in this Plan for land within biodiversity corridors is aimed at protecting their values in local planning controls. In particular, regard should be given to Action 5.1.3 which recommends investigating 'opportunities to improve the functioning of resilience of corridors in strategic planning'.

OEH also note that whilst no Aboriginal cultural heritage sites have been identified on the subject site, there are recorded sites nearby, and that the lack of records relating to the subject site result from a lack of archaeological investigation (rather than the actual absence of sites). OEH note that an Aboriginal

Cultural Heritage Assessment is not required at the rezoning stage, but would be required should subsequent development (facilitated by the planning amendments) disturb the ground.

It is recommended that a Due Diligence Assessment be undertaken if the development activities facilitated by the planning proposal may impact Aboriginal objects. This assessment should establish whether the impacted area contains Aboriginal objects, or is likely to contain Aboriginal objects. The assessment should consider whether further archaeological investigation is required and must comply with OEH guidelines.

Assessing Officer's Comment

Additional information (a Ecological Impact Assessment and Due Diligence Assessment) shall be requested, should a Gateway Determination be issued in accordance with OEH specifications detailed above.

The zoning amendments considered most appropriate to investigate for the site constitute a split zoning. The proposal seeks to protect the most environmentally sensitive parts of the site by retaining the E2 Environmental Conservation zone over part of the site and the managed portions of the site rezoned to E3 Environmental Management to allow for some use of the site that is compatible with the surrounding natural environment. This is consistent with the strategic intent of the environmental zones as detailed in LEP Practice Note PN09-002).

The opportunity to biobank parts of the site with significant environmental value could be explored to help protect the integrity of the biodiversity corridor.

Destination Wollongong

A letter of support from Destination Wollongong was included in the applicant's Planning Proposal request documentation. Destination Wollongong fully support the proposal stating it will increase experience-based tourism opportunities in the area, raise the profile of the Wollongong region (domestically and internationally) and will also create local jobs.

Internal Consultation

The planning proposal request was forwarded to relevant Council Teams with comments received summarised below.

Environment Team

Members of Council's Environment Team visited the site with the Assessing Officer on 5 December 2016 to identify and confirm the biodiversity constraints of the site.

The Environment Team comments state that the area of the site which contains the former mine infrastructure and existing dwelling with associated cleared areas (surrounded by bushland) align more closely with the E3 Environmental Management zoning objectives than the current E2 Environmental Conservation zone. The northern portion of the site was not included in the Darkes Forest Local Environmental Study 2007, which resulted in lots currently used for similar land uses being zoned as E3. E3 zoning objectives require the management of the existing ecological conditions on site and prohibit development that will impact on the ecological values of the site and surrounding areas.

Therefore the Environment Team recommend at this stage that the existing dwelling, unused mining facilities and their current footprint (cleared land) be considered for rezoning to E3 lands. The remainder of the subject site should retain its current E2 zoning.

The Environment Team have noted that the planning proposal request has not adequately assessed the potential impacts on significant biodiversity values within the site and surrounding area. Specifically, the planning proposal has not demonstrated consistency with:

- Ministerial Directions 2.1 *Environmental Protection Zones*, 4.4 *Planning for Bushfire Protection* or 5.2 *Sydney Drinking Water Catchment* issued under Section 117(2) of the *Environmental Planning and Assessment Act 1979*.
- *Illawarra Biodiversity Strategy* (2011)

- *Chapter 5 of the Illawarra Shoalhaven Regional Plan (2015)*
- *State Environmental Planning Policy 44 Koala Habitat Protection*
- *Wollongong Local Environmental Plan 2009* clauses:
 - *2.3 Zone objectives*
 - *7.2 Natural resource sensitivity – biodiversity*
- *Environment Protection and Biodiversity Conservation Act 1999 (s266B) Conservation Advice (including listing advice) for Coastal Upland Swamps in the Sydney Basin Bioregion (Threatened Species Scientific Committee, 2014).*

Additional information addressing the above issues will be requested should a Gateway Determination be issued. A more detailed discussion on potential environmental impacts is discussed in the Ecological Sustainability section of this report.

Health Team

Due to the site not being connected to mains sewer, an onsite-wastewater treatment and disposal system would be required. Council's Health Team licence and manage on-site wastewater systems.

Council's Health Team offered the following comments:

- The project represents a good opportunity to develop a sustainable water recycling program.
- The two effluent streams (domestic wastewater (bathroom effluent) and process wastewater (waste from cider processing)) should be addressed by separate management plans. The Planning Proposal provided does not give specifications of the treatment process proposed for either stream. This makes it difficult to assess whether effluent management practices will be suitable or sustainable on the site.
- It is recommended that a basic site assessment be undertaken to identify suitable options for managing domestic wastewater and process wastewater on-site. Any plans submitted should look at water management as whole.
- As mentioned in the WaterNSW correspondence, this requires a NorBE assessment of all the water/wastewater streams not just the stormwater. It is normally based on a "Total Water Cycle" management approach. It is recommended that this is undertaken.
- To consider this proposal fully, data on surface, lagoon and groundwater quality should also be provided: as well as details on all on-site sewage management (including any residences) currently being undertaken onsite.

The site also has no connection to mains supply water and it is proposed to utilise rainwater for operations. This presents a number of potential hazards including chemical, physical and microbial contamination. The Potable Water Assessment details a number of options to combat these risks and Water NSW and Council's Health Team have not raised any issues in this regard.

Stormwater Team

The property is mapped as flood affected, however due to its location at the very top of the catchment area, it is envisaged that flood impacts would be negligible in this area. Council's Stormwater Team did not raise any issues with the proposal.

PLANNING AND POLICY IMPACT

Illawarra Shoalhaven Regional Plan 2015

The proposal is consistent with many aspects of the Illawarra Shoalhaven Regional Plan 2015, however further information is required to consider opportunities to protect the biodiversity corridor and areas of high environmental value. The proposal is consistent with the following principles of the Plan:

- *Identify and protect land with high environmental value and recognise cultural heritage values;*
- *Support the sustainable use of land and water resources and build resilience to natural hazards and climate change;*
- *Support a strong, resilient and diversified economy that will enable the community to respond to environmental, economic and social challenges.*

Under *Goal 1 A prosperous Illawarra Shoalhaven* tourism is noted as a priority growth sector, with the Plan particularly encouraging: *“sustainable use of national parks...agricultural lands...promote trails and activity experiences such as nature and eco based, food and wine (including agri-tourism)”* (p.26). The proposal can be considered agri-tourism given its association with the Glenburnie Orchard and could add to the tourism offerings in the area, including the nature-based National Park bushwalks.

The proposal is also consistent with *Direction 1.4: Support new and expanded industrial activity by providing well-located and serviced supplies of industrial land close to Sydney and Wollongong*. The proposal represents a small-scale rural industry unlike the traditional metal manufacturing type industries that are common in Wollongong. However, the proposal is consistent with the aim to diversify the economy and the proposed cider processing plant is well-located close to the supplier (apple orchard) and the markets of Wollongong and Sydney.

The proposal is also consistent with *Goal 4: A region that makes appropriate use of agricultural and resource lands*. The proposal will assist in offering additional business and product for a local family-owned orchard, consistent with *Direction 4.1 Protect regionally important agricultural lands as an asset to food and fibre production*.

The proposal also considers *Direction 4.3 Manage and protect the Sydney Drinking Water Catchment* and relevant drinking water catchment legislation, aiming to ensure that water quality is protected, however further information is required to ensure a neutral or beneficial impact on water quality.

Goal 5: A region that protects and enhances the natural environment lists a number of relevant actions including:

- *Action 5.1.1 Avoid minimise and mitigate the impact of development on significant environmental assets.*
- *Action 5.1.3 Protect the region’s biodiversity corridors in local planning controls.*

The proponent needs to address Action 5.1.3 in more detail as noted by the Office of Environment and Heritage and Council’s Environment Team. The site is mapped as a biodiversity corridor and as part of the Sydney Drinking Water Catchment under the Plan and borders the environmental asset of Dharawal State Conservation Area. The draft Planning Proposal seeks to balance environmental conservation with permitting reuse of the former Darkes Forest Mine by retaining the environmental zoning of the property. Other opportunities to improve the functioning of resilience of corridors should be investigated (i.e. biobanking, bush regeneration/vegetation management plans etc.).

Community Strategic Plan - Wollongong 2022

This project specifically delivers on core business activities (assessment of Planning Proposals) as detailed in the Land Use Planning Service Plan 2016-17.

This report contributes to the delivery of the following Wollongong 2022 goals and objectives:

Community Goal	
<i>1: We value and protect our natural environment</i>	
Objective	Comment
The natural environment is protected and enhanced.	The proposal is located in an ecologically sensitive area, albeit upon land previously disturbed by mining activities. A key objective of this draft Planning Proposal is to protect the natural environment (including flora and fauna and water quality) and further environmental studies will be requested should a Gateway Determination be issued.
Wollongong's ecological footprint is reduced.	The proposed cider processing facility will centralise operations currently carried out in three separate and distant locations, in an area close to the key markets of Sydney and Wollongong, allowing the producer to reduce their ecological footprint. Opportunities to utilise new and efficient (water and waste management) technologies can also reduce the producer's ecological footprint.
Community awareness and appreciation of heritage is increased.	The reuse of the old mine site and opening of a visitors centre could include information of the sites former use and associated history.
Local food production and community food initiatives are supported.	The proposal will support local food production – Glenburnie Orchard is Wollongong's last apple farm and produces a variety of fruit and fruit products.
Community Goal	
<i>2. We have an innovative and sustainable economy</i>	
Objective	Comment
Local employment opportunities are increased within a strong local economy	The proposed cider facility and associated uses will create new jobs and support existing jobs associated with the orchard.
The region's industry base is diversified.	The proposal will create manufacturing jobs, as well as tourism related jobs, and support the existing jobs at the orchard. This diverse range of jobs cover skilled and unskilled work, providing a range of opportunities and supporting the local economy.
The profile of Wollongong as the regional city of the Illawarra is expanded and improved.	Destination Wollongong has written a letter of support for the proposal, stating that visitors are after unique experiences in beautiful environments, and that they have worked with Glenburnie Orchard to develop successful tourism packages for the area. The proposal would add to the region's range of tourist attractions.
New industries and green technologies are established and flourish.	The proposal represents a new type of industry for the area, and presents opportunities to embrace green technologies such as water recycling and new best-practice forms of wastewater management.

Illawarra Biodiversity Strategy 2011

A key requirement of the Illawarra Biodiversity Strategy is to *'improve the integration of biodiversity conservation into planning instruments'*. The proposal seeks to maintain an environmental zoning over the property, recognising that protection of the natural environment is a key consideration for future development.

An ecological assessment has not been included in the planning proposal request so it is not clear what impacts on biodiversity could result from the proposed development, nor have mitigation measures for potential impacts been considered.

SEPP No. 44 Koala Habitat Protection

Koalas are mapped as occurring in the locality as per Council's mapping system, but it is not known whether the site supports koala habitat. The proposal will not necessarily impact on potential koala habitat as the proposed uses will utilise existing buildings, although further information is required as to the impact of vegetation removal for bushfire protection purposes. This SEPP requires that development consent not be issued to a development that will impact koala habitat, and that land that contains koala

habitat (or potential koala habitat) not be rezoned other than for environmental protection. The proposed zonings for the site are environmental zones and the proposal is not inconsistent with the requirements of this policy.

SEPP No. 55 Remediation of Land

The proposal is located on land previously used as a mine and could be contaminated. This SEPP requires Council to consider whether land is contaminated and is required to be remediated before allowing sensitive land uses such as residential, recreational, educational, child care and hospitals. The proposal consists of rural/industrial type development and ancillary uses and the land is considered suitable for this purpose, especially as the proposal relates to the reuse of existing buildings. An approved residential dwelling is located on the southern portion of the lot and the proposed rezoning will not permit any further dwellings (although may permit secondary dwelling/granny flat and bed and breakfast accommodation – which are subject to development assessment). The proposal is considered consistent with this SEPP and the land suitable for the proposed zoning. As part of the Gateway determination it is recommended that a Contamination Study be required to determine whether there is any contamination related to the former use.

SEPP Sydney Drinking Water Catchment 2011

The proposal relates to land in the Sydney Drinking Water Catchment. This SEPP does not allow development to occur unless it is proven that the proposed development will have a neutral or beneficial impact on water quality within the catchment. Development must also adhere to Water NSW's current recommended practices and standards.

Further information is required regarding wastewater treatment and disposal to ascertain impacts on the catchment.

Greater Metropolitan Regional Environmental Plan No. 2 Georges River Catchment (deemed SEPP)

This REP applies to land in the Georges River Catchment, which flows through Sydney's south-eastern suburbs and into Botany Bay. The southern side of the subject property is located within this catchment. This REP provides planning principles that are required to be considered for rezoning applications.

The aims and objectives of this REP include protecting the water quality of the Georges River and considering the cumulative impact of development on the catchment. Particularly relevant for this proposal includes planning principles concerning: on-site sewage management, industrial discharges, vegetated buffer distances and impacts on wetlands.

The proposed requirement for a waste water assessment will be used to determine whether there is any impact of the proposal on the Georges River Catchment.

Ecological Sustainability

The proposal presents a number of opportunities to implement environmentally sustainable practices such as reuse of existing buildings, water recycling, composting and revegetation. The proposed cider processing facility will be located upon previously disturbed land, however; as listed below, there are a number of potential environmental impacts that need to be investigated further.

Water Quality

The proposal will create wastewater in a number of forms, including stormwater run-off, production wastewater (water left over from the production of cider) and sanitary wastewater, which is sewerage from bathrooms associated with the various uses. Water NSW and Council's Health Team have suggested that keeping the sanitary and production wastewater streams separate would be most beneficial, as treatment options could differ for each source. For example sanitary wastewater could be treated and disposed of via an irrigation system on the southern portion of the site (provided potential environmental impacts could be mitigated) whilst the production wastewater could be treated and then reused to irrigate the apple orchard.

As noted by WaterNSW the current NorBE assessment is inadequate and additional assessments will be required to assess the potential impacts of the sanitary and production wastewater. Sanitary wastewater

can have health and environmental impacts. Production wastewater will contain chemicals and can also have health and environmental impacts. There are many different treatment methods for both types of wastewater, and although the applicant has provided a number of options, including on-site irrigation and recycling of production wastewater at the orchard, the type of treatment has not been specified. Without understanding the treatment methods for the wastewater streams, it is unclear what environmental impacts the wastewater will have on the sensitive water catchments and the surrounding area of endangered Coastal Upland Swamp.

Flora and Fauna

The site supports two *Threatened Species Conservation Act 1995* (TSC Act) listed endangered ecological communities (EECs). Both the O'Hares Creek Shale Forest and Coastal Upland Swamp was mapped on the northern site (north of Darkes Forest Road) and Coastal Upland Swamp on the southern site. The 'Proposed Irrigation Area located within Existing Irrigation Area' shown in the applicant's 'Cider Brewery – Potable Water and Wastewater Assessment' is located within an area of Coastal Upland Swamp. The proposal does not currently address potential impacts on these EECs with regards to the impact of wastewater disposal. The quantity of discharged water should also be considered, so as not to impact the hydrology of the swamp (i.e. lead to waterlogging or changes in PH and minerals).

Records of the TSC listed Prickly Bush-Pea *Pultenaea aristata* are recorded within the northern and southern sections of the site. There is also potential habitat for a number of other threatened flora and fauna species listed under the TSC and EPBC Act including but not limited to Giant Dragon Fly *Petalura gigantea*, Eastern Pygmy Possum *Cercartetus nanus* and Koala *Phascolarctos cinereus*. The potential for these species to occur and potential impacts should be considered as part of the proposal.

The draft planning proposal currently does not assess how the proposed rezoning and additional land uses meet the environmental outcomes listed in the Illawarra Shoalhaven Regional Plan, which identifies the site as a biodiversity corridor.

Vegetation Removal

The planning proposal request does not indicate whether vegetation removal is necessary to facilitate the proposed uses. The mine buildings and existing dwelling are located within managed areas of lawn and scattered trees. A Bushfire Assessment has not been undertaken, and clearing for bushfire protection may require vegetation to be removed, although without further investigation the quantity of vegetation removal is unknown.

Ecological Footprint and Management of Site

The Potable Water Assessment submitted with the planning proposal request states that the quantity of water required will be met by rainfall (but does not consider water required for firefighting purposes). The applicant states that collecting and using rainwater is the most cost effective measure, as opposed to connecting to mains water or buying and transporting in water. Using treated rainwater will provide positive environmental benefits.

Solid waste from production of cider is called pomace (leftover from crushing apples) which is proposed to be used as compost at the orchard.

By centralising operations, and no longer transporting cider to and from a number of locations for processing, the ecological footprint of the processing will be reduced. Darkes Forest is within close proximity to local markets being Sydney and Wollongong - reducing vehicle kilometres travelled from production to market.

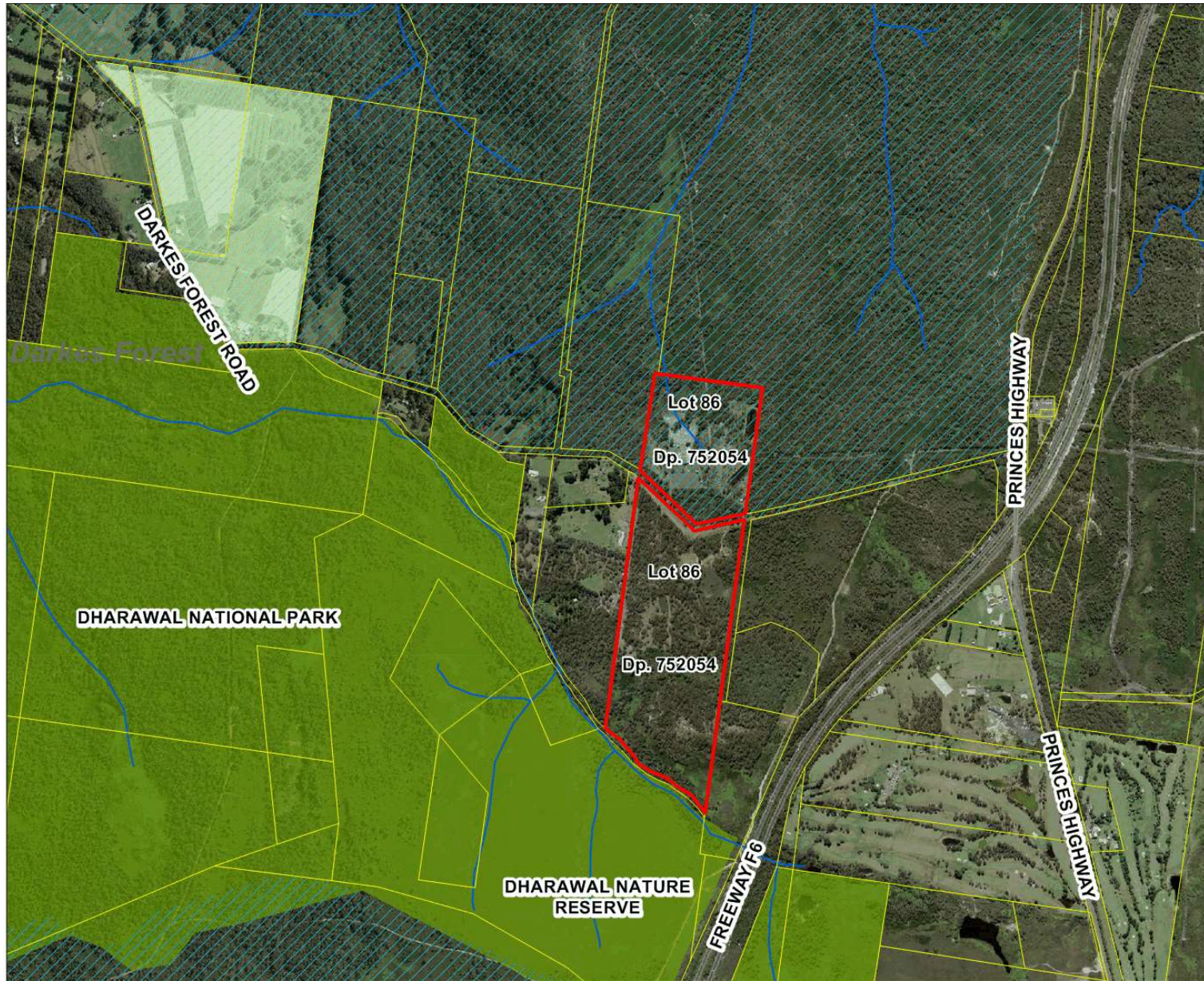
Recycling waste products such as apple pomace and the possibility of recycling production wastewater also present opportunities to manage the apple orchard and cider production in a sustainable manner.

CONCLUSION

The proposal represents a unique set of land uses, complementing the nearby orchard and other recreational and tourism uses in the area. It is considered that the proposal has strategic merit and it is recommended that a draft Planning Proposal be prepared to permit additional uses on the land and to

partially rezone the site to E3 Environmental Management to facilitate a cider processing plant and ancillary tourism-related uses.

It is recommended that Council resolve to prepare a draft Planning Proposal and obtain a Gateway Determination from the NSW Department of Planning and Environment. As part of the Gateway determination additional information relating to potential environmental impacts, particularly wastewater management will be requested prior to public exhibition.



Location Map

Key

- Subject site
- Watercourse
- Glenburnie Orchard
- Sydney Drinking Water Catchment
- National Park



Airphoto : 2008
 Drawn By: H. Jones
 Date: 09-03-2017
 LUP ref: Darkes Forest PP 2008Air

HISTORICAL PHOTOGRAPHS

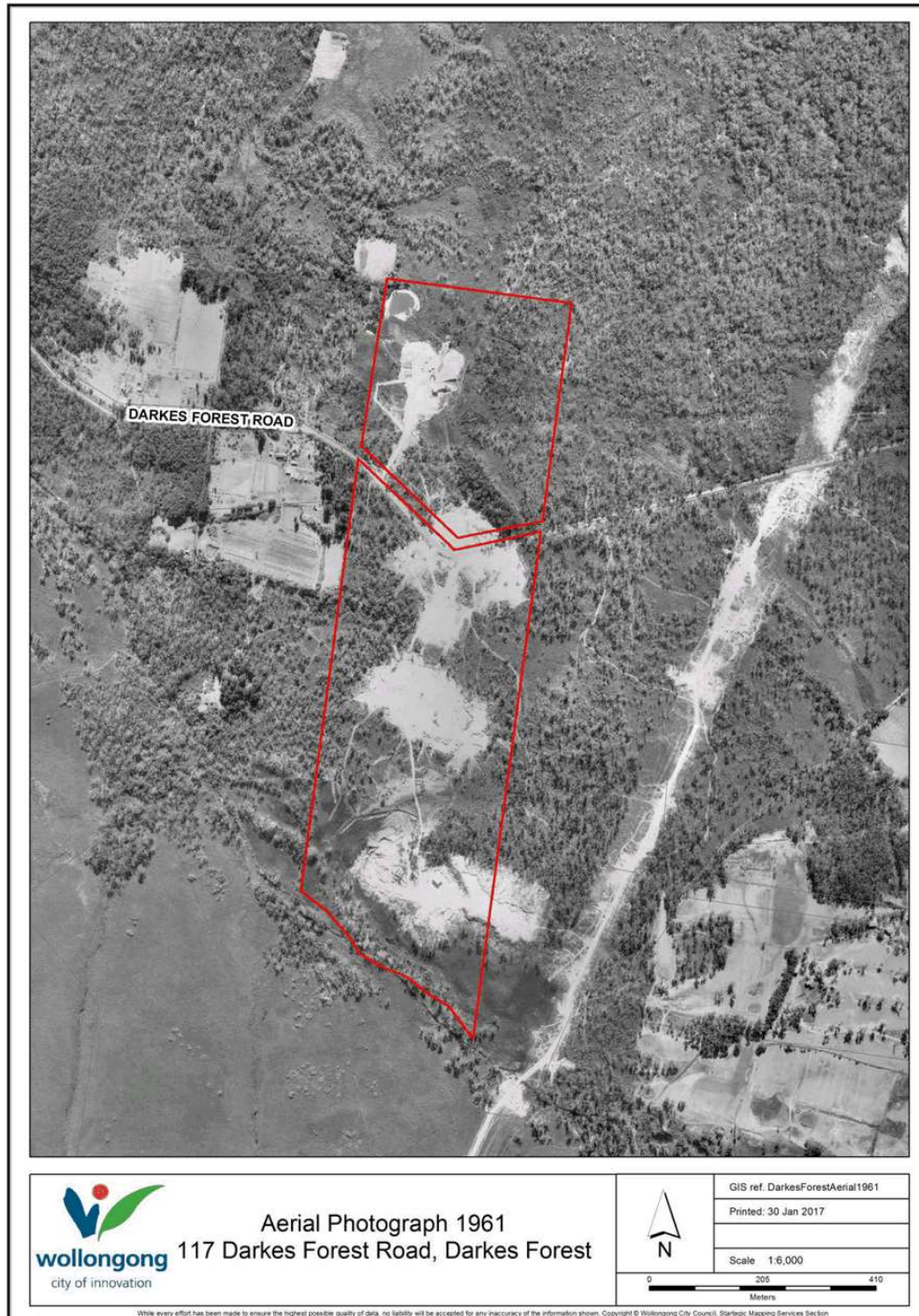


Figure 1: Aerial Photograph from 1961 showing extent of clearing for mine infrastructure



Figure 2: Darkes Forest Mine in 1979. Source: Illawarra Images, Wollongong City Library:
<http://mylibrary.wollongong.nsw.gov.au/cgi-bin/spydus.exe/FULL/PIC/BIBENQ/2198685/17579783,1>

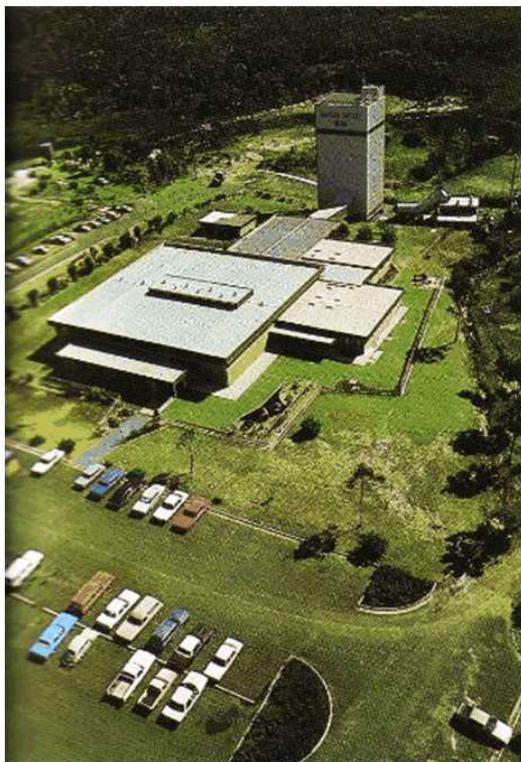
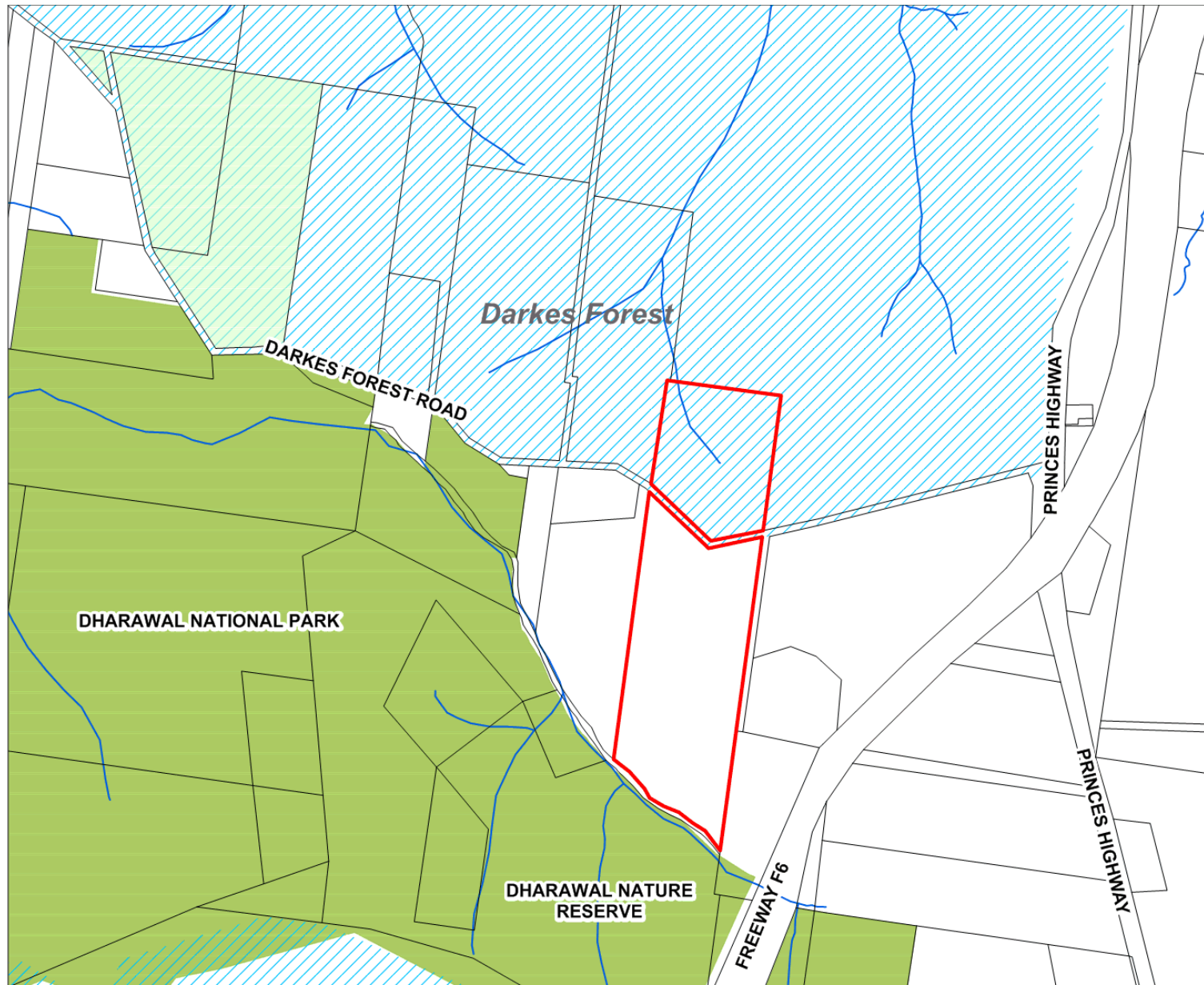


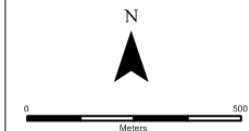
Figure 3: Surface facilities in 1972. Source: Illawarra Heritage Trail <http://www.illawarra-heritage-trail.com.au/index.php/sites/jetty-mine-csa-composite/jetty-mine>



Context Map

Key

- Subject site
- Watercourse
- Glenburnie Orchard
- Sydney Drinking Water Catchment
- National Park



Drawn By: R Jardim
Date: 31/01/2017
Gis ref: DarkesForestContextMap



Figure 1: Darkes Forest Road from subject site



Figure 2: Access Road to former mine



Figure 3: Mine Administration Building and Bathhouse/Shower Block



Figure 4: Mine Administration Building



Figure 5: Managed land surrounding mine administration building



Figure 6: Car park/ hard stand area



Figure 7: Effluent Lagoon and bushland



Figure 8: Bushland south of existing dwelling

