



Ref: WP23 040 JAB  
Council Ref: MCUI 2024\_5572/1

1 May 2024

The Chief Executive Officer  
Douglas Shire Council  
PO Box 723  
MOSSMAN QLD 4873

Attention: Jenny Elphinstone  
Via email: [mail@goldcoast.qld.gov.au](mailto:mail@goldcoast.qld.gov.au)

Dear Jenny,

**RESPONSE TO REQUEST FOR FURTHER INFORMATION – REGARDING PROPOSED MATERIAL CHANGE OF USE DEVELOPMENT (CARETAKER’S ACCOMMODATION, ENVIRONMENT FACILITY, NATURE-BASED TOURISM AND OUTSTATION) ON LAND AT LOT 12 AND 172 ON SP219620 – CAPE TRIBULATION ROAD, CAPE TRIBULATION**

We refer to the Information Request dated 7 February 2024 in relation to the above-mentioned development application.

Please find herein a full response to the matters contained within the Information Notice, pursuant to section 13.2(a) of the Development Assessment Rules (‘the DA Rules’). For ease of reference, each item of the Information Notice is replicated below with a separate response provided following.

**ITEM / RESPONSE**

**Outstation Use**

- 1. Please provide full details of the outstation use including the extent of short-term and long-term camping, the location of camp sites and location of associated ablution facilities and any other structures.***

**RESPONSE:**

The proposed ‘Nature-based Tourism’ and ‘Outstation’ land uses are proposed as interchangeable land uses, within the same ‘accommodation unit’<sup>1</sup> but for different purposes.

Nature-based Tourism means:

*the use of premises for a tourism activity, including accommodation for tourists, for the appreciation, conservation or interpretation of—*

*(a) an area of environmental, cultural or heritage value; or*

*(b) a local ecosystem; or*

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<sup>1</sup> Refer Schedule 3 (Proposal Plans) in the Town Planning Report as lodged.

*(c) the natural environment.*

In our view, the Nature-based Tourism definition does not adequately capture the temporary accommodation of EKY Traditional Owner's undertaking Traditional Owner activities in the area, as Traditional Owner's cannot be considered tourists undertaking nature-based tourism activities i.e. the Nature-based Tourism land use definition is not appropriate in this circumstance.

Section 4 of the Town Planning Report is considered to adequately describe the relationship and differences between the two (2) land uses, including attendant infrastructure, noted to comprise the Back of House. However, we note that EKY Traditional Owner's may also use the fire pit and performing circle for the undertaking of customary duties when not in use for Nature-based Tourism and Environment Facility activities.

We refer to Council's preference that 'Outstation' development be removed from the development application on the basis that:

*'...the use is considered one for remote locations and occupation by camping is usually on a seasonal basis in the Shire's locality given the usual wet season events. There is little detail in the application as to the extent of use for this purpose. The activities of cultural and/or recreational activities undertaken by Aboriginal and Torres Strait Islander people and for camping would appear to be able to be accommodated in the other listed uses.'*

In response, we note that the 'Outstation' land use definition, nor the benchmarks within the Douglas Shire Planning Scheme require that 'Outstation' development be located in remote locations; moreover, Cape Tribulation may be considered remote, being accessible only by barge or 4WD, and having no reticulated power, sewer or water services.

We note that the definition for 'Outstation' also contemplates low-scale built infrastructure, such as that proposed in the form of accommodation units:

*'Premises used for cultural and/or recreational activities undertaken by Aboriginal and Torres Strait Islander people. The use provides for intermittent short stay and/or long term camping. **Use may involve permanent low scale built infrastructure.**'*

The proposed use of the 'accommodation units' under the 'Outstation' land use, will be seasonal and will predominantly involve specific Jabalbina led events and/or activities for EKY Traditional Owner's in the tourist off-season.

The development application states:

*'It is anticipated that stays in the proposed accommodation under the Outstation land use definition will typically average between 2 and 3 nights, with an upper maximum of 2 weeks. Accordingly, the Applicant invites a condition of approval that enforces a maximum 2 week stay under the Outstation land use definition as it reinforces Jabalbina policy.'*

To be clear, the proposed 'Outstation' land use is to occupy only the 'accommodation units' (when not in use for the accommodation of tourists under the Nature-based Tourism land use) and utilise the 'Back of House' building for laundry requirements. The proposed 'Outstation' land use will not involve the overnight accommodation of EKY Traditional Owner's on site in any other capacity i.e. no tents etc.

The proposal ensures that the infrastructure assets on site are utilised throughout the year and ensures that the accommodation needs of the EKY Traditional Owners are met in undertaking the caring for country role of EKY Traditional Owners in the area, and is considered essential to maintaining a living culture for EKY peoples.

We also note that 'Outstation' development on the site is code assessable development; and complies with the requirements of the Douglas Shire Planning Scheme.

### **Environment Facility**

- 2. Please provide details of the intended number of visitors at any one time and total visitors expected per day, including specific anticipated cultural events and daily attendance.**

#### **RESPONSE:**

Please find following advices in respect to the proposed Environment Facility land use:

- A. Maximum of 50 visitors per day;
- B. Maximum of two (2) scheduled events per day; and
- C. Visitor groups up to a maximum of 30 persons, with an average of 25 persons.

No specific cultural events identified at this time.

- 3. Please provide details of operating times for the Environmental facility.**

#### **RESPONSE:**

The proposed hours of operation for the Environment Facility are: 9am to 5pm daily, seven days a week. Excluding Christmas Day, New Years Day and Easter Friday.

- 4. Please provide details of any expected events and daily audience display shows including a noise acoustics report for amplified noise.**

#### **RESPONSE:**

Please refer response to Information Request Item 2. No amplified noise is proposed at this time<sup>2</sup>.

### **Nature-based tourism / Outstation**

- 5. Please provide details of the intended number of visitors at any one time and total visitors expected per day, including specific anticipated cultural events and daily attendance.**

#### **RESPONSE:**

Please find following advices:

- A. 11 accommodation units for Nature-based Tourism / Outstation with an average daily occupancy of 19 persons<sup>3</sup>; and
- B. Environment Facility visitors are in addition to the overnight accommodation of guests referred to at 'A.' above (refer response to Information Request Item 2); however, there will likely be cross utilisation between these land uses, with overnight guests attending Environment Facility performances.

Therefore, the anticipated maximum population on site in respect to all land uses<sup>4</sup> is:

- A. A daily maximum population of 70 persons; and
- B. An expected maximum of 50 persons at any one time.

### **Car Parking**

- 6. Please provide a detailed vehicle parking demand analysis and parking plan**

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<sup>2</sup> The Applicant understands that where amplified noise is contemplated at a future time this may require a Change Application.

<sup>3</sup> Note – the Hydraulic Reporting allows for the following at any one time:

- 10 of the accommodation units occupied by 1.5 persons for Nature-based Tourism; and
- 1 of the accommodation units occupied by 4 persons under the Outstation land use.

<sup>4</sup> Including Nature-Based Tourism, Outstation, Environment Facility and Caretaker's Accommodation.

***including the ability for visitors to park adjacent at each of the accommodation units. The demand analysis should take into account all uses on the land including the expected demand for the Environmental Facility and the Outstation. Comparisons with similar developments should be included. Concern is raised with the extent of parking nominated on the land. Consideration should also be given to RV parking by visitors and attendees to the site.***

**RESPONSE:**

The car parking demand is established in the Town Planning Report as follows:

- Environment Facility / Caretaker's Accommodation – 36 car parks<sup>5</sup>; and
- Nature-based Tourism / Outstation – 11 car parks.

The Master Plan identifies the proposed car parking, including a car park adjacent each accommodation unit. The Applicant requests a condition of approving requiring same.

It is relevant to note that the Applicant will operate buses for visitor groups and the provision of 47 car parks is anticipated to exceed the demand for visitor and employee parking associated with the proposed development.

Recreation Vehicles are utilised by free and independent travellers and the proposed development does not include Tourist Park land uses. Recreation Vehicle car parking is not proposed to be provided, nor required by the Access, Parking and Servicing Code of the Douglas Shire Planning Scheme.

**Hydraulic Reporting**

***7. Please provide a detailed hydraulic report on the proposed water treatment and wastewater treatment for the total uses on the land. While it is acknowledged that separate ERA applications will be made for both water treatment and wastewater treatment, preliminary consideration is required in respect to consideration for total demand and suitability of treatment areas for onsite wastewater treatment and storage facilities suffice for potable water and fire fighting facilities.***

**RESPONSE:**

Please refer **Schedule 1 – Hydraulic Reporting** that identifies that relevant water supply and waste-water infrastructure can be provided to meet the demands of the proposed development.

We trust that the above provides additional information required for Council's continued assessment. Please do not hesitate to contact the undersigned, should you wish to discuss the subject application.

Yours sincerely,



**DOMINIC HAMMERSLEY**

**DIRECTOR / PRINCIPAL PLANNER**

**wildPLAN Pty Ltd | ABN 26 629 367 933**

PO Box 8028, Cairns QLD 4870

**E** [dominic@wildplan.com.au](mailto:dominic@wildplan.com.au) | **M** 0487 967 533

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<sup>5</sup> Note – per response to Information Request Item 2, visitor groups are not anticipated to exceed 30 persons at any one time; and a degree of cross utilisation is anticipated between the Nature-Based Tourism, Environment Facility and Outstation land uses.

**SCHEDULE 1**  
HYDRAULIC REPORTING

 **PLAN SCHEDULE 1**

29<sup>th</sup> April 2024

Jabalbina Yalanji Aboriginal Corporation  
c/- Hunt Architects  
291 Mowbray River Rd,  
Mowbray QLD 4877

**Att:** Sam Drummond

**Re:** PROPOSED Cultural and Tourism Hub  
LOT 12 and 172 on SP21960,  
Cape Tribulation Road, CAPE TRIBULATION

**SEWER:**

Attached please find a copy of our 'On-Site Sewerage Facility - Site and Soil Evaluation Report' dated 13<sup>th</sup> March 2024 for the above property, for your information and submission for a Development Approval to Douglas Shire Council.

The findings from the site inspection and the results from the percolation and soil texture tests have proved that disposing of Effluent is viable for this site for the Proposed Development.

A wastewater treatment system producing Advanced Secondary effluent and evapotranspiration / absorption trench disposal or Sub Surface Irrigation will satisfy the requirements of AS 1547:2012 as well as meeting current codes and local authority regulations.

Results of our calculations for sizing of disposal areas using Australian Standard 1547- 2012 equations are attached for your information.

Further detailing of the Waste Water System would be required prior to lodging for a Plumbing Permit.

Due to the maximum demand of 5400 litres exceeding the daily allowable without the requirement of an ERA63 License, our proposal would be to install a buffer tank prior to the waste water plant to distribute the quantity of Effluent over a week cycle, in lieu of daily peak demands.

**WATER:**

There is no Council Water main to the proposed Development.  
Our proposal would be to source water from the Bore nominated on the Architectural Site Masterplan and Rainwater Harvesting.

Bore Water would be obtained from a registered bore, treated by Appropriate methods of Water Filtration including Microfiltration and Ultra Violet Sterilisation. This would be reticulated throughout the proposed Development to Potable Water Fixtures, including Basins, Showers, Sinks and Laundry Tubs.


Rainwater Harvesting would be collected from roofs and reticulate through the proposed Development to Non Drinking water fixtures, including Hose Taps, Toilets and Washing Machines.

A total combined water storage volume of 150,000 litres will be adequate to supply both potable water and firefighting capacities.

Prior to any of the works being carried out, notification and approval is required by the Douglas Shire Council Plumbing and/or Engineering Department.

For further information or clarification on the above, please do not hesitate to contact the undersigned on 40321468.

Yours Faithfully

A handwritten signature in black ink, consisting of a stylized, flowing line that loops and ends with a small dot.

Shane Barnes

## ON SITE SEWERAGE FACILITY SITE AND SOIL EVALUATION REPORT

### A: SITE EVALUATOR

Name: Shane Barnes

Signature:



Date: 13.03.2024

### B: SITE INFORMATION (desk-top evaluation)

#### Location Details,

Locality: Cape Tribulation Road, CAPE TRIBULATION

Owner: JABALBINA YALANJI ABORIGINAL CORPORATION

Phone No:

Survey Plan Details: SP21960

Proposed Lot No: Lot 12 and 172

Local Government: Parish:

County:

Site Plan Details Attached, Ref. No. or Description: Proposed Cultural and Tourism Hub.

Refer to Site Plan

Soil Type from Soil Maps etc: N/A

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#### Climate

Annual Rainfall: 3864 mm

Annual Potential Evapotranspiration: 2239 mm

#### Existing Water Supply Source:

Town Water Supply ☐

Rainwater (Roof Collection) ☐

Dam ☐

Bore/Well ☒

Other ☐



## SITE AND SOIL EVALUATION REPORT

### C: SITE ASSESSMENT

#### Topography

Slope: **Gentle Sloping Site across the Site, West to East**

Shape: **Flat**

Ground Cover: **Grass / Rainforest**

Exposure: **Medium / Great**

Drainage Patterns: **Refer Site Plan**

Available Clearances: (Site Plan details attached)

Boundaries: **4 Meters minimum from All Boundaries**

Detention Basins: **Nil**

Embankments: **Nil accounted during inspection**

Stands of Trees, Shrubs: **20 Meters Available**

Buildings: **4 Meters minimum from All Buildings**

Other: \_\_\_\_\_

Site History (Land Use): **Agriculture**

Environmental Concerns: **Nil**

#### Site Stability:

Is expert Evaluation Necessary? **Yes / No**

If Yes, attach stability report and give details here of:

Author: \_\_\_\_\_ Designation: \_\_\_\_\_

Company: \_\_\_\_\_ Date: \_\_\_\_\_

#### Drainage Controls

Depth of Seasonal water table:

WINTER: **N/A** SUMMER: **N/A**

Need for groundwater cut-off drains? **Yes / No**

Need for surface water collection / cut-off drains? **Yes / No**

#### Availability of Reserve / Setback Areas

Reserve Area available for disposal: **100%** of design area:

Evaluator's Photographs attached **Yes / No (Available if required)**

## SITE AND SOIL EVALUATION REPORT

### D: SUBSOIL INVESTIGATION

#### Soil Profile Determination

Soil classification has been determined from site investigations carried out by H2O Consultants on site Permeameter test.

Soil Description:	<b>Clay Loam</b>
Soil Category:	<b>4</b>
Structure:	<b>Moderate</b>
Coarse Fragments:	<b>Nil</b>
Measured Permeability	<b>P1 = 0.84</b>
Indicative permeability:	<b>0.9</b>
Average K sat:	<b>0.5 to 1.5 m/day</b>
Design Irrigation Rate:	<b>3.5mm/day</b>
Design Loading Rate:	<b>15 mm/day</b>

#### Estimated Soil Category:

Soil Category	Description	Tick One
1.	Gravels and Sand	<input type="checkbox"/>
2.	Loamy Sand	<input type="checkbox"/>
3.	Sandy Loams	<input type="checkbox"/>
4.	Loams	<input type="checkbox"/>
5.	Clay Loams	<input checked="" type="checkbox"/> 0.2m – 2.4m
6.	Light Clays	<input type="checkbox"/>
7.	Medium to Heavy Clays	<input type="checkbox"/>

Reasons for placing in Stated Soil Category: **On Site Test/Assessment**

Reasons for Design Loading Rate (DLR) recommendation:

**Based on Test and have assumed DLR of 15 to AS 1547:2012 - Table L1**

#### General Comments

Type of Land Application Facility considered best suited to site:

**Advanced Secondary Treatment with Absorption Trench /Irrigation as disposal areas**

Evaluator's preliminary assessment of minimum Land Application Area for the site:

**180m<sup>2</sup> of Absorption Area or 1500 m<sup>2</sup> of landscaped irrigation area**

Estimated Daily Peak Flow: **5,400 Litres**

**10 Accommodation Cabins x 1.5 People x 200 Litres = 3000 litres**

**1 x Caretakers Accommodation = 300 Litres**

**Outstation x 4 Persons = 600 Litres**

**Tourism (Seasonal) 50 Persons x 30 Litres = 1,500 Litres**

# PRIMARY TREATMENT EFFLUENT AND ABSORPTION BED DISPOSAL

## DISPOSAL SYSTEMS for EFFLUENT DOMESTIC PREMISES A.S 1547-2012 SIZING OF DISPOSAL AREA CALCULATIONS

### 1. ABSORPTION AREA OR TRENCH

$$A_w = Q / \text{LTAR}$$

$A_w$  = wetted area in square meters

$Q$  = daily flow in litres

DLR = Design Loading Rate in mm per day

$$A_w = 5400 / 15$$

$$A_w = 360\text{m}^2 \text{ of wetted area required}$$

### 2. LENGTH OF TRENCH

$$L = A_w / B$$

$L$  = trench length in meters

$A_w$  = wetted area in square meters

$B$  = trench width in meters

$$L = 360 / 0.6$$

600 meters of  
600mm wide x 600mm deep absorption trench.

Or

5 x 20 meters long x 4.0m wide x 600mm deep Absorption Bed.

### 3. CONCLUSION

Areas are available on-site for this amount of absorption trenches plus 100% replacement

**THIS METHOD OF TREATMENT IS NOT VIABLE  
SETBACK DISTANCES MUST BE MAINTAINED,  
REFER TO OVERALL SITE PLAN**

# SECONDARY/ADVANCE SECONDARY TREATMENT AND DISPOSAL WASTE WATER TREATMENT PLANT USING IRRIGATION AS DISPOSAL

## DISPOSAL SYSTEMS for EFFLUENT from DOMESTIC PREMISES A.S 1547-2012 SIZING OF DISPOSAL AREA CALCULATIONS

### 1. IRRIGATION AREA

$$A_i = Q_d / DIR$$

$A_i$  = Irrigation Area required

$Q_d$  = quantity of effluent generated per day in litres

$DIR$  = Design Irrigation Rate in millimetres per week

$$A_i = 5400 / 3.5$$

$$A_i = 1500 \text{ m}^2 \text{ of landscaped irrigation area.}$$

### 2. CONCLUSION

Areas are available on-site for this amount of irrigation plus 100% replacement

**THIS METHOD OF TREATMENT IS VIABLE  
SETBACK DISTANCES MUST BE MAINTAINED, REFER TO OVERALL SITE  
PLAN**

# SECONDARY/ADVANCE SECONDARY TREATMENT AND DISPOSAL WASTE WATER TREATMENT PLANT USING ABSORPTION BED AS DISPOSAL

## DISPOSAL SYSTEMS for EFFLUENT from DOMESTIC PREMISES A.S 1547-2012 SIZING OF DISPOSAL AREA CALCULATIONS

### 1. ABSORPTION AREA OR TRENCH

$A_w = Q / \text{LTAR}$        $A_w$  = wetted area in square meters  
                                  $Q$  = daily flow in litres  
                                  $\text{DLR}$  = Design Loading Rate in mm per day

$$A_w = 5400 / 30$$

$A_w = 180\text{m}^2$  of wetted area required

### 2. LENGTH OF TRENCH

$L = A_w / B$        $L$  = trench length in meters  
                                  $A_w$  = wetted area in square meters  
                                  $B$  = trench width in meters

$$L = 180 / 0.6$$

$L = 300$  meters of 600mm wide x 600mm deep absorption trench.

Or

3 x 20 meters long x 3.0m wide x 600mm deep Absorption Bed.

### 3. CONCLUSION

Areas are available on-site for this amount of absorption trenches plus 100% replacement

**THIS METHOD OF TREATMENT IS VIABLE  
SETBACK DISTANCES MUST BE MAINTAINED,  
REFER TO OVERALL SITE PLAN**

## **SEWERAGE TREATMENT PLANT**

All sewerage treatment plants installed must have Chief Executive Approval from Queensland Department of Infrastructure and Planning. A list of approved treatment plants is available on their website. Due to the many systems available, we have indicated below the minimum requirements the treatment plant is to meet. The selection of brand and type of unit is up to the owner. However, the plant must be approved to supply the quality of effluent as required by this report.

### **Secondary Treated Effluent**

Secondary quality effluent must meet the following effluent compliance characteristics:

- (a) 90% of the samples taken over the test period must have a BOD5 less than or equal to 20 g/m<sup>3</sup> with no sample greater than 30g/m<sup>3</sup>
- (b) 90% of the samples taken over the test period must have a total suspended solid less or equal to 30 g/m<sup>3</sup> with no sample greater than 45 g/m<sup>3</sup>
- (c) Where disinfection is provided 90% of the samples taken over the test period must have a thermotolerant coliform count (determined by either the most probable number or membrane filter technique ) not exceeding 200 organisms per 100 ml with no sample exceeding 1000 organisms per 100 ml.
- (d) Where chlorination is the disinfection process, the total chlorine concentration must be greater than or equal to 0.5 g/m<sup>3</sup> and less than 2.0 g/m<sup>3</sup> in four out of five samples taken.

### **Advanced Secondary Treated Effluent**

Advanced Secondary quality effluent must meet the following effluent compliance characteristics:

- (a) 90% of the samples taken over the test period must have a BOD5 less than or equal to 10 g/m<sup>3</sup> with no sample greater than 20g/m<sup>3</sup>
- (b) 90% of the samples taken over the test period must have a total suspended solid less or equal to 10 g/m<sup>3</sup> with no sample greater than 20 g/m<sup>3</sup>
- (c) Where disinfection is provided 90% of the samples taken over the test period must have a thermotolerant coliform count (determined by either the most probable number or membrane filter technique) not exceeding 10 organisms per 100 ml with no sample exceeding 200 organisms per 100 ml.
- (d) Where chlorination is the disinfection process, the total chlorine concentration must be greater than or equal to 0.5 g/m<sup>3</sup> and less than 2.0 g/m<sup>3</sup> in four out of five samples taken.
- (e) Where the manufacturer has included nitrogen and/or phosphorous reduction in the treatment process, the effluent compliance criteria must be able to meet in addition to the above the following nutrient criteria:
  - (i) 90% of the samples, with 95% confidence limits taken over the test period shall have a total nitrogen concentration less than or equal to 10 mg/litre
  - (ii) 90% of the samples, with 95% confidence limits taken over the test period shall have a total phosphorous concentration less than or equal to 5 mg/litre

## Minimum Setback Distances

Available Clearances:	Boundaries	2m	☑
	Building Footings	2m	☑
	Recreation Areas	4m	☑
	Inground Swimming Pools	6m	☑
	Inground Water Tank	6m	n/a

Setback distances for subsurface land application area			
Feature	Horizontal separation distance ( meters )		
Distance from the edge of trench / bed excavation or subsurface irrigation distribution pipework to the nearest point of the feature	Up Slope	Down Slope	Level
Property boundaries, pedestrian paths, footings of buildings, walkways, recreation areas, retaining wall footings.	2	4	2
In ground swimming pools	6	6	6
In ground potable water tank	6	6	6

Setback distances for onsite sewerage facilities			
Feature	Primary Effluent	Secondary Effluent	Advanced Secondary Effluent
Top of bank of permanent water course. Top of bank of intermittent water course. Top of bank of a lake. Top water level of a surface water source used for agriculture, aquaculture or stock purposes. Easement boundary of unlined open stormwater drainage channel or drain. Bore or dam used or likely to be used for human and or domestic consumption.	50m	30m	10m
Unsaturated soil depth to a permanent water table ( vertically )	1.2m	0.6m	0.3m

# NOTICE TO LAND OWNER

## **OPERATION AND MAINTENANCE: GENERALLY**

On-site sewerage treatment plants and the associated land application facilities are complex systems that are prone to failure if operated and maintained incorrectly. All on-site sewerage facilities require a high degree of user dedication in terms of operation and maintenance to ensure that the design performance of the facility is achieved for the expected life of the facility.

All on-site sewerage facilities or components of the facility have a finite life. For instance, septic tanks may have an expected life of 25 years, whilst the associated land application facility may have an expected life of 5 to 15 years depending on the nature of the specific site.

## **OPERATION & MAINTENANCE PROCEDURES**

Operation and maintenance procedures are undertaken to a regular schedule appropriate to the nature and type of treatment and land application facility and in accordance with any manufacturer's instructions; and

Continuity of operation and maintenance is achieved throughout changes of ownership and/or changes in use or development of the site.

## **OPERATION**

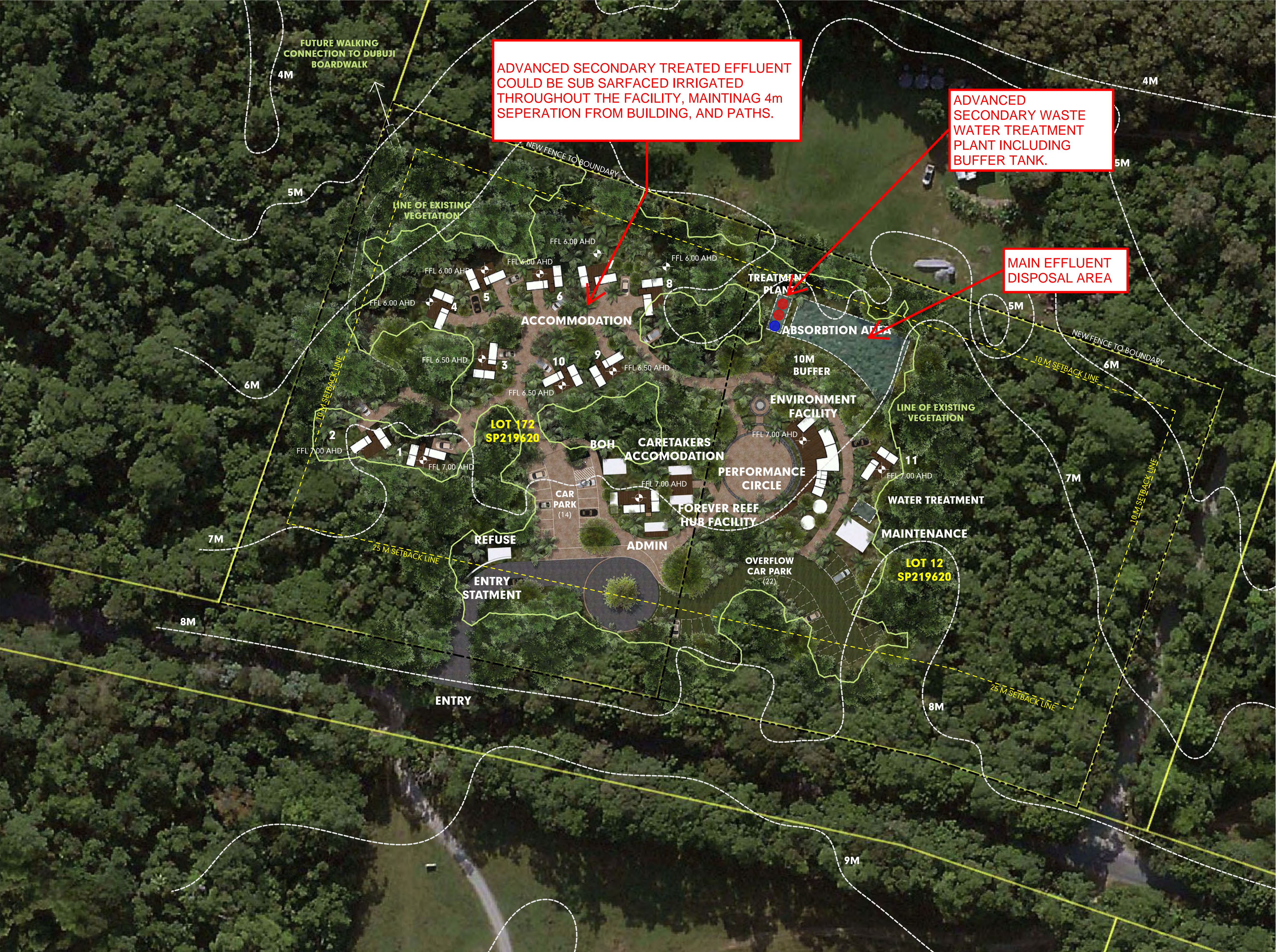
- Practice water conservation and avoid exceeding the hydraulic capacity of the facility.
- Minimise the input of cleaning agents, detergents, disinfectants, bleaches, alkalis, oil, petrol, acids, degreasers, photography chemicals, cosmetics, lotions, pesticides and herbicides into the facility.
- Not place materials such as disposal nappies, female napkins, paper towels, cigarette butts, bones and coffee grounds into the facility.
- Be observant regarding signs of unsatisfactory performance, including unusual odours, leaks from the facility or choking.
- Contact the service agent following observation of unsatisfactory performance or breakdown.
- Protect facility components from structural damage, such as from vehicles.
- Be familiar with safety procedures.
- Establish a time pattern of desludging.
- Keep the area in the vicinity of the on-site sewerage facility tidy to facilitate ease of operation and maintenance.
- Where appropriate, or required by a condition of approval, enter into an annual service contract with a service agent
- Retain copies of all service reports.

## **LAND APPLICATION SYSTEMS**

***Regular visual checking of correct system operation by households, and an annual inspection by service contractors should be undertaken.*** Signs of system failure include:

- Surface ponding and run-off of treated effluent;
- Degrading of soil structure (Sheet or Rill erosion, surface crusts, hard surface)
- Poor Vegetation growth; and
- Unusual odours





REMAINDER AREAS (GFA)	
ABSORBTION AREA REQUIRED:	300m <sup>2</sup>
ABSORBTION AREA PROVIDED:	400m <sup>2</sup>
TOTAL AREA:	400m <sup>2</sup>

**EASTERN KUKU YALANJI WARRA COMMUNITY  
TOURISM PARK**  
  
CULTURE AND TOURISM HUB  
FOR : JABALBINA YALANJI ABORIGINAL CORPORATION

**DA ISSUE**  
  
**MASTER PLAN**  
  
SCALE 1:500 @A1

PROJECT NO. JABALBINA001  
DRAWING NO. DA.03  
REVISION NO. 01  
DATE 24/1/2024

