

5.1. MATERIAL CHANGE OF USE FOR AQUACULTURE, ERA AND REMOVAL, OF MARINE PLANTS, BARRAMUNDI FARM EXTENSION, L3 VIXIES RD, WONGA BEACH

REPORT AUTHOR	Jenny Elphinstone, Senior Planning Officer
MANAGER	Paul Hoyer, Manager Environment and Planning
DEPARTMENT	Planning
PROPOSAL	Combined application for a Material a Material Change of Use for Aquaculture, an Environmentally Relevant Activity for aquaculture and application for the removal, destruction or damage of marine plants.
APPLICANT	Daintree Saltwater Barramundi Fish Farm Pty Ltd Lot 3 Vixies Road Wonga Beach QLD 4873
LOCATION OF SITE	Lot 3 Vixies Road, Wonga Beach
PROPERTY	Lot 3 on SP292103

LOCALITY PLAN



Figure 1 - Locality Plan

PLANNING SCHEME	2006 Douglas Shire Planning Scheme (as amended)
LOCALITY	Rural Areas and Rural Settlement Locality
PLANNING AREA	Rural
REFERRAL AGENCIES	Department of State Development, Manufacturing, Infrastructure and Planning.
NUMBER OF SUBMITTERS	None received.
STATUTORY ASSESSMENT DEADLINE	12 November 2019
APPLICATION DATE	25 September 2018

RECOMMENDATION

That Council approves the combined development application for a Material Change of Use for Aquaculture, an Environmentally Relevant Activity for Aquaculture and application for the removal, destruction or damage of marine plants, over land described as Lot 3 on SP292103, located at Lot 3 Vixies Road, Wonga Beach, subject to the following:

- A. **APPROVED DRAWING(S) AND / OR DOCUMENT(S)** (and as amended by Condition 3 of the Assessment Manager's conditions.

The term 'approved drawing(s) and / or document(s)' or other similar expressions means:

Drawing or Document	Reference	Date
Daintree Saltwater Barramundi – Aquaculture – Overall Plan	Unreferenced and undated plan submitted to Council on 17 May 2019 (Council Document ID:90215).	17 May 2019
Site Plan with Existing Ponds	Figure 10 on page 24 of the Daintree Saltwater Barramundi Farm Expansion, Material Change of Use Application Report, Version 2.1, prepared by Ecosustainability, (Council document 867058), from RPS.	17 June 2018
Existing Production Ponds	Figure 11 on page 24 of the Daintree Saltwater Barramundi Farm Expansion, Material Change of Use Application Report, Version 2.1, prepared by Ecosustainability, (Council document 867058), from RPS.	17 June 2018

Drawing or Document	Reference	Date
Overall Layout and Schematic Arrangement Over Aerial Image	Figure 3, on Page 14, of the Applicant's response to the request from information issued by Douglas Shire Council, provided on 21 March 2019 (Council document ID:895735).	21 March 2019
Proposed Pond Layout	Gary T Pozi Drawing 18/03 Sheet 1 Version B, Plan 9 Design, of the Daintree Saltwater Barramundi Farm Expansion, Material Change of Use Application Report, Version 2.1, prepared by Ecosustainability, (Council document 867058)	28 March 2019
File 180337C	Unreferenced and undated plan, Plan 10 Design (Pond Dimensions), of the Daintree Saltwater Barramundi Farm Expansion, Material Change of Use Application Report, Version 2.1, prepared by Ecosustainability, (Council document 867058).	17 June 2018
Farm Expansion Preliminary Acid Sulphate Soils Management Plan	Ecosustainability Report Version 1.1	18 April 2018
Daintree Saltwater Barra Farm, Wonga Beach, Geotechnical Investigation Report	PGI, Contract PGC00118014, Version 1.3 Final, (Council Document 867058).	9 February 2018
Daintree Saltwater Barramundi Flood Study, Response to DSC request for Information 1 August 2019	RECS Consulting Engineers & Building Design, Project 62-2018, Received by Council 28 August 2019 (Council document ID 916914)	August 2019

B. ASSESSMENT MANAGER CONDITIONS AND ADVICES

1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:
 - a. The specifications, facts and circumstances as set out in the application submitted to Council; and
 - b. The following conditions of approval and the requirements of Council's Planning Scheme and the *FNQROC Development Manual*.

Except where modified by these conditions of approval.

Timing of Effect

2. The conditions of the Development Permit must be effected prior to the commencement of use except where specified otherwise in these conditions of approval.

Operational Works

3. An Operational Works Approval is required for the earthworks and drainage associated with the development.

Such works must be completed to the satisfaction of the Chief Executive Officer prior to commencement of use or issue of a compliance certificate for the plan of survey, whichever occurs first. Where plans are required, three (3) A1 size copies of the plans and one (1) copy at A3 size must be submitted to Council.

Acid Sulfate Soil Management Plan

4.
 - a. Undertake an Acid Sulfate Soil sampling, investigation and analysis in the area to be affected by this development in accordance with:
 - i. the *Queensland Acid Sulfate Soil Technical Manual Soil Management Guidelines version 4.0 (2014)*;
 - ii. the *Acid Sulfate Soils - Laboratory Methods Guidelines (version. 2.1, June 2004)*; and
 - iii. the State Planning Policy 2017.
 - b. Provide a statement to Council that
 - i. present Acid Sulfate Soils and/or Possible Acid Sulfate Soils are not present; or
 - ii. that management of present Acid Sulfate Soils and/or Possible Acid Sulfate Soils has been incorporated into an Acid Sulfate Soils Environmental Management Plan prepared in accordance with the abovementioned documents.

Identification of soils with a pyrite content in excess of the action levels will trigger a Acid Sulfate Soil Environmental Management Plan which must be prepared to the satisfaction of the Chief Executive Officer.

Where earthworks are undertaken without a Development Permit for Operational Work, the results of this investigation must be submitted to Council for approval, ten (10) business days prior to any earthworks or clearing being commenced on the site.

Where earthworks are undertaken in association with a Development Permit for Operational Work, the results must accompany such application lodged to Council.

Council finds the *Preliminary Acid Sulphate Soils Management Plan*, as submitted with the application, to be sufficient to accompany a future application for a Development Permit for Operational Work provided it is lodged in a Final format and consideration is given to nominating a minimum standard of competency and knowledge of treatment during construction, in particular for high risk situations where onsite testing is required.

Storage of Machinery and Plant

5. The storage of any machinery, material and vehicles must not cause a nuisance to surrounding properties, to the satisfaction of the Chief Executive Officer.

Lawful Point of Discharge

6. All stormwater from the property must be directed to a lawful point of discharge such that it does not adversely affect surrounding properties or properties downstream from the development, all to the requirements and satisfaction of the Chief Executive Officer.

Minimum Height for Bunds of Changed Ponds

7. The bunds of the changed ponds are to have a minimum height of 3.9m AHD.

Sediment and Erosion Control

8. Soil and water management measures must be installed / implemented prior to discharge of water from the site, such that no external stormwater flow from the site adversely affects surrounding or downstream properties (in accordance with the requirements of the *Environmental Protection Act 1994*, and the FNQROC Development Manual).

Noise

9. The proposed activity must be conducted in a manner that -
 - a. applies such reasonable and practicable means necessary to avoid, minimise or manage (in that order) the emission or likelihood of emission of noise that constitutes an intrusive or nuisance noise; and
 - b. achieves the acoustic quality objectives of the Environmental Protection (Noise) Policy 2008.

External Lighting

10. Any external lighting installed upon the premises including car parking areas must be designed such that the vertical illumination at a distance of 1.5 metres outside the boundary of the subject land must not exceed eight (8) lux measured at any level upwards from ground level.

Requirement for an Environmental Authority

11. The development can only be undertaken in accordance with an approved and effective Environmental Authority.

Referral Agency Requirements

12. The development must only be undertaken in accordance with the referral agency conditions and advices.

Assessment Manager Advices

1. This approval, granted under the provisions of the *Planning Act 2016*, shall lapse six (6) years from the day the approval takes effect in accordance with sections 85(1)(b) and 71 of the *Planning Act 2016*.
2. This approval does not negate the requirement for compliance with all relevant Local Laws and statutory requirements.
3. For information relating to the *Planning Act 2016*, log on to www.dsd.qld.gov.au . To access the FNQROC Development Manual, Local Laws and other applicable Policies log on to www.douglas.qld.gov.au.
4. A separate Environmental Authority (EA) is required to be issued from the Department of Environment and Science for the operation of the Environmentally Relevant Activity.

Note i. The EA0001769 as approved on the 21 May 2019 includes conditions regarding noise emissions.

Note ii An Environmental Authority may be amended by the Department of Environment and Science at a future time exclusive to the use of the land under the ERA and the Material Change of Use.

5. The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* applies to action that has, will have or is likely to have a significant impact on matters of national environmental significance.

Further information on the *EPBC Act* can be obtained from the Department of the Environment, Water, Heritage and the Arts website www.environment.gov.au/epbc EPBC Act Policy Statement 1.1 Significant Impact Guidelines Matters of National Environmental Significance (Oct. 2009).

C. Reasons for Decision

The reasons for this decision are:

1. Sections 29(9), 60, 62 and 63 of the *Planning Act 2016*:
 - a. the approved plan(s) and document(s) as per A above;
 - b. the Conditions and Advices as per B above;
 - c. to ensure the development satisfies the benchmarks of the 2006 Douglas Shire Planning Scheme (as amended); and
 - d. to ensure compliance with the *Planning Act 2016*.
2. Findings on material questions of fact:
 - a. the development application was properly lodged to the Douglas Shire Council on 25 September 2018 under section 29(9) and 51 of the *Planning Act 2016* and Part 1 of the Development Assessment Rules;

- b. the development application contained information from the applicant which Council reviewed together with Council's own investigation of assessment against the State Planning Policy 2016, the Far North Queensland Regional Plan 2008-2031 and the 2006 Douglas Shire Planning Scheme (as amended) in making its assessment manager decision.
- 3. Evidence or other material on which findings were based:
 - a. the development triggered assessable development under the Assessment Table associated with the Rural Areas and Rural Settlements Locality and the Planning Area;
 - b. Council undertook an assessment in accordance with the provisions of sections 29(9), 60, 62 and 63 of the *Planning Act 2016*; and
 - c. the applicant's reasons have been considered and the following findings are made:
 - i. Subject to conditions the development satisfactorily meets the Planning Scheme requirements.

D. Concurrence Agency Conditions & Requirements

Concurrence Agency	Concurrence Agency Reference	Date	Council Electronic Reference
State Department Manufacturing, Infrastructure and Planning	1810-7611 SRA	28 May 2019	904332

Refer to Attachment 2: Concurrence Agency Requirements. (Please note that these conditions / requirements may be superseded by subsequent negotiations with the relevant referral agencies).

EXECUTIVE SUMMARY

The land is located north of Wonga Beach on the corner of the Mossman-Daintree and Vixies Roads. The land currently supports a large aquaculture development known as the *Daintree Saltwater Barramundi Fish Farm*. The farm includes a number of production and settlement ponds together with related tourist activities.

The development application is primarily for a material change of use for aquaculture, being the conversion of some of the existing settlement ponds into production ponds thereby substantially increasing the scale and intensity of the activity. The application is complex in its detail due to the number of applicable State codes. The application also seeks approval for an Environmentally Relevant Activity (ERA) for Aquaculture and an application for the Removal, Destruction or Damage of Marine Plants. The marine plants are those that have established in the existing ponds.

The application has taken a number of years to prepare during which the proponents have undertaken prelodgement discussions with the various agencies. The application included detailed technical reports responding to the benchmarks of the relevant State and Planning Scheme codes.

Council previously agreed to limit the assessment of the material change of use component of the application to the superseded 2006 Douglas Shire Planning Scheme (as amended).

The application has undergone public notification, to which no submissions were received, and referral to relevant State agencies. During the assessment process the application was changed to clarify the intended use includes the whole of the existing operation. This change did not stop the assessment process.

The majority of environmental considerations are addressed under State codes due to the proximity of the land to coastal wetlands and the nature of the use being a non-devolved environmentally relevant activity (ERA) for Aquaculture). The State has issued a response directing particular conditions to be attached to the decision. The conditions have appropriate regard to the impact on marine plants.

While there are no conditions to be attached in respect to the ERA, a separate Environmental Authority has been issued by the Department of Environment and Science for the operation of the farm. The Environmental Authority includes conditions regarding noise emissions relating to the farm activity.

Council's planning concerns focus on possible flood hazard and that all land use impacts are contained to the land. Extensive advice has been provided regarding the flood hazard respective to the immediate catchment. This advice, including specific flood modelling on the drainage system through and adjacent to the land has been reviewed. The development has been found to sufficiently mitigate the potential hazard.

The report recommends Council support the combined application subject to conditions. The applicant is required to gain a subsequent application for a Development Permit for Operational Work to physically undertake the associated work. During the course of the application the State has issued the applicant an Environmental Authority which is a new operating license for the whole of the development.

TOWN PLANNING CONSIDERATIONS

Background

The property is situated at the north-east corner of the Mossman-Daintree Road and Vixies Road, Wonga Beach. The land is adjacent to the state-controlled Mossman-Daintree Road to the west. The production ponds are located at the southern part of the site adjacent to Vixies Road. The land drains northwards to a tributary of the Daintree River and mangrove species dominate the northern part of the land.

The use of the land for the purpose of aquaculture commenced circa March 1988 when the effective Planning Scheme nominated the use as "as-of-right." At that time the use was over part of the historical parent title of Lot 1 on RP749715.

In 2004 the aquaculture activity utilised some 3.34 hectares and was operated under a license issued by the then Department of Primary Industry. The aquaculture activity has continued since under different proprietors and is currently operated by the applicant.

On the 30 January 2008 a Negotiated Decision Notice was issued by the former Douglas Shire Council for a material change of use for the purposes of a shop, restaurant and farm attraction (TPC 1251). This approval expanded the commercial fish production activities to include tourism uses. In 2011 Cairns Regional Council approved an application to change the Negotiated Decision Notice and extend the currency period. The approval has since been acted on and remains in effect. Twenty-five (25) car parking spaces are provided on the land adjacent to the tourism uses. Vehicle access to the land is limited to Vixies Road.

The aquaculture activity has always utilised a drain from the farm to the South Arm of the Daintree River to gain a water resource for the activity. When the aquaculture activity commenced this drain was generally in the historical parent title Lot 1 on RP749715. An approval was issued by delegate authority on the 21 January 2016 (ROL 1110/2015) to realign boundaries of the former parent lot and a neighbouring lot, enabling the aquaculture activities and associated drain to the tributary of the Daintree River to be included in a single lot. The approval was necessary as part of the intended intensification of the aquaculture activity on the farm.

The land has an area of 50.98 hectares and development currently consists of the following:

- 14 Aquaculture ponds;
- 4 settlement ponds;
- an office building;
- a workshop building; and
- a tourism visitor centre and toilets.

Details of the existing development are included in Attachment 1 (Existing Plans).

At the Ordinary Meeting held on the 28 September 2018, Council agreed to the applicant's request to accept, assess and determine the application against the superseded 2006 Douglas Shire Planning Scheme (as amended). Where Council has agreed to such a request, the assessment and determination of this application is exclusively considered under the superseded planning scheme. This action negated a possible claim for compensation arising from an adverse planning change when Council moved to bring into effect a new planning scheme.

Proposal

The combined application seeks a material change of use for aquaculture, the damage, destruction or removal of marine plants and a non-devolved ERA for aquaculture.

The operator is proposing a farm expansion by converting two of the existing bunded settlement ponds into 13 “new” production ponds, together with repurposing two drains and one settlement pond for primary settlement, treatment wetland and final settlement/balancing storage. The applicant has advised, *“The expansion includes a wastewater wetland treatment and recirculation system with almost 50% recirculation and a formal monitored discharge, yielding a net nutrient balance between intake and discharge waters. All development is within previously cleared areas and within bunded existing settlement ponds. During construction specific protection measures for erosion and sediment control, acid sulfate soils and habitat protection are proposed.”*

Overall there are no additional ponds or expansion of area used for aquaculture purposes.

During the assessment process the Department of Agriculture and Fisheries raised concern that the application appeared to consist only of the proposed expansion component and this could give rise to the need for two separate licenses; one for the existing operation; and another for the new production ponds. The application was changed to clarify the development includes the existing and proposed new production ponds, settlement ponds, drains and wetland treatment area and is for the whole of the aquaculture operation. The change occurred after the public notification period. As required under the Development Assessment Rules, Council officers confirmed that such a change did not stop the assessment process.

A plan of the proposed development is included in Attachment 1 and this includes the Overall Plan of the land use.

Relevant Matters

State Planning Requirements

Unlike the 2018 Douglas Shire Planning Scheme, where the State Planning Policy has been included in the Planning Scheme, both the Regional Plan and the current State Planning Policy came into effect after the 2006 Douglas Shire Planning Scheme and the *Planning Act 2016* requires Council to assess the development application against these instruments and only to the extent of any inconsistency.

The Far North Queensland Regional Plan 2009-2031 had effect from February 2009 and under this Plan the land is included in the Rural Landscape and Rural Production Area. The expansion of the aquaculture on the land is consistent with the Plan’s objectives and land use policies.

The current *State Planning Policy 2017* (SPP) was developed under the *Planning Act 2016* and became effective on 3 July 2017. The SPP outlines 17 state interests, arranged under following five broad themes: liveable communities and housing; economic growth; environment and heritage; safety and resilience to hazards; and infrastructure.

Sufficient information and advice has been provided to Council regarding the pond bund heights giving certainty that the development suitably mitigates against the impact of flood and storm tide inundation and maintains a suitable protection to the Great Barrier Reef. The “new” development will be constrained to the existing system of ponds and will include an off-set area. The development application is consistent with the SPP.

Planning Scheme Considerations

The development is required to meet the Planning Scheme's Desired Environmental Outcomes. The proposed aquaculture use is consistent with the Desired Environmental Outcomes.

The following table details compliance aspects for the development against the Scheme Codes.

Table 1.

Benchmark Description	Benchmark Reference	Compliance
Rural Areas and Rural Settlements Locality Code	Purpose	Complies. The development is consistent with the Code Purpose.
	A1.1 Maximum height of buildings is 10m and three storeys.	NA – no new buildings proposed.
	A2.1 Development is connected to sufficient servicing.	NA – no change to infrastructure servicing.
	A3.1 Landscaping utilises appropriate species.	Satisfactory landscaping is already provided on site adjacent to the road boundaries. Neighbouring land is used for rural purposes and vegetated.
	A4.1 Roads and driveways are FNQROC compliant.	Satisfactory. No change to the existing accesses and driveways.
	A5-A10 & A12 Benchmarks for other specific development or land.	Not applicable.
	P11 Development does not adversely impact on areas of sensitive natural vegetation, foreshore areas, watercourses and area of tidal inundation which contribute to the scenic amenity and natural values of the Locality.	Complies. Detailed environmental reports have been submitted and these are found to be satisfactory. A separate application has been lodged regarding marine plants (non-devolved development). Development of “new” ponds is contained to the existing pond areas.

Benchmark Description	Benchmark Reference	Compliance
Rural Planning Area Code	Purpose	Complies. The development is considered to be consistent with the Code Purpose.
	A1.1 No inconsistent uses are established.	Complies, no inconsistent uses are proposed.
	A2.1 Agricultural land is used for agricultural uses in accordance with the classifications of the Agricultural Land classes identified in the Shire and the requirements of the State Planning Policy 1/92 – Development and the conservation of Agricultural Land.	Agricultural land within the Shire has only either one of two classifications: A (crop land); or B (limited crop land). The “new” production ponds are mapped as classes A or B.
	P2 GQAL is only used for agricultural uses and primary production purposes.	Complies. Aquaculture is a specific primary production activity.
	A3.1 A separating buffer is provided between the agricultural land and Residential Land uses in accordance with the SPP 1/92 – Separating Agricultural and residential Land Uses (DNR 1997).	The Policy does not give a specific set back for aquaculture. The standard setback for agricultural uses is 40m (where vegetated) and otherwise and 300m for chemicals and noise standards for emissions.
	P3 A buffer is provided to separate agricultural activities that create odour, excessive noise or use agricultural chemicals (including aquaculture) from residential development.	

Benchmark Description	Benchmark Reference	Compliance
Rural Planning Area Code Continued	<p>A4&A6 Setback of buildings from road.</p> <p>A5 Setback of rural activities north of the Daintree River</p> <p>P7 Native vegetation existing along watercourses and in or adjacent to areas of remnant vegetation of value is protected.</p> <p>A8-A17 Building on slopes, Building Houses.</p>	<p>Satisfactory – there is a vegetation buffer of mangroves between the ponds and the nearby Rural Settlement land. Natural vegetation is established along the western boundaries of the Rural Settlement land that is protected marine plants. A standard noise condition is included on the approval and particular conditions are included in the State issued Environmental Authority.</p> <p>Not applicable, no new buildings.</p> <p>Not applicable.</p> <p>Satisfactory. Development of “new” production ponds is limited to existing ponds and appropriate approval has been conditioned by the State for damage and removal of marine plants. No change to vegetation along watercourse.</p> <p>Not applicable.</p>
Acid Sulfate Soils Overlay Code	A1.1, 1.2, 2.1 and 4.4: Adequate provision is to be made for possible acid sulphate soils and ground water extrusion.	Complies through conditions.
Natural Hazards Overlay Code	The land is partly mapped with Low Bushfire Risk and Partly mapped with medium Bushfire Risk.	Complies. No concern is raised due to the aquatic nature of the development.

Benchmark Description	Benchmark Reference		Compliance
Aquaculture and Intensive Animal Husbandry Code	P1	The site has sufficient area to accommodate the aquaculture and to achieve adequate setbacks.	Complies. The development is limited to existing ponds and maintains existing setbacks. The conditions of the approval have regard to noise emissions and setback distances.
	A2.1	The area of the site containing the aquaculture is not located below HAT.	The land can be inundated by storm tide and parts are below HAT. Modelling has been provided to consider both flood and storm tide inundation. The submitted modelling substantiates minimal impact in extreme events. A condition of the approval requires the pond bunds to have a minimum height to ensure the development sits outside the coastal processes.
	P2	The establishment of aquaculture does not interfere with coastal processes or affect native vegetation.	
	A2.2	The establishment of the aquaculture does not result in the removal of littoral, riparian or other remnant endemic vegetation.	Complies. Remnant vegetation is mapped by the State as land in the northern part of the lot, north of the ponds. This vegetation is mapped as Category A or B area that is a least concern regional vegetation. The area of the ponds is included in category X and is not controlled.
	A3.1.	The area of the site containing the aquaculture is not classified as GQAL under the State Planning Policy.	Complies
	P3	The establishment of aquaculture does not result in the alienation of GQAL unless there is a lack of alternative sites and an overriding need for the development.	

Benchmark Description	Benchmark Reference		Compliance
Aquaculture and Intensive Animal Husbandry Code Continued.	A4.1	Slope of land is less than 10%.	Complies.
	A4.2	The area of the site containing the aquaculture is located above Q100 flood level.	The area of the pond is within the Q100 flood level however is bunded and flood modelling has not identified an issue.
	P4	The topography of the site is suitable for the intended use.	
	A5.1	Access to the site is provided by an appropriately constructed road.	Complies.
	A6.1	Not Applicable.	Complies
	A7.1	The site is not less than 300m from any Residential 1, Residential 2, Tourist and Residential or Rural Settlement Planning Areas or any community facility where people gather such as community halls or schools.	Does not comply. Under the 2006 Planning scheme the land abuts Rural Settlement Planning Area land. Higher intensity residential planning areas are located much further away.
	P7	The establishment of aquaculture does not adversely affect existing or planned residential or community uses.	Complies. The use is separated from the sensitive places on nearby and adjacent land by vegetation and distances. The conditions of the approvals limit impacts such as noise and nutrient levels. The land is more than 400m away from planned future residential land uses.
	A8.1	Barriers are provided and maintained to prevent the escape of animals.	Complies.
	A8.2	Waste disposal areas are situated only where there is minimal risk of contaminating any ground water supply or surface water resource, and are of adequate size to provide for the amount of waste generated.	Complies.
	A9.1	Buildings, pens, other structures, ponds and waste disposal areas are situated clear of any watercourse or an environmentally sensitive area.	Complies. Development is suitably bunded.

Benchmark Description	Benchmark Reference	Compliance
Aquaculture and Intensive Animal Husbandry Code Continued.	P10 The establishment of aquaculture does not create unacceptable levels of odour or noise.	Complies. Approvals are suitably conditioned.
	P11 The treatment and disposal of waste and waste water does not have adverse impacts on the environment.	Complies.
Natural Areas and Scenic Amenity Code	Protect remnant vegetation.	Satisfactory. Development of “new” production ponds is limited to existing ponds and appropriate approval is conditioned by the State for damage and removal of marine plants.
Filling and Excavation Code	A1.1-1.6, A2.1-2.2, Excavation is to be undertaken in a suitable manner. A3.1-3.4, Impact of filling and excavation on flooding and drainage.	Complies through conditions and the requirement for a Development permit for Operational Work. Complies. Refer to comment regarding impact on flooding.
Landscaping Code	Requires suitable landscaping.	Satisfactory with existing conditions and that proposed “new” production ponds will be positioned well back from the road boundaries.
Vehicle Parking and Access Code	A1.1 Provide 1 car space per two staff.	Satisfactory. Parking already available on site and no significant increase to staff.

Planning Comment

Flood Event

The main planning concern with the development is the height of the bunds, respective to the land being within the flood plain. Firstly, that there is sufficient capacity on the land to mitigate the impact of general valley floor flooding and that the detention capacity of the ponds and

bunds does not force flood waters onto neighbouring and nearby properties to cause harm or detriment.

Detailed flood modelling was provided and this data was peer reviewed. Further clarification was sought regarding the possible impact on the adjacent drain. These details were provided. After thorough examination officers are satisfied both concerns have been appropriately addressed. A condition of the approval sets a minimum bund height at 3.9m AHD, as per the proposal.

Native Vegetation – Remnant and Marine Plants

The majority of the northern part of the land remains in its original state and undeveloped. Drainage channels, previously established will be maintained. The original aquaculture development included settlement ponds and it is in these areas that marine plants (mangroves) have developed. The “new” production ponds are appropriately limited to areas already disturbed. The damage and removal of marine plants is not an activity devolved to Council and this activity is conditioned by the State.

The development is a balance of achieving higher aquaculture output while maintaining the current footprint of “developed” area.

Landscaping

No further landscaping is necessary.

Public Notification

Public notification was undertaken as required under the Development Assessment Rules and included notices on the land, written advice to the neighbouring landowner and a public notice in a locally circulating newspaper. No submission has been received by Council.

Referral

The construction of the “new” production ponds will be pursuant to a separate application for a development permit for operational work.

The application was referred to the State for a number of matters including:

- a. Non-devolved environmentally relevant activity for Aquaculture;
- c. Removal, destruction or damage of marine plants;
- d. State transport corridor (adjacent to the state-controlled Mossman- Daintree Road);
- e. Tidal works or work in a coastal management district; and
- f. Premises in a wetland protection area.

The Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) has issued a co-ordinated State decision requiring conditions and advices to be included in any subsequent approval. A component of the combined application is for a non-devolved Environmentally Relevant Activity (ERA) for Aquaculture. There was no requirement for conditions regarding the ERA. These requirements are included in Attachment 2 and form part of the development approval.

The DSDMIP also advised that on the 21 May 2019 the Department of Environment and Science issued an Environmental Authority, which is the Applicant's operational license. Conditions of the Authority include controls for noise emissions. A copy of this Authority is included in Attachment 3 as information to this report. The effective date of the approval will occur once the Development Permit has issued to the land.

ADOPTED INFRASTRUCTURE CHARGES

The approval does not triggered adopted infrastructure charges.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following area outlines where Council has a clear responsibility to act:

Regulator: Meeting the responsibilities associated with regulating activities through legislation or local law.

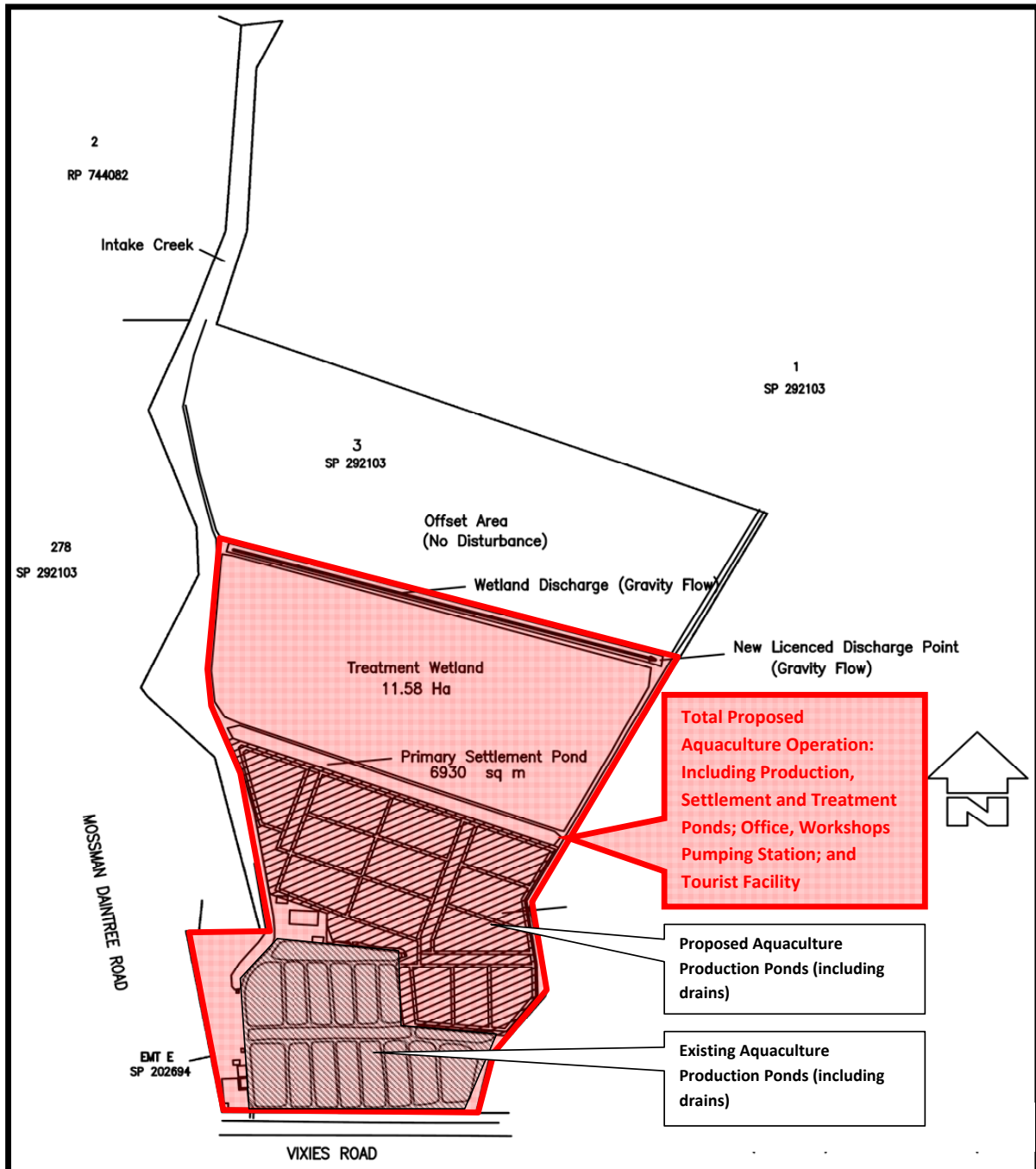
Under the *Planning Act 2016* and the *Planning Regulation 2017*, Council is the assessment manager for the request and the subsequent application.

ATTACHMENTS

1. Attachment 1 Proposal Plans [5.1.1 - 3 pages]
2. Attachment 2 SARA Response Conditions and Advice [5.1.2 - 18 pages]
3. Attachment 3 Environmental Authority [5.1.3 - 8 pages]

Attachment 1

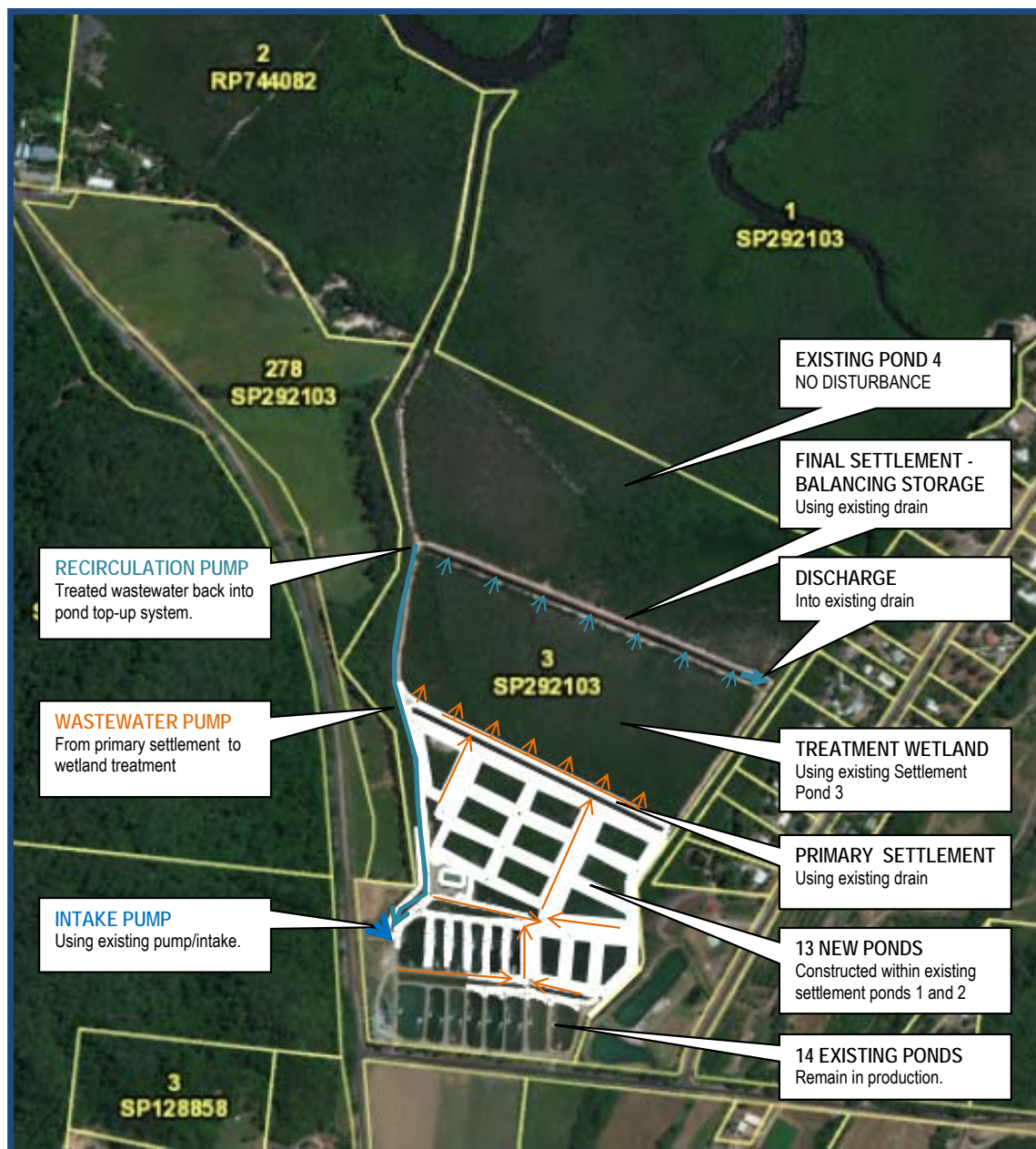
Daintree Saltwater Barramundi - Aquaculture - Overall Plan

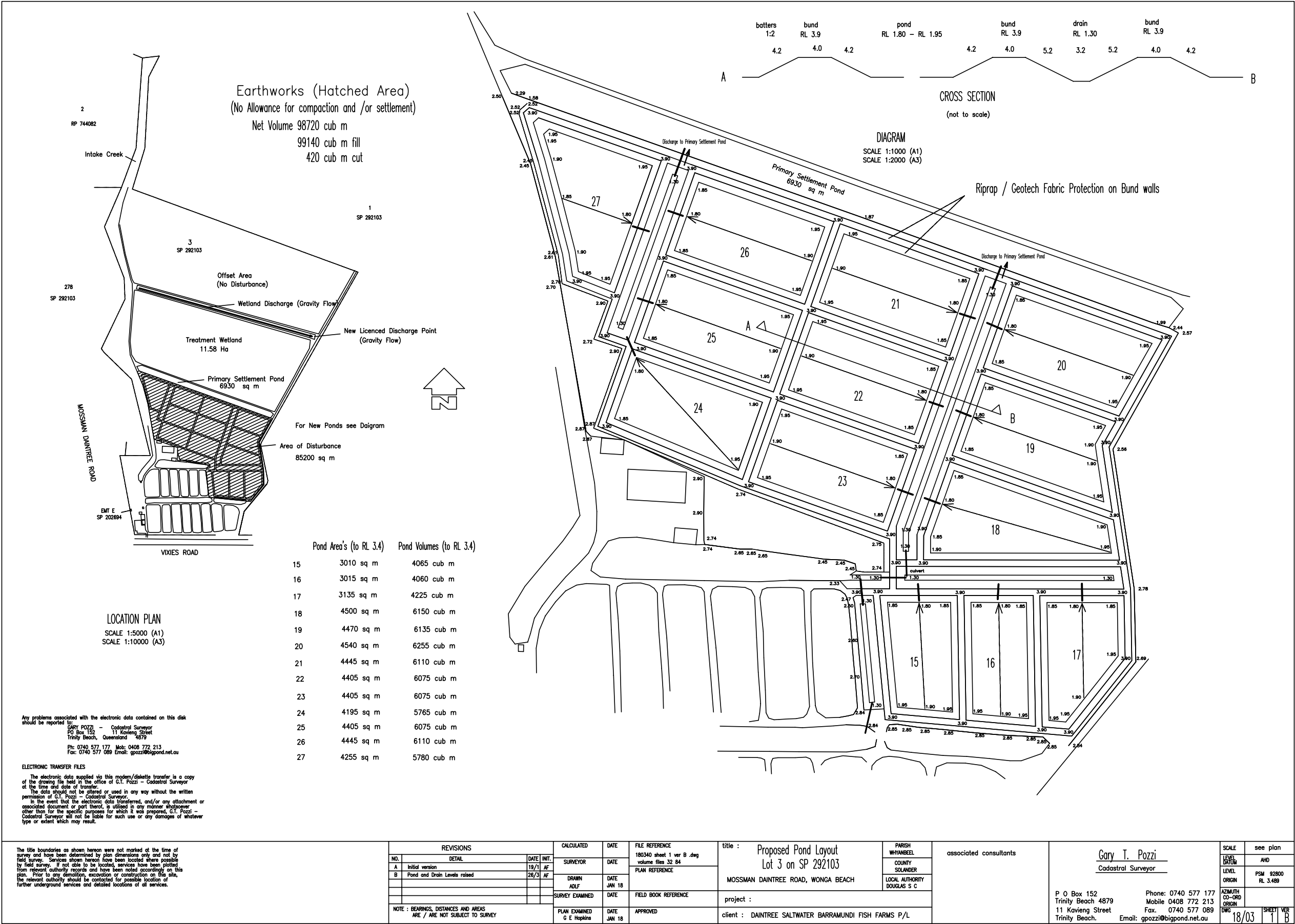




Daintree Saltwater Barramundi
Response to Douglas Shire Information Request

Figure 3: Overall Layout and Schematic Arrangement Over Aerial Image





RA6-N



Department of
**State Development,
 Manufacturing,
 Infrastructure and Planning**

SARA reference: 1810-7611 SRA
 Council reference: MCU2760/2018
 Applicant reference: L3 Vixes Rd- Fish Farm Expansion

28 May 2019

Chief Executive Officer
 Douglas Shire Council
 PO Box 723
 Mossman Qld 4873
 enquiries@douglas.qld.gov.au

Attention: Jenny Elphinstone

Dear Sir/Madam

Changed referral agency response (with conditions) — Vixies Road, Wonga Beach

(Given under section 28 of the Development Assessment Rules)

On 21 May 2019 the department received notice of a change to the development application described below. The department has assessed the changes and now provides this changed referral agency response which replaces the response dated 14 May 2019.

Response

Outcome:	Changed referral agency response – with conditions
Date of response:	28 May 2019
Conditions:	The conditions in Attachment 1 must be attached to any development approval.
Advice:	Advice to the applicant is in Attachment 2 .
Reasons:	The reasons for the referral agency response are in Attachment 3 .

Development details

Description:	Development permit	Material change of use for aquaculture (expansion of existing fish farm) and Environmentally Relevant Activity
SARA role:	Referral Agency	
SARA trigger:	<ul style="list-style-type: none"> Schedule 10, Part 5, Division 4, Table 2, Item 1- 	

Environmentally relevant activities

- **Schedule 10, Part 6, Division 1, Subdivision 3, Table 1, Item 1**- Aquaculture
- **Schedule 10, Part 6, Division 3, Subdivision 3, Table 2, Item 1** – Removal, destruction or damage of marine plants
- **Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, item 1**- State Transport corridor or future State transport corridor
- **Schedule 10, Part 17, Division 3, Table 6, Item 1**-Tidal works or work in a coastal management
- **Schedule 10, Part 20, Division 4, Table 3, Item 1**- Wetland protection area

(Planning Regulation 2017)

SARA reference:	1810-7611 SRA
Assessment Manager:	Douglas Shire Council
Street address:	Vixies Road, Wonga Beach
Real property description:	Lot 3 on SP292103
Applicant name:	Daintree Saltwater Barramundi Fish Farm Pty Ltd c/- Ecosustainability
Applicant contact details:	PO Box 230 Yorkeys Knob QLD 4878 gcecosustainability@gmail.com
Environmental Authority:	This referral included an application for an environmental authority under section 115 of the <i>Environmental Protection Act 1994</i> . Below are the details of the decision: <ul style="list-style-type: none"> • Approved • Reference: EA0001769 • Effective date: Takes effect on a date to be decided later. • Prescribed environmentally relevant activity (ERA): ERA01- Aquaculture 2: Cultivating or holding marine, estuarine or freshwater organisms, other than crustaceans, in enclosures that are on land and have a total area of (a) more than 100 square metres but not more than 10ha.

If you are seeking further information on the environmental authority, the Department of Environment and Science's website includes a register. This can be found at: www.des.qld.gov.au

Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules)

Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

1810-7611 SRA

For further information please contact Joanne Manson, Principal Planning Officer, SARA Far North QLD on 40373228 or via email CairnsSARA@dsdmip.qld.gov.au who will be pleased to assist.

Yours sincerely



Brett Nancarrow
Manager (Planning)

cc Daintree Saltwater Barramundi Fish Farm Pty Ltd, c/- EcoSustainAbility, gcecosustainability@gmail.com

enc Attachment 1 - Changed referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Changed reasons for referral agency response
Attachment 4 - Change representation provisions
Attachment 5 - Approved plans and specifications

Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at **Attachment 5**)

No.	Conditions	Condition timing
Material change of use		
Schedule 10, Part 17, Division 3, Table 6, Item 1-Tidal works or work in a coastal management district —The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Environment and Science to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following conditions:		
1.	The work in the coastal management district must be carried out generally in accordance with the following plan: <ul style="list-style-type: none"> Proposed Pond Layout Lot 3 on SP292103, <u>prepared by Gary T Pozzi, dated 26/03/2018, reference 18/03, Version B</u> <u>SITE PLAN SHEET 2 OF 2 LOT 3 SP150448 WONGA BEACH, prepared by RPS, dated 27/01/2015, reference 9338-9 (as amended in red)</u> 	Prior to the commencement of use and to be maintained at all times.
2.	For the proposed works, only use clean materials and ensure that the works do not cause contamination. To achieve this only use materials which are free from contaminants as defined under section 11 of the <i>Environmental Protection Act 1994</i>	For the duration of the works
3.	Erosion and sediment control measures which are in accordance with the <i>Best Practice Erosion and Sediment Control (BPESC) guidelines for Australia (International Erosion Control Association)</i> , are to be installed and maintained to prevent the release of sediment to tidal waters.	For the duration of the works
Material change of use		
Schedule 10, Part 6, Division 3, Subdivision 3, Table 2, Item 1 —Removal, destruction or damage of marine plants —The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Agriculture and Fisheries to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following conditions:		
4.	Development authorised under this approval is limited as follows: <ul style="list-style-type: none"> operational works to remove, damage, destroy marine plants being limited to: <ul style="list-style-type: none"> Permanent removal of marine plants within Settlement pond 2 (approximately 5 ha) and shown in Marine Plant Disturbance Areas Settlement Pond 2, Environment Pacific, dated 18/02/2019, reference Figure 1, Revision B. Permanent removal of 10m² of mangrove ferns and milky mangroves shown in Marine Plant Disturbance Drainage Works Area, Environment Pacific, dated 18/02/2019, reference Figure 2, Revision B. 	Prior to the commencement of use and to be maintained at all times

	<ul style="list-style-type: none"> o Temporary disturbance by the use of hand tools of up to 20m² of marine plants on the bund shown in Figure 1: Re-establishment of Fish Habitat Connectivity in Settlement Pond 4 from Section 2.3.1 Rehabilitation in Pond 4 of Farm Expansion Material Change of Use Response to Information Request 1810-7611 SRA, EcoSustainAbility Pty Ltd, 21 March 2019, Version 1.1 	
5.	<p>Provide written notice to notifications@daf.qld.gov.au, when the development authorised under this approval:</p> <ul style="list-style-type: none"> (a) will start, and (b) when it has been completed. <p>These notices must state this permit number 1810-7611 SRA.</p>	<p>At least 5 business days but no greater than 20 business days prior to the commencement of the works</p> <p>Within 15 business days of the completion of the fisheries development works.</p>
6.	Spoil is not disposed of on tidal lands or within waterways and is managed to prevent acid soil development.	At all times
7.	This fisheries development (as defined by the <i>Fisheries Act 1994</i>) constitutes a place that is required to be open for inspection by an inspector at all times, pursuant to section 145 of the <i>Fisheries Act 1994</i> .	At all times
8.	Marine plants authorised for removal and other material used in the development (e.g. debris, construction material, soil, etc.) are to be promptly removed from the intertidal zone.	For the duration of the works the subject of this approval and to be maintained
9.	The marine plant mitigation works must be undertaken generally in accordance with the Farm Expansion Material Change of Use Response to Information Request 1810-7611 SRA prepared by EcoSustainAbility Pty Ltd dated 21 March 2019, Version 1.1, Section 2.3.1 Rehabilitation in Pond 4.	Prior to the commencement of use and to be maintained at all times
10.	No removal, damage or destruction of any marine plants is permitted within the treatment wetland shown on Proposed Pond Layout Lot 3 on SP292103, <u>prepared by</u> Gary T Pozzi, dated 26/03/2018, reference 18/03, Version B.	At all times
11.	<u>Removal and disposal of marine plants is permitted from within the two constructed drains on the eastern and western boundaries of the property</u>	<u>For the duration of the works the subject of this approval</u>
Material change of use		
<p>Schedule 10, Part 6, Division 1, Subdivision 3, Table 1, Item 1—Aquaculture —The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Agriculture and Fisheries to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following conditions:</p>		
12.	The approved fisheries resources the subject of this approval are limited to the following species:	Prior to commencement of use and to be maintained at all times

Common Name	Scientific Name	
Australian bass	<i>Macquaria novemaculeata</i>	
Banded rainbowfish	<i>Melanotaenia trifasciata</i>	
Barcoo grunter	<i>Scortum barcoo</i>	
Barramundi	<i>Lates calcarifer</i>	
Barramundi cod	<i>Cromileptes altivelis</i>	
Barred-cheek coral trout	<i>Plectropomus maculatus</i>	
Blue-spot coral trout	<i>Plectropomus laevis</i>	
Cobia	<i>Rachycentron canadum</i>	
Common coral trout	<i>Plectropomus leopardus</i>	
Eel tail catfish	<i>Tandanus tandanus</i>	
Estuary cod	<i>Epinephelus coioides</i>	
Flowery cod	<i>Epinephelus fuscoguttatus</i>	
Freshwater shrimp	<i>Macrobrachium rosenbergii</i>	
Golden perch (Cooper Creek strain)	<i>Macquaria ambigua n.sp</i>	
Golden perch (Dawson River strain)	<i>Macquaria ambigua oriens</i>	
Golden perch (Murray-Darling strain)	<i>Macquaria ambigua ambigua</i>	
Golden Snapper	<i>Lutjanus johnii</i>	
Gulf Saratoga	<i>Scleropages jardinii</i>	
Mahi Mahi	<i>Coryphaena hippurus</i>	
Mangrove jack	<i>Lutjanus argentimaculatus</i>	
Milkfish	<i>Chanos chanos</i>	
Mud Crab	<i>Scylla serrata</i>	
Mulloway	<i>Argyrosomus japonicus</i>	
Murray cod	<i>Maccullochella peeli peeli</i>	
Passionfruit trout	<i>Plectropomus areolatus</i>	
Queensland groper	<i>Epinephelus lanceolatus</i>	
Redclaw crayfish	<i>Cherax quadricarinatus</i>	
Sand whiting	<i>Sillago ciliata</i>	
Silver perch	<i>Bidyanus bidyanus</i>	
Sleepy cod	<i>Oxyeleotris lineolatus</i>	

	<p>Snapper <i>Pagrus auratus</i></p> <p>Southern saratoga <i>Scleropages leichardti</i></p> <p>Spangled perch <i>Leiopotherapon unicolor</i></p> <p>Tropical rock lobster <i>Panulirus ornatus</i></p> <p>Yabby <i>Cherax destructor</i></p> <p>Hereafter referred to as the "approved species".</p>	
13.	<p>The water surface area associated with the additional production ponds (approximate area of 5.323 8.74 hectares), settlement pond (approximate area of 0.7 hectares) and treatment wetland (approximate area of 11.58 hectares) is limited to a combined maximum area of 24.4 21.02 hectares, and must be carried out generally in accordance with the following plan:</p> <ul style="list-style-type: none"> Proposed Pond Layout Lot 3 on SP 292103, prepared by Gary T Pozzi, dated 26/03/2018, reference 18/03, Version B <u>SITE PLAN SHEET 2 OF 2 LOT 3 SP150448 WONGA BEACH, prepared by RPS, dated 27/01/2015, reference 9338-9 (as amended in red)</u> 	Prior to commencement of use and to be maintained at all times
14.	<p>This aquaculture development constitutes a place that is required to be open for inspection by an inspector at all times, pursuant to section 145 of the <i>Fisheries Act 1994</i>.</p>	At all times
15.	<p>Inform the assessing authority Department of Agriculture and Fisheries via notifications@daf.qld.gov.au of any changes to the personal contact details for this development approval.</p> <p>Note: Forms for reporting a change in contact details can be found at https://www.daf.qld.gov.au/fisheries/aquaculture/aquaculture-approvals</p>	Within 28 days of change to personal contact details
16.	<p>Aquaculture fisheries resources must not be sold, traded or given away for the purposes of using for bait. This includes the use of whole fish and any part of the fish.</p>	At all times
17.	<p>Provide an annual aquaculture production return in the approved form to the Department of Agriculture and Fisheries. This includes lodging a nil return when no activity has occurred.</p> <p>Note: This is an information requirement pursuant to section 118 of the <i>Fisheries Act 1994</i>. Details on how to lodge and electronic aquaculture production return will be sent to operators annually.</p>	By close of business on the 31 July each year
18.	<p>Aquaculture fisheries resources must not be released into Queensland waters (as defined in the <i>Acts Interpretation Act 1954</i>) with the exception of any ponds, tanks, containers approved to hold aquaculture fisheries resources.</p> <p>Note: It is an offence under the Fisheries Act 1994 to unlawfully release aquaculture fisheries resources, or cause aquaculture fisheries resources to be released, into Queensland waters. Maximum penalty—2000 penalty units.</p>	At all times
19.	<p>The movement of fisheries resources into, or within, Queensland must comply with the current version of:</p> <p>(a) Health protocol for the importation and movement of live barramundi; and</p>	At all times

	<p>(b) Health protocol for the movement of live freshwater crayfish and prawns; and</p> <p>(c) Health protocol for the movement of live freshwater native finfish (other than barramundi and eels; and</p> <p>(d) Health protocol for the movement of live marine crustaceans including crabs, lobsters and bugs; and</p> <p>(e) <i>any approved species not included in a species specific health protocol</i>: "Health protocol for movement of aquatic animals for aquaculture in Queensland"</p> <p>Note: Health protocols and application form FDU1398 can be found at https://www.daf.qld.gov.au/fisheries/aquaculture/management-and-policies</p> <p>Note: Commonwealth quarantine protocols must be successfully completed for the relevant organisms of any species prior to their introduction to the approved aquaculture area.</p>	
20.	<p>Maintain control over the release of water from all ponds, tanks and drainage systems within the approved aquaculture area.</p> <p>Note: Control may be achieved through ensuring ponds, tanks and containers integrity at all times, having adequate freeboard to avoid any overtopping, preventing overland flow, ensuring all equipment intended to control releases is functioning correctly at all times and backup systems or equipment are in place.</p>	Prior to the commencement of the use and to be maintained at all times
21.	<p>Provide a barrier around any production ponds used to cultivate Freshwater shrimp, Redclaw crayfish or Yabby to prevent the overland release from the approved aquaculture area.</p>	Prior to the commencement of the use and to be maintained at all times
22.	<p>Install screening on all points of water release or discharge from within the approved aquaculture area to prevent the escape of any aquaculture fisheries resources (eggs, juveniles or adults) into Queensland waters (as defined in the <i>Acts Interpretation Act 1954</i>).</p>	Prior to the commencement of the use and to be maintained at all times
23.	<p>Install screening on all intake waters to prevent the movement of any juvenile or adult wild fauna (excepting zooplankton) into the approved aquaculture area.</p>	Prior to the commencement of the use and to be maintained at all times
24.	<p>Ponds, tanks and containers used to cultivate indigenous aquaculture fisheries resources are constructed with the lowest point of the top of wall above Q100 flood level.</p>	Prior to the commencement of the use and to be maintained at all times
Material change of use		
<p>Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 1— State transport corridors or future State transport corridors —The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following conditions:</p>		
25.	<p>Direct access is not permitted between Mossman-Daintree Road and the subject site.</p>	At all times

Attachment 2—Advice to the applicant

General advice – Aquaculture	
1.	<p>Immediately report any unusual clinical signs or mortalities of any fisheries resources brought into Queensland, to the Queensland Boating and Fisheries Patrol. If directed, specimens must be forwarded to a veterinary laboratory.</p> <p>Note: Information on reporting disease in aquaculture can be found at https://www.business.qld.gov.au/industry/fisheries/aquaculture/health-pests-and-diseases-of-aquaculture/managing-disease-in-aquaculture-farms/identifying-and-reporting-disease-in-aquaculture</p>
2.	<p>This approval does not permit the harvest of broodstock and culture stock.</p> <p>Note: Broodstock and/or culture stock may be purchased from the holder of an authority or licence that authorises the sale of the approved species. In Queensland, this includes from a commercial fisher holding an appropriate <i>Fisheries Act 1994</i> licence.</p> <p>Note: Forms to apply for the collection of broodstock or culture stock for aquaculture under a <i>Fisheries Act 1994</i> General Fisheries Permit can be found at https://www.daf.qld.gov.au/fisheries/aquaculture/aquaculture-approvals</p> <p>Note: Depending on the species sought and its location, additional permits may be required under other legislation, for example the <i>Environmental Protection and Biodiversity Conservation Act 1999</i>, the <i>Great Barrier Reef Marine Park Act 1975</i>, the <i>Nature Conservation Act 1992</i>.</p>
3.	<p>This approval does not provide any entitlement to access or harvest an aquaculture fisheries resource that becomes an unauthorised escape or release, including but not limited to:</p> <ul style="list-style-type: none"> (a) animal(s) stocked within the approved aquaculture area that move outside the area; or (b) spawn or progeny of an aquaculture fisheries resource should such eggs, larvae, juveniles or adult progeny become distributed outside of the approved aquaculture area. <p>The responsibility for any impact of unauthorized escapes or releases of aquaculture fisheries resources is with the operator. Additional permits may be required under the <i>Fisheries Act 1994</i> to authorise processes required to be readily available to effectively manage this risk.</p>

RA6-N

Attachment 3—Changed reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

The reasons for the department's decision are:

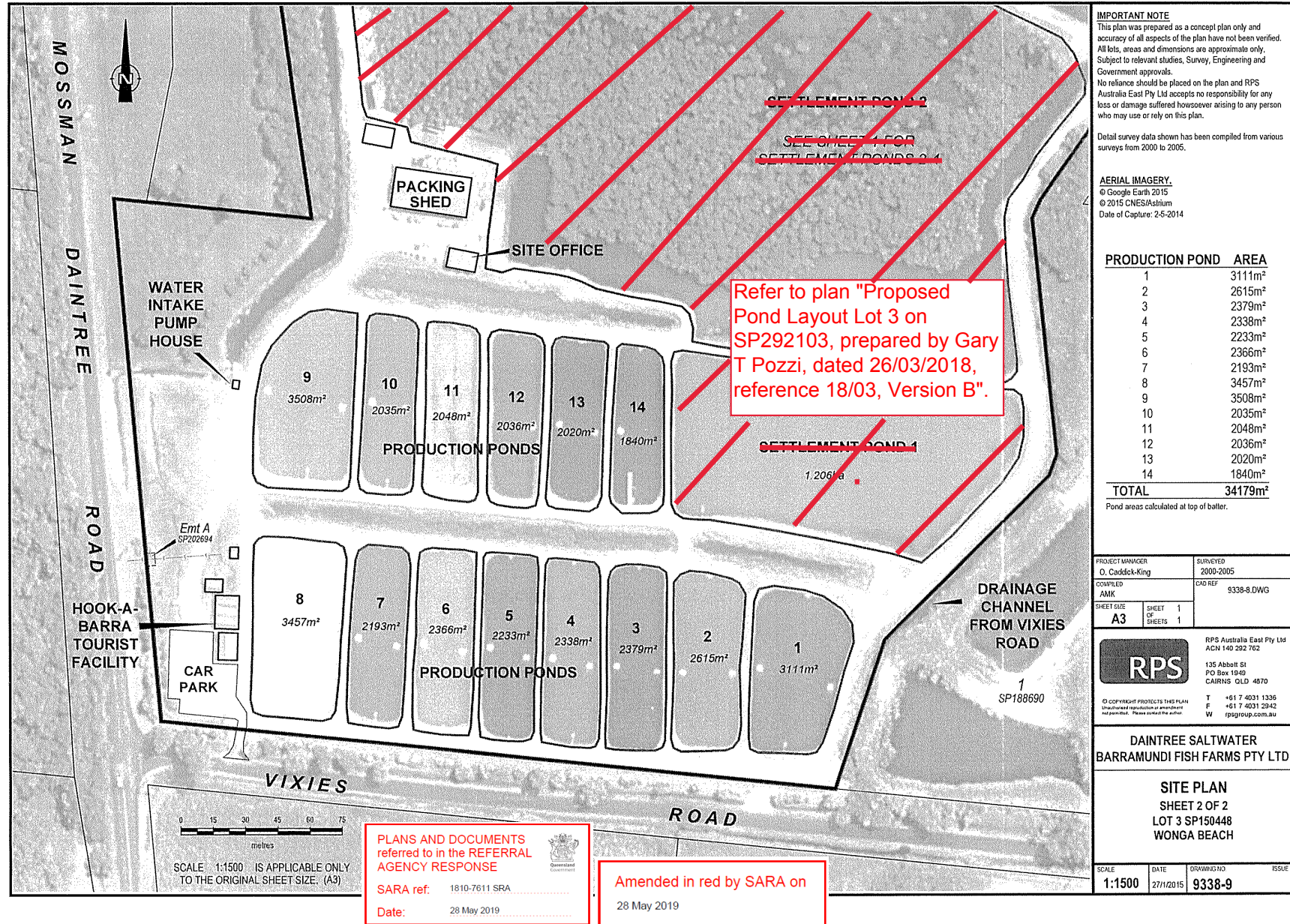
- The department carried out an assessment of the development application against the relevant state codes and with conditions the proposal complies with the relevant performance outcomes.
- **The development application includes the existing aquaculture operation and the proposed aquaculture expansion area.**
- The proposed aquaculture expansion is to the existing aquaculture facility and cannot feasibly be located elsewhere.
- The proposed development:
 - o is located and designed to conserve coastal processes
 - o is designed, constructed and operated to avoid and mitigate impacts on the wetland protection area environmental values
 - o is located and designed to avoid and mitigate environmental harm on the environmental values of the natural environment
 - o maintains the extent, distribution, diversity and condition of marine plant communities and protects the ecological function to which they contribute
 - o appropriately carries out the use of fisheries and aquaculture fisheries resources
 - o meets standards in the prevention, control and eradication of disease in fish
 - o suitably contains aquaculture fisheries resources to prevent escape and release
 - o meets the relevant standards for aquaculture
 - o minimises and mitigates impacts on the matters of environmental significance and does not result in a significant residual impact; and
 - o does not impact on the safety, efficiency or operation of the state-controlled road.

Material used in the assessment of the application:

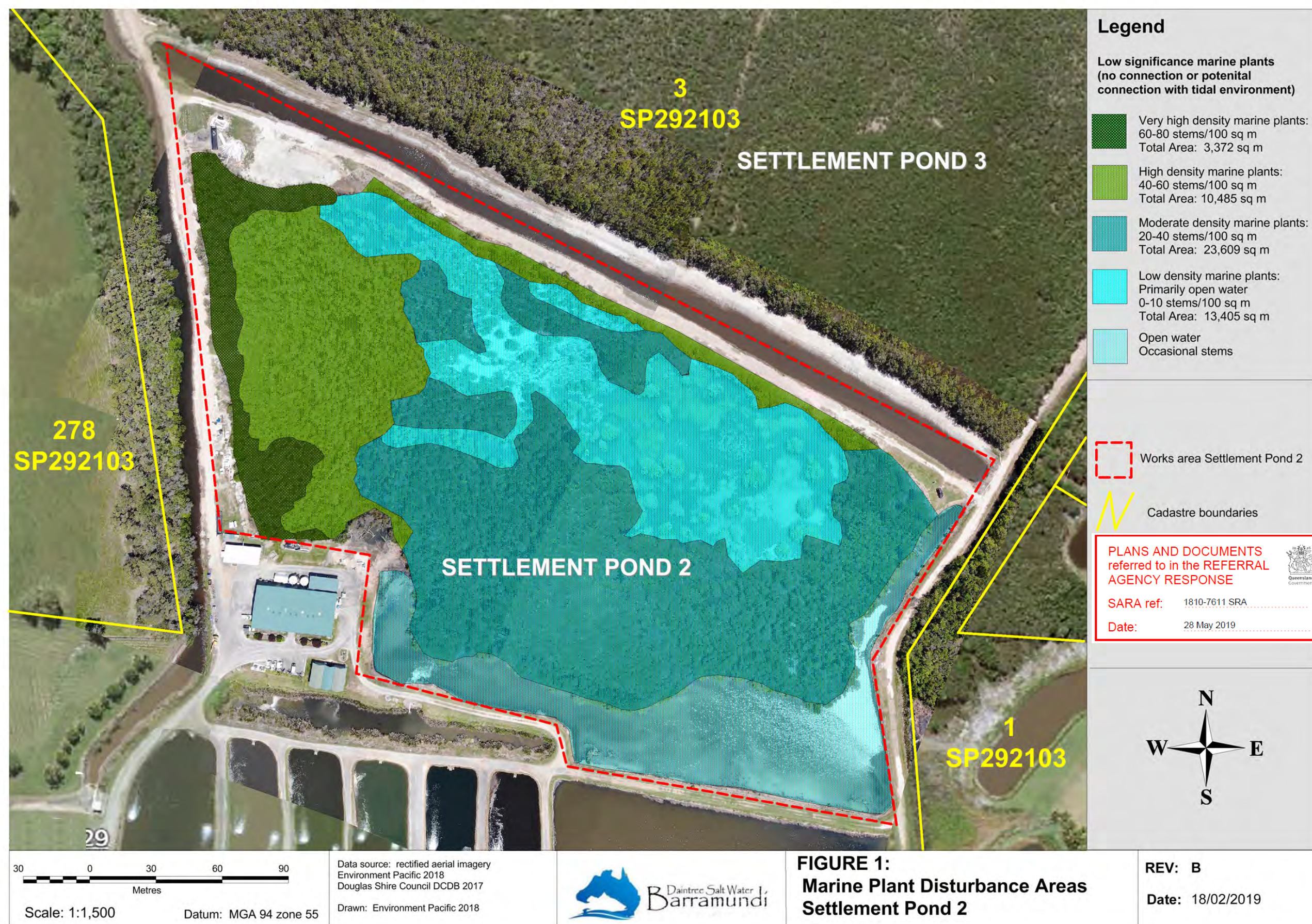
- The development application material and submitted plans
- Information request response
- Change to application on 21 May 2019
- *Planning Act 2016*
- Planning Regulation 2017
- The State Development Assessment Provisions (version 2.4) as published by the department
- The Development Assessment Rules
- SARA DA Mapping system
- State Planning Policy mapping system

Attachment 5—Approved plans and specifications

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Daintree Saltwater Barramundi Response to SARA Information Request

Works are proposed for the eastern end of the main tidal drain between settlement pond 3 and settlement pond 4. The internal drain and batters between settlement pond 3 and 4 are subject to maintenance and generally free of any mature vegetation. Seedlings of *Excoecaria agallocha* (tallest noted approximately 30cm high) have recruited into the maintained area of the internal drain within the general area of works (approximately 400m²). Between four to six seedlings will be affected by the works. *Acrostichum aureum* is ubiquitous across the entire development area, and small examples have become established in the maintained internal drain between settlement pond 3 and 4, and on the outside of the road batter within the tidal external drain. Between five to seven immature plants will be disturbed depending on extent of drainage works. This work location is directly connected to tidal lands, and the marine plants present are classed as high fisheries significant plants under *FHMOP 001 (2007)*.

All these individuals are small/juveniles, and may be easily relocated through simply digging out manually with a shovel and relocating immediately into the same drainage line upstream or downstream of the drainage works area. Relocation in this manner and location will meet all FMHOP 001 (2007) guidelines relevant to the relocation of marine plants (refer Appendix 2 of the FMHOP 001).

2.3 Item 3 - Tidal and Fisheries Connectivity

Information Request

Opening an old bund to restore tidal connectivity is offered within supporting information to mitigate impacts to marine plants. No detailed information is provided on how the bund is to be removed and tidal fish habitats restored. If this is proposed as a mitigation strategy additional information is requested.

Information requested

- a. Provide a response to State code 11, PO29 and PO30 and include detailed information on:
 - i. How the restoration is to occur, and
 - ii. What total benefits to fisheries productivity will result.
- b. Include any marine plant disturbance required to gain access to the bund in the total area of marine plant disturbance (refer item 3.1).

2.3.1 Rehabilitation in Pond 4

Settlement pond 4 occupies an area of approximately 16.5 ha, with a surveyed area of 9.38 ha being within the bunded section most of which is isolated from tidal connectivity owing to an old bund. This bund runs along either side drain and also across the pond in a generally South-east to north-west direction.

The proposal is to open up the bund to restore connectivity and hence fisheries habitat values. This is proposed to offset the marine plant disturbance in Pond 2 and the outlet works.

It is proposed to minimise any disturbance to marine plants in the process of opening the bund by using hand tools to dig away the bund back to surrounding ground surface level in initially six to ten locations. Along the bund there are clearly lower areas with past tidal flow and these will be opened up. Any marine plant seedling by way of the area to be opened will be translocated. The opening may disturb roots of adjacent trees, but will be done to ensure that the root system of each mangrove tree remains essentially intact, without threat to the viability of the individual. Each opening will be about 1–2m wide with material removed placed back onto the adjoining bund or, if practical without causing further disturbance removed from the bund area.

PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE



SARA ref: 1810-7611 SRA

Date: 28 May 2019



Daintree Saltwater Barramundi Response to SARA Information Request

Succession and recruitment south of the bund wall has been strongly influenced by breaches in the bund wall (through natural erosion via root penetration and water flow) allowing tidal water to influence the otherwise arrested successional state of the vegetation south of the bund wall. With increasing saline influences on the surrounding communities, recruitment is expected to reflect the species composition and general complexity of South Arm Creek immediately north of the bund wall, albeit with a higher number of mangrove species typically associated with upper freshwater influenced areas. and successional processes. In areas where the bund wall has already some breaches there are mangroves include *Lumnitzera racemosa* (tallest examples of these species in all surveyed areas) with large examples of *Excoecaria agallocha*. The understorey and subcanopy are expected to host recruiting mangrove species typically found in more tidal areas: *Brugiera* spp, *Rhizophora* spp, *Xylocarpus* spp, and *Aegialitis annulata*.

With additional openings along the bund wall and increasing tidal influence it is expected that this community will continue to be replaced by a more complex mangrove community (similar to the north side of the bund wall).

After the initial works an assessment will be made during spring/and king tides to review the flow and identify any further areas which are desirable to open. It is expected that sesamid crab activity and fisheries productivity will be re-established within a few years in the lower lying areas and over a longer period in the rest of the area.

See Appendix 6 for the 2017 Marine Plant survey which sets out in more detail the conditions within the previously bunded area.

PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE



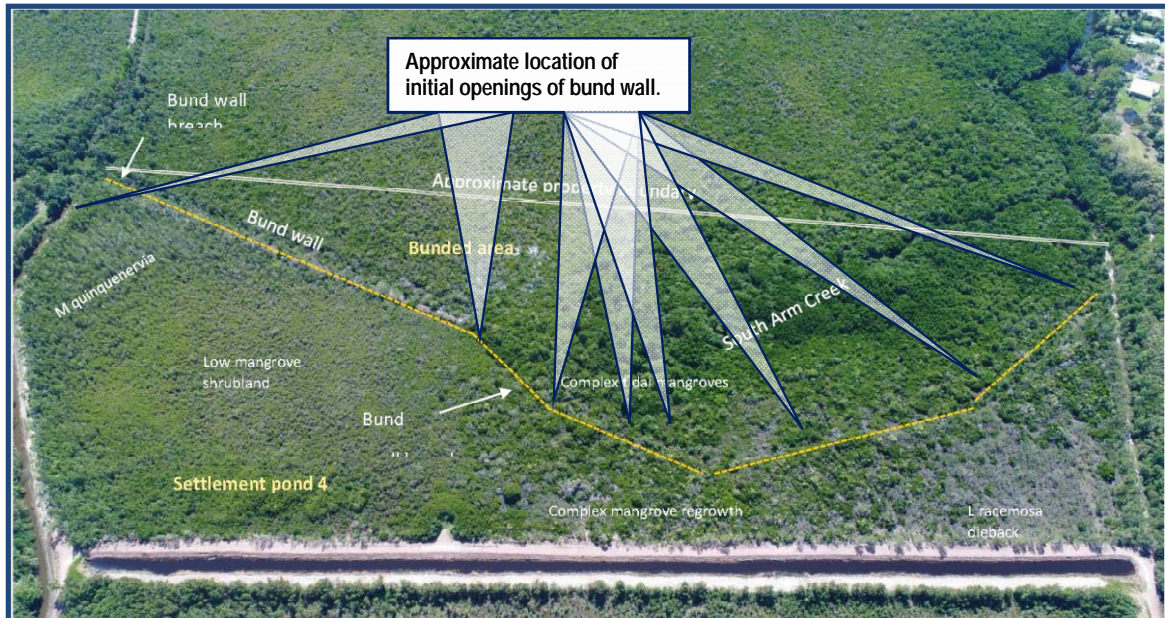
SARA ref: 1810-7611 SRA

Date: 28 May 2019



**Daintree Saltwater Barramundi
Response to SARA Information Request**

Figure 1: Re-establishment of Fish Habitat Connectivity in Settlement Pond 4



From: Small, A (2017) Marine Plant and Fisheries values Assessment Report (see Appendix 6).

Fisheries Productivity

The net result of this will be a over 16.5 ha of Lot 3 which is essentially natural habitat with thriving fisheries values. This will contribute an additional 9 ha of fisheries habitat and productivity to the South Arm of the Daintree River.

Disturbance

To avoid any doubt, disturbance will be minimised by only "on-foot" access along the bund, use of hand tools to dig away the bund in select locations and removal of the excess material, or placement on adjoining areas of the bund. Any seedling by way of the areas of bund to be disturbed will be translocated, they can be placed on the bund wall opening channel banks as immediate revegetation.

2.3.2 State Code 11

Please see a revised response to State Code 11 at Attachment 5.

**PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE**

SARA ref: 1810-7611 SRA

Date: 28 May 2019



Permit

Environmental Protection Act 1994

Environmental authority EA0001769

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EA0001769

Environmental authority takes effect on a date to be decided later.

Environmental authority holder(s)

Name(s)	Registered address
daintree saltwater barramundi fish farms pty ltd	Lot 3 Vixies Rd WONGA BEACH QLD 4873 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 01 - Aquaculture, 2: Cultivating or holding marine, estuarine or freshwater organisms, other than crustaceans, in enclosures that are on land and have a total area of, (a) more than 100 square metres but not more than 10ha	Adjacent to LOT 3/SP292103

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the Environmental Protection Act 1994 (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or

Permit

Environmental authority

- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);
- that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the Planning Act 2016 or an SDA Approval under the State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Kenneth Walker
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

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Date issued: 21 May 2019



Environmental authority

Obligations under the Environmental Protection Act 1994

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

General																																																							
G1	Any breach of a condition of this environmental authority must be reported to the administering authority as soon as practicable within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions taken.																																																						
G2	All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused by the activities.																																																						
G3	The activity must be undertaken in accordance with written procedures that: <div><div>a)</div><div>identify potential risks to the environment from the activity during routine operations and emergencies; and</div><div>b)</div><div>establish and maintain control measures that minimise the potential for environmental harm; and</div><div>c)</div><div>ensure plant, equipment and measures are maintained in a proper and effective condition; and</div><div>d)</div><div>ensure plant, equipment and measures are operated in a proper and effective manner; and</div><div>e)</div><div>ensure that staff are trained and aware of their obligations under the <i>Environmental Protection Act 1994</i>; and</div><div>f)</div><div>ensure that reviews of environmental performance are undertaken at least annually.</div></div>																																																						
G4	All records must be kept for a period of at least five years and provided to the administering authority upon request and in a specific electronic format. WaTERS is a recognised means for providing data to the administering authority.																																																						
G5	Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system .																																																						
G6	<div>An appropriately qualified person(s) must monitor and record all indicator(s) required by and in accordance with Table 1 – Monitoring and Wastewater Release Limits and the associated monitoring requirements.</div> <div>Table 1 – Monitoring and Wastewater Release Limits<table><tr><th>Indicator(s)</th><th>Measurement (units)</th><th>Minimum frequency</th><th>Release Limit Long-term Median¹ Interim Values²</th><th>Release Limit Maximum Interim Values²</th><th>Annual Load Interim Values²</th></tr><tr><td>pH</td><td>pH unit</td><td>Monthly whilst discharging</td><td>-</td><td>6.5 to 9.0</td><td>-</td></tr><tr><td>Dissolved Oxygen</td><td>mg/L</td><td>Monthly whilst discharging</td><td>-</td><td>80% saturation level (minimum)</td><td>-</td></tr><tr><td>TSS (total suspended solids)</td><td>mg/L</td><td>Monthly whilst discharging</td><td>9</td><td>27</td><td>6,750 kg/year</td></tr><tr><td>Total Nitrogen as N</td><td>mg/L</td><td>Monthly whilst discharging</td><td>0.25</td><td>2</td><td>187.5 kg/year</td></tr><tr><td>Oxidised Nitrogen as N</td><td>mg/L</td><td>Monthly whilst discharging</td><td>0.03</td><td>TBA</td><td>22.5 kg/year</td></tr><tr><td>Ammonium Nitrogen as N</td><td>mg/L</td><td>Monthly whilst discharging</td><td>0.015</td><td>TBA</td><td>11.25 kg/year</td></tr><tr><td>Total Phosphorus as P</td><td>mg/L</td><td>Monthly whilst discharging</td><td>0.02</td><td>0.4</td><td>15 kg/year</td></tr><tr><td>Filterable Reactive Phosphorus as P</td><td>mg/L</td><td>Monthly whilst discharging</td><td>0.005</td><td>TBA</td><td>3.75 kg/year</td></tr></table></div>	Indicator(s)	Measurement (units)	Minimum frequency	Release Limit Long-term Median ¹ Interim Values ²	Release Limit Maximum Interim Values ²	Annual Load Interim Values ²	pH	pH unit	Monthly whilst discharging	-	6.5 to 9.0	-	Dissolved Oxygen	mg/L	Monthly whilst discharging	-	80% saturation level (minimum)	-	TSS (total suspended solids)	mg/L	Monthly whilst discharging	9	27	6,750 kg/year	Total Nitrogen as N	mg/L	Monthly whilst discharging	0.25	2	187.5 kg/year	Oxidised Nitrogen as N	mg/L	Monthly whilst discharging	0.03	TBA	22.5 kg/year	Ammonium Nitrogen as N	mg/L	Monthly whilst discharging	0.015	TBA	11.25 kg/year	Total Phosphorus as P	mg/L	Monthly whilst discharging	0.02	0.4	15 kg/year	Filterable Reactive Phosphorus as P	mg/L	Monthly whilst discharging	0.005	TBA	3.75 kg/year
Indicator(s)	Measurement (units)	Minimum frequency	Release Limit Long-term Median ¹ Interim Values ²	Release Limit Maximum Interim Values ²	Annual Load Interim Values ²																																																		
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	<table><tr><td>Daily Volume³</td><td>m³/day</td><td>Daily</td><td>2,055</td><td>8,000</td><td>750,075 m³/year</td></tr></table> <p>¹Long-term median values calculated from 6 consecutive samples. ²The provided values should be considered interim until sufficient data is collected from the receiving environment to update these values. ³The daily release volume does not include the volume of water received by direct rainfall in the past 24 hours. Volume of rainfall can be calculated by daily accumulated rainfall (mm) multiplied by area of ponds and treatment wetland.</p> <p>Associated monitoring requirements</p> <ol style="list-style-type: none">1. Monitoring must be in accordance with the ANZECC and ARMCANZ (2000) <i>Australian Guidelines for Water Quality Monitoring and Reporting</i> and AS/NZS 5667 (parts 1,4-8, 10-12):1998 water quality – sampling.2. Monitoring must be undertaken during a release.3. All monitoring devices must be effectively calibrated and maintained in accordance with Australian Standards.4. Monitoring must be taken when emissions are expected to be representative of actual operating conditions for the sample frequency period.5. Water quality monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's Monitoring and Sampling Manual.6. Samples must be representative of the release.	Daily Volume ³	m ³ /day	Daily	2,055	8,000	750,075 m ³ /year
Daily Volume ³	m ³ /day	Daily	2,055	8,000	750,075 m ³ /year		
G7	When required by the administering authority , monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint of environmental nuisance arising from the activity . The monitoring results must be provided within 10 business days to the administering authority upon its request.						
G8	You must record the following details for all environmental complaints received: 1. date and time complaint was received 2. name and contact details of the complainant when provided and authorised by the complainant 3. nature of the complaint 4. investigations undertaken 5. conclusions formed 6. actions taken						
G9	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.						
	Air						
A1	Odours or airborne contaminants must not cause environmental nuisance to any sensitive place or commercial place .						
	Noise						
N1	Noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place .						
	Water						
WT1	Contaminants must not be released to groundwater or at a location where they are likely to release to groundwater .						
WT2	A receiving environment monitoring program must be designed and implemented by an appropriately qualified person(s) to monitor the effects of the activity on waters described as the South Arm (estuarine tributary of the Daintree River) and associated receiving waters.						
WT3	The receiving environment monitoring program required by condition WT2 should focus on near field and further field impacts. The program should address at least the following: (a) description of potentially affected receiving waters including key communities and background water and sediment quality characteristics based on accurate and reliable monitoring data that takes into consideration any temporal variation (e.g. seasonality); and						

	<p>(b) description of applicable environmental values and sediment and water quality objectives to be achieved and</p> <p>(c) any relevant reports prepared by other governmental or professional research organisations that relate to the receiving environment within which the Receiving Environment Monitoring Program is proposed; and</p> <p>(d) water and sediment quality targets within the receiving environment to be achieved, and clarification of contaminant concentrations or levels indicating adverse environmental impacts during the monitoring program.</p>
WT4	Alternatively, you will be deemed to have met the requirements of condition WT2 if you become and remain a participating member in the water quality strategies and monitoring programs relevant to the receiving environment and are endorsed in writing by the administering authority .
WT5	<p>You will be considered by the administering authority to be a participating member in regional studies in the following situations:</p> <ul style="list-style-type: none"> i. You are a contributing member, to the regional studies of water quality and ecosystem health; and ii. You are identified as a contributing member in a written statement to the administering authority from the authority carrying the regional studies.
	Waste
W1	All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.
	Land
L1	Contaminants must not be released to land.

Definitions

Key terms and/or phrases used in this document are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Heritage Protection or its successors or predecessors.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to the EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirement using the relevant protocols, standards, methods or literature.

Background means noise, measured in the absence of the noise under investigation, as $L_{A90,T}$ being the A-weighted sound pressure level exceeded for 90% of the time period of not less than 15 minutes, using Fast response.

Boundary means within 1m of the cadastral **boundary** of the approved place.

Contaminant(s) means as defined in Section 11 of the *Environmental Protection Act 1994*.

Commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

Disturbed areas includes areas:

1. that are susceptible to erosion;
2. that are contaminated by the activity; and/or
3. upon which stockpiles of soil or other materials are located.

Dredging includes extraction of mud, sand, coral, ballast, shingle, gravel, clay, earth and other material from the bed of Queensland tidal and non-tidal **waters**. Dredging does not include the banks of a waterway.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Environmental value(s) as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Financial assurance as defined in Chapter 5 of the *Environmental Protection Act 1994*.

General waste means waste other than regulated waste.

Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

$L_{Aeq,adj,T}$ means the adjusted A weighted equivalent continuous sound pressure level measures on fast response, adjusted for tonality and impulsiveness, during the time period T, where T is measured for a period no less than 15 minutes when the **activity** is causing a steady state noise, and no shorter than one hour when the approved **activity** is causing an intermittent noise.

Land does not include **waters**.

Liquid means any substance that:

1. has an angle of repose of less than five degrees; or
2. becomes free flowing at or below 60 degrees Celsius or when it is transported; or
3. is not generally capable of being picked up by a spade or shovel.

$L_{Amax,T}$ means the maximum A-weighted sound pressure level measured over a time period T of not less than 15 minutes, using Fast response.

Measures have the broadest interpretation and includes plant, equipment, physical objects, monitoring, procedures, actions, directions and competency.

NATA means National Association of Testing Authorities.

Noxious means harmful or injurious to health or physical well-being.

Offensive means causing offence or displeasure, is unreasonably disagreeable to the sense, disgusting, nauseous or repulsive.

Prescribed water contaminants means contaminants listed within Schedule 9 of the Environmental Protection Regulation 2008.

Receiving environment monitoring program (REMP) means a monitoring program designed to monitor and assess the potential impacts of controlled and/or uncontrolled releases of contaminants to the environment from the activity.

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface waters.

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
6. a public park or garden; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2008.

Substantial low frequency noise means a noise emission that has an unbalanced frequency spectrum shown in a one-third octave band measurements, with a predominant component within the frequency range 10 to 200 Hz. It includes any noise emission likely to cause an overall sound pressure level at a noise sensitive place exceeding 55 dB(Z).

Vibration is the oscillating or periodic motion of a particle, group of particles, or solid object about its equilibrium position.

Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water, natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

WaTERS is the Wastewater Tracking and Electronic Reporting System (WaTERS) database formally known as the Point Source Database (PSD).

You means the holder of the environmental authority.