STATEMENT OF ENVIRONMENTAL EFFECTS

APPLICATION TO MODIFY PROJECT APPROVAL MP06_0228
SHOALHAVEN STARCHES EXPANSION PROJECT

MODIFICATION APPLICATION No. 27 (Mod 27)
(MADE PURSUANT TO SECTION 4.55(1A) OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT)

PROPOSED MODIFICATION TO APPROVED RAW WASTE WATER BUFFER TANK
SHOALHAVEN STARCHES WASTE WATER TREATMENT PLANT
SHOALHAVEN STARCHES ENVIRONMENTAL FARM

Lot 1 DP 842231
Bolong Road, Bolong
Bomaderry

Prepared for

Shoalhaven Starches Pty Ltd

August 2022

COWMAN STODDART PTY LTD

Statement of Environment Effects

Project	Application to Modify Project Approval MP06_0228, Shoalhaven Starches Expansion Project (Modification Application No. 27 (Mod 27)) Proposed Modification to Approved Raw Waste Water Buffer Tank
Address	Lot 1 DP 842231 Bolong Road, Bolong
Our ref:	22/56
Prepared by	Stephen Richardson
Draft Final	15 August 2022 18 August 2022

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COWMAN STODDART PTY LTD

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EXECUTIVE SUMMARY

Shoalhaven Starches is a member of the Manildra Group of companies. The Manildra Group is a wholly Australian owned business and the largest processor of wheat in Australia. It manufactures a wide range of wheat-based products for food and industrial markets both locally and internationally.

The Shoalhaven Starches factory located on Bolong Road, Bomaderry produces a range of products for the food, beverage, confectionary, paper and motor transport industries including starch, gluten, glucose and ethanol.

Project Approval MP06_0228 was granted by the Minister for Planning on the 28th January 2009 for the Shoalhaven Starches Expansion Project. This approval also encapsulated previous approvals for the site into one overall approval for the site (at that time).

The Shoalhaven Starches Expansion Project sought to increase ethanol production at the Bomaderry plant in a staged manner from 126 million litres per year to 300 million litres per year. To accomplish the increase in ethanol production, this project required a series of plant upgrades and increase in throughput of raw materials, principally flour and grain. The Approved Project included the establishment of a Waste Water Treatment Plant complex within the Shoalhaven Starches Environmental Farm located on the northern side of Bolong Road.

Following the Minister's determination Shoalhaven Starches have been implementing and commissioning works in accordance with this Project Approval.

As part of Modification Application (Mod 21) to the Project Approval, a raw wastewater (RWW) Buffer Tank was approved to be installed within proximity of the existing RWW tank adjacent the oxidisation and BVF ponds associated with the Waste Water Treatment Plant complex . It was originally proposed that this tank would provide additional storage and act as a buffer when the existing tank was required to be taken off line. The approved RWW Buffer tank would have an effective volume of 3,000 KL with dimensions of approximately 20 metres diameter and 12 metres height above ground level.

It is now proposed to change the function and use of this approved Buffer Tank to an "*Equalisation Tank*". The role of the Equalisation Tank will be to equalize the existing ADI-BVF in-ground anaerobic digester's effluent. Solids settling media will be installed within the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall Waste Water Treatment Plant (WWTP) system.

The change in intended function of the tank will require the dimensions of the tank to be altered as:

- The solids settling media require a larger diameter tank.
- The tank height will be reduced as a lower operating depth is preferred.

The tank dimensions will therefore require the following modifications:

- The diameter of the tank will be increased from 20.3 m to 25 m.
- The height of the tank will be reduced from 10.63 m (maximum height 12.0 m) to 7.6 m (maximum height 9.0 m).
- The operating capacity of the tank will increase from 3000 KL to 3400 KL

The Shoalhaven Starches Expansion Project was a 'transitional Part 3A Project" for the purposes of Schedule 6A of the Environmental Planning & Assessment Act. As of the 1st March 2018 the transitional arrangements for former Part 3A projects have been discontinued. The discontinuation of the transitional arrangements for Part 3A projects and concept plans means that modifications are assessed through the State Significant Development (SSD) pathway. As such this Modification Application is made pursuant to Section 4.55(1A) of the Environmental Planning & Assessment Act (EP&A) 1979.

The SEE assesses this Modification Proposal having regard to the provisions of Section 4.55(1A) of the EP&A Act and concludes that the proposed modifications will have not have significant adverse environmental impacts and the development to which Project Approval MP06_0228 as modified by the Modification Application relates, will be substantially the same development as the development for which this consent was originally granted and before that consent as originally granted was modified.

1.0 INTRODUCTION

Project Approval MP06_0228 was granted by the Minister for Planning on the 28th January 2009 for the Shoalhaven Starches Expansion Project. This approval also encapsulated previous approvals for the site into one overall approval for the site (at that time).

The Shoalhaven Starches Expansion Project sought to increase ethanol production at the Bomaderry plant in a staged manner from 126 million litres per year to 300 million litres per year. To accomplish the increase in ethanol production, this project required a series of plant upgrades and increase in throughput of raw materials, principally flour and grain.

An integral component of the Approved Project was the establishment of a new Waste Water Treatment Plant to be created on the Shoalhaven Starches Environmental Farm on the northern side of Bolong Road.

Following the Minister's determination, Shoalhaven Starches have been implementing and commissioning works in accordance with this approval.

Following the original Ministers determination, the Minister for Planning on the 9th March 2022 approved Modification Application Mod 21 to the Project Approval. Mod 21 included a range of modifications to the Approved Project including modifications to the Packing Plant comprising the reconfiguration of existing storage silos, an additional rail spur and associated train tunnel, and ancillary additions including nitrogen generator and storage tanks; an Indirect Cooking Facility; and relocation of carparking.

Mod 21 also included approval for the installation of a raw waste water (RWW) Buffer Tank to be located within proximity of the existing RWW tank adjacent the oxidisation and BVF ponds associated with the Waste Water Treatment Plan situated within the Environmental Farm located to the north of Bolong Road (and opposite the former Australian Paper Mill site). It was proposed that this tank would provide additional storage and act as a buffer when the existing tank was required to be taken off line. The approved RWW Buffer Tank would have an effective volume of 3,000 KL with dimensions of approximately 20 metres diameter and 12 metres height above ground level.

It now proposed to change the function of the approved Buffer Tank to an "*Equalisation Tank*". The role of the Equalisation Tank will be to equalize the existing ADI-BVF in-ground anaerobic digester's effluent. Solids settling media will be installed within the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall wastewater treatment plant system (WWTP).

The change in function of the tank will also require the dimensions of the tank to be altered as:

- The solids settling media require a larger diameter tank.
- The tank height will be reduced as a lower operating depth is preferred.

The tank dimensions will therefore require the following modifications:

- The diameter of the tank will be increased from 20.3 m to 25 m.
- The height of the tank will be reduced from 10.63 m (maximum height 12.0 m) to 7.6 m (maximum height 9.0 m).
- The operating capacity of the tank will increase from 3000 KL to 3400 KL

The Modification Application is made pursuant to Section 4.55(1A) of the Environmental Planning & Assessment Act. This SEE has been prepared in support of the Modification Application.

The Modification Application is supported by plans included in **Annexure 2**.

It is considered that the components associated with this Modification Application will not have any significant adverse environmental impacts; and as a result of this Modification Application the development to which Project Approval MP06_0228 as modified relates will be substantially the same development as the development for which this consent was originally granted and before that consent as originally granted was modified.

2.0 SITE AND SURROUNDS

The Shoalhaven Starches factory complex is situated upon various allotments of land along Bolong Road, Bomaderry, within the Shoalhaven local government area. The factory site is located on the southern side of Bolong Road on the northern bank of the Shoalhaven River with some operations located on the northern side of Bolong Road. The Shoalhaven Starches factory site (excluding the former Dairy Farmers and former Paper Mill sites) has an area of approximately 12.5 hectares.

The Company also carries out irrigation activities on the Company's Environmental Farm located over 1000 hectares on the northern side of Bolong Road. This area is cleared grazing land and also contains a wastewater treatment plant, wet weather storage ponds and spray irrigation lines. The Environmental Farm stretches over a broad area of the northern floodplain of the Shoalhaven River stretching from Bolong Road in the south towards Jaspers Brush in the north. Apart from the Environmental Farm this broad area is mainly used for grazing (dairy cattle).

The works associated with this Modification Application are located within the Environmental Farm and are limited to Lot 1 DP 842231 Bolong Road, Bolong. The Buffer Tank was approved to be installed within proximity of the existing RWW tank adjacent the oxidisation and BVF ponds within the Shoalhaven Starches Environmental Farm.

The land associated with this Modification Application is included in the Project Approval MP 06_0228 (as amended).

Figure 1 is a site locality plan depicting the location of the lands associated with this Modification Application.

Figure 2 is an aerial image of the location of proposed Buffer Tank in relation to the existing RWW tank and oxidisation pond.

The land associated with this Modification Proposal is zoned RU1 Primary Production zone under the provisions of SLEP 2014.

The town of Bomaderry is located 1.5 km (approx.) to the west of the former APM site, and the Nowra urban area is situated 3.0 km to the south-west of the site. The "Riverview Road" area of the Nowra Township is situated approximately 2.0 km to the south-east of the former APM site across the Shoalhaven River.

The village of Terara is situated approximately 1.8 kilometres to the south of the former APM site, across the Shoalhaven River. Burraga (Pig) Island is situated between the factory site and the village of Terara and is currently used for dairy cattle grazing.

There are a number of industrial lands uses which have developed on the strip of land between Bolong Road and the Shoalhaven River. Industrial activities have included a metal fabrication factory, the Shoalhaven Starches site and the former Dairy Farmers factory and APM (now owned by the Manildra Group of Companies). The industrial area is serviced by a privately owned spur railway line that runs from just north of the Nowra-Bomaderry station to the Starches Site.

The state railway terminates at Bomaderry with a separate, privately owned spur line to the factory site and which extends up to the western boundary of the former APM site. It is proposed to extend this private spur line across the former APM site under this Modification Application.

The Shoalhaven Starches factory, Environmental Farm and former APM sites have direct road frontage to Bolong Road to the north. The Shoalhaven River flows along the southern boundary of both sites.

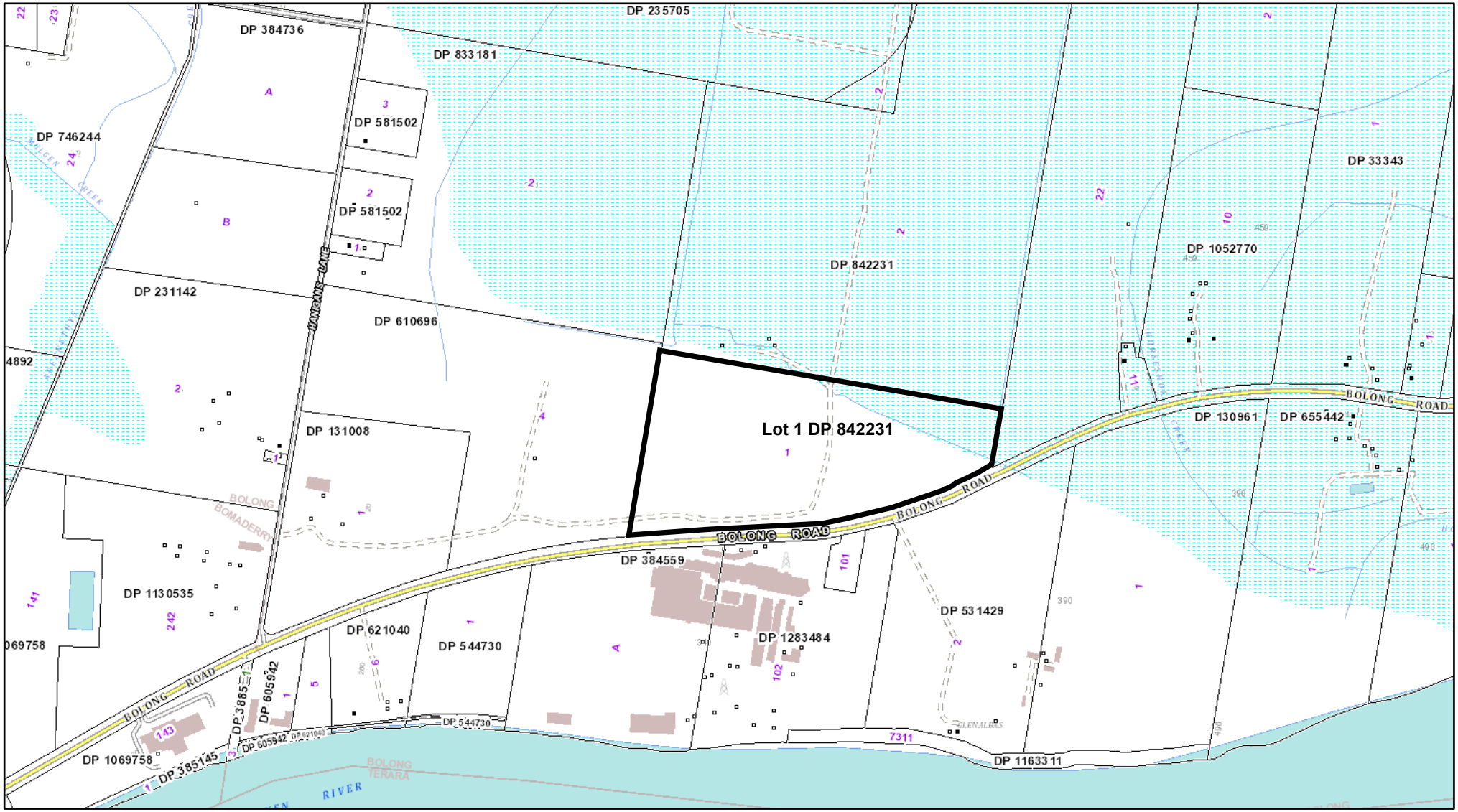

Figure 1: Site Locality Plan.

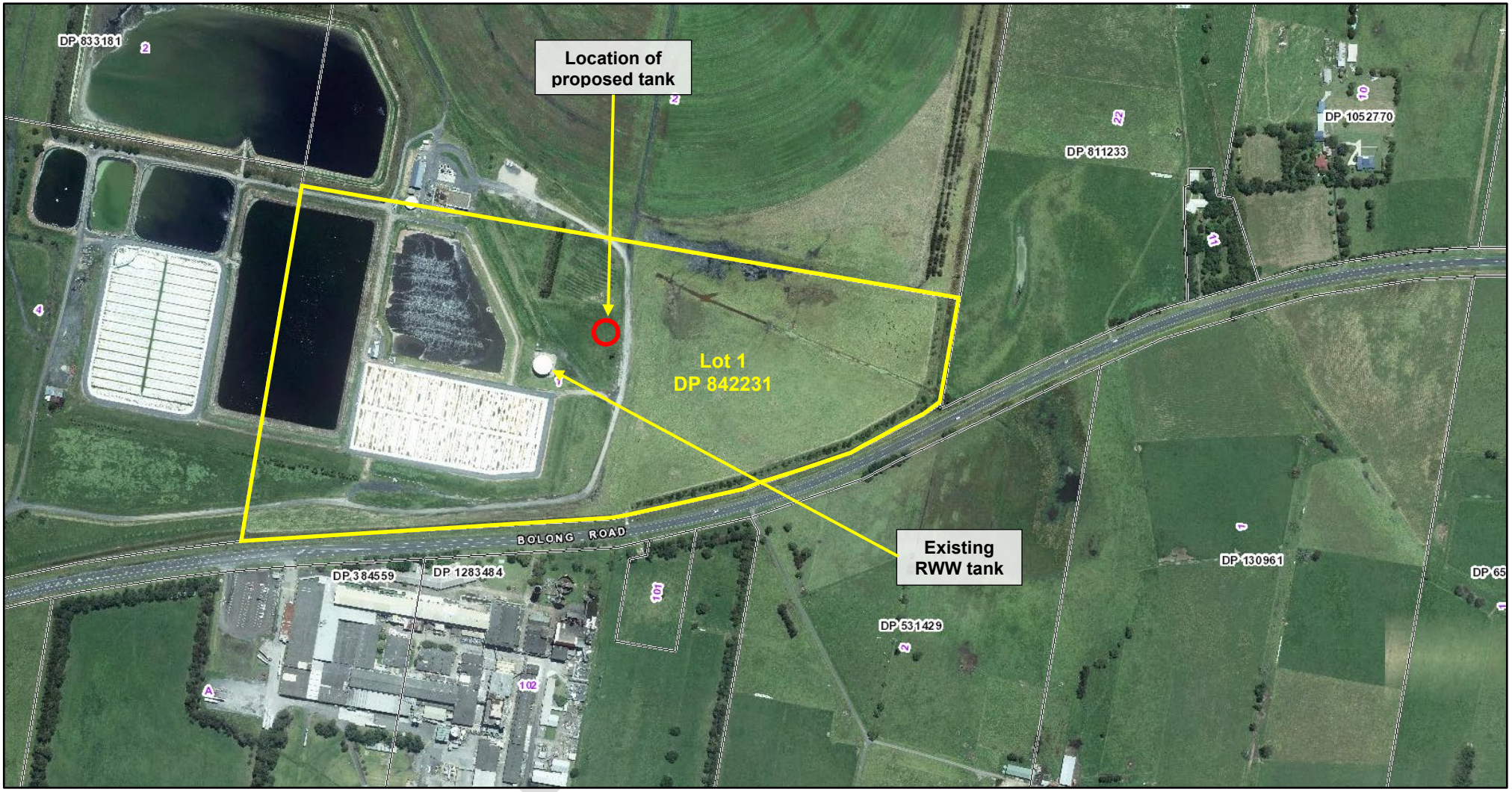

Figure 2: Aerial image of location of Buffer Tank.

3.0 BACKGROUND

3.1 PRODUCTION PROCESSES

The production process at the Shoalhaven Starches plant have evolved over a number of decades. Originally the plant was primarily concerned with the production of starch and gluten from flour. However, the Company has pursued a number of technological innovations particularly with respect to reducing the environmental impacts of the Company's operations. As a result, Shoalhaven Starches has been moving towards a "closed" system of production. Essentially this entails the efficient use of end products to ensure wastage is reduced to a minimum.

The first step in the production process is the delivery of flour and grain, by rail, from the Company's flour mills at Manildra, Gunnedah and Narrandera. The trainloads are brought into the plant via the switching yard at Bomaderry.

The Company received approval from the Minister for Planning for the erection of flour mills on site to enable the milling of part of the Company's flour requirements to be processed directly on the site. The remainder of the Company's flour requirements continue to be sourced from the Company's off-site flour mills.

Flour is transferred via storage to the "wet end" of the plant where fresh water is added. The subsequent mixing and separation process produces starch and gluten. The gluten is dried to enable it to be packaged and distributed as a high protein food additive for human consumption. This product is then taken from the site after packaging for both local and export markets.

The starch that is separated from the flour is either dried or remains in liquid form. The dried and liquid starch is sold to the paper and food industries. The starch is used for food, cardboard, paper and other industrial purposes. Liquid starch is used in the ethanol production process.

Starch is also used in the production of syrups on the site. The syrups plant products include glucose and brewer's syrup. These are used for foods, chocolates, confectionery, beer, soft drinks and fruit juice. The syrups plant products can also be used in the ethanol process.

The by-products from the starch, gluten and syrup production processes are combined to feed the fermentation and distillation stage of ethanol production. The outputs are fuel, industrial, beverage and hand sanitising grade alcohol. Industrial grade ethanol is used in producing pharmaceuticals, printer's ink and methylated spirits.

Ethanol production results in some liquid and solid by-products, which are processed through the stillage recovery process plant (which was approved as part of PRP No. 7 in 2005). The solids in the stillage are recovered as Dried Distillers Grains and Syrup (DDGS), dried and sold as a high protein cattle feed with the remaining water used for irrigation.

The wastewater resulting from the ethanol production is treated in the wastewater treatment plant located on the northern side of Bolong Road and is re-used in the Starch Plant and the surplus is irrigated onto Shoalhaven Starches Environmental Farm to the north of Bolong Road. The Tank associated with this Modification Application is associated with this Waste Water Treatment Plant. The farmland is used for fodder crops, pasture and cattle grazing.

3.2 RECENT DEVELOPMENT AND APPROVAL HISTORY

3.2.1 Project Approval MP 06_0228

On the 28th January 2009 the then Minister for Planning, issued Project Approval MP 06_0228 for the Shoalhaven Starches Expansion Project.

The primary objective of the Shoalhaven Starches Expansion Project was to increase the Company's ethanol production capacity to meet the expected increase in demand for ethanol primarily, arising from the then NSW Government's mandate to increase ethanol content by volume in petrol in NSW from 2% to 6% from October 2011, by upgrading the existing ethanol plant.

The approval, subject to certain conditions, enabled Shoalhaven Starches to increase ethanol production in a staged manner at its Bomaderry Plant from 126 million litres per year to 300 million litres per year.

Under Project Approval MP 06_0228 Shoalhaven Starches obtained approval to establish a new Packing Plant, container loading area and a rail spur line on the northern side of Bolong Road. These works also required the provision of an overhead bridge structure to allow product to be transferred and safe pedestrian movement across Bolong Road.

In 2019 the the Independent Planning Commission approved Mod 16 which included the construction of a Specialty Product Facility and additional Gluten Dryer. The Specialty Products Building would enable the production of an increased range of specialised products as an extension to Shoalhaven Starches existing product line. The specialty products comprise a range of modified gluten products for the food industry; and modified starches for both paper manufacturing as well as food production.

Shoalhaven Starches subsequently identified that as a result of the increase in range of different specialised products that are now able to be produced as a result of Mod 16; amendments were required to the approved Packing Plant on the northern side of Bolong Road to accommodate the different packaging requirements for this increased range of specialised products. These amendments to the Packing Plant were subsequently approved under Mod 21.

Mod 21 included other works that did not directly relate to the modifications to the Packing Plant, including the installation of a waste water buffer tank adjacent to the existing waste water tank located within the vicinity of the water treatment plant and waste water storage ponds located on the Environmental Farm. It is this Buffer tank that is the subject of his current Modification Application.

3.2.2 Approval History following MP 06_0228

DA 10/1843 – Upgrade Vehicle Entrance (Former Dairy Farmers Factory Site)

Project Approval MP 06_0228 required vehicle access points to the Bomaderry site to be upgraded to the satisfaction of Council and the RMS. The subsequent upgrading works included the construction of a concrete median along the centre of Bolong Road to the east of Abernethy's drain in such a manner that prevented vehicles travelling east along Bolong Road turning right into the central vehicle access point to the Shoalhaven Starches site and prevented vehicles turning right out from this access point and travelling east along Bolong Road.

These works also prevented vehicles turning right out from the BOC Carbon Dioxide Plant located opposite the Shoalhaven Starches site. Shoalhaven Starches therefore sought approval from Shoalhaven City Council to upgrade the former Dairy Farmers site vehicular access and relocate the access to enable vehicles to enter Access Point 2 from the east. These works would also allow vehicles wishing to travel west from BOC Carbon Dioxide Plant to leave this site to first travel east; by allowing vehicles to travel to the former Dairy Farmers Factory Complex and using the upgraded access to turn around before travelling west along Bolong Road.

RA 11/1002 Interim Packing Plant

Following Project Approval MP 06_0228 Shoalhaven Starches also obtained a separate development approval to use an existing factory building located at 22 Bolong Road (Lot 21 DP 100265) as an Interim Packing Plant from Shoalhaven City Council (RA 11/1002 dated 26th October 2011). This Interim Packing Plant operates in conjunction with the Company's existing Packing Plant which is located within the existing factory site.

DA 11/1855 – Widening of Driveway

A further development application (DA 11/1855) was submitted to Shoalhaven City Council on the 4th August 2011 seeking approval to widen the driveways serving 22 Bolong Road Bomaderry (ie. the site of the Interim Packing Plant) to accommodate semi-trailers. This development application was approved by Shoalhaven City Council on the 24th August 2011.

DA 13/1713 – Demolition of Dimethyl Ether Plant

On the 5th July 2013 Shoalhaven Starches submitted a development application to Shoalhaven City Council seeking the demolition of a Dimethyl Ether Plant on the site. This development application was approved by Shoalhaven City Council on the 15th July 2013.

DA 14/2161 – Additional Two (2) Grain Silos

On the 19th September 2014 Shoalhaven Starches submitted a development application to Shoalhaven City Council seeking development consent to erect two additional grain silos on the factory site within the vicinity of the existing Flour Mill, to provide security of raw material storage and supply when there are closures of the Illawarra rail line serving the Shoalhaven Starches site. Shoalhaven City Council approved this development application on the 27th April 2017.

DA 16/1827 – Demolition of Existing Air Compressor Shed

On the 7th July 2016 Shoalhaven Starches submitted a development application to Shoalhaven City Council seeking the demolition of an existing air compressor shed on the site. This development application was approved by Shoalhaven City Council on the 29th July 2016.

Other Approvals

There have been other approvals that have been issued by Shoalhaven City Council that are associated with the Shoalhaven Starches operations, but which do not directly relate to the operations of Shoalhaven Starches including:

- DA 11/1936 – Algae Demonstration Plant for evaluation of algae production and processing for alternative fuel and CO_2 sequestration. Proponent - Algae Tec Pty Ltd at 220 Bolong Road (former Dairy Farmers factory site).
- DA 14/1327 – Alterations to existing building (former Dairy Farmers Factory Building) and re-use as a meat processing plant. Proponent – Candal Investments Pty Ltd at 220 Bolong Road (former Dairy Farmers factory site).

- DA 15/1892 – Installation of Liquid Oxygen Vessel (6,000 L). Proponent – Argyle Prestige Meats Ltd at 220 Bolong Road (former Dairy Farmers factory site).

Modification Applications

Project Approval MP 06_0228 has also been the subject of the following modifications applications (**Table 1**).

Table 1

Summary of Recent Modification Applications

Modification	*Summary of Modifications*	*Approval Date*
Modification 1	• Removed the requirement for dried distillers grain (DDG) pelletising plant from the list of mandatory odour controls. • Implement alternate odour controls including a new loading chute with dust extractor and extension of the load-out shed to fully enclose truck loading.	30/9/2011
Modification 2	• Install additional infrastructure to improve operational and energy efficiency, including two additional fermenter tanks, an evaporator, beer column, heat exchangers, substation and compressors.	14/9/2012
Modification 3	• Relocate approved 60 space staff car park to the former Dairy Farmers site and include the site in the project approval, following acquisition by the Applicant.	9/10/21012
Modification 4	• Relocate the approved DDG pelletising plant within the factory site, increases its footprint and approved height, from 21 m to 28 m.	24/3/2014
Modification 5	• Modify the design, footprint and odour controls on the DDG pelletising plant including a 49 m air discharge stack and eight storage silos.	16/9/2015
Modification 6	• Demolish a disused industrial building “Moorehouse” purchased by the Applicant • Construct a temporary car park on the northern side of Bolong Road.	25/112015
Modification 7	• Relocate the approved Starch Dryer No. 5 to the former “Moorehouse” site, increase the footprint and construct a substation, pipework and pipe gantry.	18/12016
Modification 8	• Extend the existing flour mill to increase flour production from 265,000 to 400,000 tonnes per annum (tpa) and offset imports of flour to the factory from mills in western NSW.	1/3/2016
Modification 9	• Increase the size of the approved packing plant to increase the type and volume of packaged dried products. • Construct a container storage and truck loading area with noise barriers. • Extend and duplicate the approved rail spur line. • Install product pipes under Bolong Road, a small bag packer at the DDG pellet plant and a new stormwater detention tank.	8/3/2017

Table 1 (continued)

Modification	*Summary of Modifications*	*Approval Date*
Modification 10	• Construct a new flour mill B and increase flour production on site from 400,000 tpa to 842,400 tpa. Relocate storage silos and construct a mill feed structure.	18/4/2017
Modification 11	• Reducing the number of approved DDGS Dryers from six to four. • A minor modification to the footprint of the four DDG dryers. • Relocation of the cooling towers in the DDG Plant. • A Mill Feed Silo and structure to feed DDG dryers. • Expanded use of the existing coal and woodchip storage area within the SS Environmental farm. • The addition of two biofilters to cope with the increased number of DDG Dryers. • A forklift maintenance building adjacent to the relocated DDG dryers, along with a container preparation area adjacent to the relocated DDG Dryers.	1/9/2017
Modification 12	Modifications to the existing Ethanol Distillery Plant to increase the proportion of 'beverage" grade ethanol that is able to be produced on the site. This modification will enable increased flexibility in terms of the range of types of ethanol produced at the site (i.e.. between fuel, industrial and beverage grade ethanol) to meet market demands; and modify the type and location of the Water Balance Recovery Evaporator that has been previously approved under Mod 2 adjacent to the Ethanol Plant.	1/9/2017
Modification 13	• Modification of boilers 2 and 4, with the conversion of boiler 4 from gas fired to coal fired. • Installation of an additional baghouse on boiler 6.	18/1/2018
Modification 14	Modifications to the former Australian Paper Mill site i.e. the site associated in part with this Modification Application. This Modification sought approval to use this site for: • The use of existing buildings on the site for the storage of finished products, as well as engineering plant; • The use of existing storage tanks for the storage of syrups; • The use of external areas on the site to lay down plant and materials that are to be used in the construction of approved plant on the Shoalhaven Starches factory site as well as temporary and overflow shipping container storage; • The use of existing administration buildings for office staff; and • The use of existing workshops for maintenance purposes.	27/4/2018
Modification 15	Construction of the Supagas CO_2 plant at the former Dairy Farmers factory site.	7/8/2018
Modification 16	• Installation of a third flour mill C within the existing flour mill B building. • Undertaking modifications to flour mills A and B. • The construction of a new industrial building adjoining the Starch Dryer No. 5 building containing: – The new product dryer; – Plant and equipment associated with the processing of specialised speciality products.	18/6/2019

Table 1 (continued)

Modification	*Summary of Modifications*	*Approval Date*
	• Addition to Starch Dryer No. 5 building to house a bag house for this dryer – Conversion of two existing gluten dryers (1 and 2) to starch dryers. – Additional sifter for the interim packing plant. – Construction of a coal-fired co-generation plant to the south of the existing boiler house complex. The co-generation plant will house a new boiler (no. 8). – Construction of lime silos: The lime injection system will consist of two storage silos and associated equipment for injecting powdered lime into each of the coal fired boilers. – Relocation of the existing boiler no. 7 to the northern side of the overall boiler house complex. – Construction of an indoor electrical substation on the northern side of Bolong Road. – Construction of an additional rail intake pit for the unloading of rail wagons. – Extension of the existing electrical substation located within the main factory area. • An additional coal fired co-generation plant was also approved under Mod 16. This coal fired co-generation plant was to be sited immediately to the south of the existing boiler house complex situated to the east of Abernethy's Creek. This coal fired co-generation plant would generate a total of 15 MW of power for the site. It is proposed that this coal fired co-generation plant will be in part replaced by the proposed gas fired co-generation plant as part of this Modification Application.	
Modification 17	• Relocation of Baghouse for Starch Dryer No. 5. • Installation of Service Lift adjacent to Starch Dryer No. 5. • Elevating Service Conduit extending from factory site on southern side of Bolong Road to approved packing plant on northern side of Bolong Road above ground. • Use of woodchips as fuel source in Boilers 2 and 4. • Modification to condition 14J(e) – Amendment to design specification for silencers to exhaust fans for Flour Mill B. • The increase in the building footprint of Product Dryer Building (PDB). • The increase in the building footprint of the Specialty Products Building (SPB) which adjoins the PDB building. • The provision of additional bulk chemical storage to the south of the PDB and SPB buildings. • Demolition of part of the existing Maintenance Office and Stores to facilitate the extension of the PDB and SPB buildings to the west. • Repurposing the remaining part of the Maintenance building to provide staff amenities and Plant Operation Control Rooms.	23/10/2020

Table 1 (continued)

Modification	*Summary of Modifications*	*Approval Date*
	• To facilitate internal truck movements associated with the amendments to the SPB, existing car parking (48 spaces) currently located to the north and west of the Maintenance Building will be relocated to an existing approved car parking located on the north side of Bolong Road. • Extend the sifter room situated on top of the interim packing plant. • Install a Product Dryer (No. 9) within the footprint of the SPB as approved under Mod 16.	
Modification 18	• Relocation of Approved Gas Fired Boiler and other Associated Works to Facilitate Production of 'Hand Sanitiser' Alcohol in response to COVID 19 Crisis.	4/9/2020
Modification 19	• Expansion of the ethanol distillery plant including new distillery columns, three ethanol storage tanks and cooling towers to facilitate the production of 100 mega litres (ML) of beverage grade ethanol within the approved limits and additional site infrastructure.	8/320/21
Modification 20	• Alterations to Existing CO2 Plant (Supagas)	26/10/2021
Modification 21	• Modification to Packing Plant including the reconfiguration of existing silo storage into 16 small storage silos, additional rail spur and associated train tunnel, and ancillary additions; installation of a raw wastewater tank (it is this tank that is the subject of this Modification Proposal); nitrogen generator and storage tanks; an Indirect Cooking Facility; and relocation of carparking.	16/5/2022
Modification 23	• Modification to construct and operate a 60 megawatt gas fired co-generation plant to replace two approved, but not constructed, co-generation plants.	28/4/2022
Modification 24	• Modification to the approved Gluten Dryer No.8 (GD8) Building including the increase in building footprint, increase in building height, re-siting of the GD8 building and the relocation of site infrastructure to accommodate changes to the GD8 building.	15/2/2022

4.0 CONSULTATION

Prior to the preparation of this SEE Shoalhaven Starches consulted with the Department of Planning & Environment to ascertain the Department's requirements for this Modification Application. The Department's response (which is included as **Annexure 1** to this SEE) states:

> *In terms of requirements for a stand-alone modification application package, in this instance only an SEE and the proposed modification plans would be required.*
>
> *The SEE should only need to contain the following:*
>
> - *Modification description*
> - *Modification need/justification*
> - *Statutory and Strategic considerations (Section 4.55(1A) of the EP&A Act)*
> - *Brief assessment of any relevant impacts (E.g. visual, air/odour) to demonstrate no/negligible impacts (I would recommend reviewing the SEE for MOD 21 for consistency of how the wastewater buffer tank was assessed).*

This SEE has been prepared to address the above requirements.

5.0 PROPOSED MODIFICATION TO PROJECT APPROVAL MP06_0228

5.1 SUMMARY OF MODIFICATION PROPOSAL

Table 2 below provides a summary of the proposed works associated with this Modification Application.

Table 2

Summary of Proposed Works under Mod 25

Proposed Works associated with Modification Application No. ? (Mod ?)	
Modifications to Buffer Tank	
Buffer Tank (Shoalhaven Starches Environmental Farm)	It is proposed to change the function and use of the approved Buffer Tank to an "*Equalisation Tank*". The tank dimensions will also require the following modifications: • The diameter of the tank will be increased from 20.3 m to 25 m. • The height of the tank will be reduced from 10.63 m (maximum height 12.0 m) to 7.6 m (maximum height 9.0 m). • The operating capacity will be increased from 3000 KL to 3400 KL.

5.2 MODIFICATIONS TO APPROVED RWW BUFFER TANK

A raw waste water (RWW) Buffer Tank was approved under Mod 21 to be installed within proximity of the existing RWW tank adjacent the oxidisation and BVF ponds within the Environmental Farm located to the north of Bolong Road (and opposite the former Paper Mill site). It was proposed that this tank would provide additional storage and act as a buffer when the existing tank was required to be taken off line. The approved RWW Buffer Tank would have an effective volume of 3,000 KL with dimensions of approximately 20 metres diameter and 12 metres height above ground level.

Shoalhaven Starches now propose to modify the Project Approval to change the function of the approved Buffer Tank to an "*Equalisation Tank*". The role of the Equalisation Tank will be to equalize the existing ADI-BVF in-ground anaerobic digester's effluent (see **Figure 3**). Solids settling media will be installed within the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall waste water treatment plant system (WWTP).

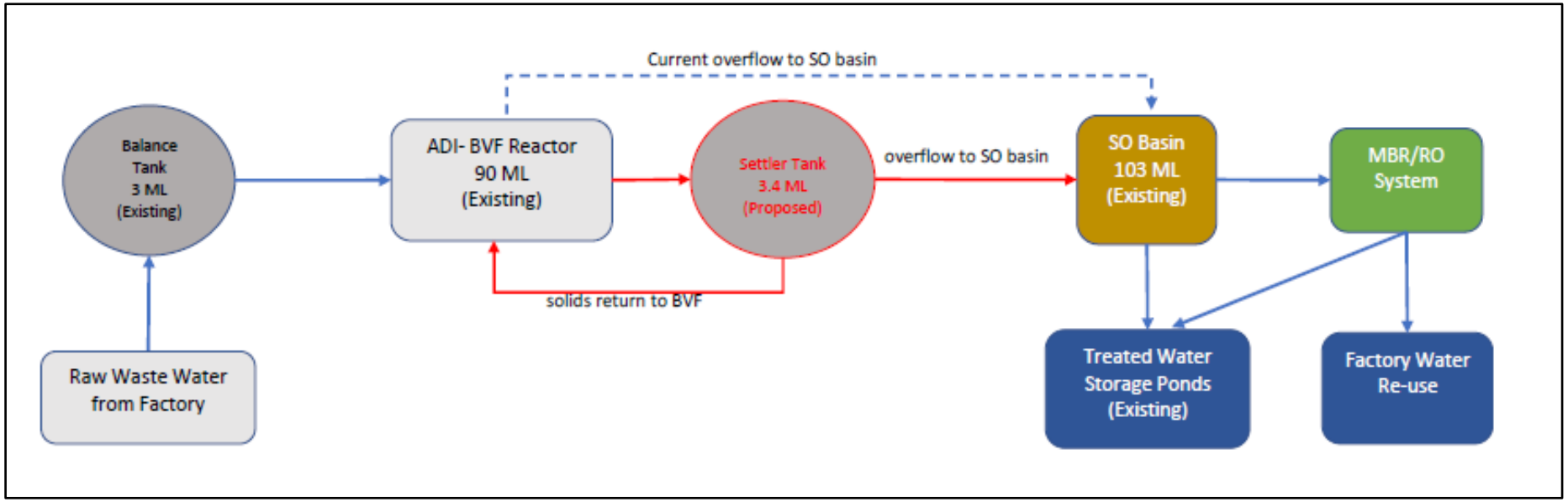

Figure 3: Flow Diagram – The Role of the Equalisation Tank in the Waste Water Treatment Process.

The change in function of the tank will also require the dimensions of the tank to be altered as:

- The solids settling media requires a larger diameter tank.
- The tank height will be reduced as a lower operating depth is preferred.

The tank dimensions will therefore require the following modifications:

- The diameter of the tank will be increased from 20.3 m to 25 m.
- The height of the tank will be decreased from 10.63 m to 7.6 m.
- The operating capacity will be increased from 3000 KL to 3400 KL

5.3 JUSTIFICATION FOR MODIFICATION

The additional Buffer Tank will be constructed to still enable the existing RWW Tank to be taken off-line for repairs and / or refurbishment works, in accordance with the Mod 21 approval. The tank will be designed so that it can easily be used as a RWW tank in case the existing tank is required to be taken off-line in the future.

Following repairs and / or refurbishment to the existing RWW Tank are undertaken however, it is proposed that the additional RWW tank approved under Mod 21 will be able to also be used as an '*Equalisation Tank'* to receive treated water from the Anaerobic Bulk Volume Fermenter (BVF) which is the first stage of the WWTP process. The tank will equalize the existing ADI-BVF in-ground anaerobic digester's effluent.

The BVF digestor operation relies upon a stable volume of biomass solids (sludge blanket) which comprise living organisms which digest the organic loads from the waste water. The BVF is designed so that the biomass is retained within the BVF reactor with a solids settling zone at the end of the reactor which then overflows int to the Sulphur Oxidisation (SO) Basin. Currently treated waste water exiting the BVF flows to the SO Pond.

During high organic loads the biomass solids in the BVF can become buoyant due to increased biogas production causing loss of biomass to the SO Basin. This results in less biomass in the BVF to consume the organic load. Increases in biosolids also causes issues for the downstream MBR and RO filtration processes.

It is proposed to install Solids settling media within the tank to capture the BVF overflow and lower the anaerobic effluent Total Suspended Solids (TSS) concentration.

The Solids settling media is a settleable solids removal product that comprise inclined tube settlers which significantly accelerate the removal of solids from waste water by reducing the distance that particles have to fall before reaching a surface. Tube modules inclined at 60^{o} will be installed in the tank just below the surface of the water line. Within these

modules, a flow pattern is established with water rising up through the tubes, with solids falling out of the liquid to settle on the lower tube surface. The settling material masses together, gaining weight and picking up more particles as it slides down the tube. When the solids fall out of the bottom of the tube they drop to the bottom of the basin where it is removed by sludge collection equipment.

The tube settlers provide enhanced solids removal because the setline surface is increased while the vertical settling distance is reduced. Particles inside the tubes only have to drop a distance of about 100 mm or less, rather than several metres in a conventional sediment basin, allowing quicker settling time. In addition, the extended length of the settling system tubes keeps the particles in this settling environment for optimal solids removal. In addition, as the larger agglomerated material falls from the tubes, it captures smaller particles in the upcoming stream further increasing clarifier efficiency.

The function of the tank will allow biomass suspended solids that overflow from the BVF process to the SO basin to be captured and returned to the BVF. The treated water from this tank will then flow to the existing SO basin and subsequent water treatment steps.

The modification to the tank will result in:

- improved anaerobic effluent quality;
- provides the BVF with more robustness and stability.

Several years ago, the Shoalhaven Starches acquired the settler equipment to increase the BVF treatment capacity however they were never installed. The Company now wish to install these settlers inside the Mod 21 tank however the diameter of the approved tank is not large enough to fit the settler equipment inside the tank.

Therefore, a slight increase in the diameter of the tank is required to fit the settler media equipment inside the tank. The tank also requires a minimum depth to allow sufficient settling of the solids. Under these circumstances it is also proposed to reduce the height of the tank.

The Modification Application is supported by plans included in **Annexure 2**.

Figure 4 below includes plan and elevation details of the proposed modified tank.

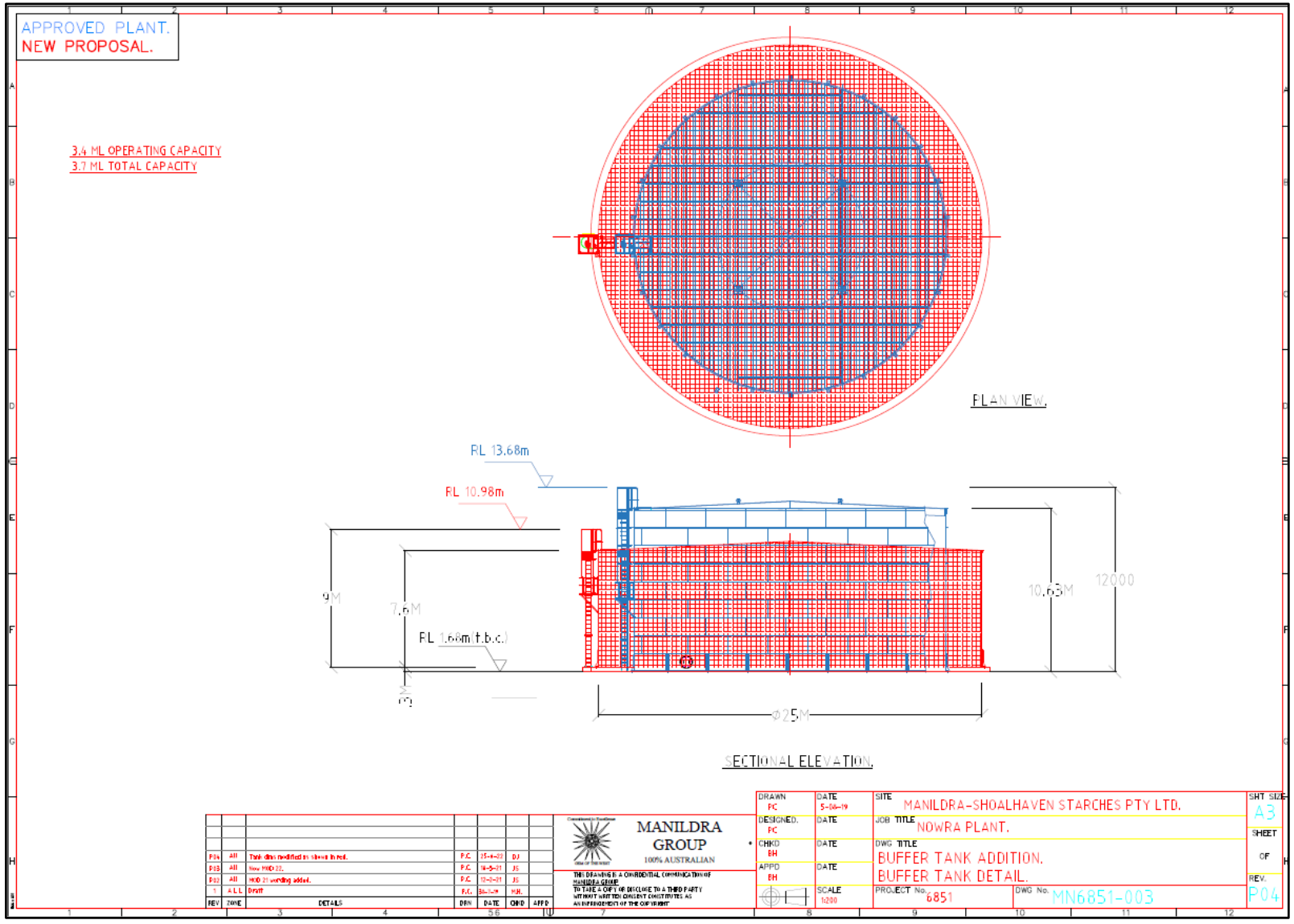

Figure 4: Plan and elevations of proposed modification to Buffer Tank.

6.0 SECTION 4.55(1A) OF THE EP&A ACT

This application is made pursuant to Section 4.55(1A) of the Environmental Planning & Assessment (EP&A) Act.

Section 4.55(1A) of the EP&A Act stipulates:

> *4.55 Modification of consents—generally*
>
> *(1A) **Modifications involving minimal environmental impact** A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if—*
>
> *(a) it is satisfied that the proposed modification is of minimal environmental impact, and*
>
> *(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and*
>
> *(c) it has notified the application in accordance with—*
>
> *(i) the regulations, if the regulations so require, or*
>
> *(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
>
> *(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*
>
> *Subsections (1), (2) and (5) do not apply to such a modification.*

Fundamentally an application made pursuant to Section 4.55(1A) must demonstrate that the development to which the consent as modified relates will have minimal environmental impact; and is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified.

Such an assessment would typically need to appreciate both the qualitative and quantitative aspects of the development being compared in its proper context as described by Bignold J at paragraphs 54 to 56 in *Moto Projects (No.2) Pty Ltd v North Sydney C [1999] NSWLEC 280*. This judgment includes the following comments:

> *54. The relevant satisfaction required by **s 96(2)(a)** to be found to exist in order that the modification power be available involves an ultimate finding of fact based upon the primary facts found. I must be satisfied that the modified development is substantially the same as the originally approved development.*

> *55. The requisite factual finding obviously requires a comparison between the development, as currently approved, and the development as proposed to be modified. The result of the comparison must be a finding that the modified development is "essentially or materially" the same as the (currently) approved development.*
>
> *56. The comparative task does not merely involve a comparison of the physical features or components of the development as currently approved and modified where that comparative exercise is undertaken in some type of sterile vacuum. Rather, the comparison involves an appreciation, qualitative, as well as quantitative, of the developments being compared in their proper contexts (including the circumstances in which the development consent was granted).*

The *Modifying an Approved Project* draft guidelines produced as part of the *Draft Environmental Impact Assessment Guidance Serie*s by the NSW Department of Planning and Environment in June 2017, provides some guidance when assessing modifications of State Significant development:

> *For SSD, a proponent must demonstrate that the change, if carried out, would result in a development that would be substantially the same development as the original development. In order to draw this conclusion, a proponent must have regard to the following considerations, which have been established through decisions of the NSWLEC:*
>
> - *''Substantially'' means ''essentially or materially'' or ''having the same essence.''*
> - *A development can still be substantially the same even if the development as modified involves land that was not the subject of the original consent (provided that the consent authority is satisfied that the proposal is substantially the same).*
> - *If the development as modified, involves an ''additional and distinct land use'', it is not substantially the same development.*
> - *Notwithstanding the above, development as modified would not necessarily be substantially the same solely because it was for precisely the same use as that for which consent was originally granted.*
> - *To determine whether something is ''substantially the same'' requires a comparative task between the whole development as originally approved and the development as proposed to be modified. In order for the proposal to be ''substantially the same'', the comparative task must:*
>   - *result in a finding that the modified development is ''essentially or materially'' the same*
>   - *appreciate the qualitative and quantitative differences in their proper context*
>   - *in addition to the physical difference, consider the environmental impacts of proposed Modification Applications to approved developments.*

> ***''Substantially'' means ''essentially or materially'' or ''having the same essence.''***

Comments

It is considered the modification proposal is substantially the same as that approved and is development that could be considered "*materially the same as that previously approved".* Furthermore, it is considered that the modifications proposed are of the same '*essence'* as the approved development given that:

- the proposal maintains the current land use approved at the site and does not seek to alter the over-riding character of development;
- the proposed built form of the tank will remain substantially the same as that already approved, albeit with a slightly larger footprint however reduced height when compared to the tank as originally approved.
- The proposed modifications do not represent an expansion of the of Shoalhaven Starches' footprint and the modifications will be located within the areas of the site that already contain approved development.
- The proposed modified tank maintains the same general form as that approved; and
- The proposal does not seek to increase overall production from the site, nor will it involve the generation of any additional significant environmental impacts.

> ***A development can still be substantially the same even if the development as modified involves land that was not the subject of the original consent (provided that the consent authority is satisfied that the proposal is substantially the same).***

Comment

The proposal does not involve land that was not the subject of the approval which was in place at the time that the Shoalhaven Starches Expansion Project site transitioned from the Transitional Part 3A provisions to being assessed as State Significant Development

> ***If the development as modified, involves an ''additional and distinct land use'', it is not substantially the same development.***

Comment

The proposal does not involve an *''additional and distinct land use'.* The proposed modification to the Buffer Tank does not represent an additional distinct land use, but will remain association and ancillary to the approved waste water treatment plant.

> ***Notwithstanding the above, development as modified would not necessarily be substantially the same solely because it was for precisely the same use as that for which consent was originally granted.***

Comment

The modification proposal does not seek to change the nature of the approved use of the site, it will remain an ancillary component of the approved waste water treatment plant.

> ***To determine whether something is ''substantially the same'' requires a comparative task between the whole development as originally approved and the development as proposed to be modified. In order for the proposal to be ''substantially the same'', the comparative task must:***
>
> - ***result in a finding that the modified development is ''essentially or materially'' the same***
> - ***appreciate the qualitative and quantitative differences in their proper context***
> - ***in addition to the physical difference, consider the environmental impacts of proposed Modification Applications to approved developments.***

Comment

Quantitatively, the proposal does not represent any increases in production in the terms of processing of flour and starch / gluten or overall ethanol production.

The qualitative elements of the proposal demonstrate that the environmental and amenity impacts of the modification proposal are limited and justifies this proposal being considered as a modification.

This proposal will not expand the overall footprint of the approved Shoalhaven Starches factory. The proposed modification is located within part of the site that have existing development. The proposed development, given its reduced height, is likely to have a reduced visual impact compared to the original approved tank. The bulk, character and scale of the modified tank structure associated with this modification application will not be dissimilar to that which has already been approved. Furthermore, the proposed works will be sited within proximity of similar structures of a similar nature. The works will be sited in the midst of the existing waste water treatment plant and will be viewed within this context.

The proposed modification does not raise additional air quality or noise impacts over those already considered as part of the Project as approved.

The works associated with this modification application do not represent an additional or distinct land use as all proposed modifications facilitate and improve the existing approved production processes.

The proposal will not comprise any qualitative or quantitative changes in overall production from the site. The proposal essentially seeks to improve the quality of waste water that is treated within the existing waste water treatment plant on the site.

The modified proposal represents a scale of development that will be commensurate with the bulk, scale and character of the approved development.

It is our view that the proposed modification will have minimal environmental impacts and the modified development is substantially the same as approved Project. As such the modification proposal is considered consistent with provisions of Section 4.55(1A) of the Act in this instance.

Given the above circumstances it is our view that the modification proposal; will have minimal environmental impact when compared to the original approved development; and the development as modified by this modification application will be substantially the same development as the development for which consent was originally granted having regard to both the qualitative and quantitative elements of that development.

7.0 SECTION 4.15(1)(A) – ENVIRONMENTAL PLANNING PROVISIONS

In determining an application made pursuant to Section 4.55 of the EP&A Act the consent authority must take into consideration such of the matters referred to in Section 4.15(1) as are of relevance to the development the subject of the application.

7.1 ENVIRONMENTAL PLANNING INSTRUMENTS

7.1.1 State Environmental Planning Policies

Table 3 details State Environmental Planning Policies (SEPP) that apply to the land and whether they are applicable to the proposal.

Table 3

State Environmental Planning Policies that Apply to the Subject Site

State Environmental Planning Policy	***Applicable Yes/No***
State Environmental Planning Policy (Planning Systems) 2021	Yes (Proposal involves modification of SSD)
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	No
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	No
State Environmental Planning Policy (Biodiversity & Conservation) 2021	No
State Environmental Planning Policy (Housing) 2021	No
State Environmental Planning Policy (Transport and Infrastructure) 2021	Yes
State Environmental Planning Policy (Resilience and Hazards) 2021	Yes
State Environmental Planning Policy (Industry and Employment) 2021	No
State Environmental Planning Policy No 65-Design Quality of Residential Apartment Development	No
State Environmental Planning Policy (Primary Production) 2021	No
State Environmental Planning Policy (Precincts – Central River City) 2021	No
State Environmental Planning Policy (Precincts – Western Parklands City) 2021	No
State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021	No
State Environmental Planning Policy (Precincts – Regional) 2021	No
State Environmental Planning Policy (Primary Production) 2021	No

SEPP (Transport and Infrastructure) 2021

Division 17 of this SEPP relates to Road and Traffic while Schedule 3 of the SEPP outlines traffic generating development which requires referral to Roads and Maritime Services (RMS). The proposal does not trigger the criteria in this Schedule that would warrant the development application being referred to the RMS, and therefore the provisions of this SEPP would not apply to this proposal.

Schedule 3 includes the following criteria that may have relevance to this proposal:

Development purpose	***Column 1:*** ***Size or capacity*** ***– site with access to any road***	***Column 2*** ***Size or capacity—site with access to classified road or to road that connects to classified road (if access within 90m of connection, measured along alignment of connecting road)***
Car parks	200 or more car parking spaces	50 or more car parking spaces
Industry	20,000m^2 in site area or (if the site area is less than the gross floor area) gross floor area	5,000 m^2 in site area or (if the site area is less than the gross floor area) gross floor area
Any other purpose	200 or more motor vehicles per hour	50 or more motor vehicles per hour

The modification proposal does not specifically trigger the above criteria. Under these circumstances the RMS is not required to be notified of this proposal.

SEPP (Resilience and Hazards) 2021

Coastal Management

Part 2 of this SEPP deals with coastal management and stipulates Development Controls for Coastal Management Areas.

Coastal Wetlands and Littoral Rainforests Area

Division 1 outlines the controls to be applied to development in the Coastal Wetlands and Littoral Rainforests Area.

Mapping supporting the SEPP outlines the subject land is not mapped as containing coastal wetlands or littoral rainforest.

Coastal Environment Area

Division 3 of the SEPP stipulates the controls to be applied to development in the Coastal Environment Area.

The location of the approved Buffer Tank within the subject site is not located within the Coastal Environment Area (**Figure 5**). These provisions therefore do not apply to this proposal.

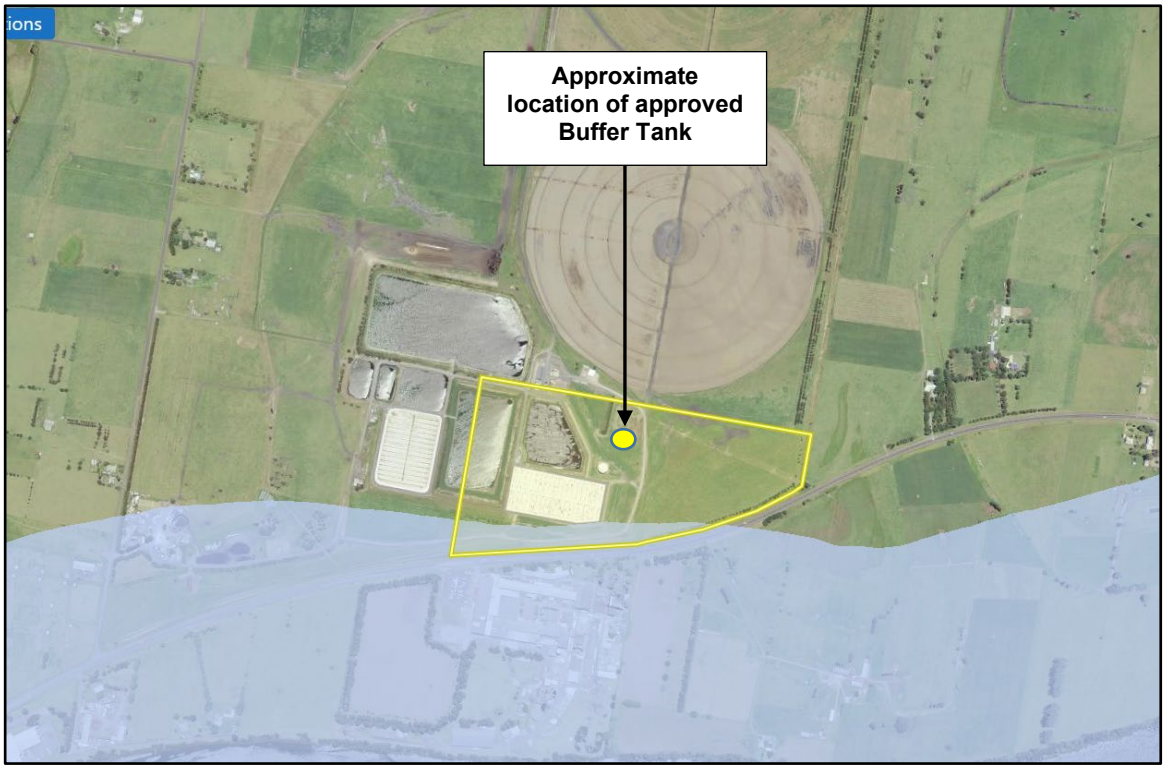

Figure 5: Coastal Environmental Area mapping.

Coastal Use Area

Division 4 of the SEPP specifies the controls to be applied to development in the Coastal Use Area.

The subject land is not mapped as being affected by the Coastal Use zone (**Figure 6**). As such the provisions that apply to the Coastal Use zone are not relevant to this Modification Proposal.

Hazardous and Offensive Development

Chapter 3 of this SEPP deals with hazardous and offensive development. Clause 3.11 of this SEPP requires that a person who proposes to carry out development for the purposes of a potentially hazardous industry must prepare a preliminary hazard analysis in accordance with the current circulars or guidelines published by the Department of Planning and submit the analysis with the development application.

The Preliminary Hazards Analysis prepared by Pinnacle Risk Management in support of Mod 21 identified that the raw waste water does not contain any flammable or toxic gases. This Modification Proposal therefore does not raise issue of concern with respect to this chapter of this SEPP.

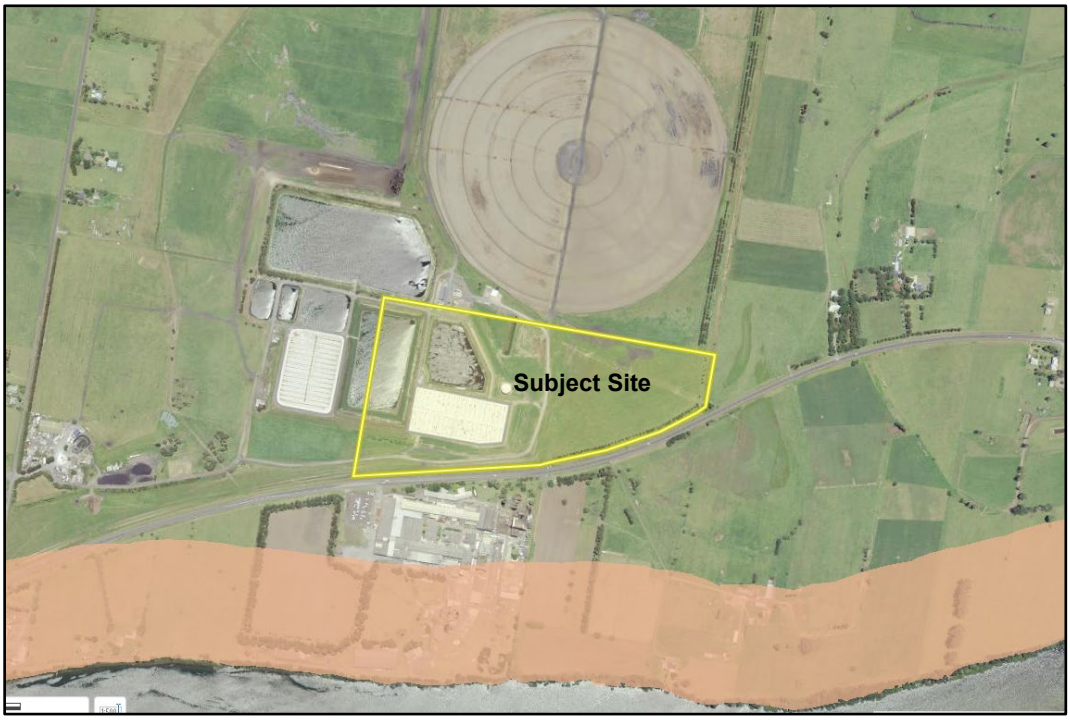

Figure 6: Coastal Use Area mapping.

7.1.2 Local Environmental Plan

Shoalhaven Local Environmental Plan 2014

The land associated with this modification application is zoned RU1 Primary Production under the provisions of the Shoalhaven LEP 2014 (refer **Figure 7**).

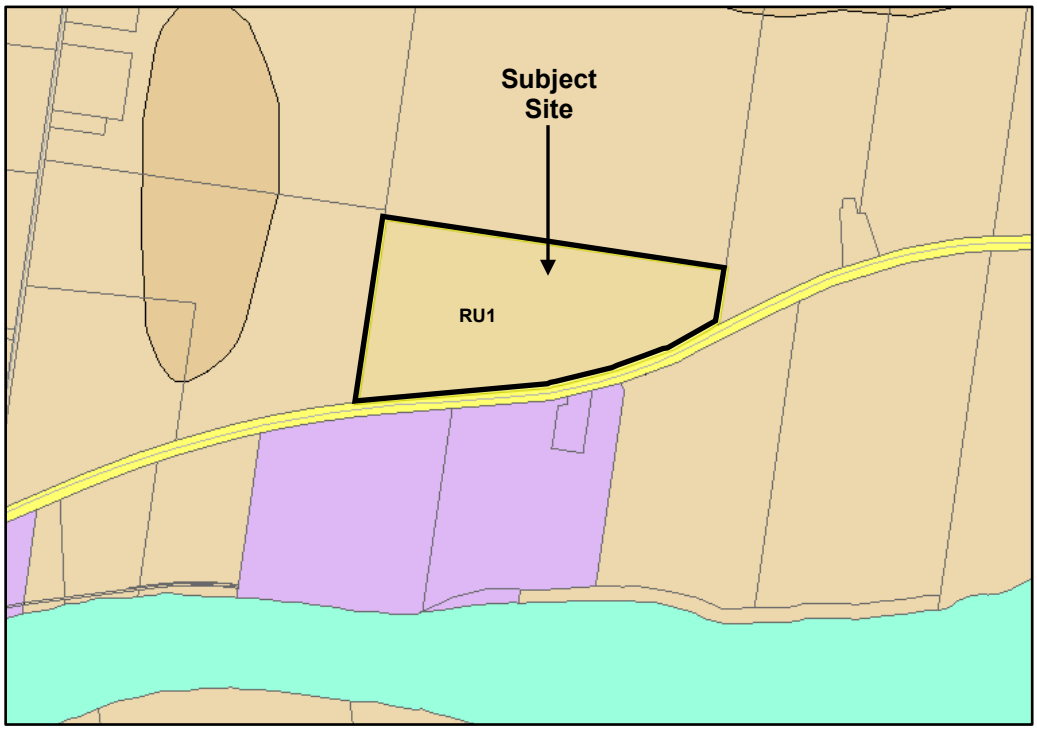

Figure 7: Extract of zoning map under the SLEP 2014.

The objectives of the RU1 zone are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To conserve and maintain productive prime crop and pasture land.*
- *To conserve and maintain the economic potential of the land within this zone for extractive industries.*

It is our view that the proposal is consistent with these objectives as the proposal involves modifications to an existing approved rural industrial operation.

Table 4 outlines the land use table provisions applicable to the RU1 zone that applies to the site.

Table 4

Land Use Permissibility – RU1 Zone (Shoalhaven LEP 2014)

Permitted without consent	Extensive agriculture; Forestry; Home occupations
Permitted with consent	Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Aquaculture; Artisan food and drink industries; Boat building and repair facilities; Boat sheds; Building identification signs; Business identification signs; Camping grounds; Cellar door premises; Cemeteries; Charter and tourism boating facilities; Community facilities; Crematoria; Depots; Dual occupancies (attached); Dwelling houses; Eco-tourist facilities; Educational establishments; Environmental facilities; Environmental protection works; Extractive industries; Farm buildings; Flood mitigation works; Food and drink premises; Group homes; Helipads; Home-based child care; Home businesses; Home industries; Information and education facilities; Intensive livestock agriculture; Intensive plant agriculture; Marinas; Markets; Mooring pens; Moorings; Offensive industries; Open cut mining; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Roads; Roadside stalls; **Rural industries**; Rural workers' dwellings; Tourist and visitor accommodation; Veterinary hospitals; Water recreation structures; Water supply systems
Prohibited	Hotel or motel accommodation; Pubs; Serviced apartments; Any other development not specified in item 2 or 3

"Rural industries" are defined for the purposes of the SLEP 2014 as meaning:

> ***rural industry*** *means the handling, treating, production, processing, storage or packing of animal or plant agricultural products for commercial purposes, and includes any of the following—*

(a) agricultural produce industries,

(b) livestock processing industries,

(c) composting facilities and works (including the production of mushroom substrate),

(d) sawmill or log processing works,

(e) stock and sale yards,

(f) the regular servicing or repairing of plant or equipment used for the purposes of a rural enterprise.

Note—
Rural industries are not a type of ***industry****—see the definition of that term in this Dictionary.*

The Shoalhaven Starches overall operations process wheat, other grains and flour to produce a range of products. Such an activity is consistent with the definition of an 'agricultural produce industry" which is defined under the SLEP 2014 as meaning:

> ***agricultural produce industry*** *means a building or place used for the handling, treating, processing or packing, for commercial purposes, of produce from agriculture (including dairy products, seeds, fruit, vegetables or other plant material), and includes wineries, flour mills, cotton seed oil plants, cotton gins, feed mills, cheese and butter factories, and juicing or canning plants, but does not include a livestock processing industry.*
>
> ***Note—***
> *Agricultural produce industries are a type of* ***rural industry****—see the definition of that term in this Dictionary.*

As outlined in the 'note' in the above definition Agricultural produce industries are a type of rural industry. As outlined in the SEE that supported Mod 21, the raw wastewater buffer tank associated with this Modification Application forms part of the Shoalhaven Starches waste water treatment plant that was approved and is located on the Shoalhaven Starches Environmental Farm located on the northern side of Bolong Road. Such a use is ancillary to the use of the site as a rural industry and therefore permissible with consent within the RU1 zone (refer **Table 4**).

Special Provisions

The SLEP 2014 also has a number of specific provisions that apply to the land. The implications that these provisions have in relation to this proposal are discussed in **Table 5** below:

Table 5
Shoalhaven Local Environment Plan Provisions

SLEP 2014 Clause	*Provisions*	*Comments*
Clause4.3 *Height of Buildings*	*(1) The objectives of this clause are as follows:* *(a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of a locality,* *(b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,* *(c) to ensure that the height of buildings on or in the vicinity of a heritage item or within a heritage conservation area respect heritage significance.* *(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.* *(2A) If the Height of Buildings Map does not show a maximum height for any land, the height of a building on the land is not to exceed 11 metres.*	Although there is no maximum height specified for the subject land, clause 4.3(2A) imposes a maximum building height of 11 m where no specific height limit is designated. The Modification Proposal will involve a reduction in height of the proposed Buffer Tank from the approved height of 12.0 m above ground level to 7.6 metres (9.0 metres maximum height) above ground level. The proposed modified height of the tank will therefore be less than the maximum building height limit of 11.0 metres as set by clause 4.3(2A). The modified proposal will therefore comply with the provisions of this clause.
Clause 5.10 *Heritage Conservation*	*(1) The objectives of this clause are:* *(a) to conserve the environmental heritage of Shoalhaven; and* *(b) to conserve the heritage significance of heritage items and heritage conservation areas including associated fabric, settings and views; and* *(c) to conserve archaeological sites; and* *(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.* *(2) Development consent is required for any of the following:* *(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):* *(i) a heritage item,* *(ii) an Aboriginal object* *(iii) a building, work, relic or tree within a heritage conservation area,*	There are no heritage items within the subject land, and the subject site is not located within a heritage conservation area.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
5.10 continued	*(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,* *(c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being, discovered, exposed, moved damaged or destroyed,* *(d) disturbing or excavating an Aboriginal place of heritage significance,* *(e) erecting a building on land:* *(i) on which a heritage item is located or that is within a heritage conservation area;* *(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,* *(f) subdividing land:* *(i) on which a heritage item is located or that is within a heritage conservation area, or* *(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*	
Clause 5.21 *Flood Planning*	*(1) The objectives of this clause are as follows—* *(a) to minimise the flood risk to life and property associated with the use of land,* *(b) to allow development on land that is compatible with the flood function and behaviour on the land, taking into account projected changes as a result of climate change,* *(c) to avoid adverse or cumulative impacts on flood behaviour and the environment,* *(d) to enable the safe occupation and efficient evacuation of people in the event of a flood.*	The SEE that supported Mod 21 was supported by a Flood Assessment prepared by WMAwater that did not identify the original approved Buffer Tank would have any flood impacts on land outside those owned by Shoalhaven Starches. Whilst this proposal involves a slight increase in the footprint of the tank from that approved under Mod 21 it is not anticipated that such a slight increase in footprint will result in any significant additional flooding impacts when compared to the original tank that was approved in this same position on this site.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
	(2) Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development— *(a) is compatible with the flood function and behaviour on the land, and* *(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and* *(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and* *(d) incorporates appropriate measures to manage risk to life in the event of a flood, and* *(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.* *(3) In deciding whether to grant development consent on land to which this clause applies, the consent authority must consider the following matters—* *(a) the impact of the development on projected changes to flood behaviour as a result of climate change,* *(b) the intended design and scale of buildings resulting from the development,* *(c) whether the development incorporates measures to minimise the risk to life and ensure the safe evacuation of people in the event of a flood,* *(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion.*	

Table 5 (continued)

<table>
<tr><th>SLEP 2014 Clause</th><th>Provisions</th><th>Comments</th></tr>
<tr><td></td><td>(4) A word or expression used in this clause has the same meaning as it has in the Considering Flooding in Land Use Planning Guideline unless it is otherwise defined in this clause.
(5) In this clause—
Considering Flooding in Land Use Planning Guideline means the Considering Flooding in Land Use Planning Guideline published on the Department's website on 14 July 2021.
Flood planning area has the same meaning as it has in the Floodplain Development Manual.
Floodplain Development Manual means the Floodplain Development Manual(ISBN 0 7347 5476 0) published by the NSW Government in April 2005.</td><td></td></tr>
<tr><td>Clause 7.1
Acid sulfate soils</td><td>(1) The objective of this clause is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.
(2) Development consent is required for the carrying out of works described in the Table to this subclause on land shown on the Acid Sulfate Soils Map as being of the class specified for those works, except as provided by this clause.
<table>
<tr><th>Class of Land</th><th>Works</th></tr>
<tr><td>1</td><td>Any works.</td></tr>
<tr><td>2</td><td>Works below the natural ground surface.
Works by which the watertable is likely to be lowered.</td></tr>
<tr><td>3</td><td>Works more than 1 metre below the natural ground surface.
Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.</td></tr>
</table></td><td>An Acid Sulphate Soils Management Plan has been formulated for the site in accordance with Condition 21 of the original Project Approval. This plan will need to be updated to reflect this Modification Proposal; however, it is not considered necessary, that further assessment is required to be undertaken in relation to this Modification Application in terms of ASS.</td></tr>
</table>

Table 5 (continued)

SLEP 2014 Clause	Provisions	Comments
7.1 continued		

4	*Works more than 2 metres below the natural ground surface.* *Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.*
5	*Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.*

(3) Development consent must not be granted under this clause for the carrying out of works unless an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been provided to the consent authority.

(4) Despite subclause (2), development consent is not required under this clause for the carrying out of works if:

(a) a preliminary assessment of the proposed works prepared in accordance with the Acid Sulfate Soils Manual indicates that an acid sulfate soils management plan is not required for the works, and

(b) the preliminary assessment has been provided to the consent authority and the consent authority has confirmed the assessment by notice in writing to the person proposing to carry out the works.

(5) Despite subclause (2), development consent is not required under this clause for the carrying out of any of the following works by a public authority (including ancillary work such as excavation, construction of access ways or the supply of power):

(a) emergency work, being the repair of the works of the public authority required to be carried out urgently because the works have been damaged, have ceased to function or pose a risk to the environment or to public health and safety,

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.1 continued	*(b) routine management work, being the periodic inspection, cleaning, repair or replacement of the works of the public authority (other than work that involves the disturbance of more than 1 tonne of soil).* *(c) minor work, being work that costs less than $20,000 (other than drainage work).* *(6) Despite subclause (2), development consent is not required under this clause to carry out any works if:* *(a) the works involve the disturbance of less than 1 tonne of soil, and* *(b) the works are not likely to lower the watertable.*	
Clause 7.4 *Coastal Risk Planning*	*(1) The objectives of this clause are as follows:* *(a) to avoid significant adverse impacts from coastal hazards,* *(b) to ensure uses of land identified as coastal risk are compatible with the risks presented by coastal hazards,* *(c) to enable the evacuation of land identified as coastal risk in an emergency,* *(d) to avoid development that increases the severity of coastal hazards.* *(2) This clause applies to the land identified as "Coastal Risk Planning Area" on the Coastal Risk Planning Map.* *(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:* *(a) will avoid, minimise or mitigate exposure to coastal processes, and* *(b) is not likely to cause detrimental increases in coastal risks to other development or properties, and* *(c) is not likely to alter coastal processes and the impacts of coastal hazards to the detriment of the environment, and* *(d) incorporates appropriate measures to manage risk to life from coastal risks, and*	The *Coastal Risk Planning Map* that accompanies the SLEP 2014 does not identify the subject land as a "*Coastal Risk Planning Area"*. The provisions of this clause therefore do not apply to the subject site.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.4 continued	*(e) is likely to avoid or minimise adverse effects from the impact of coastal processes and the exposure to coastal hazards, and* *(f) provides for the relocation, modification or removal of the development to adapt to the impact of coastal processes and coastal hazards, and* *(g) has regard to the impacts of sea level rise.* *(4) A word or expression used in this clause has the same meaning as it has in the NSW Coastal Planning Guideline: Adapting to Sea Level Rise (ISBN 978-1-74263-035-9) published by the NSW Government in August 2010, unless it is otherwise defined in this clause.* *(5) In this clause:* ***coastal hazard** has the same meaning as in the Coastal Protection Act 1979.*	
Clause 7.5 *Terrestrial Biodiversity*	*(1) The objective of this clause is to maintain terrestrial biodiversity, by:* *(a) protecting native flora and fauna,* *(b) protecting the ecological processes necessary for their continued existence, and* *(c) encouraging the recovery of native flora and fauna, and their habitats.* *(2) This clause applies to land:* *(a) identified as "Biodiversity—habitat corridor" or "Biodiversity—significant vegetation" on the Terrestrial Biodiversity Map, and* *(b) situated within 40m of the bank (measured horizontally from the top of the bank) of a natural waterbody.* *(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider:* *(a) whether the development is likely to have:* *(i) any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and* *(ii) any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and*	The Terrestrial Biodiversity Map that accompanies the SLEP 2014 does not identify the subject land as including areas of Biodiversity - habitat corridor and/or Biodiversity - significant vegetation. Given the developed nature of the subject site, the proposal is unlikely to have any adverse impacts on the ecological value of the land.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.5 continued	*(iii) any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and* *(iv) any adverse impact on the habitat elements providing connectivity on the land, and* *(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.* *(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:* *(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or* *(b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or* *(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.* *(5) For the purpose of this clause:* ***bank** means the limit of the bed of a natural waterbody.* ***bed,** of a natural waterbody, means the whole of the soil of the channel in which the waterbody flows, including the portion that is alternatively covered and left bear with an increase or diminution in the supply of water and that is adequate to contain the waterbody at its average or mean stage without reference to extraordinary freshets in the time of flood or to extreme droughts.*	
Clause 7.6 *Riparian land and watercourses*	*(1) The objective of this clause is to protect and maintain the following:* *(a) water quality within watercourses,* *(b) the stability of the bed and banks of watercourses,* *(c) aquatic and riparian habitats,* *(d) ecological processes within watercourses and riparian areas.*	The Riparian Lands and Watercourses Map that accompanies the SLEP 2014 does not identify any watercourses within the subject site or within the vicinity of the proposed tank. The provisions of this clause therefore do not apply to this Modification Proposal.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.6 continued	*(2) This clause applies to all of the following:* *(a) land identified as "Riparian Land" on the Riparian Lands and Watercourses Map,* *(b) land identified as "Watercourse Category 1", "Watercourse Category 2" or "Watercourse Category 3" on that map,* *(c) all land that is within 50 metres of the top of the bank of each watercourse on land identified as "Watercourse Category 1", "Watercourse Category 2" or "Watercourse Category 3" on that map.* *(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider:* *(a) whether or not the development is likely to have any adverse impact on the following:* *(i) the water quality and flows within the watercourse,* *(ii) aquatic and riparian species, habitats and ecosystems of the watercourse,* *(iii) the stability of the bed and banks of the watercourse,* *(iv) the free passage of fish and other aquatic organisms within or along the watercourse,* *(v) any future rehabilitation of the watercourse and its riparian areas, and* *(b) whether or not the development is likely to increase water extraction from the watercourse, and* *(c) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.* *(4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:* *(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or* *(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*	

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.6 continued	*(c) if that impact cannot be minimised—the development will be managed to mitigate that impact* *(5) For the purpose of this clause:* ***bank** means the limit of the bed of a watercourse.* ***bed**, of a watercourse, means the whole of the soil of the channel in which the watercourse flows, including the portion that is alternatively covered and left bear with an increase or diminution in the supply of water and that is adequate to contain the watercourse at its average or mean stage without reference to extraordinary freshets in the time of flood or to extreme droughts.*	
Clause 7.7 *Landslide risk and other land degradation*	*(1) The objective of this clause is to maintain soil resources and the diversity and stability of landscapes, including protecting land:* *(a) comprising steep slopes, and* *(b) susceptible to other forms of land degradation.* *(2) This clause applies to the following land:* *(a) land with a slope in excess of 20% (1:5), as measured from the contours of a 1:25,000 topographical map, and* *(b) land identified as "Sensitive Area" on the Natural Resource Sensitivity—Land Map.* *(3) Before determining a development application for development on land to which this clause applies, the consent authority must consider any potential adverse impact, either from, or as a result of, the development in relation to:* *(a) the geotechnical stability of the site, and* *(b) the probability of increased erosion or other land degradation processes.* *(4) Before granting consent to development on land to which this clause applies, the consent authority must be satisfied that:* *(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or*	The land associated with this Modification Application is not identified as sensitive land under the SLEP 2014 mapping. Under these circumstances the provisions of this clause do not apply to this proposal.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.7 continued	*(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or* *(c) if that impact cannot be minimised – the development will be managed to mitigate that impact.* *(5) In this clause, topographical map means the most current edition of a topographical map, produced by Land and Property Information division of the Department of Finance and Services, that identifies the Council's local government area and boundary.*	
Clause 7.8 *Scenic protection*	*(1) The objective of this clause is to protect the natural environmental and scenic amenity of land that is of high scenic value.* *(2) This clause applies to land identified as "Scenic Protection" on the Scenic Protection Area Map.* *(3) In deciding whether to grant development consent for development on land to which this clause applies, the consent authority must:* *(a) consider the visual impact of the development when viewed from a public place and be satisfied that the development will involve the taking of measures that will minimise any detrimental visual impact, and* *(b) consider the number, type and location of existing trees and shrubs that are to be retained and the extent of landscaping to be carried out on the site, and* *(c) consider the siting of the proposed buildings.*	The subject land is <u>not</u> identified as being within a "*Scenic Protection"* area by *Scenic Protection Area Mapping* that accompanies the SLEP 2014. The provisions of this clause therefore do not apply to the subject site.
Clause 7.9 *HMAS Albatross airspace operations*	*(1) The objectives of this clause are as follows—* *(a) to provide for the effective and on-going operation of the HMAS Albatross Military Airfield by ensuring that such operation is not compromised by proposed development that penetrates the Limitation or Operations Surface for that airport,* *(b) to protect the community from undue risk from that operation.*	The proposed works do not involve structures or uses that are likely to penetrates the Limitation or Operations Surface for HMAS Albatross.

Table 5 (continued)

SLEP 2014 Clause	*Provisions*	*Comments*
7.9 continued	*(2) If a development application is received and the consent authority is satisfied that the proposed development will penetrate the Limitation or Operations Surface, the consent authority must not grant development consent unless it has consulted with the relevant Commonwealth body about the application.* *(3) The consent authority may grant development consent for the development if the relevant Commonwealth body advises that—* *(a) the development will penetrate the Limitation or Operations Surface but it has no objection to its construction, or* *(b) the development will not penetrate the Limitation or Operations Surface.* *(4) The consent authority must not grant development consent for the development if the relevant Commonwealth body advises that the development will penetrate the Limitation or Operations Surface and should not be carried out.* *(5) In this clause—* ***Limitation or Operations Surface** means the Obstacle Limitation Surface or the Procedures for Air Navigation Services Operations Surface as shown on the Obstacle Limitation Surface Map or the Procedures for Air Navigation Services Operations Surface Map for the HMAS Albatross Military Airfield.* ***Relevant Commonwealth body** means the body, under Commonwealth legislation, that is responsible for development approvals for development that penetrates the Limitation or Operations Surface for the HMAS Albatross Military Airfield*	

7.1.3 Development Control Plans (DCP) and Policies

Shoalhaven Development Control Plan (DCP) 2014

Chapter G9: Development on Flood Prone Land

The provisions of *Chapter G9: Development on Flood Prone Land* of the Shoalhaven DCP 2014 have relevance to this proposal..

The original Mod 21 application was supported by a Flood Compliance Report prepared by WMAwater.

Tables 6 addresses the relevant provisions (Section 5.1) of Chapter G9 of the Shoalhaven DCP 2014 having regard to the findings of the original Flood Compliance Report prepared by WMAwater in relation to this Modification Proposal. WMAwater did not identify any specific flooding issues with respect to the original approved Buffer Tank. It is not anticipated that the Modified Proposal will raise any substantive issues in terms of flooding when compared to the approved Buffer Tank.

Table 6

Performance Criteria – General (Section 5.1 DCP 2014)

Performance Criteria	***Response***
P1 Development or work on flood prone land will meet the following:	
The development will not increase the risk to life or safety of persons during a flood event on the development site and adjoining land.	No additional workers will be on the site as a result of the proposed works. Approximately 20 workers will be relocated from the existing plant site to the new packing plant site.
The development or work will not unduly restrict the flow behaviour of floodwaters.	Refer Hydraulic Impact Assessment.
The development or work will not unduly increase the level or flow of floodwaters or stormwater runoff on land in the vicinity. The development or work will not exacerbate the adverse consequences of floodwaters flowing on the land with regard to erosion, siltation and destruction of vegetation.	The proposed development is within existing built-up industrial land with minimal vegetation on the site. All runoff under existing and future conditions will reach the ground in nearly identical locations and thus the works will have no impact on erosion or siltation.
The structural characteristics of any building or work that are the subject of the application are capable of withstanding flooding in accordance with the requirements of the Council.	A separate structural report will be provided.
The development will not become unsafe during floods or result in moving debris that potentially threatens the safety of people or the integrity of structures.	A separate structural report on the potential failure of existing buildings and stored equipment and product will be provided.

Table 6 (continued)

Performance Criteria	*Response*
Potential damage due to inundation of proposed buildings and structures is minimised.	Inundation of the site and the proposed plant and / or debris impact may cause damage to electrical and other components feeding the equipment as well as damage to the plant itself. These issues will be considered in an updated Shoalhaven Starches Flood Plan taking into account the proposed works.
The development will not obstruct escape routes for both people and stock in the event of a flood.	The proposed works will not occupy escape routes or cause workers to become trapped.
The development will not unduly increase dependency on emergency services.	The works will not increase the number of workers from Shoalhaven Starches who may be subject to flood risk as a result of the proposed works.
Interaction of flooding from all possible sources has been taken into account in assessing the proposed development against risks to life and property resulting from any adverse hydraulic impacts.	Refer Hydraulic Impact Assessment below.
The development will not adversely affect the integrity of floodplains and floodway's, including riparian vegetation, fluvial geomorphologic environmental processes and water quality.	The works will be constructed on land that is partly designated as high hazard floodway in the 1% AEP event. The site is industrial land with limited existing vegetation and is beyond the influence of normal fluvial geomorphic processes. The works will have no impact on water quality.

7.1.4 Protection of the Environment Operations Act and Associated Regulations

The existing Shoalhaven Starches factory site and Environmental Farm are subject to an Environmental Protection Licence (EPL) under the Protection of the Environment Operations Act 1997 (POEO Act) (EPL No. 883) issued by the EPA. The licence imposes requirements in terms of:

- discharges to air, water and land;
- irrigation controls;
- management of irrigation;
- maintenance of irrigation reticulation;
- odour control;
- noise.

If approved, the proposed modification may necessitate the terms/provisions of this licence to be also reviewed.

7.2 THE LIKELY IMPACTS OF THE DEVELOPMENT, INCLUDING ENVIRONMENTAL IMPACTS ON BOTH NATURAL AND BUILT ENVIRONMENTS, AND SOCIAL AND ECONOMIC IMPACTS IN THE LOCALITY

7.2.1 Risk Assessment of Potential Environmental Impacts

The purpose of this section of the SEE is to provide a risk assessment of the potential environmental impacts associated with the modification proposal. This section (**Table 7**) compares the potential impacts from the proposed modification against the approved project. The comparison uses the key environmental impacts assessed in the original EA that supported the original MP06_0228 and summarises the relative change in environmental impacts associated with the proposed modification.

Table 7

Risk Assessment

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
Air Quality (including Odour) Assessment		
One of the primary issues that was addressed in the original EA for the Shoalhaven Starches Expansion Project concerned the need for a comprehensive air quality assessment (including odour assessment) and reduction of odours as part of the project. Mod 21 was supported by an Air Quality Impact Assessment prepared by GHD. With respect to the original proposed RW Buffer Tank GHD stated: *"The proposed raw wastewater tank would be equipped with a floating roof to prevent odour emissions. No additional odour emissions are anticipated."* The modified tank under this Modification Proposal will still be equipped with a floating roof to prevent odour emissions, as was the case with the original approved tank. Under these circumstances, it is not anticipated that the Modification Proposal will result in any additional odour emissions.	No additional management or mitigative measures are proposed	This issue is further addressed in Section 7.2.3 of this SEE.
Transport and Traffic		
The Modification Proposal involves changes to the function and size of an approved Buffer Tank. Such a Modification Proposal will not involve any changes to traffic generation on the local road system or off street car parking requirements.	No additional management or mitigative measures are proposed in terms of traffic or car parking.	Not a key issue. This issue is not further addressed in this SEE.
Site Contamination		
The subject site associated with this Modification Application is similar to the area identified as the "Proposed Water Treatment and Filtration Plant" previously examined by Coffey Environments ("Coffey's") as part of their report titled *Preliminary Environmental Site Assessment and Geotechnical Investigation, Proposed Ethanol Expansion, Shoalhaven Starches, Bolong Road, Bomaderry"* which	No additional management or mitigative measures are proposed in terms of this issue.	Not a key issue. This issue is not further addressed in this SEE.

Table 7 (continued)

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
supported the original Project Application for the Shoalhaven Starches Expansion Project. Coffey's in this previous report addressed the issue of site contamination including in relation to the location of the pproposed Wastewater Treatment Plant complex. Coffey's did not find evidence of site contamination within this part of the site.		
Acid Sulphate Soils		
As outlined above The subject site associated with this Modification Application is similar to the area identified as the "Proposed Water Treatment and Filtration Plant" previously examined by Coffey Environments ("Coffey's") as part of their report titled *"Preliminary Environmental Site Assessment and Geotechnical Investigation, Proposed Ethanol Expansion, Shoalhaven Starches, Bolong Road, Bomaderry"* which supported the original Project Application for the Shoalhaven Starches Expansion Project. According to Coffey's, soils in this area of the site have been managed as ASS. An Acid Sulphate Soils Management Plan (ASSMP) has been prepared in accordance with Condition 21 of the original Project Approval. This issue does not require to be further addressed as part of this Modification Application provided any future development on the land is carried out consistent with the recommendations of the ASSMP that has been formulated for this site.	No additional management or mitigative measures are proposed in terms of this issue.	Not a key issue. This issue is not further addressed in this SEE.
Noise		
An Environmental Noise Impact Assessment (ENIA) was prepared by Harwood Acoustics Pty Ltd in relation to Mod 21. This assessment did not identify any noise sources associated with the Buffer Tank. It is not anticipated that the modification to the Buffer Tank will result in any additional noise impacts when compared to the approved Buffer Tank.	No additional management or mitigative measures are proposed in terms of this issue.	Not a key issue. This issue is not further addressed in this SEE.

Table 7 (continued)

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
Hazards		
Pinnacle Risk Management (PRM) prepared a Preliminary Hazard Analysis in relation to Mod 21. The Preliminary Hazards Analysis prepared by Pinnacle Risk Management in support of Mod 21 identified that the raw waste water does not contain any flammable or toxic gases. With the change in function of the tank, it is anticipated that a small amount of biogas will now pass through the modified tank. The biogas will contain methane a "Dangerous Good Class 2.1". **Annexure 3** to this SEE is correspondence from Pinnacle Risk Management confirming that even if it is assumed that the tank contained 100% methane (which it will not; as there will be other gases such as carbon dioxide), then the maximum methane quantity would be approximately 2.5 te. According to Pinnacle Risk Management, the tank would need to be less than 90 metres to other users for it to be deemed potentially hazardous. The tank however is proposed to be sited 185 metres from Bolong Road. Therefore, according to Pinnacle Risk Management, the tank would not be deemed to be potentially hazardous and therefore a PHA is not required.	No additional management or mitigative measures are proposed in terms of this issue.	Not a key issue. This issue is not further addressed in this SEE.
Flooding		
The subject site is inundated during the 1% Annual Exceedance Probability (AEP) flood event by floodwaters from the Shoalhaven River. The SEE that supported Mod 21 was supported by a Flood Assessment prepared by WMAwater that did not identify the original approved Buffer Tank would have any flood impacts on land outside those owned by Shoalhaven Starches. Whilst this proposal involves a slight increase in the footprint of the tank from	No additional management or mitigation measures proposed.	Not a key issue. This issue is not further addressed in this SEE.

Table 7 (continued)

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
that approved under Mod 21, it is not anticipated that such a slight increase in footprint will result in any significant additional flooding impacts when compared to the original tank that was approved in this same position on this site.		
Waste Management		
The proposed modifications will not alter the way waste is managed on the site. The site is already subject to an existing Waste Management Plan prepared in accordance with the original Project Approval.	No additional management or mitigation measures proposed.	Not a key issue. This issue is not further addressed in this SEE.
Site Stormwater Management		
This Modification Proposal involves a slight increase in the footprint of the approved Buffer Tank. The Buffer Tank forms part of the overall Waste Water Treatment Plant located within the Shoalhaven Starches Environmental Farm. It is not envisaged that this Modification Proposal will result in any significant stormwater management requirements for this part of the site.	No additional management or mitigation measures proposed.	Not a key issue. This issue is not further addressed in this SEE.
Visual Impact		
The majority of the works associated with this modification will be situated within the vicinity of existing industrial development of a similar scale to that which is proposed.	No additional management or mitigation measures proposed.	The visual impacts associated with this modification proposal are addressed in Section 7.2.4 of this SEE.
Flora and Fauna		
The location of the approved Buffer Tank is cleared of native vegetation. No native vegetation will be required to be disturbed by this Modification Proposal. It is not anticipated that this Modification Proposal will result in any additional ecological impacts when compared to the approved Buffer Tank.	No additional management or mitigation measures proposed.	Not a key issue. This issue is not further addressed in this SEE.

Table 7 (continued)

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
Heritage and Archaeological		
The proposed works associated with this modification will be located within areas of the site which was not previously identified by the EA for the Shoalhaven Starches Expansion Project as an area subject to either Aboriginal or European cultural heritage significance. The original Aboriginal Archaeological Assessment that supported the EA prepared by South East Archaeology did not identify any constraints with respect to the parts of the site associated with this modification proposal. The proposed works will have no additional impact in terms of indigenous or non-indigenous heritage. No change in environmental impacts from that originally identified in EA.	No additional management or mitigation measures proposed.	Not a key issue. This issue is not further addressed in this SEE.
Effluent Irrigation and Storage		
Under this Modification Proposal it is proposed to change the function of the approved Buffer Tank to function as a Equalisation Tank which will equalize the existing ADI-BVF in-ground anaerobic digester's effluent. It is proposed to install solids settling media within the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall wastewater treatment plant system (WWTP).	No additional management or mitigation measures proposed.	This issue is further addressed in Section 7.2.2 of this SEE.
Wastewater Treatment		
Water Discharges The Shoalhaven Starches Factory and Environmental Farm are licensed premises under the Protection of the Environmental Operations Act. Wastewater discharges from the site are licensed by the DEC (EPL 883).	No additional management or mitigation measures.	Not a key issue. This issue is not further addressed in this SEE.

Table 7 (continued)

Relative Change in Environmental Impact	*Additional Management or Mitigation Measures Required*	*Significance of Issue with this Modification Proposal*
The plant has a licensed outfall into the Shoalhaven River. The outfall point is a 50 cm diameter metal pipe discharging at the end of an existing jetty. It also has a cooling water discharge comprising a 50 cm diameter pipe which discharges onto a gabion spillway. Under the terms of the Company's EPL discharge streams associated with the plant include: • river water passed through the boiler condensers and the primary side of the heat exchangers; • boiler water treatment plant regeneration waters; and • pH adjusted glucose plant ion exchange unit regeneration waters. All these must be discharged from the cooling water discharges. The limiting conditions in relation to these discharges include: • The volume of water discharged from the cooling water discharges must not exceed 100,000 kilolitres per day. • The wastewaters discharged at both points shall not exceed a temperature of 32°C. • This Modification Proposal will not involve any changes to these discharge waters.		

7.2.2 Wastewater Management

The raw waste water (RWW) Buffer Tank approved under Mod 21 was approved as an additional raw waste water tank within proximity of the existing raw waste water tank adjacent to the oxidisation pond within the Environmental Farm and located to the north of Bolong Road (and opposite the former Paper Mill site). It is proposed that this tank will provide additional storage and act as a buffer in the case that the existing tank is required to be taken off line. This tank will have an effective volume of 3000 KL with dimensions of approximately 20 metres diameter and 12 metres height above ground level. The raw waste water does not contain any flammable or toxic gases.

The Buffer Tank is now proposed to function as an Equalisation Tank which will equalize the existing ADI-BVF in-ground anaerobic digester's effluent. Solids settling media will now be installed in the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall wastewater treatment plant system (WWTP).

The additional Buffer Tank will be constructed to still enable the existing RWW Tank to be taken off-line for repairs and / or refurbishment works, in accordance with the Mod 21 approval. The tank will be designed so that it can easily be used as a RWW tank in case the existing tank is required to be taken off-line in the future.

Following repairs and / or refurbishment to the existing RWW Tank are undertaken however, it is proposed that the additional RWW tank approved under Mod 21 will be able to also be used as '*Equalisation Tank'* to receive treated water from the Anaerobic Bulk Volume Fermenter (BVF) which is the first stage of the WWTP process. The tank will equalize the existing ADI-BVF in-ground anaerobic digester's effluent.

The BVF digestor operation relies upon a stable volume of biomass solids (sludge blanket) which comprise living organisms which digest the organic loads from the waste water. The BVF is designed so that the biomass is retained within the BVF reactor with a solids settling zone at the end of the reactor which then overflows int to the Sulphur Oxidisation (SO) Basin. Currently treated waste water exiting the BVF flows to the SO Pond.

During high organic loads the biomass solids in the BVF can become buoyant due to increased biogas production causing loss of biomass to the SO Basin. This results in less biomass in the BVF to consume the organic load. Increases in biosolids also causes issues for the downstream MBR and RO filtration processes.

It is proposed to install Solids settling media within the tank to capture the BVF overflow and lower the anaerobic effluent Total Suspended Solids (TSS) concentration.

The Solids settling media is a settleable solids removal product that comprise inclined tube settlers which significantly accelerate the removal of solids from waste water by reducing the distance that particles have to fall before reaching a surface. Tube modules inclined at 60^{o} will be installed in the tank just below the surface of the water line. Within these modules, a flow pattern is established with water rising up through the tubes, with solids falling out of the liquid to settle on the lower tube surface. The settling material masses together, gaining weight and picking up more particles as it slides down the tube. When the solids fall out of the bottom of the tube they drop to the bottom of the basin where it is removed by sludge collection equipment.

The tube settlers provide enhanced solids removal because the setline surface is increased while the vertical settling distance is reduced. Particles inside the tubes only have to drop a distance of about 100 mm or less, rather than several meres in a conventional sediment basin, allowing quicker settling time. In addition the extended length of the settling system tubes keeps the particles in this settling environment for optimal solids removal. In addition, as the larger agglomerated material falls from the tubes, it captures smaller particles in the upcoming stream further increasing clarifier efficiency.

The function of the tank will allow biomass suspended solids that overflow from the BVF process to the SO basin to be captured and returned to the BVF. The treated water from this tank will then flow to the existing SO basin and subsequent water treatment steps.

The modification to the tank will result in:

- improved anaerobic effluent quality;
- provides the BVF with more robustness and stability.

Several years ago, the Shoalhaven Starches acquired the settler equipment to increase the BVF treatment capacity however they were never installed. The Company now wish to install these settlers inside the Mod 21 tank however, the diameter of the approved tank is not large enough to fit the settler equipment inside the tank.

Therefore, a slight increase in the diameter of the tank is required to fit the settler media equipment inside the tank. The tank also requires a minimum depth to allow sufficient settling of the solids. Under these circumstances it is also proposed to reduce the height of the tank.

7.2.3 Air Quality

Mod 21 was supported by an Air Quality Impact Assessment prepared by GHD.

With respect to the original proposed RW Buffer Tank GHD indicated:

> *"The proposed raw wastewater tank would be equipped with a floating roof to prevent odour emissions. No additional odour emissions are anticipated."*

Under the current Modification Proposal, the tank will still be equipped with a floating roof to prevent odour emissions, as was the case under the original approved tank. Under these circumstances it is not anticipated that the Modification Proposal will result in any additional odour emissions.

7.2.4 Visual Impact

The Shoalhaven Starches factory site is situated on Bolong Road, the gateway to Bomaderry, within an area currently containing a mixture of rural and industrial land uses. These different land uses contrast with each other and result in a mixed visual character.

The rural areas, much of which comprises the Shoalhaven Starches Environmental Farm, are generally flat to gently undulating and planted with pasture grasses. These areas have a typical rural/agricultural character, common throughout the region.

The approved Buffer Tank was to be located within proximity of the existing Shoalhaven Starches Waste Water Treatment Plant complex that comprises a range structures of significant scale including the existing RWW Tank, Oxidation and BVF Ponds, and Wet Weather Storage Ponds. The Waste Water Treatment Plant complex is located within the overall Environmental Farm and situated opposite the former Australian Paper Mill site.

The Waste Water Treatment Plant and its associated ponds are particularly exposed to view along the northern side of Bolong Road.

The most relevant vantage points from where the tank associated with this Modification Proposal may be visible (see **Figure 8**) would include:

- The Princes Highway – views of the Shoalhaven Environmental Farm are possible from various vantage points along the Princes Highway, however the visibility of the location of that part of the Shoalhaven Starches Environmental Farm associated with this Modification Proposal is reduced by virtue of the distance between the plant; the intermittent nature of the views; a rise in topography which screens the site from view; and vegetation.

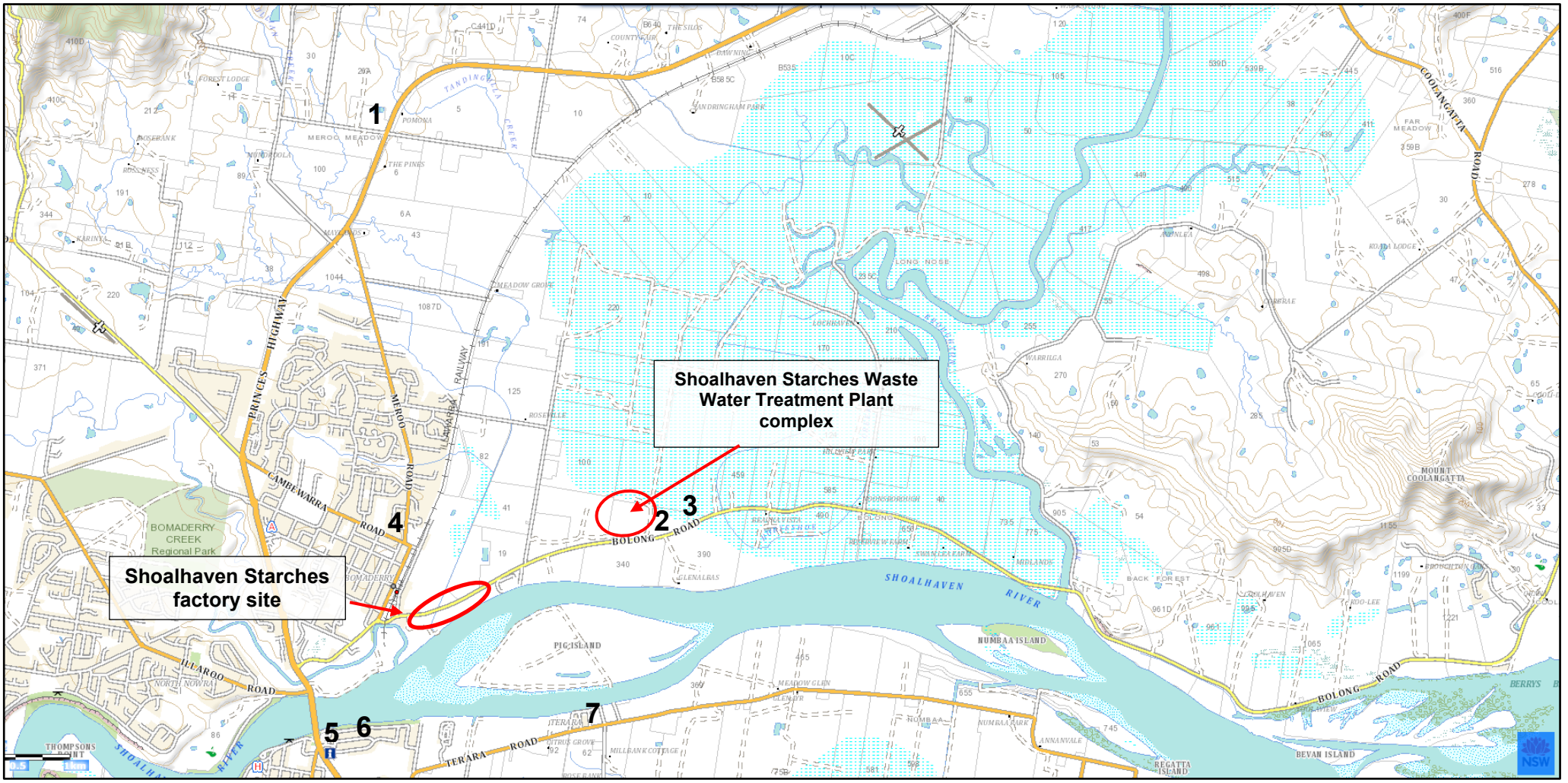

Figure 8: Vantage Points for Plates 1 to 7.

- Burraga (Pig) Island – Burraga Island is situated in the middle of the Shoalhaven River and provides the closest vantage point to the southern boundary of the site. The island however is privately owned and not accessible to the public. Vegetation screening along the riverbank adjacent to the site also reduces the visibility of the location of the works associated with this Modification Application.
- Bolong Road – Bolong Road runs along the frontage of the site. Views of the location of the works associated with this Modification proposal are possible when travelling in either an easterly or westerly direction. Some attempts have been made to provide tree screening along the boundaries to "soften" the appearance of the existing Waste Water Treatment Plant complex.
- Nowra Bridge – The Nowra Bridge crosses the Shoalhaven River and provides limited opportunities for views of the factory site. The dominant visual elements from the bridge are the river, vegetation along the riverbanks and the escarpment. The location of the proposed works are not visible from this vantage point.
- Bomaderry urban area – Bomaderry is slightly elevated and some locations within the urban area do have extensive views of the factory site. However the location of the proposed works are not visible from this vantage point.
- Terara – Distant views of the factory site are possible from a number of vantage points in and around the village of Terara on the southern bank of the River. The visual impact of the site however is reduced by distance, the intervening landform of Burraga (Pig) Island and the vegetated riverbanks. The part of the Shoalhaven Starches Environmental Farm associated with this Modification Proposal is not however visible from this vantage point.
- Riverview Road – Views of the factory site are available from residential development on the southern bank of the Shoalhaven River. Views of the location of the proposed works however are not visible from this vantage point.
- Cambewarra Lookout – Cambewarra lookout is a popular tourist lookout providing panoramic views over the Shoalhaven floodplain and estuary. Shoalhaven Starches, like the other significant industrial sites, is visible from the lookout.

Visual Impact of Proposal

The Modification Proposal includes physical changes to the footprint and height of the approved Buffer Tank including:

- The diameter of the tank will be increased from 20.3 metres as approved to 25 metres.

- The height of the tank however will be reduced from a maximum approved height of 12.0 metres (top of ladder) and 10.63 metres for the tank; to 9 metres (top of ladder) and 7.6 metres for the tank itself.

The Buffer Tank was approved to be sited to the north-east of the existing Buffer Tank adjacent to the Oxidation and BVF Ponds that forms part of the overall Wastewater Treatment Plant complex on the northern side of Bolong Road. The modified tank will be situated within the same position as that which was originally approved.

The Buffer Tank (as approved and modified) has the potential to be visible from the Bolong Road frontage of this part of the site.

The Princes Highway

The Shoalhaven Starches factory and the Waste Water Treatment Plant are visible from a section of the Princes Highway between Boxsells Lane and Devitts Lane, Jaspers Brush (refer **Plate 1**). Due to the configuration of the highway and the siting of the factory, only southbound vehicles view the site. Vantage points along this section of the highway are 4.5 to 5.0 km from the site. The site becomes less exposed and is eventually obscured by a rise in topography further south of Boxsells Lane.

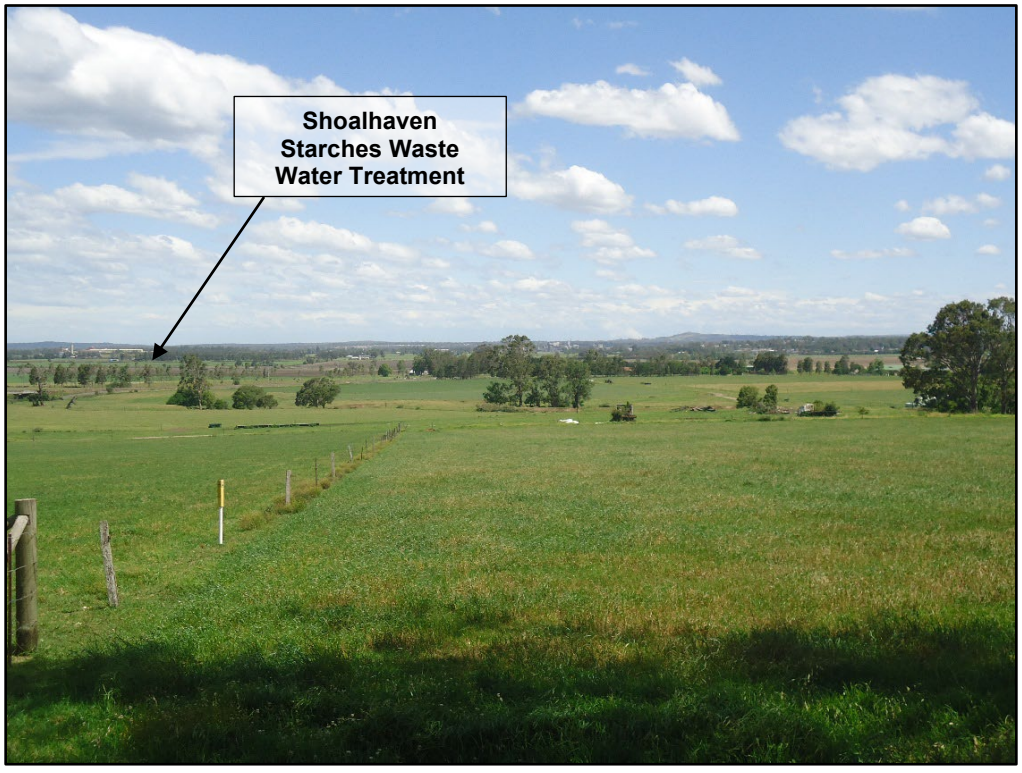

Plate 1: View of Shoalhaven Starches Factory from Princes Highway (within vicinity of Devitts Lane).
(Site of proposed works not clearly visible from this vantage point.)

Given the distance from these vantage points, the location of the tank will not be visible from this vantage point. Stands of vegetation within the rural areas between the vantage point and the location of the Buffer Tank will largely screen these works from view.

Given the distance of these views, and the screening of the site attributed to terrain and vegetation it is considered the works associated with this modification proposal will not adversely impact on views from these vantage points.

Bolong Road

The approved Buffer Tank under Mod 21 is proposed to be sited to the north-east of the existing Buffer Tank. The existing Buffer Tank is sited adjacent to the existing Oxidisation and BVF Ponds that forms part of the overall Waste Water Treatment Plant complex. The approved Buffer Tank approximately 35 metres to the north-east of the existing Buffer Tank. It was not possible to site the additional Buffer Tank any closer to the existing Tank due to the constraints imposed by the existing electricity easement and the batter slope of the Oxidisation and BVF Ponds. The location of the modified tank under this Modification Application will not change from that which has been approved under Mod 21.

As evident from **Plate 2** the existing Buffer Tank and Oxidation & BVF Ponds are screened from view along Bolong Road by a tree screen that has been established along the Bolong Road frontage of the site.

Plate 2: View of existing tree screen along Bolong Road frontage in the vicinity of Wastewater Treatment System and Ponds.

The tree screen however is somewhat less well established along the eastern boundary of the property, particularly towards the Bolong Road frontage (**Plate 3**). As outlined in the Mod 21 application there is the potential that the additional Buffer Tank could be visible, at least partially from this particular vantage point shown in **Plate 3**.

Whilst the modified tank will have a slightly larger footprint, it is not envisaged that the increase in footprint will be significantly perceptible from this vantage point. Critically however the modified tank will have a reduced height. Under these circumstances the modified tank will have a reduced visual impact when compared to the approved tank.

As outlined in the SEE that supported Mod 21, in order to reduce any visual impact arising from the modified tank it is recommended that additional infill tree plantings are undertaken along this section of this boundary to augment the screening from this vantage point.

Plate 3: View of Location of additional Buffer Tank when viewed from along Bolong Road.

Bomaderry Urban Area

The township of Bomaderry is slightly elevated and some locations within this urban area have extensive views of the site (refer **Plate 4**).

Plate 4: View east from corner of Railway Street and Cambewarra Road, Bomaderry.

The works associated with this Modification Proposal will be largely or partially screened by existing industrial development and vegetation when viewed from this vantage point. The modified tank will not be visually prominent from this vantage point.

Nowra Bridge

The view from Nowra Bridge to the east is mainly dominated by the river, riparian vegetation and the floodplain (refer **Plate 5**).

The site of the Modification Proposal is not visible from this vantage point.

Plate 5: View of Shoalhaven Starches factory site from Nowra Bridge over the Shoalhaven River.

Riverview Road

Plate 6 below provides a view of the Shoalhaven Starches factory site from Riverview Road located on the south side of the Shoalhaven River. This view is from a distance of about 750 metres. Riverside vegetation along both the northern and southern banks of the river, as well as Bomaderry Creek, soften much of the factory's site from view. The proposed works however will not be visible from this vantage point.

Plate 6: View of Shoalhaven Starches factory site from Riverview Road area.

Terara

The village of Terara is located approximately 1.8 kilometres from the siting of the approved Buffer Tank. The existing Waste Water Treatment Plant complex is not visible from this vantage point due largely to Pig (Burraga) island that is situated within the Shoalhaven River between Terara and the northern banks of the River as shown in **Plate 7**.

The view from this vantage point is across and over Burraga (Pig) Island. Vegetation on the island and along the northern banks of Shoalhaven River obscure the view of the site. The tank will not be visible from this vantage point.

Plate 7: View north from Terara villa (West Berry Street) towards Shoalhaven Starches Waste Water Treatment Plant location.

Cambewarra Lookout

Cambewarra Lookout is situated about 7 km to the north-west of the site. Views from the lookout are from an elevation over 620 m ASL and encompass the Shoalhaven River floodplain and the coast including Jervis Bay. Whilst the factory site and Environmental Farm are visible from this vantage point, due to scale of the view, it would be extremely difficult to make out the works associated with the project from this vantage point.

Overall, it is considered that the proposed works will not create a significant adverse visual impact due, principally, due to the works comprising a scale and character consistent with existing development on the site. As outlined in the SEE for Mod 21 with respect to the approved Buffer Tank, infill tree planting within the eastern boundary tree planting screen would assist with screening the view of this tank overtime, as it has successfully achieved along the Bolong Road frontage.

7.3 THE SUITABILITY OF THE SITE FOR DEVELOPMENT

In our view the site is suitable for the development, and including the development as modified by this application:

- The subject land is suitably zoned, and the proposal satisfies state and local planning provisions applying to the land.
- The modified proposal will not have any significant additional impacts on the environmental values of this locality over and above those envisaged by the original approved development.

- The modified development will not result in any significant adverse effects on local amenity.
- The modification proposal does not seek to alter the approved physical extent of operations. Under these circumstances the proposal will not result in any increased inputs to the production process; increased production; or increases in traffic or other impacts on the locality.

Given these circumstances it is our view that the subject site is suitable for the proposed development.

7.4 THE PUBLIC INTEREST

It is our view that the modification proposal is in the public interest:

- The proposal is consistent with the objectives of state and local planning provisions applying to the site.
- The modified proposal will not result in any significant adverse environmental impacts.
- The modified proposal will not result in any significant amenity impacts in the locality.
- The modified proposal will be substantially the same development as that approved under the Project Approval.

8.0 CONCLUSION

The Shoalhaven Starches factory located on Bolong Road, Bomaderry produces a range of products for the food, beverage, confectionary, paper and motor transport industries including starch, gluten, glucose and ethanol.

Project Approval MP06_0228 was granted by the Minister for Planning on the 28th January 2009 for the Shoalhaven Starches Expansion Project. This approval also encapsulated previous approvals for the site into one overall approval for the site (at that time).

The Shoalhaven Starches Expansion Project sought to increase ethanol production at the Bomaderry plant in a staged manner from 126 million litres per year to 300 million litres per year. To accomplish the increase in ethanol production, this project required a series of plant upgrades and increase in throughput of raw materials, principally flour and grain. The Approved Project included the establishment of a Waste Water Treatment Plant complex within the Shoalhaven Starches Environmental Farm located on the northern side of Bolong Road.

Under Mod 21 a raw wastewater (RWW) Buffer Tank was approved to be installed within proximity of the existing RWW tank adjacent the oxidisation and BVF ponds within the Waste Water Treatment Plant complex within the Environmental Farm . It was proposed that this tank would provide additional storage and act as a buffer where the existing tank was required to be taken off line. The approved RWW Buffer tank would have an effective volume of 3,000 KL with dimensions of approximately 20 metres diameter and 12 metres height above ground level.

It now proposed to change the function of the approved Buffer Tank to an "*Equalisation Tank*". The role of the Equalisation Tank will be to equalize the existing ADI-BVF in-ground anaerobic digester's effluent. Solids settling media will be installed within the tank to lower the anaerobic effluent Total Suspended Solids (TSS) concentration. The flow attenuation and reduction in TSS will provide a higher quality anaerobic effluent sent to the downstream aerobic and Reverse Osmosis (RO) systems increasing the robustness of the overall Waste Water Treatment Plant (WWTP) system.

The change in intended function of the tank will require the dimensions of the tank to be altered as:

- The solids settling media requires a larger diameter tank.
- The tank height will be reduced as a lower operating depth is preferred.

The tank dimensions will therefore require the following modifications:

- The diameter of the tank will be increased from 20.3 m to 25 m.
- The height of the actual tank will be decreased from 10.63 m to 7.6 m.

- The operating capacity will be increased from 3000 KL to 3400 KL.

The Shoalhaven Starches Expansion Project was a 'transitional Part 3A Project" for the purposes of Schedule 6A of the Environmental Planning & Assessment Act. As of the 1st March 2018 the transitional arrangements for former Part 3A projects have been discontinued. The discontinuation of the transitional arrangements for Part 3A projects and concept plans means that modifications are assessed through the State Significant Development (SSD) pathway. As such this Modification Application is made pursuant to Section 4.55(1A) of the Environmental Planning & Assessment Act 1979.

The Modification Application will not involve changes to the size, scale or intensity of the existing Shoalhaven Starches operations. The modification proposal will not result in any increases in overall production rates from the site, nor will it involve any significant changes in level of impacts arising from the approved development.

It is considered that this Modification Application; will have minimal environmental impact; and the development to which Project Approval MP06_0228 as modified relates will be substantially the same development as the development for which this consent was originally granted and before that consent as originally granted was modified.

The SEE includes an assessment of the proposal having regard to the relevant matters for consideration as listed under Section 4.15 of the Environmental Planning and Assessment Act, 1979. The assessment concludes that the modification proposal, within its local context, is satisfactory and should be approved.

Approval for this Modification Application is sought.

Stephen Richardson.

Stephen Richardson RPIA
COWMAN STODDART PTY LTD

ANNEXURE 1

Environment Assessment Requirements

issued by

Department of Planning & Environment

Shoalhaven Starches
Bolong Road, Bomaderry

ANNEXURE 2

Plans of Proposal

Shoalhaven Starches
Bolong Road, Bomaderry

ANNEXURE 3

Correspondence from

Pinnacle Risk Management Pty Ltd

Shoalhaven Starches
Bolong Road, Bomaderry