

## **ASSESSMENT REPORT**

### **Shoalhaven Starches Ethanol Expansion Project Section 75W Modification (MP 06\_0228)**

#### **MOD 14 – Use of Former Paper Mill Site**



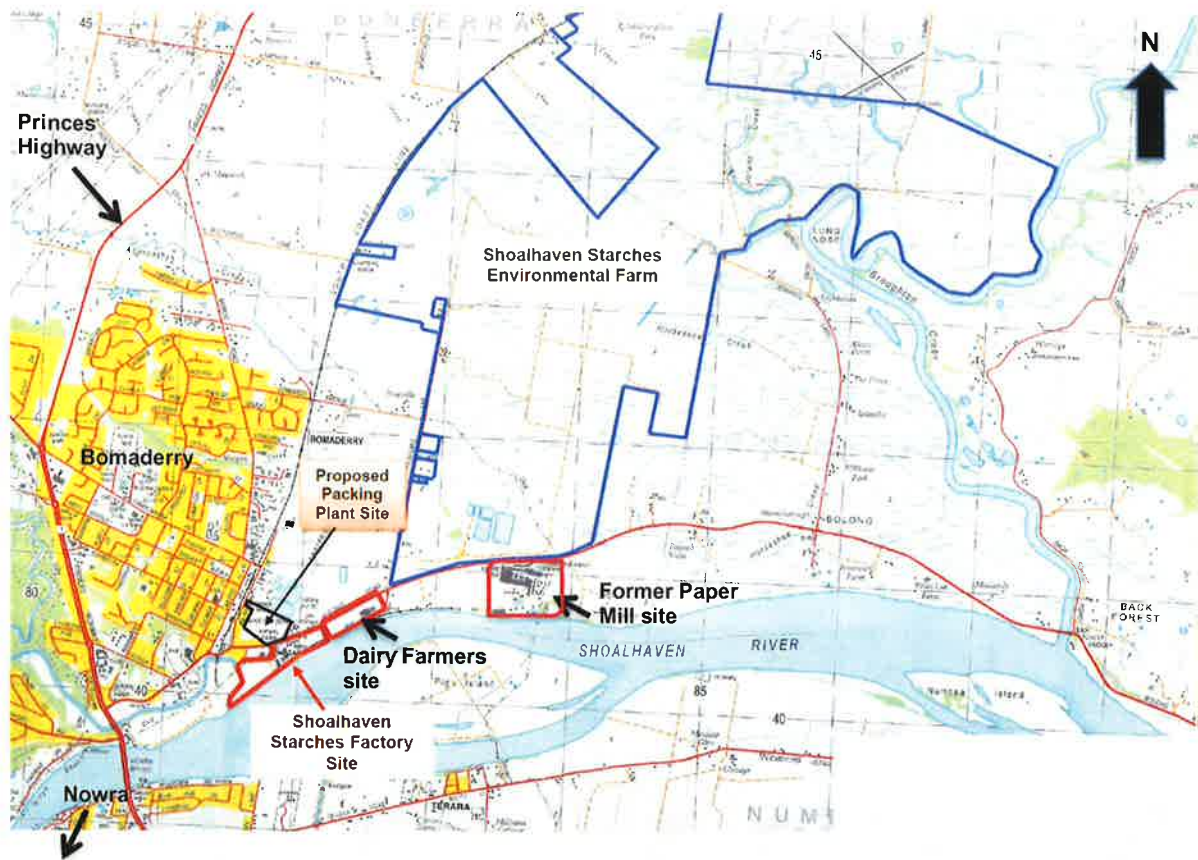
*Shoalhaven Starches Factory, Bomaderry*

#### **1. BACKGROUND**

This report assesses a modification request by Shoalhaven Starches Pty Ltd (the Proponent) to modify its factory in Bomaderry on the NSW South Coast.

Shoalhaven Starches has operated a factory at Bomaderry in the Shoalhaven local government area since 1979 (see **Figure 1**). The factory receives wheat grain from mills in western NSW which is processed to produce food, beverage, paper and fuel products. These include flour, gluten, glucose, starch and ethanol (for beverage, industrial and fuel products). The factory is a 24/7 operation and has around 300 employees.

Wastewater generated from processing activities is treated and irrigated on a nearby 'environmental farm' owned by the Proponent. The environmental farm covers over 1,000 hectares (ha) of rural land on the northern bank of the Shoalhaven River and contains a wastewater treatment plant, storage ponds and extensive irrigation system for discharging treated wastewater from the factory (see **Figure 1**).



**Figure 1** - Shoalhaven Starches Factory, Packing Plant, Environmental Farm and Former Paper Mill, Bomaderry

In 2009, the then Minister for Planning approved a major expansion to fuel-grade ethanol production at the factory. The approval required the Proponent to implement significant odour controls, including a wastewater treatment plant. The odour controls were implemented in 2011-12 and have been successful in substantially reducing odour complaints from the nearby residential areas.

### 1.1 Site Description

The factory and environmental farm are located on the eastern fringe of Bomaderry and 2 kilometres (km) to the north-east of the township of Nowra. The factory is surrounded by other industrial uses, including a metal fabrication factory, meat packaging works and industrial and agricultural suppliers. The nearest residences are in Bomaderry, 300 metres (m) to the west of the approved packing plant and 500 m north-west of the factory.

Shoalhaven City Council's sewage treatment works is located 180 m to the north of the factory and Bomaderry railway station is located 500 m to the north-west of the factory. Shoalhaven Starches has a private rail spur line, which extends from the railway station across Railway Street and Bolong Road into the factory site, extending for approximately 750 m along the northern bank of the Shoalhaven River.

The Proponent has approval to construct a packing plant on the northern side of Bolong Road. Works have not yet commenced on the packing plant, but are anticipated to start in 2018.

The former Shoalhaven Paper Mill is located 1.5 km to the east of the factory along Bolong Road. The Paper Mill consists of several industrial buildings and storage areas that have been largely unused since closure of the Paper Mill in mid 2015 (see **Plate 1**). Shoalhaven Starches purchased the Paper Mill site in late 2015.



*Plate 1 – Former Shoalhaven Paper Mill, Bomaderry*

## **1.2 History of Planning Approvals & Modifications**

Prior to 2009, the Proponent operated its factory and environmental farm under multiple, separate planning approvals issued by Shoalhaven City Council (Council) and the Minister for Planning.

### ***Shoalhaven Starches Ethanol Expansion Project (06\_0228)***

In January 2009, the then Minister for Planning approved the Shoalhaven Starches Ethanol Expansion Project (SSEEP) under the now repealed Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The SSEEP approval consolidated all previous planning approvals for the site with the aim of simplifying regulation and compliance.

The SSEEP is shown on **Figure 2** and involved:

- staged increases of ethanol production from 126 megalitres a year (ML/yr) to 300 ML/yr following successful implementation of a range of odour controls
- implementation of mandatory odour controls including a wastewater treatment plant and biofilter
- installation of additional infrastructure at the dried distillers grain (DDG), ethanol and starch plants, a new packing plant, rail siding and product and wastewater pipelines.

By June 2012, the Proponent had installed the mandatory odour controls and the Department approved the increase in ethanol production to the maximum volume permitted being 300 ML/yr, subject to conditions, including quarterly odour monitoring and annual odour audits. Demand for ethanol in fuels has not increased as predicted, with ethanol production levels at the factory in the order of 219 ML/yr in 2015.

Given the reduced market demand for ethanol, the Proponent is progressively installing infrastructure that will allow optimisation of flour products and increased production of beverage grade ethanol for alcohol products. This has required several modifications to the SSEEP approval, which has focused on infrastructure on the factory site including a new starch dryer, flour mill and a beverage grade ethanol distillery. This has intensified development on the factory site, necessitating the use of the former Shoalhaven Paper Mill site to provide storage space away from congested areas at the factory.



## Modifications to 06\_0228

The Minister for Planning has approved thirteen modifications to the SSEEPP approval since 2009. The most recent modifications reflect the changed focus to increased flour, starch, gluten and beverage grade ethanol production. **Table 1** summarises these modifications.

**Table 1: Modifications to the Shoalhaven Starches Ethanol Expansion Project (06\_0228)**

MOD No.	Date Approved	Description
1	30 Sept 2011	<p><u>Remove DDG Pellet Plant</u></p> <ul style="list-style-type: none"> <li>remove the requirement for the dried distillers grain (DDG) pelletising plant from the list of mandatory odour controls</li> <li>implement alternate odour controls including a new loading chute with dust extractor and extension of the load-out shed to fully enclose truck loading.</li> </ul>
2	14 Sept 2012	<p><u>Fermenter and Distillery</u></p> <ul style="list-style-type: none"> <li>install additional infrastructure to improve operational and energy efficiency, including two additional fermenter tanks, an evaporator, beer column, heat exchangers, substation and compressors.</li> </ul>
3	9 Oct 2012	<p><u>Relocate Car Park</u></p> <ul style="list-style-type: none"> <li>relocate approved 60 space staff car park to the former Dairy Farmers site</li> <li>include the former Dairy Farmers site at 220 Bolong Road in the project approval, following acquisition by the Proponent.</li> </ul>
4	24 Mar 2014	<p><u>Relocate DDG Pellet Plant</u></p> <ul style="list-style-type: none"> <li>relocate the approved DDG pelletising plant within the factory site, increase its footprint and approved height, from 21 m to 28 m.</li> </ul>
5	16 Sept 2015	<p><u>DDG Pellet Plant Stack</u></p> <ul style="list-style-type: none"> <li>modify the design, footprint and odour controls on the DDG pelletising plant including a 49 m high air discharge stack</li> <li>construct eight storage silos up to 26 m high.</li> </ul>
6	25 Nov 2015	<p><u>Demolition</u></p> <ul style="list-style-type: none"> <li>demolish a disused industrial building "Moorehouse" purchased by the Proponent</li> <li>construct a temporary car park on the northern side of Bolong Road adjacent to the Shoalhaven Water pumping station.</li> </ul>
7	18 Jan 2016	<p><u>Starch Dryer No. 5</u></p> <ul style="list-style-type: none"> <li>relocate the approved Starch Dryer No. 5 within the factory site to the former "Moorehouse" site and increase the overall footprint</li> <li>construct a substation, pipes and pipe gantry to supply the starch dryer.</li> </ul>
8	1 Mar 2016	<p><u>Extend Existing Flour Mill</u></p> <ul style="list-style-type: none"> <li>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.</li> </ul>
9	8 Mar 2017	<p><u>Packing Plant Relocation</u></p> <ul style="list-style-type: none"> <li>increase the size of the approved packing plant to increase the type and volume of packaged dried products</li> <li>construct a container storage and truck loading area with noise barriers</li> <li>extend and duplicate the approved rail spur line</li> <li>install product pipes under Bolong Road, a small bag packer at the DDG pellet plant and a new stormwater detention tank.</li> </ul>
10	18 April 2017	<p><u>Flour Mill B</u></p> <ul style="list-style-type: none"> <li>construct a new flour mill B and increase flour production on site from 400,000 842,400 tpa. Relocate storage silos and construct a mill feed structure.</li> </ul>
11	1 Sept 2017	<p><u>Dryers, Cooling Towers, Maintenance Building and Biofilters</u></p> <ul style="list-style-type: none"> <li>reduce the number of approved dryers and relocate approved footprint, relocate cooling towers, construct a forklift maintenance building, install two biofilters, construct hardstand for container storage, store coal and woodchips on the factory site and environmental farm.</li> </ul>
12	1 Sept 2017	<p><u>Beverage Grade Ethanol</u></p> <ul style="list-style-type: none"> <li>increase production of beverage grade ethanol and reduce production of fuel grade ethanol</li> <li>install ethanol distillery infrastructure including rectification columns, cooling towers, a substation, storage tanks and pipes</li> <li>extend two rail sidings and provide additional car parking.</li> </ul>
13	18 Jan 2018	<p><u>Conversion of Boilers</u></p> <ul style="list-style-type: none"> <li>increase steam production from three existing boilers by converting to coal fired boilers and installing baghouses.</li> </ul>

### **Council Issued Consents**

Separate to the SSEEP approval, the Proponent sought and obtained development consents from Council for works associated with the factory. This has included:

- construction and operation of an interim packing plant at the factory (RA 11/1002)
- demolition of the dimethyl ether plant (DA 13/1713)
- construction of two additional grain silos for buffer storage (DA 14/2161).

Council also granted approval to the Proponent for road and site access upgrades, consistent with the SSEEP approval. These included:

- upgrades to site access points on Bolong Road, including the Dairy Farmers site access (DA 10/1843)
- widening the access point to the interim packing plant (DA 11/1855).

Two other Council issued consents apply to land adjacent to the factory and owned by the Proponent. These include the Algae Demonstration Facility and the Meat Processing Plant, both located at the former Dairy Farmers site.

## **2. PROPOSED MODIFICATION**

On 22 December 2017, the Proponent lodged a modification request under Section 75W of the EP&A Act to incorporate the former Shoalhaven Paper Mill into the SSEEP approval.

Since the 2009 SSEEP approval, the demand for fuel grade ethanol has not increased as predicted. The Proponent has modified the SSEEP approval to adapt production to focus on starch, gluten and beverage grade ethanol products. This has led to increased development on the factory site with the new starch dryer, flour mill and beverage grade ethanol distillery. In 2015, the Proponent acquired the former Shoalhaven Paper Mill site and now proposes to use it for overflow storage to reduce congestion at the factory. **Figure 3** shows the location of the former Paper Mill in relation to the Shoalhaven Starches factory.

The Proponent proposes to use the existing storage tanks, administration buildings and workshop areas at the former Paper Mill to support production at the factory. The existing facilities would be used to provide buffer storage for finished products, engineering plant, construction materials and shipping containers. The Proponent also proposes to construct a pergola extension on the main administration building adjacent to Bolong Road. The pergola would be 4.5 m high and 18 m long and would provide shelter for staff, customers and visitors to the administration building. **Figure 4** shows the areas on the Paper Mill site proposed for use and **Figure 5** shows the proposed pergola next to the administration building.

In addition, the Proponent proposes to construct a dough mixer housed within a building adjacent to the starch plant on the factory site. The building would be 20.5 metres high and would house additional dough mixing equipment to enable the Proponent to achieve current approved flour throughput volumes. The location and design of the dough mixer building is shown on **Figures 6** and **7**.

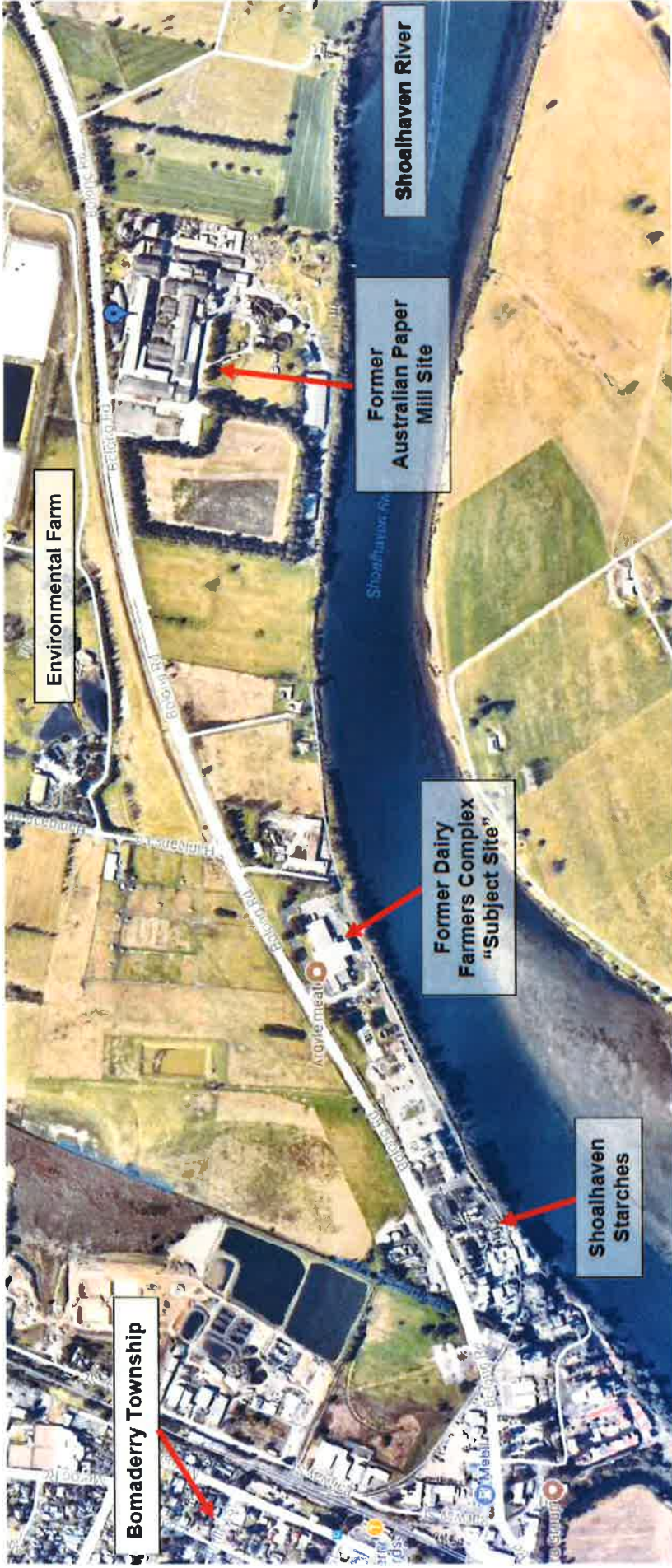
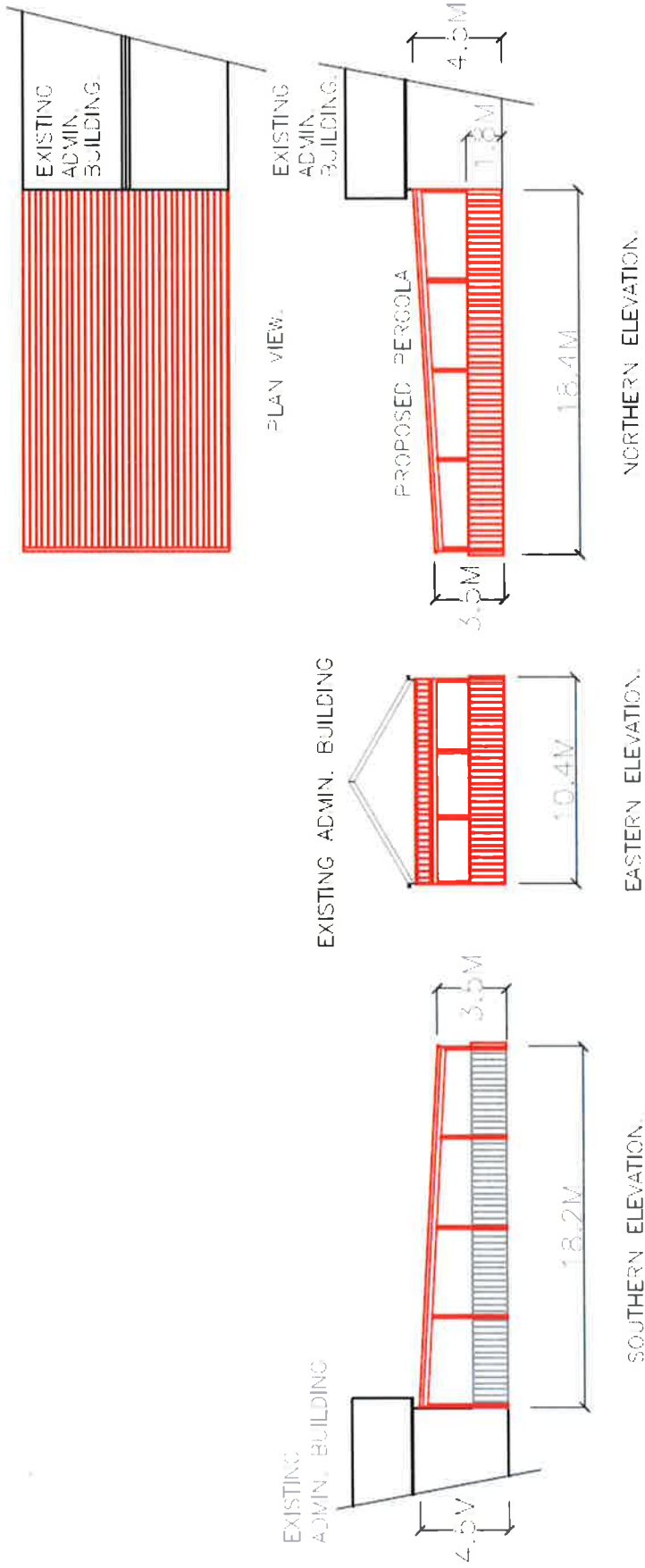


Figure 3 – Location of Shoalhaven Starches Factory and Former Paper Mill



EXISTING APPROVED PLANT — BLACK.  
 PROPOSED PERGOLA — RED.



PROPOSED PERGOLA.  
 MATERIAL LIST.  
 FRAME—STEEL.  
 ROOF—COLORBOND.  
 WALLS—BRICKS AND OPEN AREA.  
 FLOOR—CONCRETE SLAB.

Figure 5 – Proposed Pergola on Paper Mill Administration Building

E I T I - L - I  
**NEW PROPOSALS - RED**  
 APPROVED & YET TO BE CONSTRUCTED - BLUE

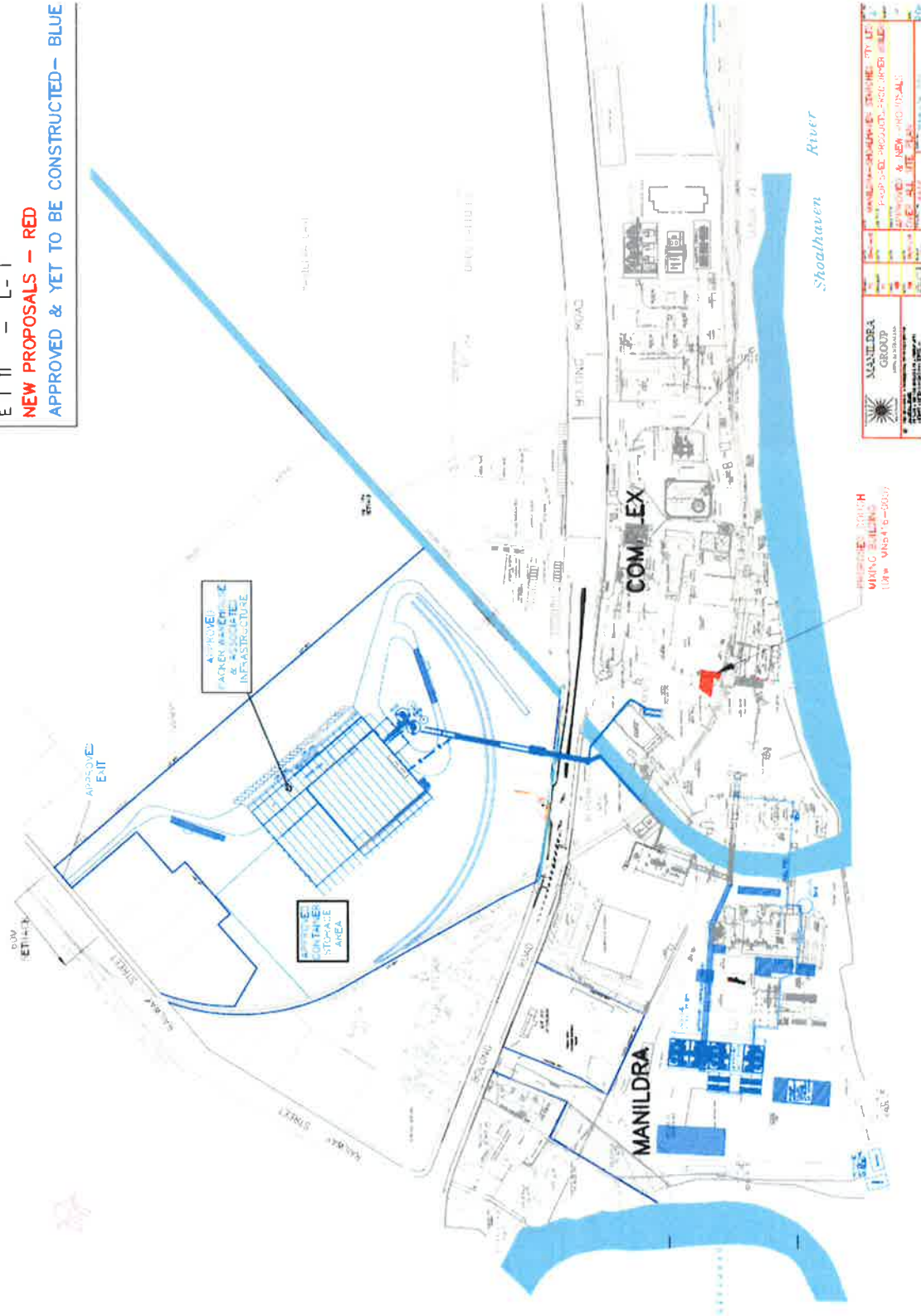
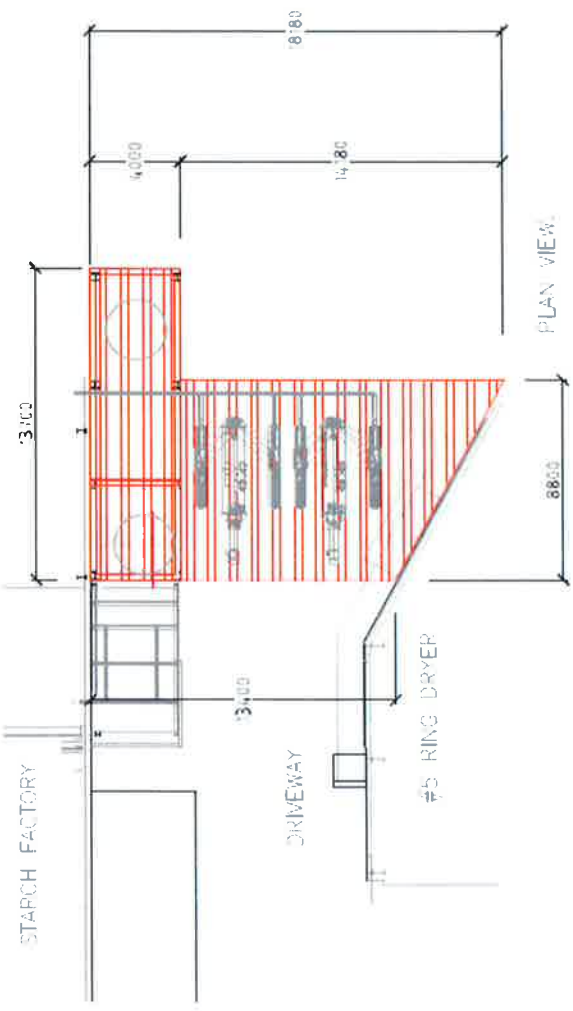


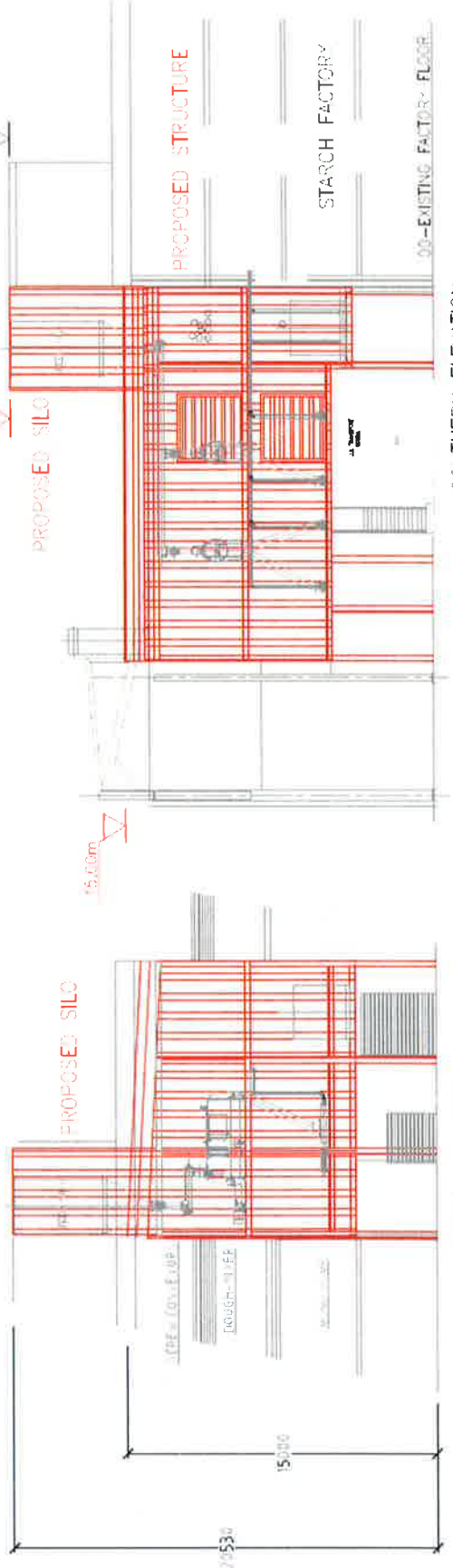
Figure 5 – Location of Proposed Dough Mixer Building at the Factory

EXISTING APPROVED PLANT — BLACK  
 PROPOSED DOUGH MIXER BUILDING — RED

PROPOSED DOUGH MIXER BUILDING MATERIAL LIST:  
 FRAME—STEEL  
 ROOF—COLORBOND  
 WALLS—INSULATED SANDWICH PANEL  
 FLOOR—STEEL & CONCRETE SLAB



PLAN VIEW



WESTERN ELEVATION

SOUTHERN ELEVATION

Figure 6 – Proposed Dough Mixer Building

### 3. STATUTORY CONTEXT

#### Approval Authority

The Minister for Planning was the approval authority for the original project application, and is consequently the approval authority for the modification request.

However, as the Proponent made reportable political donations, the request will be determined by the Independent Planning Commission (the Commission) in accordance with the Minister's Instrument of Delegation, dated 14 September 2011.

#### Section 75W

The project was originally approved under Part 3A of the EP&A Act. The project is a transitional Part 3A project under Schedule 2 to the EP&A (Savings, Transitional and Other Provisions) Regulation 2017. The power to modify transitional Part 3A projects under section 75W of the Act as in force immediately before its repeal on 1 October 2011 is being wound up, but as the request for this modification was made before 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply.

Under Section 75W of the EP&A Act, the Minister is obliged to be satisfied that what is proposed is a modification of the original proposal, rather than being a new project in its own right. The modification involves the addition of three land parcels to the project approval and use of the existing industrial buildings and storage areas to support operations at the Shoalhaven Starches factory. The modification does not involve any change to production processes or outputs and would have minimal environmental impacts relative to the approved project. The Department is satisfied that the addition of land parcels to the project approval can be considered under section 75W particularly as the ethanol expansion project approval covers numerous allotments adjacent to Bolong Road.

Consequently, the Department considered the request should be assessed and determined under Section 75W of the EP&A Act rather than requiring a new development application.

### 4. CONSULTATION & SUBMISSIONS

Under Section 75W of the EP&A Act, the Department is not required to notify or exhibit the request. However, following a review of the modification request, the Department considered it should be publicly exhibited, to provide nearby landowners and occupiers the opportunity to comment. The Department:

- made the modification request publicly available from 19 February to 5 March 2018:
  - on the Department's website and at NSW Service Centres
  - at Shoalhaven City Council offices in Bridge Street, Nowra
- notified nearby landowners about the exhibition period by letter
- notified relevant State government agencies and Shoalhaven City Council by letter
- advertised the exhibition in the Nowra South Coast Register and the Shoalhaven and Nowra News.

A total of five submissions were received including four from Government agencies and one from the public. Government agencies did not raise any concerns and provided recommendations for modified conditions. The public submission objected to the modification based on noise and traffic impacts and environmental pollution. **Appendix B** contains a web link to the submissions. A summary of the issues raised is provided below.

#### **Shoalhaven City Council (Council)**

Council did not object to the modification, subject to consideration of the following matters:

- limiting the use of the Paper Mill driveway to daylight hours only, or installing street lighting in accordance with Council requirements
- updating the existing flood evacuation plan to address evacuation procedures, emergency contact details and appropriate warning signs

- providing a consulting engineer's report to confirm flood compliance
- the Proponent comply with the requirements of Shoalhaven Water.

#### **Environment Protection Authority (EPA)**

The EPA did not object to the modification and noted the proposed uses at the Paper Mill site would not be regulated by the EPA through an Environment Protection Licence (EPL) as they are not scheduled activities under the *Protection of the Environment Operations Act 1997*.

The EPA reviewed the noise assessment and provided recommended conditions for the modification including day time operating hours, noise limits of 40 dBA at nominated receiver sites and implementation of the noise mitigation measures described in the Proponent's noise impact assessment report.

#### **Roads and Maritime Services (RMS)**

RMS advised that Bolong Road is a regional classified road and Council is best placed to comment on any safety or capacity issues on Bolong Road regarding the modification.

**Department of Industry (DOI)** incorporating Crown Lands & Water and the Department of Primary Industries advised all matters of regulatory interest to DOI were adequately addressed.

The Department did not receive a response from the Office of Environment and Heritage or NSW Fire and Rescue.

#### **Public Submission**

One (1) public submission was received, objecting to the modification. The submission raised concerns about:

- noise from the factory during night-time periods
- noise from increased truck movements on Cambewarra Road and Meroo Street, Bomaderry, particularly during night-time periods. The submission requested noise levels be tested in consultation with residents
- the need for continual road repairs due to increased truck movements
- odour from the starch plant and dust emissions, which need to be addressed in consultation with residents
- poor air quality from the use of nut coal and adverse impact on residents and the environment.

#### **Proponent's Response to Submissions (RTS)**

On 9 March 2018, the Proponent provided a response to the issues raised in submissions. A web link to the RTS is included in **Appendix B**. The RTS addresses the issues raised in the public submission, noting many of the issues do not relate to the modification, but relate to the operation of the factory as a whole.

### **5. CONSIDERATION**

The Department has assessed the merits of the proposed modification and has reviewed the following as part of its assessment:

- EA and Director-General's assessment report for the SSEEP
- existing conditions of approval (as modified)
- the EA, submissions and the Proponent's response to submissions (Appendix B)
- relevant environmental planning instruments, policies and guidelines
- requirements of the EP&A Act, including the objects of the Act.

The Department considers the modification would have only minor impacts as it relates to use of the former Paper Mill for storage and would not increase approved production levels at the factory. The Department's assessment and recommendations is provided in **Table 4**.

**Table 4: Department's Assessment and Recommendations**

Issue	Assessment	Recommendation
<p><b>Noise</b></p>	<ul style="list-style-type: none"> <li>• The Shoalhaven Starches factory involves operation of large items of plant and equipment and truck movements on the road network. Noise from these operations occur during day, evening and night-time periods. The Proponent conducts annual noise monitoring and must keep noise below set limits at residential receivers. The Proponent is also required to conduct noise validation monitoring after construction of each modification involving new plant and equipment.</li> <li>• The modification involves use of the Paper Mill site for the storage of products and equipment and construction of a dough mixer inside a building on the factory site.</li> <li>• The EA included a noise impact assessment (NIA) prepared in accordance with the EPA's Noise Policy for Industry 2017. The NIA considered worst case operational noise from the movement of forklifts and trucks on the Paper Mill site to move and stack containers and equipment. These activities would be restricted to day time only.</li> <li>• The NIA included background noise monitoring at the nearest residential receiver on Bolong Road and established a project noise trigger level of 40dB(A). The NIA predicted noise from use of the Paper Mill site would not exceed the noise trigger level at the four closest rural residential receivers for worst-case operations. The predicted noise levels ranged from 24 to 36 dB(A), well under the trigger level of 40 dB(A).</li> <li>• The NIA recommended all mobile equipment (forklifts and trucks) are fitted with broadband reversing alarms, rather than tonal alarms which have annoying noise characteristics.</li> <li>• The NIA did not consider noise from operation of the dough mixer at the factory site, as this was added to the modification shortly after it was lodged. The dough mixer would be housed within a building and is unlikely to generate significant noise.</li> <li>• The EPA noted the noise levels from use of the Paper Mill site are predicted to comply with the noise trigger level. The EPA provided several recommendations including, restricting operations at the Paper Mill to day time, including noise limits of 40 dB(A) at rural residences and installing broadband reversing alarms on mobile plant.</li> <li>• The Department notes the NIA has predicted compliance with relevant noise trigger levels and the EPA was satisfied with the assessment. The Department has included the EPA's recommendations as modified conditions, including limiting use of the Paper Mill site to day time only.</li> <li>• The existing conditions require noise validation monitoring after construction of new plant at the factory, such as the dough mixer. The conditions also require additional noise mitigation if noise limits are exceeded. The Department considers the existing conditions are adequate for managing noise issues from the additional plant.</li> </ul>	<p>Require the Proponent to:</p> <ul style="list-style-type: none"> <li>• limit use of the Paper Mill site to day time only</li> <li>• meet noise limits at residential receivers</li> <li>• ensure mobile plant used at the Paper Mill are fitted with broadband alarms.</li> </ul> <p>Manage via existing conditions requiring:</p> <ul style="list-style-type: none"> <li>• noise validation monitoring 12 months after operation of each modification</li> <li>• implementation of mitigation measures to achieve compliance with noise limits, if exceedances occur.</li> </ul>
<p><b>Flooding</b></p>	<ul style="list-style-type: none"> <li>• The factory and Paper Mill are located on the northern bank of the Shoalhaven River and are described as high hazard and floodway.</li> <li>• The EA included a flood compliance report (FCR) including hydraulic modelling to evaluate the modification's effect on flood levels and flows. The FCR considered the modification in relation to Council's Development Control Plan (DCP) 2014 for development on flood prone land.</li> <li>• The FCR concluded the modification would not significantly increase flood levels on land outside those owned by the Proponent. The FCR recommended external storage areas are located more than 75 m from the riverbank to minimise restrictions to floodwater flows.</li> <li>• The FCR also recommended the Proponent update its flood management plan to include evacuation routes and procedures for the 24 workers that would be relocated to the Paper Mill site and include procedures to manage externally stored plant during flood events.</li> <li>• Council noted the FCR satisfied the provisions of Council's DCP and recommended the flood management plan be updated to include the modification.</li> <li>• The Department considers the modification would have minimal impact on flood levels and flows and it does not involve any new fixed plant on the Paper Mill site. The existing conditions require the Proponent to update its flood management plan to include modifications and requires</li> </ul>	<p>Manage via existing conditions requiring:</p> <ul style="list-style-type: none"> <li>• an update to the flood management plan to include the use of the Paper Mill site</li> <li>• provision of a structural engineer's report for buildings and structures to certify they are built from flood compatible materials and to withstand the forces of flood waters.</li> </ul>

Issue	Assessment	Recommendation
	<p>the update to cover emergency evacuation procedures and specific controls to manage plant, equipment and stockpiles during flood events. The Department considers these conditions are adequate for managing flood risks associated with modifications at the Paper Mill site.</p> <ul style="list-style-type: none"> <li>• The FCR did not consider the proposed dough mixer building. The Department notes the building would be located within a highly developed area of the factory, which already impedes floodwater flows. The small footprint of the dough mixer building is unlikely to significantly contribute to a further restriction of floodwater flows.</li> <li>• The existing conditions require the Proponent to provide a structural engineer's report prior to and after completion of construction of new buildings, to demonstrate they have been built with flood compatible materials and to withstand the forces of flood waters. This condition would apply to the new dough mixer building.</li> <li>• The Department concludes the modification would have minimal impact on flooding and would be adequately managed by the existing conditions.</li> </ul>	
<p><b>Traffic, Access and Parking</b></p>	<ul style="list-style-type: none"> <li>• The Shoalhaven Starches factory generates many of the truck and light vehicle movements on Bolong Road and Railway Street. In 2011, the Proponent upgraded Bolong Road and several of the site access points. Further upgrade works to Bolong Road and the Dairy Farmers site access are due to commence in 2018 as part of MOD 12.</li> <li>• The EA included a traffic impact assessment (TIA) which assessed existing (worst-case) flows on Bolong Road, traffic generated by the modification and traffic growth (to 2027), to evaluate impacts on the safety and capacity of Bolong Road and key intersections.</li> <li>• The TIA noted the modification would not generate additional movements to the broader road network, but would result in a small increase in trips between the factory and the Paper Mill site (6 truck trips per hour during peak construction periods), for the transfer of product and equipment.</li> <li>• A total of 12 light vehicle trips per hour would be generated by the 24 staff relocated from the factory to the Paper Mill.</li> <li>• The Paper Mill has 30 car parking spaces, which would be adequate to accommodate the 24 staff. It has two site access driveways which are accessed from Bolong Road via separated right and left turning lanes.</li> <li>• The former Paper Mill operated with up to 500 staff utilising the two access driveways.</li> <li>• The TIA modelled intersection performance using the SIDRA intersection analysis tool and noted the level of service at the key intersections, including the Paper Mill accesses, would operate between good to satisfactory.</li> <li>• The TIA concluded the modification would have no significant impact on the road network or intersections.</li> <li>• Council recommended use of the Paper Mill site be restricted to day time and noted any proposal to use the site during evening or night time would require evaluation of and potential upgrading of street lighting.</li> <li>• One public submission raised concerns about increases in truck movements along Cambewarra Road and Meroo Streets.</li> <li>• The Department notes the modification would not increase traffic movements west of the factory, on Cambewarra Road or Meroo Street.</li> <li>• The Department considers the traffic generated by the modification would be minor and adequately accommodated on the existing road network. The modification would not adversely impact the performance of the site access points.</li> <li>• The Department has recommended a condition restricting use the Paper Mill site to day time periods only.</li> </ul>	<p>Require the Proponent to:</p> <ul style="list-style-type: none"> <li>• limit use of the Paper Mill site to day time only</li> </ul>
<p><b>Riverbank Stability</b></p>	<ul style="list-style-type: none"> <li>• Sections of the Shoalhaven riverbank adjacent to the factory and Paper Mill, have eroded causing slumping.</li> <li>• The Proponent has implemented a program of riverbank stabilisation works including construction of rock revetment walls.</li> <li>• GHD prepared a riverbank stability assessment (RSA) for the modification to assess the potential for the storage of plant, equipment and shipping containers to impact on riverbank stability.</li> <li>• The RSA considered existing riverbank conditions and modelled proposed loads from internal and external storage areas.</li> </ul>	<p>Require the Proponent to:</p> <ul style="list-style-type: none"> <li>• set back long-term storage areas a minimum of 11.5 m from the riverbank crest</li> <li>• ensure short-term storage or light</li> </ul>

Issue	Assessment	Recommendation
	<ul style="list-style-type: none"> <li>The RSA concluded the proposed storage would be unlikely to affect riverbank stability based on assumed loads and a minimum setback of 11.5 m from the riverbank crest for external storage.</li> <li>The RSA recommended long-term storage be set back a minimum of 11.5 m and short-term or light loads can be stored within 11.5 m provided it is kept north of the existing fenceline on the riverbank.</li> <li>The RSA also recommended existing vegetation and rock protection on the riverbank be maintained.</li> <li>The DPI did not raise any concerns regarding riverbank stability.</li> <li>The Department considers the modification is unlikely to impact on riverbank stability and agrees with the recommendations of the RSA, to set back storage areas from the riverbank and ensure the Proponent maintains existing vegetation and rock protection along the riverbank.</li> </ul>	<p>loads are kept north of the existing fenceline along the riverbank</p> <ul style="list-style-type: none"> <li>maintain riverbank vegetation and rock protection.</li> </ul>
<b>Visual</b>	<ul style="list-style-type: none"> <li>The Paper Mill includes industrial buildings, parking and external storage areas, adjacent to Bolong Road. Existing mature trees screen parts of the site from Bolong Road, with a small gap in tree planting immediately in front of the parking area, where the Proponent proposes to store plant and equipment.</li> <li>The EA considered the potential visual impacts noting passing traffic on Bolong Road as the most likely vantage point. All other vantage points (Hanigans Lane, Terara and Bomaderry) are screened from view by intervening vegetation and larger distances.</li> <li>The EA concluded the visual impacts would be minor and consistent with the existing industrial character of the site and broader industrial area of Bomaderry. The Proponent proposes to plant an additional landscape screen in front of the parking area to minimise the visual impacts of the modification.</li> <li>The Department considers construction of the small pergola and storage of plant, equipment and shipping containers is consistent with the existing industrial character of the Paper Mill site and the Shoalhaven Starches factory. The potential visual impacts are limited to views by passing motorists, and these would be minor in the context of the existing industrial buildings.</li> <li>The Department agrees with the proposal for landscape screen planting and recommends it be implemented by the end of June 2018. The existing conditions require the Proponent to consult with Council regarding appropriate planting setbacks, to ensure sight lines are maintained for driveways along Bolong Road.</li> </ul>	<p>Require the Proponent to:</p> <ul style="list-style-type: none"> <li>plant screening vegetation in front of the parking area at the Paper Mill site, no later than 30 June 2018</li> </ul> <p>Manage via existing conditions requiring:</p> <ul style="list-style-type: none"> <li>consultation with Council on landscape setbacks to maintain sight distances.</li> </ul>
<b>Air Quality</b>	<ul style="list-style-type: none"> <li>The modification does not involve any increase in approved production volumes and is unlikely to change existing air quality or odour emissions from the overall factory. No assessment of air quality or odour was required for this modification.</li> </ul>	<p>Manage via existing conditions.</p>
<b>Hazards</b>	<ul style="list-style-type: none"> <li>The modification would store packaged starch and gluten products and syrups in existing storage tanks. These products do not trigger the criteria in State Environmental Planning Policy No. 33 Hazardous and Offensive Development, therefore a Preliminary Hazard Analysis was not required for the modification. The Department's hazards specialist reviewed the proposed dough mixer and advised it is not potentially hazardous, therefore no further assessment is required.</li> </ul>	<p>Manage via existing conditions.</p>
<b>Consent</b>	<ul style="list-style-type: none"> <li>The former Paper Mill operated under several development consents issued by Council.</li> <li>The Department recommends the Proponent surrender these development consents within 6 months of approval of this modification, to ensure there are no conflicting consents over the site.</li> </ul>	<p>Require the Proponent to:</p> <ul style="list-style-type: none"> <li>surrender all existing development consents for the former Paper Mill site.</li> </ul>

## 6. CONCLUSION

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act. The Department concludes the modification would result in minimal environmental impacts beyond the approved facility.

The Paper Mill site would be utilised for storage to reduce congestion at the factory. There would be no change to the existing buildings at the Paper Mill site and there would be minimal traffic movements between the factory and Paper Mill to transfer stored products, plant and equipment. The proposed storage and use of the administration building by 24 staff members would not increase noise levels above relevant limits. The Proponent has undertaken the relevant studies that have recommended setbacks for storage areas to avoid damage to the Shoalhaven River bank. The Proponent would update the existing flood management plan to include the Paper Mill site and proposes to plant trees to screen the storage areas from view from Bolong Road.

The Department has recommended some minor modifications to the existing project approval conditions to include storage of products and equipment on the Paper Mill site, including adding three land parcels to the project approval. The Department considers the additional dough mixer building at the factory would have minimal impacts beyond the approved facility as there would be no increase above approved production levels. The existing conditions require noise validation testing following construction of the additional plant at the factory. The Department's assessment has concluded there would be minimal environmental impacts from the modification.

Following on from this assessment of the proposed modification, the Department considers the modification application is approvable, subject to any modifying conditions of consent outlined in **Appendix A**. This assessment report is hereby presented to the Commission for determination.

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## APPENDIX A – INSTRUMENT OF MODIFICATION

