ASSESSMENT REPORT

Shoalhaven Starches Ethanol Expansion Project
Alterations to Flour Mill
Section 75W Modification - MP 06_0228 MOD 8

1. BACKGROUND

This report assesses a modification application by Shoalhaven Starches Pty Ltd (the Proponent) to alter the existing flour mill on its factory site.

The Proponent operates a factory off Bolong Road, immediately east of Bomaderry in the Shoalhaven local government area (see **Figure 1**). The factory has operated since 1979.

The factory processes wheat and grain transported by rail from central NSW to produce flour, starch, gluten, ethanol and other related products for the food, beverage, confectionary, paper and motor transport industries. The wastewater from the factory is treated and irrigated on a nearby 'environmental farm' also owned by the Proponent and covering over 1,000 hectares (ha) which is located to the north of the factory (see **Figure 1**).

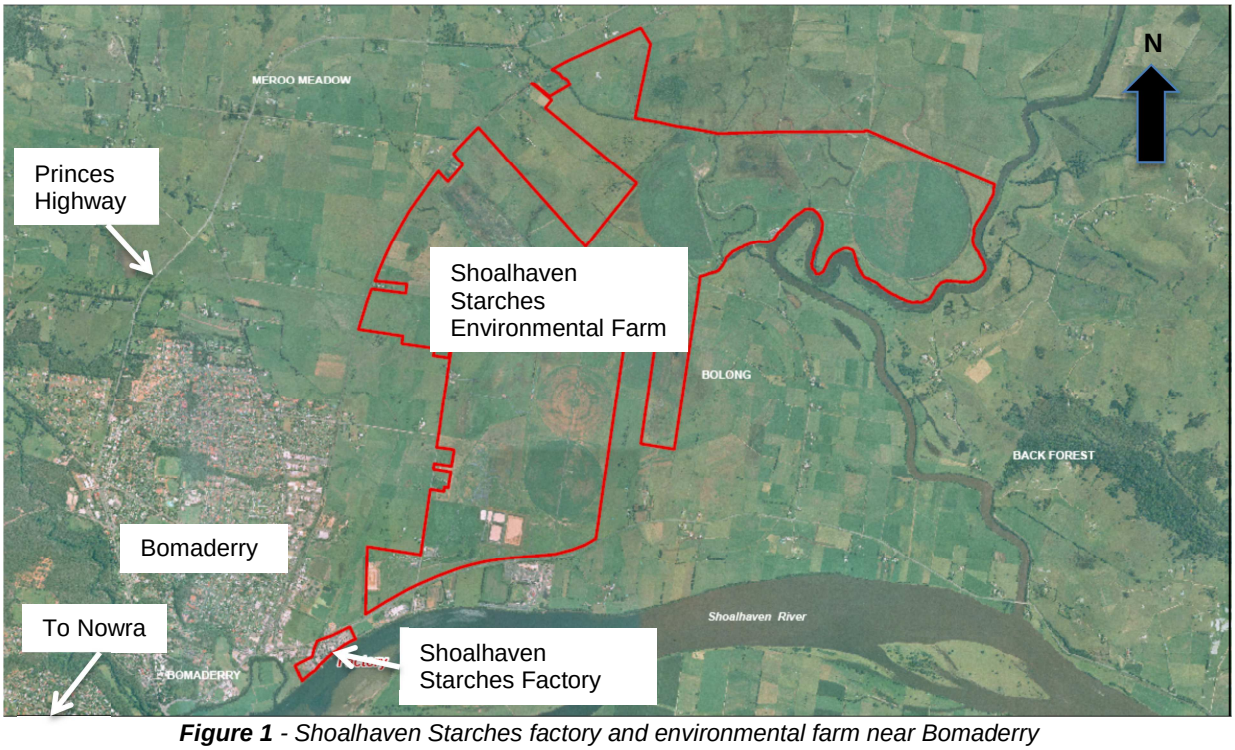

***Figure 1** - Shoalhaven Starches factory and environmental farm near Bomaderry*

The factory and environmental farm are located on the eastern fringe of Bomaderry on the northern bank of the Shoalhaven River. The factory is located 2 kilometres (km) to the north-east of the township of Nowra. Primarily industrial uses are located adjacent to the factory, including a metal fabrication factory, meat packaging works and a paper mill.

Shoalhaven City Council sewage treatment works is located 180 metres (m) to the north of the factory. Bomaderry railway station is located 300m to the north-west with a private rail spur line crossing Bolong Road into the factory site. The nearest residences are located in Bomaderry approximately 500m to the west of the factory and environmental farm. The environmental farm extends across 1,000ha of the northern floodplain of the Shoalhaven River and contains a wastewater treatment plant, wet weather storage ponds and an irrigation system for managing wastewater from the factory.

2. SITE HISTORY – PROJECT APPROVALS

In January 2009, the then Minister for Planning approved the Shoalhaven Starches Ethanol Expansion Project (06_0228) under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The expansion project involved staged production increases of ethanol following the successful implementation of a range of odour controls. The expansion project involved:

- implementation of mandatory odour controls; and
- construction of additional infrastructure to enable an increase in ethanol production from 126 megalitres a year (ML/yr) to 300ML/yr (see **Figure 2**).

By June 2012, Shoalhaven Starches had installed the mandatory odour controls including the installation of a wastewater treatment plant and a biofilter. In June 2012, in accordance with the project approval, the Department approved subject to conditions, the increase in ethanol production to the maximum volume permitted being 300 ML/yr.

To date, Shoalhaven Starches has installed only some of the approved infrastructure for the expansion project as demand for ethanol has not increased as predicted. Shoalhaven Starches reported ethanol production levels in 2014 in the order of 230ML/yr. Notwithstanding, Shoalhaven Starches have implemented the mandatory odour controls and carried out quarterly odour monitoring and annual odour audits as required by the project approval.

Given the demand for ethanol has not increased as predicted, Shoalhaven Starches is progressively installing approved components of the ethanol expansion project that will allow them to optimise the production of other products including flour, starch and gluten. Shoalhaven Starches now propose to make alterations to the existing flour mill, which was approved by the former Minister for Planning in 2007 (MP 07_0021), and later consolidated into the 2009 expansion project approval (MP 06_0228).

Alterations to the existing flour mill would enable Shoalhaven Starches to increase its production of flour on site, thereby reducing the amount of flour imported by rail from other mills in western NSW.

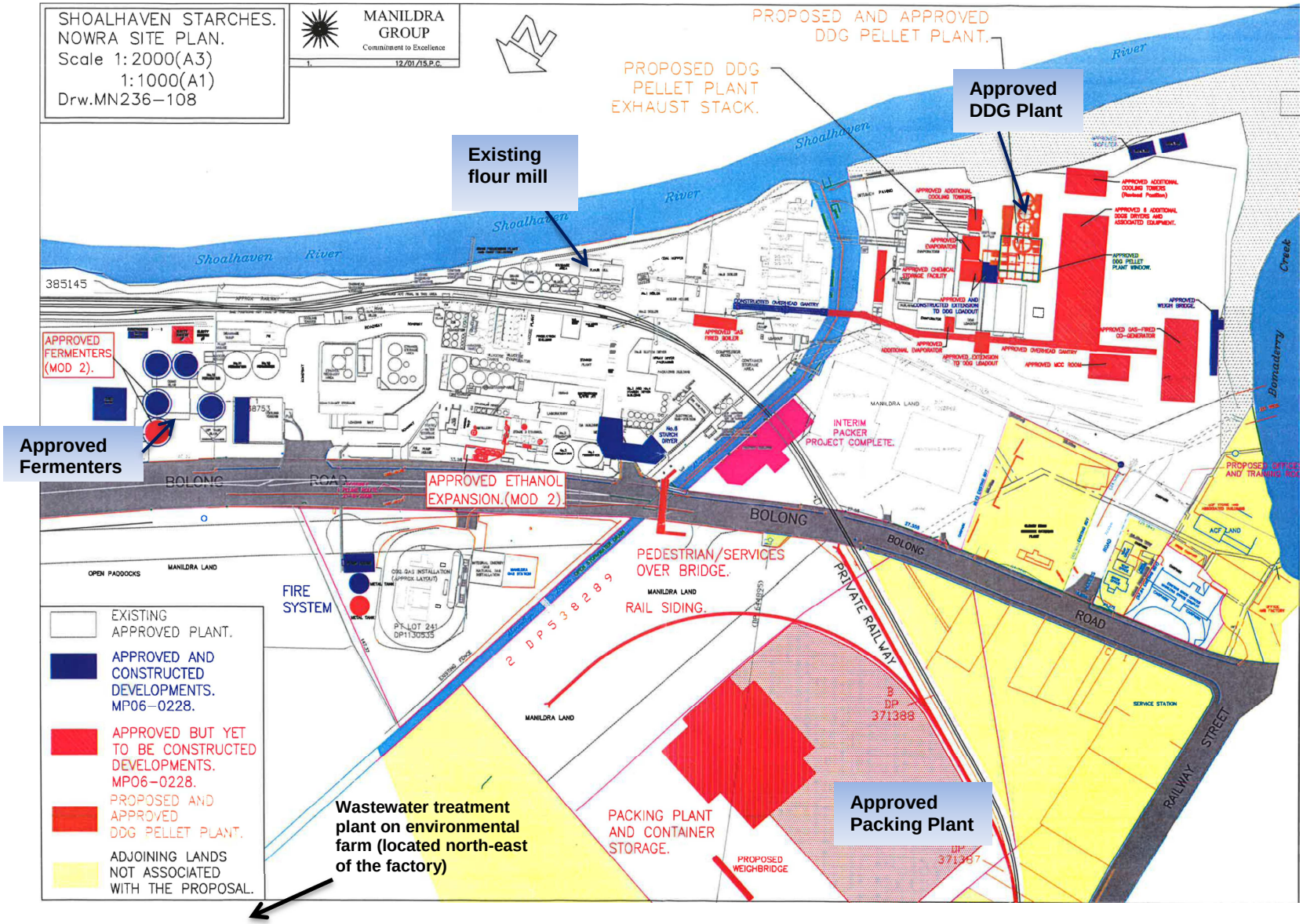

***Figure 2** - Shoalhaven Starches approved ethanol expansion project (06_0228)*

3. PROPOSED MODIFICATION

On 12 November 2015, Shoalhaven Starches lodged a modification application under Section 75W of the EP&A Act to modify the ethanol expansion project to make alterations to the existing flour mill to enable increased production of flour on site. The modification is described in full in the Environmental Assessment (EA) included in Appendix B and the external and internal modifications are illustrated on **Figures 3** and **4** respectively.

Physical works

The modification would increase flour production on site from the maximum approved capacity of 265,000 tonnes per annum (tpa) to 400,000 tpa and involves the following physical alterations:

- a small building extension between the existing flour mill and adjacent silos, with a building footprint of 3 metres (m) x 4m and a height of 40m (being 5.5m higher than the adjacent silos). The existing flour mill building is shown on **Plate 1**;
- external additions to the top of the flour mill building including a bucket elevator, conveyors and two exhausts and silencers from the additional internal dust collectors (see **Figure 3**); and
- installation of additional plant within the flour mill building including three roller mills, grinding and processing equipment, sifters, a hopper and dust collectors (see **Figure 4**).

Construction works would take approximately two months to complete and would require up to 20 construction staff on site daily.

Production volumes

The modification seeks to increase flour production on site from 265,000 to 400,000 tpa. Shoalhaven Starches currently produces 5,000 tonnes per week (tpw) of flour on site and imports 15,000 tpw by rail from its other mills in western NSW. The total 20,000 tpw of flour is fed into the starch plant. The modification would not change the quantity of flour fed into the starch plant, however less flour will be imported by rail from other mills due to the increased on-site production. **Table 1** shows the approved and proposed volumes of flour and wheat imported to the site by rail.

Table 1: *Rail imports to site*

	Flour (tpw)	**Wheat (tpw)**	**Total (tpw)**
Approved	15,000	6,250	21,250
Proposed	12,300	9,625	21,925
Difference	-2,700	+3,375	+675

There would be a net increase of 675 tpw of raw product (wheat) transported to the site, however, there would be no change to the number of trains accessing the site, as the increase would be accommodated within the spare capacity of existing trains. No other changes are required to accommodate the additional wheat transported to the site.

No change is proposed to the approved starch, gluten, glucose or ethanol production rates at the factory or to the volume of wastewater generated and treated on the environmental farm.

The increased production of flour on the site would free up capacity at the Proponent's other mills in western NSW, enabling production of higher grade flour at these mills and increased export opportunities for the Proponent.

***Plate 1**: Existing flour mill building*

4. STATUTORY CONTEXT

Approval Authority

The Minister was the approval authority for the original project application, and is consequently the approval authority for this application.

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

Section 75W

In accordance with Clause 12 of Schedule 6A of the EP&A Act, Section 75W of the Act as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A, continues to apply to transitional Part 3A projects.

Under Section 75W of the EP&A Act, the Minister is obliged to be satisfied that what is proposed is indeed a modification of the original proposal, rather than being a new project in its own right.

The Department notes that:

- the primary function and purpose of the approved project would not change as a result of the proposed modification;
- the modification involves minor physical alterations to existing infrastructure that would have minimal environmental impacts (see Section 5);
- the modification is of a scale that warrants the use of Section 75W of the EP&A Act;
- the approved production rates of products including starch, gluten, glucose and ethanol would remain unchanged as a result of the proposed modification; and
- any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions of approval.

Therefore, the proposed modification is within the scope of Section 75W of the EP&A Act. Consequently, the Department considered the application should be assessed and determined under Section 75W of the EP&A Act rather than requiring a new development or project application to be lodged.

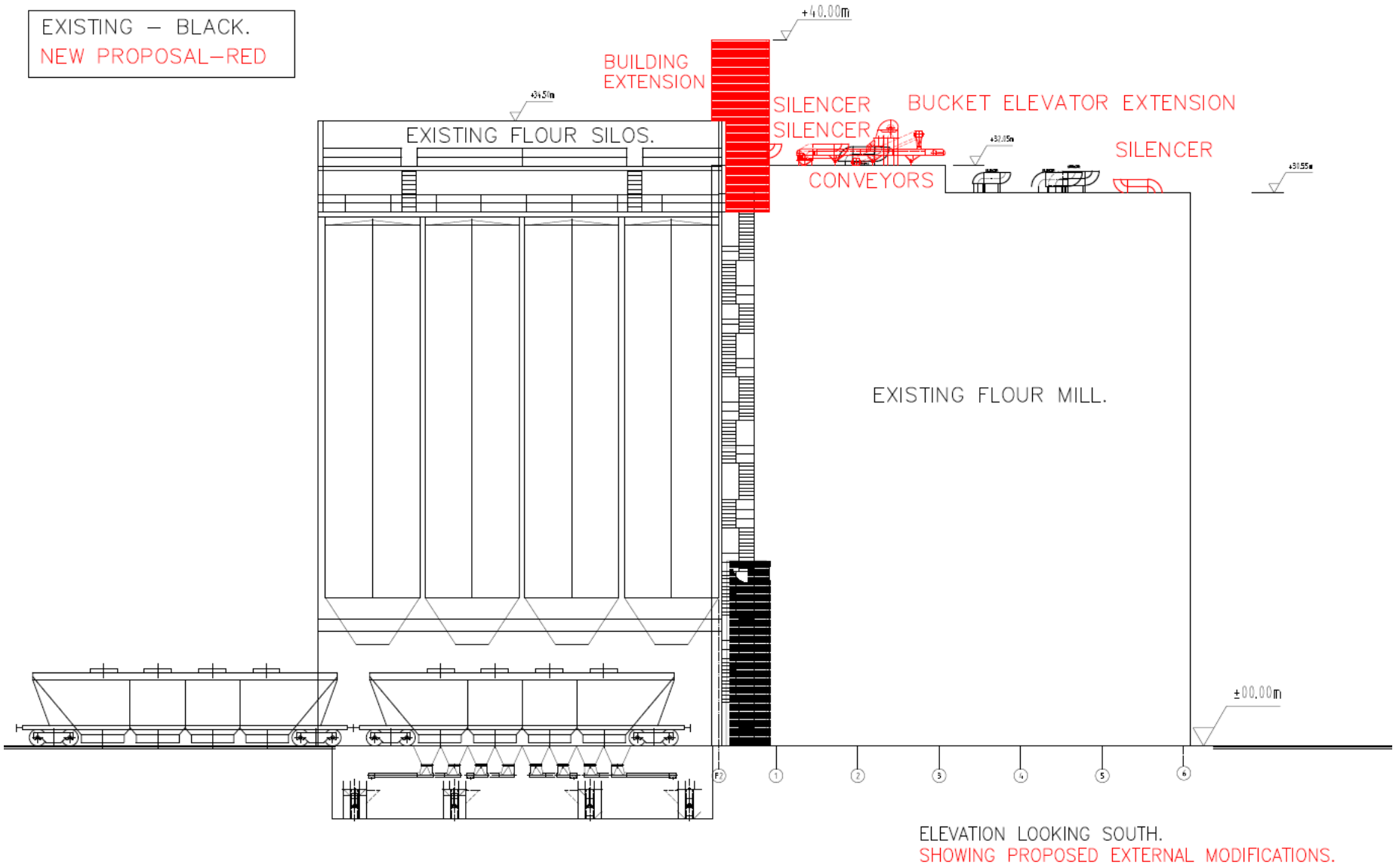

***Figure 3** – External Modifications to Flour Mill*

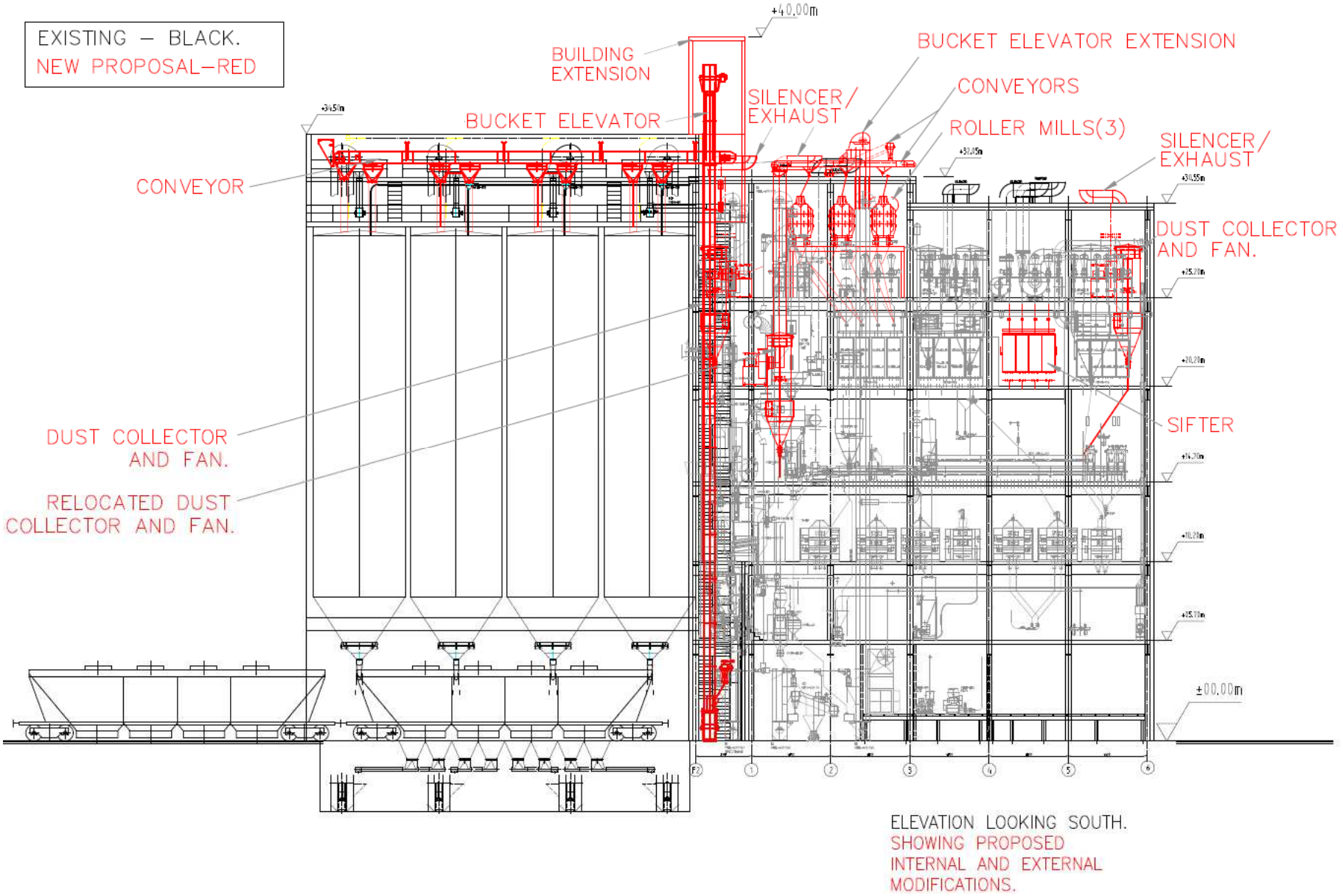

***Figure 4** – Internal Modifications to Flour Mill*

5. CONSULTATION

Under Section 75W of the EP&A Act, the Department is not required to notify or exhibit the application. Upon receipt, the application was placed on the Department's website and following a review of the application, the Department did not consider that further consultation was necessary. Notwithstanding, the Department sought comments from the Environment Protection Authority (EPA) and Shoalhaven City Council (Council).

Environment Protection Authority

The EPA did not object to the modification and provided recommended conditions relating to noise and air quality, including the requirement for noise validation within the first 12 months of operation of the modified flour mill. The EPA noted that the existing noise limits in the Environment Protection Licence (EPL) would remain relevant for the modification and recommended that construction works be limited to standard construction hours to minimise noise impacts. The EPA noted that the existing flour mill is not a significant odour source and that the air quality impacts from the modified flour mill are predicted to be well below relevant criteria. The Department has incorporated the EPA's recommendations into the modified conditions.

Shoalhaven City Council

Council did not object to the modification and provided recommended conditions relating to flooding, traffic, car parking, stormwater, contamination, acid sulphate soils, visual amenity, waste management and operation.

Council also raised concerns about the Proponent's compliance with the existing traffic and access conditions, relating to works on Bolong Road. Council's concerns relate to completed road upgrade works, specifically lighting, the access point at the former Dairy Farmers site and on-site parking. The matters do not relate directly to the proposed modification. The Department has referred Council's concerns to its compliance unit. The compliance unit is in the process of liaising with Council and the Proponent to resolve the outstanding concerns.

6. CONSIDERATION

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- EA and Director-General's assessment report for the ethanol expansion project and the original flour mill;
- existing conditions of approval (as modified);
- the EA supporting the proposed modification (Appendix B);
- submissions from government authorities (Appendix C);
- the Proponent's response to issues raised in submissions (Appendix D);
- relevant environmental planning instruments, policies and guidelines; and
- requirements of the EP&A Act, including the objects of the Act.

The Department considers that the modification would have only minor impacts, with odour, hazards, riverbank stability and noise the key issues. The Department's assessment of other issues is provided in **Table 2**.

6.1 Odour

Issue

The Shoalhaven Starches factory and environmental farm had a history of generating offensive odour, primarily originating from the irrigation of its wastewater on the environmental farm. However since 2011, following implementation of the mandatory odour controls approved as part of the ethanol expansion project, which included installation of a wastewater treatment plant, odour emissions from the site have significantly reduced. This

has been demonstrated through quarterly odour monitoring, independent annual odour audits and a substantial reduction in the number of complaints received. However due to this history of odour impacts, any modification to factory processes requires careful analysis of the potential for increases in odour emissions. Odour sources from the flour mill were assessed as part of the ethanol expansion project, however as the modification seeks to increase flour production, further assessment of odour impacts was undertaken.

Consideration
Stephenson Environmental Management Australia (SEMA) prepared an air quality impact assessment (AQIA) to predict the potential odour and total suspended particulate (TSP) emissions from the modified flour mill and cumulative emissions from the factory.

The modified flour mill includes two new baghouses for pollution control (primarily to manage dust or TSP), in addition to the existing baghouses contained within the flour mill.

The nearest residential receivers include properties located within the townships of Bomaderry, Terara, Nowra and North Nowra, consistent with the receivers modelled in the odour assessment for the ethanol expansion project and for the annual odour audits undertaken as part of the project approval.

SEMA used odour emissions monitoring data from the existing flour mill as model inputs and predicted worst case cumulative ground level concentrations from the factory and the modified flour mill, as follows:

- odour - 0.3 odour units (ou); and
- TSP – 0.17 micrograms per cubic metre (ug/m^3).

These are well below the EPA criteria of 2.0 ou and 90 ug/m^3 respectively.

The EPA noted that past odour monitoring data shows the existing flour mill is not a significant odour source and as a result, is not subject to any specific odour treatment. The EPA also noted that the modified flour mill would include additional baghouses for the capture and control of TSP and is satisfied that the modification is unlikely to have impacts on air quality. The EPA did not recommend any modified or additional conditions in relation to air quality.

Conclusion
The Department agrees with the conclusions of the AQIA for the modification, and concludes that the modified flour mill would not significantly increase odour or particulate emissions from the factory. The Department considers the existing conditions of approval, requiring annual odour audits, are adequate for ensuring the air quality impacts of the modified project are measured and managed effectively.

6.2 Hazards and Risk

Issue
The additional equipment installed within and on top of the flour mill building has the potential to change the risks of the approved facility. The potential for dust explosion, building explosion, risk of propagation to neighbouring equipment and cumulative risk are key considerations for the modified facility.

Consideration
The EA included a Preliminary Hazard Analysis (PHA) prepared by Pinnacle Risk Management in accordance with the Department of Planning's *Hazardous Industry Planning and Advisory Paper No. 4* (HIPAP 4).

The Department reviewed the PHA and considers that it adequately identifies the potential hazardous events associated with the modification, evaluates the level of risk to surrounding land users and identifies adequate prevention and mitigation measures.

The Department agrees with the findings of the PHA, that dust explosion is the key risk with potential for off-site impacts. The Department requested clarifications from the Proponent in relation to the proposed control measures including further details of the proposed vents designed to safely vent dust explosions to the atmosphere. The Department notes that both flameless and non-flameless vents are incorporated into the design, and the consequence analysis shows that with the control measures in place, off-site impacts from a dust explosion is unlikely.

The PHA also considered building explosion risks and the Department agrees that the most effective controls are already adopted in the existing flour mill and no further safeguards are required. These controls include preventative maintenance in hazardous areas, housekeeping, and the permit to work system, which requires adequate cleaning and control of ignition sources.

The PHA concluded that propagation to neighbouring equipment is not expected given that potential dust explosions are either vented to atmosphere at a safe, elevated location or are of limited consequential impact. The Department agrees and considers overpressure and heat radiation impact are unlikely to impinge on neighbouring equipment, in the event of dust explosion or fire.

The Department also agrees with the conclusions of the PHA in relation to cumulative risk, noting that the modification introduces negligible risks.

Conclusion

The Department's assessment concludes that the modification would satisfy the relevant risk criteria in HIPAP 4 and recommends that the safeguards and mitigation measures detailed in the PHA are fully implemented by the Proponent to ensure that risks do not extend off-site.

The Department also recommends that further consideration of safeguards is undertaken and the findings to be included in the Final Hazard Analysis (required prior to commissioning the modified flour mill) for the following specific hazards:

- conveyor system (event 1);
- hazardous zoning (event 2); and
- dust collector (event 20).

The Department also recommends that the Proponent update the existing hazards studies for the facility to include the modification. These include the Fire Safety Study, Emergency Plan, Safety Management System and Final Hazard Analysis. A Hazard and Operability Study is also required prior to commissioning the modified flour mill and a hazard audit is required 12 months after the commencement of operation of the modified flour mill.

6.3 Riverbank Stability

Issue

The existing flour mill is located 10m from the northern bank of the Shoalhaven River. Sections of the riverbank adjacent to the factory, including the area immediately adjacent to the flour mill, have eroded causing slumping of the riverbank. Shoalhaven Starches, in consultation with the Department of Primary Industries, has implemented a program of riverbank stabilisation works including the construction of rock revetment walls in this location (see **Plate 2**).

The modification has the potential to further impact on riverbank stability as the building extension is located 30m from the riverbank.

***Plate 2**: Rock revetment works adjacent to the flour mill*

Consideration

Coffey Geotechnics (Coffey) carried out a geotechnical assessment for the modification which considered:

- the potential impacts of the modification on riverbank stability; and
- the potential impacts of riverbank movement on the stability of the flour mill foundations, taking into account the additional loads required for the modification.

Riverbank Stability

Survey monitoring of the rock revetment wall was obtained from 10 survey markers embedded in the revetment boulders.

Coffey analysed the settlement and lateral movement of the rock wall and noted that since the 2009 data, there was a general downward movement at the top of the wall and general upward movement at the toe of the wall. Coffey noted that this movement could be due to the recent flood event, ground vibrations from piling works associated with construction of two silos near the flour mill and the accuracy of the survey.

Given the identified settlement and lateral movement, Coffey recommended that further, regular monitoring be carried out including:

- survey monitoring of the rock revetment wall every three months to assess whether there is an ongoing pattern of movement over the next 12 months;
- survey extending 15m from the toe of the revetment wall across the river bed to measure changes in the bed profile;
- regular visual observations to assess any obvious change to ground features, the effects of major rain events, flooding or any significant deepening or steepening of the river bed close to the revetment wall; and
- regular review of survey data and ongoing maintenance and repairs of the revetment wall.

Coffey also concluded that ground deformation due to the additional loads added to the flour mill structure for the modification would be minimal and its impact on riverbank stability would be insignificant.

Stability of Flour Mill Foundations

Coffey utilised modelling to estimate the potential movement of the rock revetment wall and riverbank to determine potential impacts on the existing flour mill structure and the proposed modification. Utilising estimates of cumulative settlement and lateral movement over a 20 year period, Coffey concluded that the effects of riverbank movements on the modified flour mill structure would be negligible and would not affect its structural integrity.

Council did not provide any comments in relation to riverbank stability.

Conclusion

The Department has considered the findings of the geotechnical assessment and concludes that the modification would not adversely impact on the stability of the riverbank but notes ongoing monitoring is required to ensure any changes due to high rainfall events are measured and appropriate maintenance can be implemented. The Department has recommended modified conditions requiring regular survey of the rock revetment wall and riverbank as recommended in the geotechnical assessment.

6.4 Noise

Issue

The primary noise sources from alterations to the flour mill include the operation of four new extraction fans, three roller mills, a sifter, conveyors and bucket elevators. The new equipment has the potential to increase noise at residential receiver locations in Bomaderry, Nowra and Terara.

Consideration

The EA included a noise impact assessment (NIA), prepared by Day Design. The NIA predicted construction and operational noise levels from the modified flour mill using a combination of measured noise levels from existing plant and manufacturer's noise data.

The nearest sensitive receivers are those nominated in the project approval and EPL and include properties in the townships of Terara, Nowra and Bomaderry (Meroo Street and Coomea Street 500m to the north-west). The noise criteria in the project approval and EPL for these locations range from 38dB(A) at Terara and Nowra to 42dB(A) in Bomaderry.

The NIA notes that the project specific noise criteria for all new plant and equipment on the factory site are 10dB below the criteria nominated in the project approval and EPL. Hence, noise from new plant and equipment must measure below 28 to 32dB(A) at the respective sensitive receivers. At this level, new plant and equipment would not increase the overall

noise levels from the factory at the nearest receivers, as outlined in the EPA's *NSW Industrial Noise Policy Application Notes*.

The NIA predicted that noise from the new equipment at the modified flour mill would comply with the project specific noise criteria at all receiver locations, with levels predicted to be in the range of 24 to 31dB(A) at the respective receivers, provided silencers are fitted on the discharge side of each fan. The NIA specified the minimum insertion loss to be achieved by each silencer.

The NIA predicted that construction noise would comply with the noise management goals of 43-50dB(A), and noted that piling works, if required, would be the noisiest activity and would be undertaken over a period of two weeks.

The EPA reviewed the NIA and noted that noise from operation of the modified flour mill would comply with the noise limits in the EPL provided it is constructed in accordance with the recommendations of the NIA. The EPA also noted that cumulative noise levels from the factory would not exceed the noise limits. The EPA recommended a condition requiring installation of the silencers on the discharge side of the four new extraction fans in accordance with the recommendation made in the NIA. The EPA also recommended that a noise validation be undertaken within the first 12 months of operation of the modified flour mill to confirm that noise levels comply with the predictions and if not, the Proponent is required to implement all reasonable and feasible mitigation measures to achieve compliance. In relation to construction noise, the EPA recommended restricting construction works to standard construction hours.

Conclusion

The Department's assessment concludes that noise from the modified flour mill would comply with the existing noise limits in the project approval and EPL. The Department has incorporated the EPA's recommendation to ensure that silencers are fitted in accordance with the recommendations of the NIA and concludes the noise validation would ensure the modified flour mill is constructed according to the required acoustic specifications. The Department also agrees with the recommendation to require the Proponent to implement reasonable and feasible mitigation measures to ensure compliance with the noise limits. The Department notes that the existing conditions also require any piling works to be restricted to the hours between 9am and 5pm, Monday to Friday only.

6.5 Other Issues

Table 2: *Assessment of other issues*

Issue	Assessment	Recommendation
Traffic	• The factory fronts a long section of Bolong Road and has multiple points of access for both light and heavy vehicles. The primary access point is AP3 which is the western most access and connects to the internal roads within the site. • ARC Traffic and Transport prepared a traffic impact assessment (TIA) for the modification considering construction traffic volumes. • The modification would not increase product outputs; hence operational traffic would not change. • There would be no increase in rail traffic movements as the net increase of 675 tonnes of wheat imported to the site per week would be accommodated within the spare capacity of existing train deliveries. As such, there would be no increase in rail crossings at the Bolong Road level crossing. • The TIA noted that the two month construction period would generate a maximum of 20 vehicle trips per day, including light and heavy vehicles and a maximum of 2 to 3 vehicle trips in peak hour periods. The minimal additional trips and short duration of construction would have an insignificant impact on the performance of the AP3 intersection or Bolong Road capacity. • Council did not raise any concerns regarding traffic associated	• Manage through existing conditions which restrict all vehicles from parking on the public road network and restrict heavy vehicles from using local streets during the night-time period.

Issue	Assessment	Recommendation
	with the modification and recommended that the access point be designed to accommodate the largest vehicle accessing the site. The Department notes that the existing AP3 access is designed to accommodate heavy vehicles and would be adequate for construction vehicles associated with the modification. • Council did raise other concerns regarding compliance with the existing conditions in relation to road works on Bolong Road. As noted in Section 4, these matters do not relate directly to the modification. The Department's compliance team is liaising with Council and the Proponent to resolve these issues. • The Department's assessment concludes that the traffic impacts of the modification would be minor and do not require any specific conditions.	
Flooding	• The factory is located on the northern bank and floodplain of the lower Shoalhaven River. Intensification of development on the floodplain has the potential to cause flooding impacts on and off-site. • WMA Water (WMA) prepared a flood impact assessment (FIA) using hydraulic modelling from the *Shoalhaven River Flood Study, March 2013* (prepared by WMA Water for Shoalhaven Starches) to assess the flooding impacts of the modified flour mill. • The FIA considered the modification in terms of compliance with Council's *Development Control Plan 2014, Chapter G9: Development on Flood Prone Land* (DCP). • The existing flour mill is surrounded by other plant and buildings and already significantly impedes the flowpath of floodwaters. • The majority of additional equipment for the modification would be housed within the existing flour mill or on top of the building. The small building extension (3m x 4m footprint) was assessed as having an insignificant impact on flood levels due to the density of the surrounding plant and the small size of the building extension. The FIA concluded that there would be no change to the 1% Annual Exceedance Probability (AEP) flood level as a result of the modification. • The FIA concluded that the works would comply with Council's DCP. The modification would not increase the number of workers on the site, and therefore would not introduce any additional safety concerns in relation to flooding and evacuation. • Council did not raise any concerns regarding flooding and recommended conditions requiring construction of the building extension to withstand flooding, and requirements for flood emergency management procedures. • The Department's assessment concludes that the modification would have negligible flooding impacts. The existing conditions require any new buildings and structures, to be built to withstand flooding and in accordance with Council's DCP and also require an up to date flood management plan. No amendments to the existing conditions are required.	• Manage via existing conditions including the requirement for new buildings and structures to be constructed to withstand flooding and in accordance with Council's DCP and to maintain an up to date flood management plan.
Visual amenity and building height	<u>*Visual Amenity*</u> • The modification would involve installation of additional equipment within the flour mill building, and additional plant located on top of the building. • External additions include extraction fans and silencers, a bucket elevator and conveyors. The building extension would extend to 40m high which is 5.5m higher than the adjacent silos and 8m higher than the top of the existing flour mill building. • The EA included a visual impact assessment which considered the visibility of the modified flour mill from key vantage points including Bolong Road to the north, Riverview Road and the village of Terara to the south and Nowra to the south-west. • The flour mill building is located adjacent to the riverbank and is generally shielded from view from Bolong Road by other factory buildings. Views from the south and south-west are over 1km away and hence the small additions to the flour mill building would not be visually prominent. • The proposed additions are also consistent with the existing industrial character of the factory site, of a similar height to other	• Manage via existing conditions requiring the control of lighting and use of non-reflective building materials. • Require the Proponent to provide as-constructed details to Airservices Australia following completion of construction of the flour mill alterations.

Issue	Assessment	Recommendation
	structures on site and consistent with other adjacent industrial premises on Bolong Road. Other higher structures on the site include the boiler stack at 54m, DDG stack at 49m and the No.6 dryer at 43m. • Council did not raise any concerns regarding visual amenity and recommended the use of non-reflective building materials. • The Department's assessment concludes that the visual impacts of the proposed modification would be minimal given the scale of the existing industrial development on the site and that the additional structures would generally be of a similar appearance, height and bulk to the existing structures on the site. The Department considers that the visual impacts of the modification would be minor and would not require any specific conditions beyond the control of lighting, use of non-reflective building materials and landscaping requirements of the existing approval. *Tall Structures* • HMAS Albatross (airbase) is located 10km south-west of the factory. • The Proponent provided information to the Department of Defence regarding the height of the modified flour mill (40m). • The Department of Defence considered the potential impacts to the safety of aircraft operations from HMAS Albatross and advised that it had no concerns with the modification and that the modification would not infringe the Outer Horizontal Surface of the Obstruction Limitation Surface of HMAS Albatross. • The Department of Defence requested that the Proponent provide as-constructed details to Airservices Australia following completion of construction of the modified flour mill. • The Department has incorporated this recommendation into the modified conditions.	
Production volumes	• The modification seeks to increase the on site production of flour from 265,000 tpa to 400,000 tpa, however the overall production of gluten, starch, glucose and ethanol would not increase, as the additional flour production on site would offset imports of flour to the site from other mills in western NSW. • The Department is satisfied that the impacts of increased flour production would be minor and effectively managed via the existing and modified conditions of approval.	• Amend the production volume in Condition 6 (1) of Schedule 2 to allow flour production of 400,000 tones per year.

7. CONCLUSION

The Department has assessed the proposed modification in accordance with the requirements of Clause 8B of the Regulations and concludes that the modification would:

- result in minimal environmental impacts beyond the approved facility;
- enable Shoalhaven Starches to alter production to reflect changing markets with a reduced emphasis on ethanol production and an increased focus on starch, gluten and glucose production;
- ensure that the key amenity impacts of odour and noise are maintained below existing limits;
- maintain the hazards and risks of the facility below relevant limits;
- ensure that riverbank stabilisation works are regularly monitored and repairs carried out when required; and
- not increase the overall approved production volumes at the factory.

The Department is satisfied that the modification should be approved subject to conditions.

8. RECOMMENDATION

It is RECOMMENDED that the Planning Assessment Commission:

- approve the proposed modification under Section 75W of the EP&A Act; and
- sign the attached notice of modification (in Appendix A).

Deana Burn
Specialist Planner, Industry Assessments

Chris Ritchie 23/2/16
Director
Industry Assessments

Anthea Sargeant 23/2/16
Executive Director
Key Sites & Industry Assessments

APPENDIX A – NOTICE OF MODIFICATION

See separate file at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7384

APPENDIX B – ENVIRONMENTAL ASSESSMENT

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7384

APPENDIX C – SUBMISSIONS

See separate files at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7384

APPENDIX D – RESPONSE TO SUBMISSIONS

See separate file at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7384

APPENDIX E – CONSOLIDATED APPROVAL

See separate file at http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7384