

# **ASSESSMENT REPORT**

# Shoalhaven Starches Expansion Project Car Park Relocation - Section 75W Modification 06\_0228 Mod 3

# 1. BACKGROUND

Shoalhaven Starches Pty Ltd (the Proponent) operates a factory off Bolong Road at Bomaderry on the outskirts of Nowra in the Shoalhaven local government area (see Figure 1).



Figure 1 - Shoalhaven Starches factory and environmental farm site context

The factory is surrounded by a mix of industrial, commercial and rural land uses. The nearest residences are located approximately 200 metres (m) north-west of the factory in Meroo Street, Bomaderry.

The factory began operating in 1979 to produce starch, gluten and glucose products from wheat and sorghum supplied by rail from central NSW. These products are used in the food, paper and brewing industries. Since 1992, the factory has also produced ethanol for use in motor fuels (branded E10), and the by-product dried distillers grain (DDG) sold as livestock feed. Wastewater from the factory is treated and irrigated on a nearby 'environmental farm' (see Figure 1).

The factory has had a history of odour problems since it began operation. A development consent issued by the former Minister for Planning in 2003 included a pollution reduction

program aimed at reducing the odour impacts of the factory and environmental farm. The consent also allowed for an increase in ethanol production. Despite implementation of the 2003 consent, odour problems persisted and Shoalhaven Starches were successfully prosecuted by the Environment Protection Authority in the Land and Environment Court in 2006 for causing offensive odour.

Separately, in 2007 the NSW Government passed the *Biofuel (Ethanol Content) Act 2007* that mandated 2% ethanol content in all petrol sold in NSW. As the only supplier of ethanol in NSW, Shoalhaven Starches lodged an application for expansion of ethanol production at the Bomaderry factory to meet the increased demand created by the Government's mandate.

In January 2009, following a review by the Planning Assessment Commission, the then Minister approved the Shoalhaven Starches Ethanol Expansion Project to increase ethanol production at the Bomaderry factory in a staged manner from 126 to 300 million litres (ML) a year, subject to strict conditions requiring implementation of odour controls (see Director-General's report and original conditions of approval in Appendix F).

All infrastructure approved as part of the ethanol expansion project is shown on Figure 2. The primary infrastructure components included:

- extension of the DDG and ethanol plants;
- a wastewater treatment plant and other odour control measures;
- a new packing plant; and
- supporting infrastructure, including car parking.

The majority of the approved infrastructure has been constructed and the Department recently granted final approval to Shoalhaven Starches to increase ethanol production up to the maximum of 300 ML a year. However, Shoalhaven Starches has yet to construct the required car parking spaces to service the increased operational workforce.

The requirement for sufficient, formalised parking spaces was set out in the project approval, which included the requirement for Shoalhaven Starches to provide 60 new spaces within the factory site and 30 new spaces adjacent to the new packing plant (refer to Figure 4).

Since the project approval, Shoalhaven Starches has acquired two additional parcels of land which has enabled it to optimise the location of some of the approved infrastructure. The additional land is shown on Figure 3. In 2011, Shoalhaven Starches obtained consent from Shoalhaven City Council to construct an Interim Packing Plant on newly acquired land immediately adjacent to the factory and has delayed construction of the approved packing plant on the northern side of Bolong Road (and its associated 30 space car park).

Shoalhaven Starches has also acquired the former 'Dairy Farmers' site, immediately to the east of the factory. Shoalhaven Starches now proposes to use part of this site to construct the 60 car spaces required as part of the 2009 project approval.



Figure 2 – Approved ethanol expansion project - infrastructure additions



Figure 3 – Additional land acquired since 2009 project approval

#### 2. PROPOSED MODIFICATION

On 31 May 2012, Shoalhaven Starches lodged a modification application with the Department under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The modification is outlined below, shown on Figures 4 and 5 and described in full in the Environmental Assessment in Appendix E.

Shoalhaven Starches proposes to:

- relocate an approved staff car park comprising 60 spaces; and
- include Lot 143 on Deposited Plan 1069758 in the project approval to enable construction of the car park and access road.

The modification involves relocating the 60 spaces required by condition 31b) to recently acquired land adjacent to the factory, known as the 'Dairy Farmers' site. Originally it was intended that these spaces would be provided in the south-western part of the site with 40 spaces at the rear of the old 'Moorehouse' building and 20 spaces near the new DDG dryers. The 'Dairy Farmers' site is a preferred location as it would reduce congestion on the factory site and provide some separation of staff traffic from operational areas.

No change is proposed to production processes, levels or outputs at the factory.

Figure 4 shows the approved parking layout and the modified layout.

## 3. STATUTORY CONTEXT

#### Approval Authority

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

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

#### Section 75W

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 modification involves relocation of an approved car park and the addition of a land parcel to the project approval. There would be no change to the number of parking spaces and the car park would be located adjacent to the existing 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 a land parcel to the project approval can be considered under section 75W particularly as the ethanol expansion project declaration related to several allotments adjacent to Bolong Road. Therefore, it is considered that the proposed modification is within the scope of section 75W of the EP&A Act.

Consequently, the Department considers that 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 4 – Approved and Modified Parking Layout

## 4. CONSULTATION

After reviewing the application, the Department made it publicly available on its website and sought comments from Shoalhaven City Council (Council) and the Roads and Maritime Services (RMS).

Consultation with any other parties was considered unnecessary, as the environmental impacts of the proposal would essentially remain unchanged from the approved project.

**Council** provided a number of recommended conditions, requesting an approval role for the intersection design plans and requesting that landscaping along Bolong Road be implemented as a priority. Council also requested that the design of the intersection be upgraded beyond the recommendations of the traffic study. Council raised some concerns regarding compliance with the project approval, reiterating that it was yet to receive works as-executed plans for road upgrades and that an earlier request to remove an informal access on Bolong Road had not been completed.

**RMS** did not object to the modification and provided recommended conditions relating to road upgrade works for the car park access and pedestrian provision. RMS also indicated that the existing speed zone of 60km/hr on Bolong Road would be extended east, beyond the proposed car park access, at some stage over the next three months. Therefore, RMS requested that the design speed of the car park access point be 80km/hr to reflect that the majority of traffic would be decelerating from the 100km/hr speed zone near the car park access.

No public submissions were received on the proposal.

In its review of the application, the **Department** requested a number of clarifications from Shoalhaven Starches. These related to the number of parking spaces required by the project approval and revised plans showing correct Lot and DP descriptions. The Department also requested clarification on the Interim Packing Plant for which Shoalhaven Starches had sought and obtained a separate consent from Council, without consultation with the Department.

On 24 August 2012, Shoalhaven Starches provided a response to the issues raised by the Department and the submissions from Council and RMS (see Appendix C). Shoalhaven Starches provided revised site plans to clarify the approved, existing and modified parking provision.

## 5. CONSIDERATION

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

- environmental assessment and Director-General's assessment report of the original project application (Appendix F);
- existing conditions of approval (as modified) (Appendix A);
- the EA supporting the proposed modification (Appendix E);
- submissions from government authorities (Appendix D);
- response to submissions (Appendix C);
- relevant environmental planning instruments, policies and guidelines; and
- requirements of the EP&A Act, including the objects of the Act.

The Department considers parking and access to be the key environmental issues associated with the modification. The Department's assessment of all other issues is outlined in Table 2.

#### 5.1 Parking Provision

The provision of sufficient, formalised parking spaces is a requirement of the Minister's 2009 project approval. Specifically, the project approval requires:

- 60 new parking spaces on the factory site to the south of Bolong Road within 12 months of approval, being January 2010 [condition 31b]; and
- 30 new parking spaces at the packing plant on the northern side of Bolong Road, prior to operation [condition 31c)].

These conditions were designed to accommodate the increased peak operational workforce associated with the ethanol expansion project and to address the practice of illegal parking along the verge of Bolong Road. The requirement for 90 additional spaces would increase the total parking provision on site to 349 spaces.

In October 2011, Shoalhaven Starches obtained consent from Council for an Interim Packing Plant within the factory site. As part of this consent, Council required 12 additional parking spaces. These spaces have yet to be constructed as works on the Interim Packing Plant are still underway.

The modification involves relocating the 60 spaces required by condition 31b) to recently acquired land adjacent to the factory, known as the 'Dairy Farmers' site. Originally it was intended that these spaces would be provided in the south-western part of the site with 40 spaces at the rear of the old 'Moorehouse' building and 20 spaces near the new DDG dryers. Figure 4 shows the approved parking layout and the modified layout. Figure 5 shows the modified parking layout in detail.

Shoalhaven Starches has indicated that locating the 60 parking spaces on the 'Dairy Farmers' site is preferable from an operational perspective.

In considering the modified parking layout, the Department concluded that:

- the revised location would reduce congestion on the factory site (this is discussed further in Section 5.2);
- the relocated car park would meet the requirements of condition 31b);
- construction of the car park should be prioritised to ensure adequate on-site parking provision;
- the requirement for an additional 30 spaces at the packing plant [condition 31c)] would not be required until such time as the packing plant is operational; and
- the 12 spaces required for the Interim Packing Plant (approved by Council) are a separate obligation, and are to be provided adjacent to the old 'Moorehouse' building as shown on Figure 4.

Council and RMS did not raise any concerns regarding the relocation of the car park or the timeframe for its construction.

The Department recommends that condition 31b) be modified to amend the timeframe for constructing the car park on the 'Dairy Farmers' site. The Department recommends that the car park be completed within 6 months of this modification and has included a condition requiring completion by April 2013.



Figure 5 – Modified Parking Layout and Pedestrian Path

## 5.2 Access and Traffic

Access to the factory is provided at five points on the southern side of Bolong Road. A sixth access point to the approved packing plant on the northern side of Bolong Road has yet to be constructed. Access points AP1 to AP6 are described in Table 1 and shown on Figure 6.

No.	Location	Description	
AP1	Eastern	Recently upgraded.	
AP2	Central	Recently upgraded and restricted to left-in, left-out movements. Vehicles travelling from the west must drive past AP2, turn right into the Dairy Farmers site, turn around and travel back to AP2 to access it as a left-turn in.	
AP3	Western	Recently upgraded.	
AP4	Car Park	Recently upgraded and formalisation of on-site parking at the old 'Moorehouse' building.	
AP5	Packing Plant	Located on northern side of Bolong Road. Approved but won't be constructed unless the packing plant is constructed.	
AP6	Interim Packing Plant	Recently upgraded to include a right hand turn lane on Bolong Road.	

Table	1: App	proved Access Points	
No		Location	

Shoalhaven Starches has completed the road upgrade works required by the 2009 project approval at these access points. The upgrades were required to address safety concerns associated with numerous access points within a short distance, numbers of heavy vehicles and the need for right turn bays to access the factory without impeding through traffic.

The modification involves utilising a seventh access point on Bolong Road to service the proposed car park, shown as AP7 on Figure 6. This is an existing access point that served the Dairy Farmers operation but was upgraded by Shoalhaven Starches following acquisition of the site in 2010. The access point was upgraded to a Channelised Right (Short) or CHR(S) intersection to provide a protected right turn bay to the 'Dairy Farmers' site. The upgrade was necessary following the restriction of right-turn movements into the factory at AP2, requiring vehicles travelling from the west to pass the factory then use the 'Dairy Farmers' site to turn around and return to access the factory via a left turn-in at AP2.

ARC Traffic and Transport conducted an assessment of the capacity of the 'Dairy Farmers' access (AP7) to accommodate the additional traffic movements generated by the relocated car park.

The assessment included surveys of traffic volumes generated by the factory and considered the redistribution of trips that would result from relocating the car park. The assessment concluded that:

- the factory generates a total of 1370 vehicle movements (light and heavy) during peak periods (including 686 in the AM peak and 684 in the PM peak);
- the relocated car park would not increase total vehicle movements to/from the site;
- the relocated car park would result in a redistribution of light vehicle movements from the AP3 access (where the car park was originally approved) to the AP7 (Dairy Farmers) access;
- the number of movements redistributed to AP7 would be very low, with 6 in the AM peak and 14 in the PM peak; and
- the redistribution would reduce turning movements at AP3, which is one of the busier site intersections.

OVERALL SITE PLAN SHOWING ACCESS POINTS



Figure 6 – Approved Access Points (AP1 – AP 6) and Proposed Access Point AP7

The assessment also considered the capacity of AP7 to accommodate the redistributed light vehicle movements and concluded that:

- the right turn movement from Bolong Road into the 'Dairy Farmers' site at times already exceeds the need for an upgrade from CHR(S) to a full Channelised Right (CHR). The additional light vehicle movements generated by the relocated car park strengthens the case for upgrading the intersection to CHR;
- the left turn from Bolong Road into the 'Dairy Farmers' site should be upgraded to an Auxiliary Left (AUL) to accommodate potential peak flows; and
- the intersection would continue to operate at a satisfactory level of service with no other ugprades required to serve the low volumes of traffic generated by the relocated car park.

Shoalhaven Starches has committed to:

- design the car park in accordance with Australian Standards, including the provision of two disabled parking spaces (as required by Council);
- upgrade the intersection to meet the requirements of the RMS due to a change in the 60km/hr speed zone near the intersection;
- provide a pedestrian path to connect the car park to the existing pedestrian path along Bolong Road; and
- remove an existing informal access point immediately to the east of AP1.

The Department has formalised these commitments in the modified conditions.

RMS agreed with the ARC assessment and its recommended design requirements have been included as modified conditions.

In its submission, Council agreed with the recommendation to upgrade the right turn into the site to a CHR. However, in relation to the left turn into the site, Council requested an upgrade to a CHL, beyond the recommendation of the ARC study, being an AUL. In discussions with the Department, Council accepted the traffic movements generated by the modification do not warrant an upgrade beyond the AUL level.

Therefore, the Department has included modified conditions requiring upgrade of the intersection (to a CHR for the right turn-in and an AUL for the left turn-in) prior to operation of the car park. The upgrade works are to be carried out to the satisfaction of Council and RMS.

Many of Council's other recommendations relate to conditions of the 2009 project approval and the recently completed road upgrades. In particular, Council has requested works-asexecuted plans for completed road upgrade works on Bolong Road. These works were carried out in accordance with a consent issued by Council under Section 138 of the *Roads Act, 1993*, with the concurrence of RMS.

The Department agrees that Shoalhaven Starches should provide Council with works-asexecuted plans to:

- enable Council to review and approve any variations between the approved design plans and the completed works;
- ensure full compliance with the conditions of the 2009 project approval for road upgrades; and
- ensure that Council has a full set of plans detailing the completed works, as Council is the authority responsible for road maintenance.

The Department has modified the project approval to require works-as-executed plans for all road upgrade works. The Department recommends that:

- the plans of completed works be provided within 1 month of the modification and has included a condition requiring the plans to be provided no later than October 2012; and
- the plans of the upgrades required for the modification be provided within 1 month of completion of the upgrade works.

Council supports the recommended conditions.

#### 5.2 Other Issues

The Department's consideration of other issues is outlined in Table 2.

Table 2: Assessment of other issues

Issue	Assessment	Recommendation
Visual	<ul> <li>The relocated car park is located on the former 'Dairy Farmers' site which contains an existing car park, buildings, tanks and ponds;</li> <li>The site is immediately adjacent to the Shoalhaven Starches factory which is a large industrial cluster containing structures up to 30m in height;</li> <li>The car park would be visible to passing traffic along Bolong Road and pedestrians (most of whom are employees of the factory);</li> <li>The car park would not be out of context with neighbouring development and would have an insignificant visual impact on the locality;</li> <li>Shoalhaven Starches has prepared a Landscape Plan for the modification and committed to landscaping the Bolong Road frontage of the factory/Dairy Farmers site with 3 metre wide garden beds comprising a mixture of native shrubs and groundcovers;</li> <li>In its submission, Council noted its disappointment at the lack of implementation of landscaping at the factory site. Council noted Shoalhaven Starches obligation under the project approval to implement the approved Vegetation Management Plan (condition 43) which requires landscaping along the Bolong Road frontage; and</li> <li>Therefore, the Department has recommended formalising Shoalhaven Starches commitment to implement the Landscape Plan for the modification and commence landscaping along the site frontage within 6 weeks of commencing construction of the relocated car park.</li> </ul>	<ul> <li>Implement the proposed Landscape Plan within 6 weeks of commencing car park construction works;</li> <li>Update the Vegetation Management Plan for the site to incorporate the Landscape Plan for the car park; and</li> <li>Maintain landscaping for the life of the project.</li> </ul>
Noise	<ul> <li>Construction noise emissions were not quantified in the EA but are expected to be short-term, minor and acceptable.</li> <li>The proposed modification would not increase traffic noise from the site;</li> <li>The nearest residences are over 200m away, and there would be no increase in traffic movements, only a redistribution of movements.</li> </ul>	No change.
Soil and Water	<ul> <li>The construction of the car park would involve shallow excavations which would be managed via the implementation of standard erosion and sediment controls.</li> <li>Under the existing conditions, Starches is required to implement the approved Erosion and Sediment Control Plan for the project, as modified.</li> </ul>	No change
Air Quality / Odour	• As there is no increase in vehicle movements, or changes to production processes and outputs, there would be no change to the odour or air quality impacts of the project.	No change.
Addition of land parcel	<ul> <li>Lot 143, DP 1069758 is to be added to the project approval to allow construction of the car park and access road;</li> <li>The additional land parcel would not significantly alter the scale of the project or its impacts.</li> </ul>	<ul> <li>Include additional land parcel in Schedule of Land listed in the project approval.</li> </ul>

#### 6. CONCLUSION

Based on this assessment, the Department is satisfied that the environmental impacts of the proposed modification would be negligible. The revised car park location would reduce congestion within the factory and would provide some separation of operational and staff vehicles. The addition of a parcel of land to the project approval to enable the car park access to be constructed would not significantly alter the scale of the project or its impacts.

#### 7. **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).

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# **APPENDIX A – NOTICE OF MODIFICATION**

See separate file on website title 'Notice of Modification'

# **APPENDIX B – CONSOLIDATED APPROVAL**

See separate file on website title 'Consolidated Approval'

# **APPENDIX C – RESPONSE TO SUBMISSIONS**

See separate documents in '3. Response to Submissions' folder titled:

- Response to Submissions
- Further Response to Submissions
- Further RTS Annexures

## **APPENDIX D – SUBMISSIONS**

See separate documents in '2. Submissions' folder titled:

- Council
- RMS

# **APPENDIX E – ENVIRONMENTAL ASSESSMENT**

See separate document in '1. Application and EA' folder titled:

• Environmental Assessment

#### APPENDIX F – DIRECTOR-GENERAL'S REPORT AND CONDITIONS OF APPROVAL FOR THE ORIGINAL PROJECT APPLICATION

See separate files under Shoalhaven Starches Ethanol Expansion Project 06\_0228, stored in folder '5.Determination', titled:

- Director-General's Assessment Report
- Director-General's Assessment Report Appendix C
- Project Approval