

## ASSESSMENT REPORT

### TRANSPACIFIC WASTE OIL PROCESSING FACILITY MP 05\_0037 MOD 5

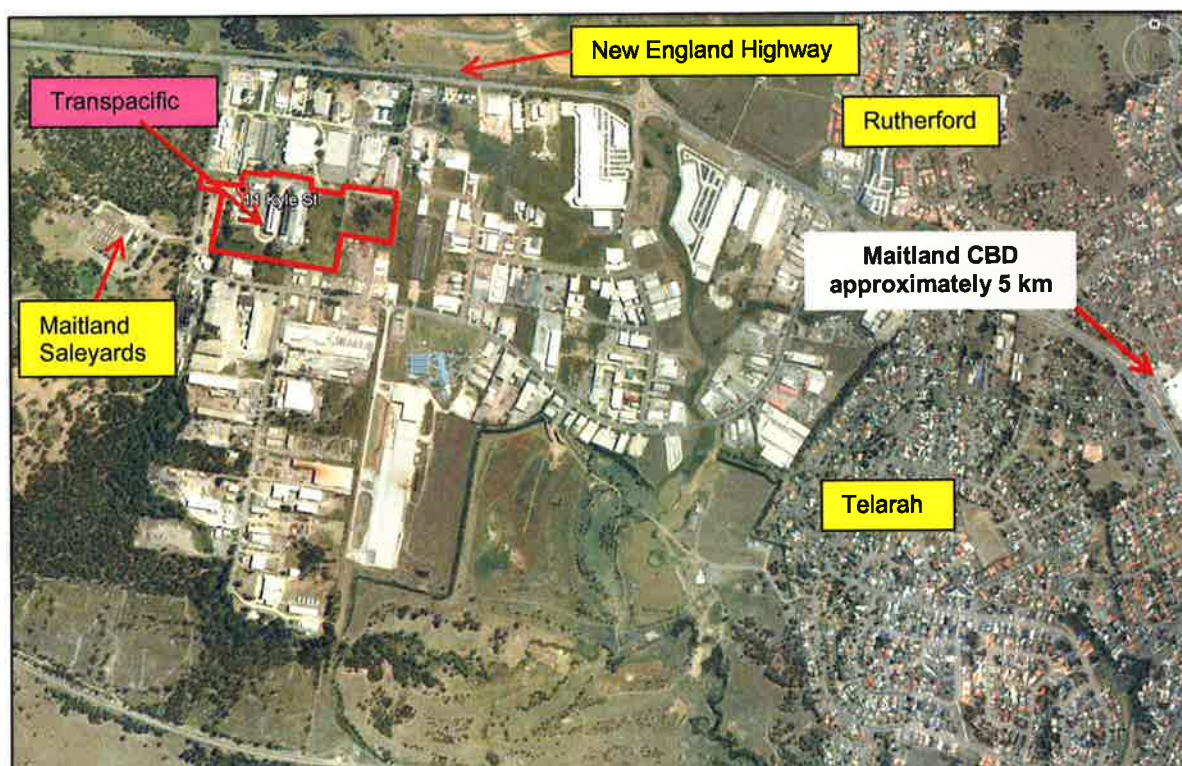
#### 1. INTRODUCTION

This report is an assessment of a request to modify Project Approval MP 05\_0037 for the Waste Oil Processing Facility at Rutherford in the Maitland local government area. The modification request has been lodged by Transpacific Refiners Pty Ltd (Transpacific), pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The application seeks to modify the approval to construct and operate additional plant and storage tanks to allow waste oil to be refined to a higher grade.

#### 2. SUBJECT SITE

The site is located approximately five kilometres (km) north-west of Maitland CBD, on the western boundary of the Rutherford Industrial Estate (**Figure 1**). The site operates as a waste oil recycling and processing facility. The site contains existing buildings and plant used for recycling waste oil. A large portion of the site is undeveloped with the existing facility concentrated on the western side of the site.

Surrounding land uses include predominantly industrial uses to the immediate north, east, and south, with rural uses to the west of the site. The residential suburbs of Rutherford and Telarah are located approximately one kilometre from the site, to the east and south-east respectively.



**Figure 1:** Site location (base image source: Google Earth)

### 3. APPROVAL HISTORY

On 4 July 2006, the then Minister for Planning granted Project Approval (MP 05\_0037) to Transpacific for the construction and operation of a Resource Recovery and Recycling Facility. The Approval provided for a maximum annual throughput of 40,000 tonnes per annum (tpa) of waste lubricant oils.

The Approval has been modified on three occasions:

- On 16 May 2007, the then Minister for Planning modified the Project Approval (MOD 1) to allow the continued use of existing unapproved and additional infrastructure, including tanks, a cooling tower and a gas fired heater, to improve the quality of the final waste oil product;
- On 18 October 2011, the Department modified the Project Approval (MOD 2) to update monitoring conditions to increase the particulate emission limit and align the approval with the Environmental Protection Licence (EPL); and
- On 10 December 2014, the Department modified the Project Approval (MOD 4) to replace an existing stack.

In 2009, another modification was lodged to include a tank farm but was subsequently withdrawn.

### 4. PROPOSED MODIFICATION

On 1 February 2016, the Proponent lodged a section 75W modification application (MP 05\_0037 MOD5) seeking approval for the construction and operation of an oil polishing system, multi-fuel burner and additional oil storage tanks at the facility.

The proposal includes:

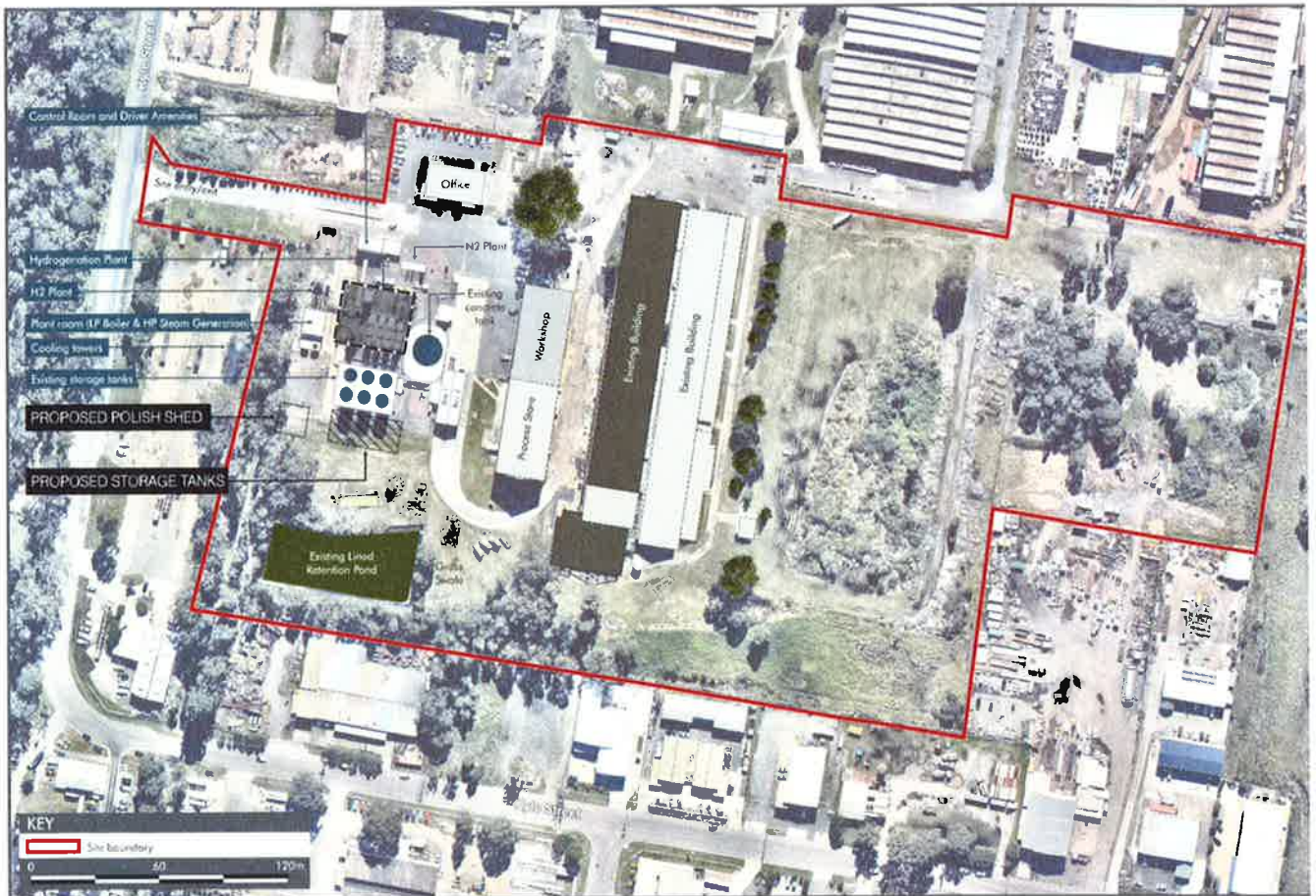
- installation of new plant (oil polishing system) to refine group I oils further to a consistent group II oil specification;
- replacement of the existing low pressure steam boiler with a multi-fuel burner to enable the reuse of waste streams on the site. Fuel sources for the multi-fuel burner would include the process gases from the new oil polish system, re-use of low sulphur oil, and re-use of captured tank vapour from the flammable liquid tank farm;
- expansion of the tank-farm with six additional oil storage tanks. Up to 2.4 megalitres (ML) of storage volume to accommodate the new group II oils in Australian Standard (AS1940) compliant self-bunded tanks;
- associated civil and earthworks to level the site for footings and bund construction;
- increase the stack height of the 3.0 megawatts (MW) burner from 8 metres to 16 metres to improve pollutant dispersion;
- expansion of the existing safety and fire-fighting systems to accommodate the new tank farm and new oil polishing system as required;
- associated works including extensions to an internal access driveway and an existing hardstand area to provide appropriate access within the site; and
- installation and connection of ancillary equipment such as pipes, power, control and communications to connect the new equipment into the operation of the existing plant.

Transpacific currently operates a hydrogenation plant at the site which refines waste oils and lubricants from industrial facilities, into a group I base oil. The production of group I base oil is limited by local market demand and is exported into a competitive global market. The modification would allow the Proponent to convert group I oil into group II oil to cater for a wider market.

The modification request is not seeking an increase in the approved throughput of 40,000 tpa for the facility set by the original Project Approval. The average throughput to date has been approximately 24,000 tpa, partially due to the limited market demand of group I oils. The

modification would allow the Proponent to produce a mix of group I and group II oils to access a larger market whilst remaining within 40,000 tpa limit.

The proposed site layout is depicted in **Figure 2**.



**Figure 2:** Location of key site features (Source: Proponent's environmental assessment)

## 5. STATUTORY CONSIDERATION

### 5.1 Section 75W

The project was originally approved under Part 3A of the EP&A Act. Although Part 3A was repealed on 1 October 2011, the project remains a 'transitional Part 3A project' under Schedule 6A of the EP&A Act, and hence any modification to this approval must be made under the former section 75W of the Act.

The Department of Planning and Environment (the Department) is satisfied the proposed changes are within the scope of section 75W of the EP&A Act and do not constitute a new application.

Secretary's Environmental Assessment Requirements (SEARs) were issued for the proposal on 10 August 2015. The Department is satisfied the SEARs have been appropriately addressed in the Proponent's environmental assessment (EA).

### 5.2 Approval Authority

The Minister for Planning is the approval authority for the application. However, the Acting Executive Director Key Sites and Industry Assessments may determine the application under delegation as:

- the relevant local council has not made an objection; and
- a political disclosure statement has not been made; and

- there are less than 25 public submissions in the nature of objections.

## 6. CONSULTATION

The Department made the modification application publicly available on its website, and consulted with the Environment Protection Authority (EPA), Roads and Maritime Services (RMS) and Maitland City Council (Council) on the proposed modification. The Department also notified surrounding landholders and exhibited the proposal in the Maitland Mercury.

The **EPA** does not object to the proposed modification however requested further information with regards to odour sources, odour mitigation, fuel types, and modelled impacts.

**Roads and Maritime Services (RMS)** advised there were no issues regarding the proposal.

**Council** raised no objections to the proposed modification and referred to its initial comments (provided at the SEARS stage), which identified the following areas for assessment:

- the current and newly proposed traffic impacts for the site and any future development;
- cumulative impacts within the area of the site and its expansion and the potential impacts to sensitive receivers of noise, odour and air quality amenity which should make contingency for future industrial and residential growth expected in the vicinity;
- odour impacts at the site boundary and the nearest sensitive receivers;
- relevant local policies and strategies of the Council and the trends in recent development growth including the Maitland Urban Settlement Strategy; and
- newly developed and future development of lands in the vicinity.

The **Local State Member for Maitland**, Jenny Aitchison MP raised concerns regarding the ongoing problem of odour emanating from the Rutherford Industrial Estate and requested a thorough investigation of the potential of the proposed expansion to cause additional air quality issues prior to any approval being granted.

There were **two public submissions** objecting to the modification. Key issues raised included:

- existing health problems in nearby residential areas related to emissions from the Rutherford Industrial Estate;
- the cumulative impact of all industries should be assessed;
- any proposed increase in production and proposed increase in stack heights will lead to an increase in emissions and further impact the community; and
- existing emission problems from the industrial state should be addressed prior to allowing further expansions.

On 15 March 2016, the Proponent provided a Response to Submissions (RtS) to address the issues raised by the EPA and the community. The RtS included an updated air quality impact assessment with additional modelling. Further information was also provided regarding predicted odour impacts and fuel composition.

The EPA subsequently advised the proposal was acceptable, subject to the imposition of conditions relating to post commissioning monitoring and a restriction on the sulphur content of fuel.

## 7. ASSESSMENT

The key assessment issues associated with the proposed modification are:

- odour; and
- air quality.

All other issues are considered in **Table 1** below.

### 7.1 Odour

The Proponent submitted an air quality impact assessment (AQIA) to assess the potential odour impacts associated with the proposed modification. The AQIA identifies odour impacts from the wider Rutherford Industrial Estate has been an ongoing concern for the surrounding community, with the EPA receiving over 700 odour complaints from nearby residential areas since 2008.

The EPA has previously commissioned a number of odour assessments, sampling and dispersion modelling studies between 2012 and 2014. The Transpacific site and seven other sites were identified as odour generating facilities. The Rutherford Odour Investigation Project, part 2 modelling program (Katestone Environmental 2014) predicted odour emissions from the Transpacific site under current operating conditions were low at 0.7 odour units (OU) inside the site and 0.3 OU outside the industrial estate.

The Proponent notes the site is within an odour sensitive area due to the cumulative effects of odour generating processes at multiple industrial sites within the Industrial Estate. As such the Proponent has adopted the most stringent odour assessment criterion of 2 OU, in accordance with the EPA's impact assessment criteria for complex mixtures of odours.

The modelling predicts there would be a minor increase in odour as a result of the proposal. However, the highest predicted concentrations at a sensitive receptor was found to be 0.57 OU and the maximum offsite concentration was found to be 1.54 OU, which is well below the EPA criteria of 2 OU. The AQIA also considered potential cumulative odour impacts and using the Katestone Environmental (2014) report, determined the Transpacific site would only make a minor contribution to cumulative odour impacts.

The EPA raised no objection to the proposal and recommended the Proponent prepare and submit an operational air and odour validation monitoring report within six months of commissioning the works associated with the modification application, to ensure the facility operates as predicted.

The Department acknowledges there are previous odour complaints regarding the Rutherford Industrial Estate and notes the EPA has responded during the last two years, requiring other industrial operations within the estate to implement odour mitigation measures. This has led to a significant reduction in community odour complaints during 2014 and 2015. The Department also recognises the Transpacific facility contributes one of the lowest levels of odour compared to other odour generating facilities in the Rutherford Industrial Estate.

Based on the modelling undertaken for the proposed facility, the Department is satisfied that odour from the Transpacific site would comply with the EPA's assessment criteria of 2 OU and would therefore not result in adverse odour impacts on sensitive receivers or future potential sensitive land uses.

At the same time, given odour has been an ongoing issue for the surrounding community the Department supports the EPA's suggested condition requiring the Proponent to submit an operational air and odour validation report. The operational air and odour validation report would require:

- a revised AQIA for the project "as constructed" and include measured emissions,

- a source emissions monitoring program to validate compliance and data within the Proponent's AQIA,
- identification of additional measures to ensure compliance (if required), and
- details of any community complaints received relating to air quality issues.

Subject to the recommended condition, the Department is satisfied potential odour impacts would be appropriately mitigated and managed to an acceptable level.

## 7.2 Air Quality

The Proponent holds an Environmental Protection Licence (EPL No. 12555), which manages the facility's environmental impacts. The EPL includes concentration limits for volatile organic compounds (VOCs), nitrogen oxide (NOx), solid particles, hydrogen sulphide (H<sub>2</sub>S), sulfuric acid mist and sulphur trioxide (SO<sub>3</sub>) and sulphur dioxide (SO<sub>2</sub>).

The Department notes the proposal does not seek approval to alter the production capacity or approved operating hours of the facility. However, there would be changes to air emissions from the site due to the input of different feed fuels into the new multi-fuel burner, such as process gas, low sulphur light oil fuel and tank vapours.

The Proponent modelled two scenarios for potential air quality impacts associated with the proposal. Scenario 1 includes all point sources at the EPL limits and scenario 2 where the facility operates at the maximum operational capacity of 40,000tpa. The Proponent's AQIA predicts there will be no exceedances of the air quality criteria for both scenario 1 and scenario 2.

While the Department is satisfied with the AQIA and the assumptions used in the assessment, the Department considers the Proponent should undertake a validation study of the air quality performance of the facility once it becomes operational, to verify air quality concentrations and compare it to the relevant criteria.

The Department has adopted the EPA's recommended condition for conducting an air and odour validation report which will include the preparation of a revised AQIA for the modified development "as constructed" and include measured emissions.

The Department also supports the EPA's recommendation to include a condition limiting the sulphur composition of fuel to 0.5 per cent. This would ensure the sulphur emissions from the multi-use fuel burner would not exceed the predicted sulphur emissions from the site.

Overall, the Department is satisfied the proposal would not result in adverse air quality impacts on sensitive receivers or future potential sensitive land uses. Further, the Department notes odour and air quality impacts are not predicted to occur in the vicinity of newly developed lands such as Heritage Parc and Signature Gardens and potential future residential development areas such as those proposed at Farley, Windella and Anambah.

The Department is also satisfied air quality impacts would be appropriately managed through the strict air quality limits imposed by the EPL. Subject to the recommended conditions of approval the Department's assessment concludes the proposal would not lead to any significant air quality impacts beyond those already assessed and approved.

**Table 1: Assessment of Issues**

<b>Issue</b>	<b>Consideration</b>	<b>Recommendation</b>
<b>Hazards (SEPP 33)</b>	<ul style="list-style-type: none"> <li>• The Proponent prepared a preliminary hazard analysis (PHA) for the original development in 2006. The current facility stores, handles and produces hazardous materials and the site is considered a potentially hazardous site.</li> <li>• An updated PHA was submitted with the proposal. The PHA reviews the hazards associated with the current storage, production and handling of hazardous materials as well as changes due to the modification.</li> </ul>	Conditions are recommended requiring an updated Fire Safety Study, Final Hazard Analysis and Construction Safety

<b>Issue</b>	<b>Consideration</b>	<b>Recommendation</b>
	<ul style="list-style-type: none"> <li>The PHA notes there are no additional dangerous goods or an increase in dangerous goods as a result of the modification. The key change associated with the proposal relates to the type of products to be produced.</li> <li>The Department's hazard specialist reviewed the PHA, and recommended: <ul style="list-style-type: none"> <li>the existing fire safety study, final hazard analysis and construction safety study (as required by condition 2.21 of the Approval) be updated prior to construction;</li> <li>the existing safety management system (SMS) and emergency plan as required by condition 2.22 of the Approval, should both be updated to take into account the changes arising from the proposed modification; and</li> <li>additional requirements for the hazard audit including increasing the frequency to every three years.</li> </ul> </li> <li>Subject to the above conditions, the Department is satisfied that the modification would not result in additional safety concerns.</li> </ul>	Study (as required by Condition 2.21 of the Approval). Additionally, recommended conditions require prior to commissioning, an updated Safety Management System and Emergency Plan and increasing the frequency of the Hazard Audit.
<b>Noise</b>	<ul style="list-style-type: none"> <li>The Proponent's EA assessed the potential operational noise impacts associated with the modification. The EA identified the modification would introduce two new noise sources, being two new pumps. The EA predicts the operational noise levels from the site would not exceed the noise levels predicted in the original EA for the Project Approval.</li> <li>The Department is satisfied the proposal would not lead to any significant noise impacts beyond those already assessed and approved. The Department also notes any potential noise impacts associated with the proposed modification would be appropriately managed through the existing conditions of approval which set strict operational noise limits.</li> </ul>	The Department considers the existing conditions appropriately address any potential noise impacts.
<b>Traffic and Transport</b>	<ul style="list-style-type: none"> <li>The Proponent's EA included a traffic impact assessment (TIA) to assess the impacts during construction and operation of the modified project on the local road network, focussing on assessing the impacts on the local New England Highway / Kyle Street / Mirage Road intersection.</li> <li>The TIA estimates during construction, 20 light vehicles and five heavy vehicles (trucks) would be generated per day. These traffic volumes were added to existing traffic volumes and the study found the local intersection continued to operate with a Level of Service "A" during the worst case scenarios being the AM and PM peak hour periods.</li> <li>The TIA estimates an additional 24 heavy vehicle (truck) movements per day during the operational phase (once the modified project is operational). Overall this would result in approximately 70 heavy vehicle movements per day. The Proponent's assessment evaluated the performance of the local intersection with the proposed additional traffic movements and found the intersection would continue to perform at Level of Service "A".</li> <li>The TIA also assessed a ten year after operating scenario, in accordance with RMS requirements. The Assessment found ten years after commencing the modified project, the intersection performance of New England Highway/Kyle Street/Mirage Road is comparable to existing conditions.</li> <li>The Department is satisfied the modification would not result in any adverse impacts on the local road network during construction or operation, beyond those already assessed and approved.</li> </ul>	The Department considers the existing conditions appropriately address potential traffic impacts.
<b>Tank Farm</b>	<ul style="list-style-type: none"> <li>The proposal seeks approval to construct six additional storage tanks on the site to store group II oil.</li> <li>To ensure any potential impacts associated with the storage tanks are appropriately mitigated and managed, the Department has recommended a suite of conditions requiring the tanks to be constructed in accordance with relevant Australian standards, bunding to be installed around the tank farm and an ongoing monitoring program to ensure the integrity of the tanks and bunding are not compromised.</li> <li>Subject to the recommended conditions the Department is satisfied any potential impacts associated with the tanks would be appropriately mitigated and managed to an acceptable level.</li> </ul>	
<b>Construction Management</b>	<ul style="list-style-type: none"> <li>The Department is satisfied that potential construction impacts associated with the proposal would be relatively minor and temporary in nature.</li> <li>The Department has recommended a condition to prepare an updated construction environmental management plan (CEMP) to manage and mitigate potential dust, noise, soil, water and traffic issues during the construction phase.</li> </ul>	The Department has recommended the preparation of a Construction Environmental Management Plan (CEMP).

## 8. CONCLUSION

The Department has assessed the modification application and supporting information in accordance with the relevant requirements of the EP&A Act. The proposed modification is considered appropriate on the basis that:

- the proposal is a relatively minor modification in the context of the existing operations;
- the proposed works are required to enable the facility to meet market demand for similar oil products and supports an increase in the recycling and reuse of oils that would otherwise be disposed of; and
- the proposal would not result in any significant adverse environmental impacts.

Consequently, it is recommended the modification be approved subject to the recommended conditions.

## 9. RECOMMENDATION

It is **RECOMMENDED** that the Acting Executive Director Key Sites and Industry Assessments, as delegate of the Minister for Planning:

- considers the findings and recommendations of this report;
- approves the application under section 75W, subject to conditions; and
- signs the notice of modification (Appendix A).

Approved by:



Anthony Witherdin  
**Acting Director  
Modification Assessments**



Ben Lusher  
**Acting Executive Director  
Key Sites and Industry Assessments**

## **APPENDIX A: NOTICE OF MODIFICATION**

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The Notice of Modification can be found on the Department of Planning and Environment's website at the following address:

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7363](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7363)

## **APPENDIX B: SUPPORTING INFORMATION**

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The following supporting documents and supporting information to this assessment report can be found on the Department of Planning and Environment's website as follows:

**1. Modification request**

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7363](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7363)

**2. Submissions**

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7363](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7363)

**3. Response to Submissions**

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7363](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7363)