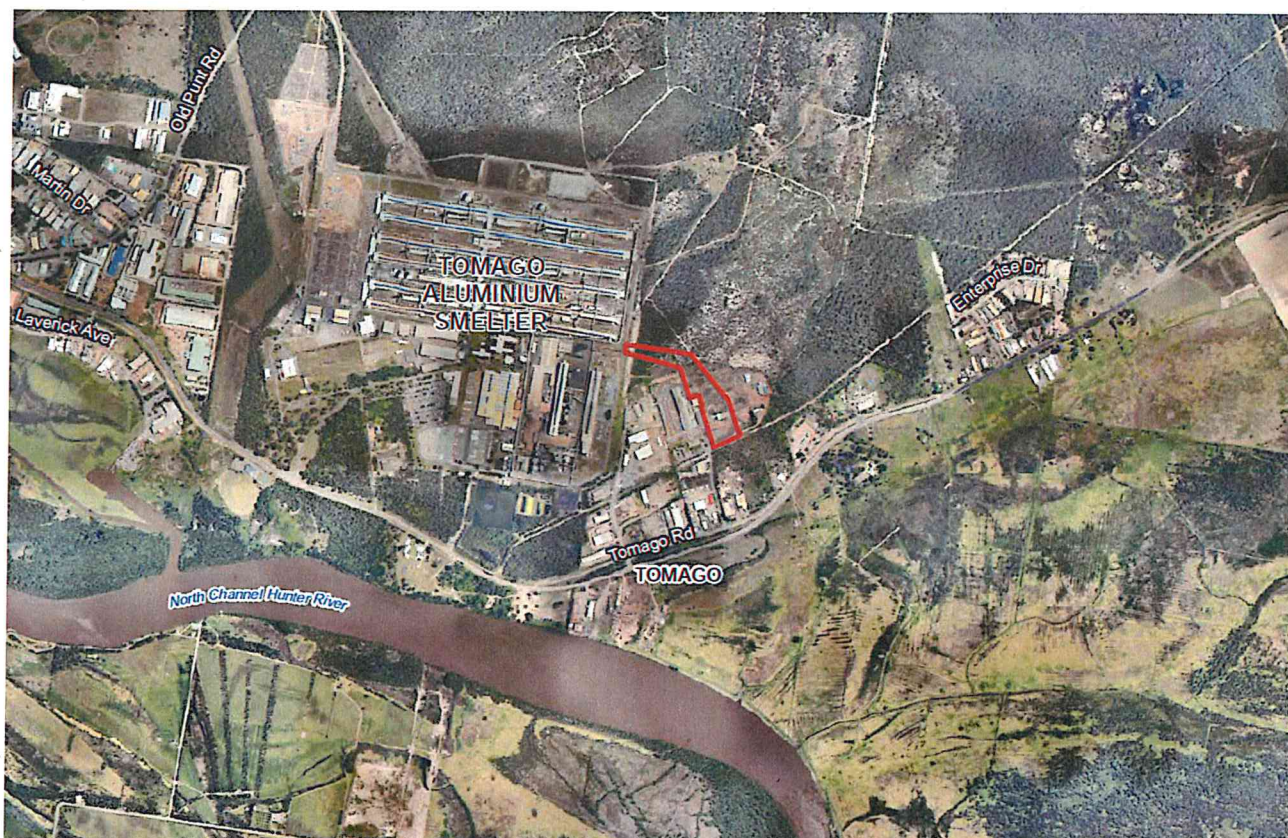




Planning &
Infrastructure

**MAJOR PROJECT ASSESSMENT:
Tomago Cable Manufacturing Project
MP 10_0039**



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

August 2012

Cover photo: Overview of the Tomago Cable Manufacturing Project site
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EXECUTIVE SUMMARY

Midal Cables International Pty Ltd proposes to construct and operate an aluminium rod and cable manufacturing facility and associated infrastructure adjacent to the Tomago Aluminium Smelter in Port Stephens. Midal recently entered into a long-term contract with Tomago Aluminium Company (TAC) to purchase molten aluminium from its smelter.

The facility would be used to manufacture up to 50,000 tonnes of aluminium rods and conductor products per annum from molten aluminium sourced from the adjacent TAC smelter.

The project has a capital investment value of approximately \$47.45 million and is expected to generate up to 100 jobs during construction and 119 jobs during operation.

The proposal is classified as a 'major project' under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), as it is development for the purpose of metal material processing with a capital investment value of more than \$30 million, and consequently requires the Minister's approval. However the application is able to be determined by the Deputy Director-General under delegation. As the Environmental Assessment for the Project was lodged prior to 1 October 2011, the Project is considered to be a transitional Part 3A Project.

The Department exhibited the Environmental Assessment (EA) of the project from Friday 17 February 2012 until Monday 19 March 2012, and received a total of 9 submissions on the project: 7 from government agencies, 1 from the Member for Port Stephens (who made representations on behalf of a member of the public) and 1 from a member of the general public.

Of the submissions received, no objections were made to the project. However, a number of issues of concern were raised in relation to flora and fauna, soil and water, hazards and risk, traffic and transport (including the condition of local roads), air, noise, heritage and design impacts. Additional information providing clarification on these issues was detailed by Midal in their response to submissions report for the project.

The Department has assessed the merits of the project in accordance with the requirements of the EP&A Act.

This assessment has found that the potential environmental impacts of the project can be adequately mitigated and/or managed to ensure an acceptable level of performance.

It has also found that the project would value add to the production of aluminium and reduce the amount of aluminium products currently imported into Australia and provide a significant contribution to the NSW economy and local job security.

Consequently, the Department considers that the project is in the public interest and should be approved, subject to conditions.

1. BACKGROUND

1.1 Project Background

Midal Cables International Pty Ltd (Midal) is an Australian registered company that forms part of the Midal Group, a collection of companies based in the Kingdom of Bahrain. Midal specialises in manufacturing and supplying of aluminium and aluminium alloy rod, wire, conductors, clad steel, section and tubes from virgin molten metal which is sourced from aluminium smelters.

Midal recently entered into a long-term contract with the Tomago Aluminium Company (TAC) to purchase 50,000 tpa of molten aluminium from its smelter. Midal is proposing to construct an aluminium and rod conductor manufacturing facility (see Section 2 of this report) on a site adjacent to the TAC smelter (see Figure 1).

Midal would source molten aluminium from the TAC smelter at Tomago to produce rods and conductors that are not currently manufactured in Australia and supply these products to local and overseas markets.

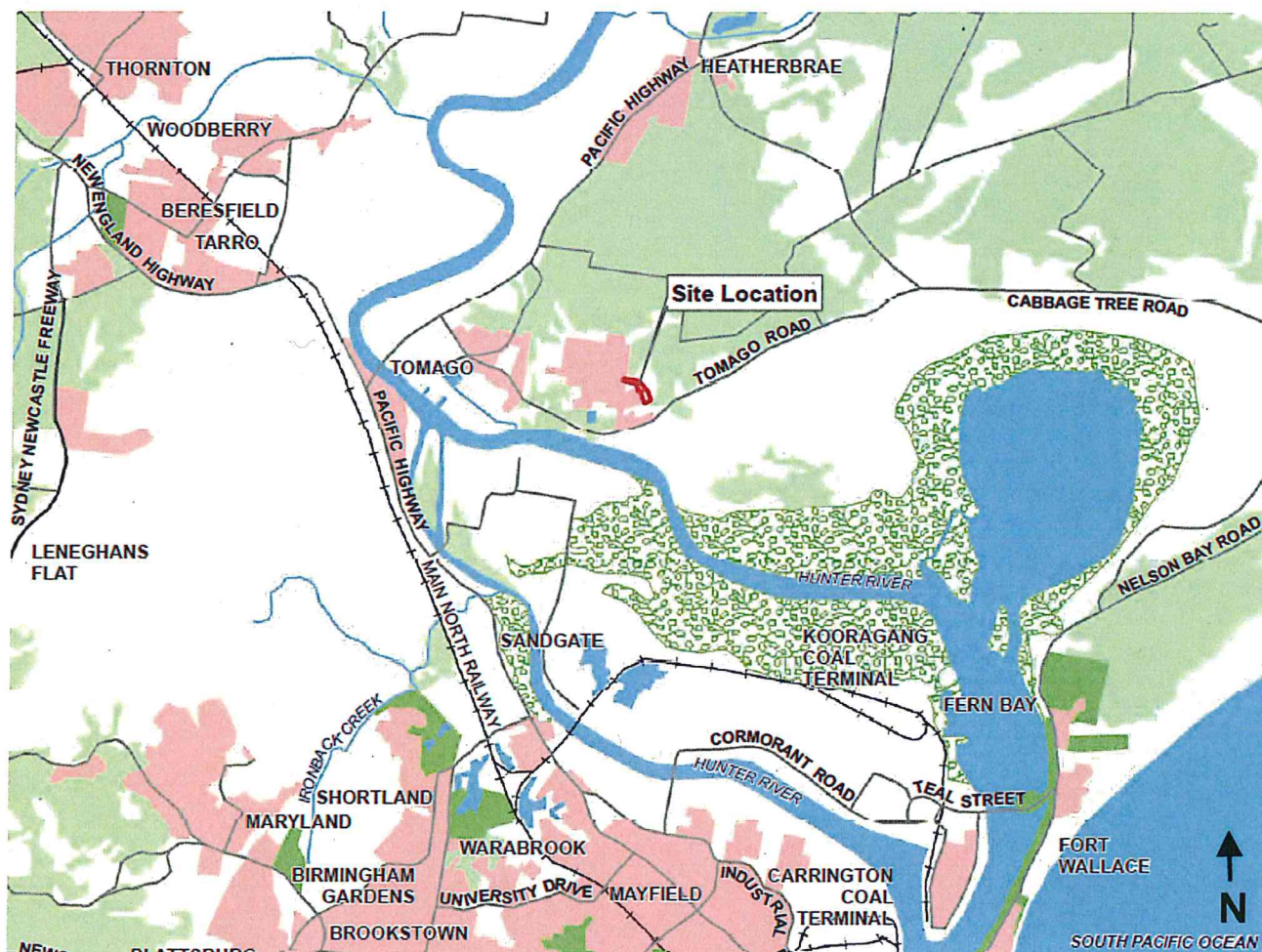


Figure 1: Regional Location

1.2 Project Setting

The site is located on 2.8 hectares (ha) of industrial land, approximately 6 kilometres (km) north of the Port of Newcastle (see Figure 1). The site is owned by Midal and TAC (in part) and is zoned for industrial purposes. The site has been extensively used by a number of previous industrial uses (e.g. metal fabrication) since the 1970s but is now vacant.

The site is located within an established industrial area (i.e. the Tomago Industrial Area) which is dominated by the TAC smelter. Land to the west of the site is occupied by a large industrial facility and land to the east of the site is currently vacant but has previously been used for industrial activities. Bushland is located to the north of the site and varies in condition due to previous sand mining activities and impacts from the TAC smelter (e.g. fluoride emissions).

The site is located in the buffer zone for the TAC smelter which was established under the conditions of consent for the smelter. The buffer extends generally in a circle approximately 4 km around the site and is designed to function as an environmental management zone which restricts certain future land uses (e.g. residential) that are incompatible with the operation of the smelter and its potential impacts.

Immediately south of the site is a small area of bushland which separates it from other industrial development (see Figure 2).



Figure 2: Site Location

Key natural features in the vicinity of the site include the:

- Tomago Sandbeds Catchment Area, one of Hunter Water's Special Areas (as an important source of drinking water for the Lower Hunter providing approximately 20% of this areas drinking water supply), approximately 600m to the north of the site (upstream);
- Hunter River, approximately 1km to the south of the site; and
- Hunter Estuary National Park, which includes the Ramsar-listed Hunter Estuary Wetlands and a number of other wetlands of state importance, within 1.5km to the south, south-east and directly east of the site.

The site connects to the Pacific Highway via Tomago Road, School Drive and then McIntyre Road. Final access to the site is via a Private Road situated off McIntyre Road (see Figure 2).

Grasses, scattered trees and shrubs occupy the majority of the site along with a number of structures from past uses including an old shed in poor condition, hardstand area (which covers approximately 30% of the site) and scattered workshop/waste debris which would be demolished and/or removed as part of the project.

The site is elongated and relatively flat with a gentle slope from north to south.

The nearest residential receiver to the site is located approximately 230m south east of the site on School Drive (see Figure 2).

2. PROPOSED PROJECT

2.1 Project Description

The Project is known as the Tomago Cable Manufacturing Project (the Project).

The major components of the Project are summarised in Table 1, and depicted in Figure 3. The Project is described in full in GHD's Environmental Assessment (EA), which is attached as Appendix E.

Table 1: Main Project Components

Aspect	Description
Project Summary	Construction and operation of an aluminium rod and cable manufacturing facility and associated infrastructure adjacent to the Tomago Aluminium Smelter in Port Stephens local government area. The facility would be used to process up to 50,000 tonnes of aluminium per annum.
Building 1	a building approximately 98m X 35m X 8m high to house the gas fired holding furnace/s, tilting furnace/s, rolling mill, control rooms, undercover rod storage area and associated infrastructure for the manufacture of the aluminum rod products.
Building 2	a building approximately 124m X 46m X 8m high to house wire drawing machines, stranding machines, ageing oven and associated facilities for the manufacture of cable products.
Cooling towers and ancillary infrastructure	cooling towers, control panels and ancillary infrastructure associated with the operation of the gas fired holding/tilt furnace/s and rolling mill (e.g. exhaust stacks).
Ancillary structures	- laboratories and administration buildings; - stores building, electrical and mechanical workshops; and - hardstand movement and loading areas.
Haul Road	a dedicated haul road approximately 150m long X 19m wide (9m road with 5m easement each side for services and lighting) would be constructed at the northern end of the site to transport molten aluminum from the Tomago Aluminum Smelter to the site for processing.
Parking	82 car parking spaces for staff and visitors.
Stormwater Management	stormwater detention and nutrient control devices including underground infiltration areas, gross pollutant traps and conventional pit and pipe system.
Sewerage Treatment	on-site sewerage treatment system with sub-surface irrigation for landscaped areas.
Staging	- construction to be staged over approximately 10 months and is likely to take place in the following sequence: 1. Preliminaries - site preparation, bulk earthworks and civil infrastructure; 2. Building infrastructure – footings, concrete slabs poured, structural steel work and cladding erected; 3. Equipment installation – machinery assembled off-site and installed prior to completion of building roofs to allow desired positioning; and 4. Haul road construction – clearing corridor for road pavement surfacing, services and lighting.
Hours of Operation	24 hours, 7 days a week.
Capex	\$47.45 million.
Employment	100 during construction and 119 during operation.
Infrastructure Servicing	The site is serviced by existing water, gas, electrical and telecommunications infrastructure

The project involves carrying out three manufacturing activities on the site including the formation of aluminium rods in Building 1, and the manufacturing of aluminium wire and conductors in Building 2.

The first step of the process involves molten aluminum being turned into aluminum rods in Building 1 (see Figure 3).

Molten aluminum would be delivered to the site from the TAC smelter in crucibles on small specialised trucks. The aluminum would then be poured into the gas fired holding furnace in Building 1, heated to between 650C° to 820C°, degassed, cleaned and analysed to ensure correct metal specification is achieved before being transferred to the tilt furnace.

At the tilt furnace, aluminum would be heated to a temperature of between 700C° and 820C°, poured into the casting wheel, cooled with water and rolled until a 9.5 to 12 millimetre (mm) rod is formed. The rod would then be coiled into 2000 kilogram (kg) drums, tested for quality, weighed and packed. The finished product would then be either transported to domestic markets, to Newcastle Port for export overseas or moved onto

the wire drawing and stranding building (Building 2, see Figure 3) where it would be used to produce wire and conductors.

At Building 2, rod coils would be pulled through a series of drawing die(s) which would reduce the diameter of the rod to the required size to produce wire which would then be thermally treated (depending on the metal type), tested for quality and taken for stranding. The wire would then be loaded into the stranding carriages and rotated in closed helix in the stranding machine to the desired length to produce various conductors. Conductors would then be ready for dispatch off-site to external customers.

2.2 Project Need

The project would add value to the output of TAC's smelter, reducing aluminium exports by about 10% and reducing the reliance on importing these finished products which are currently imported into Australia.

The project also has a capital investment value of \$47.45 million, would employ 100 people during construction, 119 people during operation (full-time) and therefore, would contribute significantly to local employment and the NSW economy.

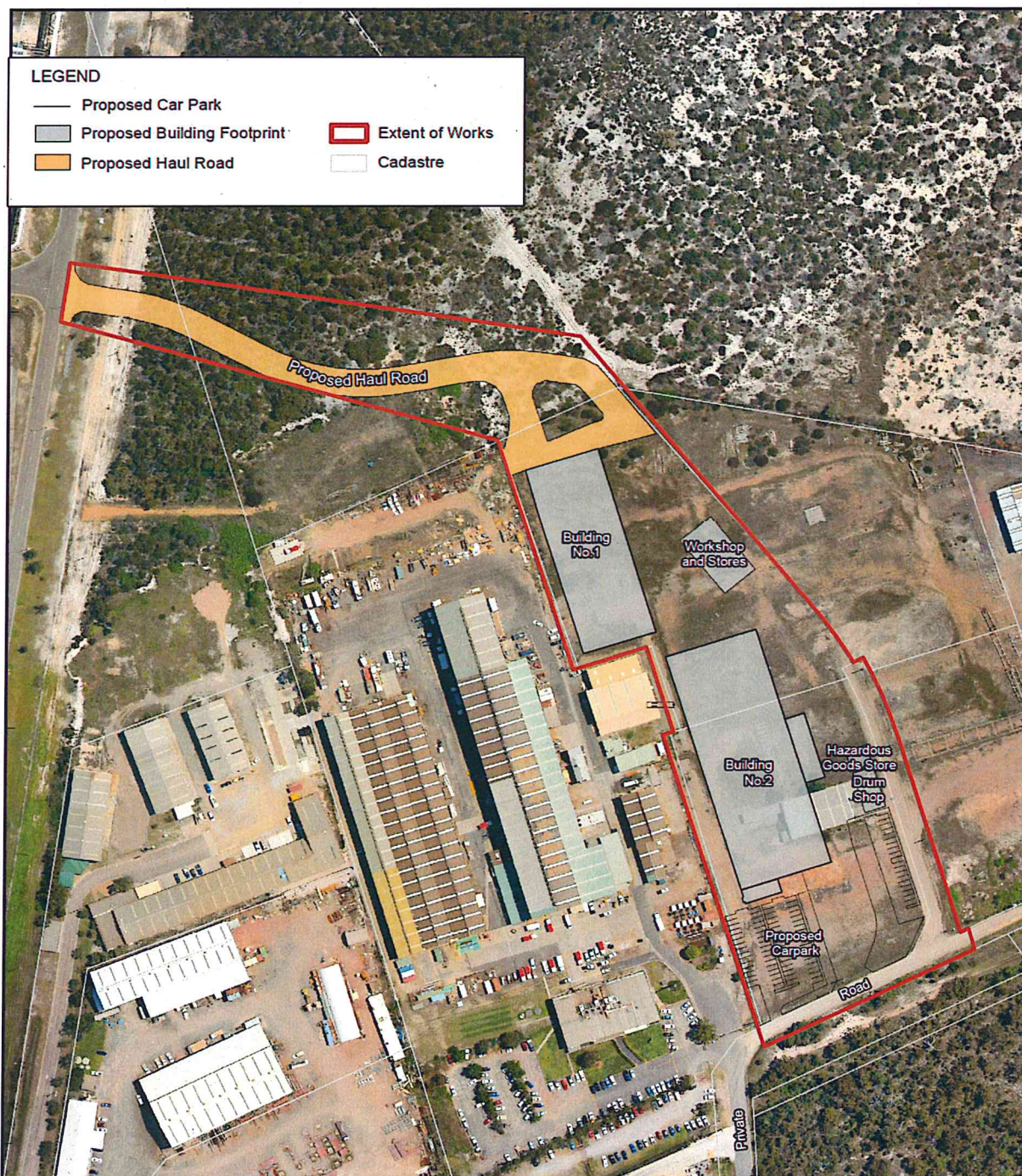


Figure 3: Proposed site layout

3. STRATEGIC AND STATUTORY CONTEXT

3.1 Strategic Context

The project is consistent with the goals and priorities of *NSW 2021*, particularly Chapter 1 as it would contribute to building the NSW economy by promoting economic and employment growth in the Lower Hunter Region through the \$47.45 million capital investment and the creation of around 100 construction and 119 operational jobs.

The *Lower Hunter Regional Strategy 2006* (LHRS) is the NSW Government's key strategic planning strategy for the Lower Hunter region. The LHRS guides and informs planning, service and infrastructure delivery in this region. The LHRS applies to land in the Port Stephens local government area and therefore applies to this project.

In particular, the LHRS was developed to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment, and associated support services and infrastructure, over the next 25 years.

The project is consistent with the LHRS by providing employment opportunities (as above) during construction and on-going operation as well as long-term economic benefits by enabling the production of aluminium rods and conductors locally, thereby reducing the amount of procured aluminium products currently imported into Australia.

3.2 Major Project

The proposal is classified as a Major Project under the now repealed Part 3A of the *Environmental Planning & Assessment Act 1979* (EP&A Act), as it includes development for the purpose of metal material processing that has a capital investment value greater than \$30 million dollars and would employ more than 100 people.

3.3 Continuing Operation of Part 3A

Part 3A of the EP&A Act, as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the Act, continues to apply to transitional Part 3A Projects. Director-General's environmental assessment requirements (DGRs) have been issued in respect of this project. The project is therefore a transitional Part 3A project.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the Project under section 75J of the Act.

3.4 Approval Authority

The Minister has delegated his functions to determine Part 3A development applications to the Department where:

- the council has not made an objection; and
- there are less than 25 public submissions objecting to the proposal; and
- a political disclosure statement has not been made in relation to the application.

There have been 2 submissions received from the public and although council has made a submission, council has not made an objection to the proposal. There has also been no political disclosure statement made for this application or for any previous related applications, and no disclosures made by any persons who have lodged an objection to this application.

Accordingly the application is able to be determined by the Deputy Director-General in accordance with the Minister's Instrument of Delegation, dated 14 September 2011.

3.5 Other Approvals

The project requires an Environmental Protection License (EPL) under the *Protection of the Environment Operations Act 1997*. This licence must be approved in a manner that is consistent with any Part 3A approval for the project. The Department has consulted with the Environment Protection Authority (EPA) and considered the relevant issues relating to these variations in the assessment of the project (see Section 5 of this report). The EPA has recommended conditions for both the project approval and EPL.

Water licences may be required under the *Water Act 1912* and/or the *Water Management Act 2000* if the project intercepts or extracts groundwater. In particular, the project may involve dewatering deep excavations (up to 9 metres) to establish footings for the cooling tower/s.

The Department has consulted with the NSW Office of Water (NOW) in respect of this application, has considered any issues they have raised in the assessment of the project (see Section 5 of this report) and incorporated its requirements into the recommended conditions.

3.6 Permissibility

The site is zoned '4(a) Industrial - General' under *Port Stephens Local Environmental Plan 2000*. The project is permissible with consent in this zone.

3.7 Exhibition and Notification

Under Section 75(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment (EA) of the project publicly available for at least 30 days.

After accepting the EA for the project, the Department:

- made it publicly available from **Friday 17 February 2012** until **Monday 19 March 2012**:
 - on the Department's website, and
 - at the Department's Information Centre, Port Stephens Council and the Nature Conservation Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Port Stephens Council; and
- advertised the exhibition in the Port Stephens Examiner.

This satisfies the requirements in section 75H (3) of the EP&A Act.

During the assessment process, the Department also made a number of documents available for download on the Department's website. These documents included the:

- project application;
- Director-General's environmental assessment requirements;
- EA;
- submissions received; and
- Midal's response to those submissions (RTS).

3.8 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General's report is required to include a copy of, or reference to, the provisions of environmental planning instruments that substantially govern the carrying out of the project.

The Department has considered the project against the relevant provisions of several key environmental planning instruments including:

- *State Environmental Planning Policy (Major Development) 2005* (the Major Development SEPP);
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33);
- *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55);
- *State Environmental Planning Policy (Infrastructure) 2007* (the ISEPP);
- *State Environmental Planning Policy No. 44 – Koala Habitat Protection* (SEPP 44); and
- *Port Stephens Local Environmental Plan 2000*.

The Department is satisfied that, subject to the implementation of the recommended conditions of approval, the project is generally consistent with the aims and objectives of these instruments. The Department's detailed consideration of these instruments is contained within Appendix B of this report.

3.9 Objects of the *Environmental Planning and Assessment Act 1979*

In determining the application, the Minister should consider whether the project is consistent with the relevant objects of the EP&A Act.

The Department has fully considered the objects of the EP&A Act, including the encouragement of Ecologically Sustainable Development (ESD), in its assessment of the application. The Department considers that objects (i), (ii), (vi) and (vii) are relevant to the merit assessment of this application.

The Department considers that the project encourages the proper management and development of land for the social and economic welfare of the community by providing 119 full-time equivalent jobs in NSW. Further, the project represents the orderly and economic use of land for industrial purposes for which it is appropriately zoned and would inject \$47.45 million dollars into the NSW economy. Finally, the Department considers that through an emphasis on avoidance of impacts, careful design, management and mitigation measures, the project would not impact on any important ecological areas, threatened ecological species or communities and is therefore consistent with the principles of ESD.

3.10 Statement of Compliance

Under Section 75I of the Act, the Director-General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that the environmental assessment requirements have been complied with.

4 ISSUES RAISED IN SUBMISSIONS

During the exhibition period, the Department received a total of seven (7) submissions on the project: six (6) from public authorities and one (1) from the general public.

The Department received a further two (2) late submissions from Hunter New England Health (HNEH) and Mr. Craig Baumann MP, Member for Port Stephens, on behalf of a nearby business owner taking the total number of submissions received to nine (9).

A summary of the issues raised in submissions is provided below. A full copy of these submissions is attached in Appendix D.

4.1 Public Authorities

Port Stephens Council (Council) had no objection to the project but raised concern regarding the capacity of the proposed stormwater management system, and the location, design and potential impact of the haul road on native flora and fauna. It also recommended a number of conditions of approval to minimise these impacts.

The **Environment Protection Authority (EPA)** requested more information on the exact number and location of stacks at the facility and recommended both Environmental Protection License (EPL) and project approval conditions in relation to air, noise, water, waste, threatened species and biodiversity (e.g. biobanking agreement conditions), Aboriginal cultural heritage and design.

Roads and Maritime Services (RMS) had no objection to the project and did not recommend any conditions of approval. RMS noted that a reconstruction project at the intersection of Tomago and McIntyre Road (near the project site) had recently commenced and that the intersection and adjoining works would adequately cater for the increased traffic generated by the project.

The **NSW Office of Water (NOW)** recommended that the Statement of Commitments contained within the EA for surface and groundwater be included in the conditions of approval.

Hunter Water Corporation (HWC) advised that based on the information provided in the EA, it has sufficient capacity in its water supply system for the project.

The **NSW Rural Fire Service (NSW RFS)** recommended a number of conditions of approval to ensure that certain aspects of the project in relation to water, gas, electricity, landscaping and emergency evacuation comply with relevant fire requirements.

Hunter New England Health (HNEH) noted that the wastewater treatment system would need to comply with the relevant NSW guidelines and legislation and requested clarification on the location, number and type of cooling towers proposed at the site. HNEH also raised issues in relation to waste disposal, noise, hazards and risk.

4.2 General Public

The one (1) public submission was from a nearby business operator who supported the proposal, subject to road upgrade works being undertaken to improve the condition of School Drive, Tomago. A submission was also received from Mr Craig Baumann, Member for Port Stephens, who forwarded a copy of the public

submission from the nearby business operator and requested the concerns raised in the submission be considered.

4.3 Response to Submissions

Midal has provided a response to the issues raised in submissions (see Appendix D), as well as a revised Statement of Commitments for the project. These have been made publicly available on the Department's website.

The response to submissions report included additional information providing clarification on a number of issues in relation to flora and fauna, soil and water, hazards and risk, traffic and transport (including the condition of local roads), air, noise, heritage and design impacts.

The Department has considered the issues raised in submissions, and Midal's responses to these issues, in its assessment of the project.

5 ASSESSMENT

5.1 Flora and Fauna

Issue

The project has the potential to impact on flora and fauna directly through the clearing of native vegetation in the area of the proposed haul road, and indirectly through the discharge of surface water and groundwater in the area.

Consideration

On-site impacts

The majority of the site is highly modified from previous industrial uses. The site is approximately 2.8 ha in total and is comprised of approximately (see Figure 4):

- 0.6ha of concreted hardstand;
- 1.2ha of exotic open grassland either side of this hardstand; and
- 1.0ha of Smooth-barked Apple Red Bloodwood shrubby open forest (SBARB).

The project would result in the removal of all exotic open grassland on the site. These areas provide little habitat for native flora and fauna species and low species diversity. As a result, the Department considers this impact to be minor and inconsequential.

SBARB (see Figure 4) is a native species classified by co-dominant tree species the Smooth-barked Apple (*Angophora costata*) and Red Bloodwood (*Corymbia gummifera*). This vegetation type also provides potential habitat for a number of fauna species.

Fauna

Port Stephens Council (Council) raised concern that the alignment of the proposed haul road would involve removing potential habitat for the New Holland Mouse (NHM) (*Pseudomys novaehollandae*), which is listed as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). As such, Council requested that the haul road be re-located further south so that it abuts the northern extent of industrial properties located immediately to the west of the site.

Midal has advised the Department that during the initial design stage for the project, a number of alternative haul road alignments were considered. The final alignment and design of the haul road (which was revised from being straight to a curve) was considered to be an optimal compromise between the need to:

- comply with the relevant Australian Standards for road design;
- minimise impacts on the NHM and the higher quality SBARB;
- minimise impacts on hollow bearing trees (2 trees were saved by the revised alignment); and
- comply with hazards and risk requirements in relation to the transportation of molten aluminum from the TAC smelter to the site such as provision of adequate separation distances.

Midal advised that the issue of the potential impacts of the haul road on the NHM was considered in detail as part of the referral of the Project to the Commonwealth Department of Sustainability, Environment, Water,

Population and Communities (SEWPaC). As part of this referral process and in consultation with the SEWPaC, Midal revised the design of the haul road to minimise impacts on the NHM, including areas identified as higher habitat value. Due to the amendments to the haul road, the project was not considered to be a 'Controlled Action' and therefore did not require any further assessment under the EPBC Act (referral number 2011/6085) by the SEWPaC.

Overall, given the design constraints associated with the construction of the haul road, coupled with a need to comply with relevant hazard and risk requirements, the Department is satisfied that where possible, Midal has minimised its impacts on fauna (and flora – see below) in its design of the haul road.

Council was concerned that developing the haul road would fragment known areas of NMH habitat and requested that the construction of the haul road be limited between February and July to avoid impacting the NHM population during its breeding season. Midal has indicated to the Department that by doing so, it may not be able to commission the project prior to the agreed date for the first delivery of molten aluminium to the site from TAC. In addition, as noted above, the company has adequately demonstrated to the Department and DSEWPaC that it has done all it reasonably can to minimise its impact on the NHM. Furthermore, there would be specific management measures that would be in place to reduce potential impacts to the NHM when the haul road is being constructed (see below). As such, the Department considers that given the above, any further restrictions on the construction of the haul road would be unreasonable.

There are a number of other threatened fauna species that have been known to occur in the locality and/or in SBARB which could be impacted by the proposal.

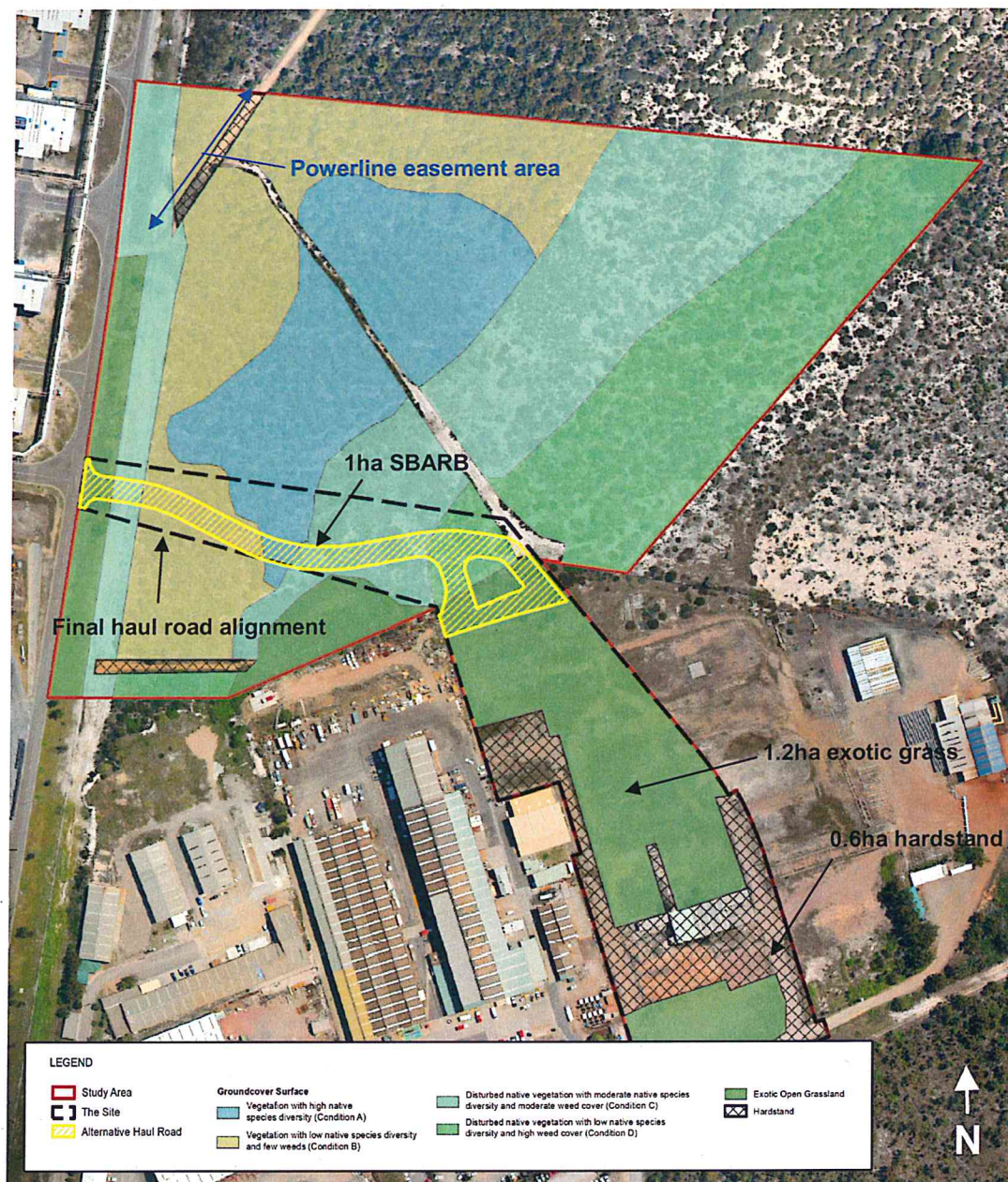


Figure 4: Vegetation cover and condition of the project site

The EA included a fauna survey of the area, which identified 41 species, comprising 21 birds and 18 mammals (including 4 exotic species) and 2 reptiles. Of these, 2 were observed as being threatened species including the Grey-headed Flying-fox (*Pteropus poliocephalus*, listed in the *Threatened Species Conservation Act 1995* (TSC Act) and EPBC Act). One (1) additional threatened species listed in the TSC Act, the Eastern Freetail Bat (*Mormopterus norfolkensis*), was also detected using a specially designed recording device.

As SBARB is a potential supplementary koala habitat, Midal also carried out an assessment of the project against Council's *Comprehensive Koala Plan of Management* (CKPM, 2002) criteria and SEPP 44. Midal's ecological assessment concluded that:

- the habitat to be cleared is in low floristic and stunted structural condition (likely due to fluoride emissions from the nearby TAC smelter);
- there was no evidence of koala use on the site; and
- the site does not form part of any pathway between preferred or supplementary koala habitat.

Based on the above, it was concluded that the vegetation to be cleared was unlikely to provide any habitat of importance for koala. Council indicated that it was satisfied that the CKPM criteria had been addressed by Midal but requested some replacement planting of supplementary habitat to be carried out as part of the project.

To address the potential impacts of the project on existing fauna species that are known to be present in the area (including the NHM), Midal has made a series of commitments to minimise and manage these impacts, which include (but are not limited to):

- installing a temporary barrier fence along the haul road to minimise the potential for animals to re-enter the restricted construction zone;
- minimising the haul road construction zone footprint;
- installing fauna friendly directional lighting along the haul road to minimise disruption to nocturnal fauna; and
- conducting a single appropriately timed ecological burn in consultation with the relevant agencies on the area of the site north of the haul road to increase plant species diversity and natural vegetation structure which will in turn improve fauna habitat (in particular, supplementary Koala Habitat).

In addition to these commitments, the Department recommends that a condition be included requiring Midal to prepare and implement a plan to manage impacts on native fauna species. The plan would include a series of management measures including requirements to clear fauna from the site prior to construction of the haul road (such as tree felling of hollow bearing trees) and fauna trapping to avoid mortality or injury.

Flora

The condition of the SBARB in this area is varied with the highest quality vegetation located in the western part of the site where previous sand mining activities have not previously taken place (see Figures 3 & 4).

To accommodate the haul road, 0.68ha of SBARB would need to be removed (see Figure 4). This vegetation does not constitute or form part of any endangered or critically endangered ecological community listed under the TSC Act or EPBC Act.

Notwithstanding, Midal has committed to offset the removal of this vegetation in accordance with the Office of Environment and Heritage's (OEH) *NSW Biodiversity Banking and Offsets Scheme* and *Biobanking Assessment Methodology* (BBAM), as defined in Section 7A of the TSC Act, through the purchase of 33 ecosystem credits (or a number of credits otherwise agreed to by OEH) from an approved 'Biobanking Agreement' site. This Scheme allows proponents to purchase credits from already established bio-banking sites which are protected and managed by the site owner. The purchase of credits also allows the conservation of the bio-banking site to be secured in perpetuity.

Both the Department and the OEH acknowledges Midal's commitment to purchase these credits using an existing biobanking site and is satisfied that this outcome would more than meet the improve or maintain standard.

Midal proposed to finalise the agreement within 12 months of the project being approved to allow construction of the project to commence in parallel with purchasing the necessary credits from an approved biobanking agreement site. However, both Council and the OEH agreed that the agreement should be finalised with credits purchased, prior to construction (at the very latest).

The Department has reviewed both positions and has decided that there is no reason to stop Midal commencing construction of the main site given that the clearing of SBARB would only be confined to the area

proposed to accommodate the haul road and notes that this would take place without affecting Midal's proposed construction program (see Table 1). Conditions are recommended which require Midal to enter into and finalise an adequate Biodiversity Offset Agreement with the OEH to ensure that suitable arrangements are in place for the long-term protection and conservation of the agreed bio-bank site through the purchase of credits, prior to the disturbance of any SBARB as part of the construction of the haul road. The Proponent has advised the Department that following their discussions with the OEH, there are currently sufficient credits available for purchase at an approved bio-banking site and that the agreement can be finalised prior to this time.

Council requested that a covenant be placed on the land to the north and south of the proposed haul road to conserve flora and fauna values by restricting future development in this area. However, much of this land is not owned by Midal and does not form part of the current project application and, as such, the Department is unable to impose such a condition. It is also noted that the impacts of the project on native vegetation would be offset via a biobanking agreement and that the biobank site that is eventually selected would be covered by its own restrictive covenant.

No threatened flora species were identified during surveys of the study area in support of the EA. However, during the adequacy review of the EA for the project in December 2011, the OEH pointed out that based on a recent recording 4km to the north of the site at Heatherbrae, a small area of land located adjacent to the power line easement on the western boundary of the site (see Figure 4) may provide suitable habitat for two orchid species, the Sand Doubletail (SD, *Diuris arenaria*) and Rough Doubletail (RD, *Diuris praecox*). The SD is listed as an endangered species under the TSC Act and the RD is listed as a vulnerable species under the TSC Act and EPBC Act.

These species were not targeted by Midal when it carried out its surveys for the EA as it was considered that no suitable habitat for either of these orchids occurred on the site and that no record of the find at Heatherbrae was available at the time. Since then, Midal has not been in a position to conduct a further survey for these species because this can only be undertaken during their known flowering period in August.

To address this, Midal has committed to conducting pre-construction surveys for the SD and RD during the flowering period whilst it is constructing buildings on the main site, and, if found to be present, it would provide a further offset in accordance with the relevant OEH biobanking guidelines. The Department has recommended a suitable condition accordingly. Translocation of these species was also explored as an option but it was concluded that this was not worth pursuing as it would be unlikely to be successful in this case.

Council requested that the pre-construction survey should be required to be undertaken prior to determination of the project so if SD and/or RD were found to be present, impacts on these species could be avoided. However, the Department and the OEH considered the approach outlined above to be acceptable in this case, particularly given that there is a high likelihood that neither of these orchids are present.

Off-site impacts

The capacity at which water is infiltrated into the ground is directly linked to stormwater velocity. Generally, the more water (e.g. rainfall) soil and/or vegetation is able to absorb, the less stormwater flows across a site (as more water is captured) and visa versa. As a result, changes in groundwater elevation will vary depending on how much water is infiltrated into the ground.

Therefore, groundwater infiltration rates need to be carefully controlled at the right capacity to maintain or minimise changes to existing groundwater levels.

In this case, by increasing the impervious surface areas of the site from 30% to around 50%, the project has the potential to change current infiltration rates, which could alter existing groundwater levels in the vicinity of the site, and impact on groundwater dependent ecosystems (GDEs).

The proposed stormwater management system for the project includes 3 groundwater infiltration zones (see Figure 5) which would detain the first 15mm of rain and infiltrate it to the aquifer below. The capacity of the chosen infiltration zone was selected from 4 different scenarios to provide the optimal balance between minimising stormwater flows, and associated changes to existing groundwater levels and resultant off-site impacts on GDEs (see also Section 5.2 of this report).

The indirect impacts arising from the selected infiltration scenario would result in a small rise in groundwater levels with relevant impacts restricted to native vegetation located near the site including some vegetation classified as EECs. However, potential impacts on this vegetation are predicted to be minor (i.e. within the natural variation for these communities) resulting in no measurable biodiversity losses. Importantly, the

selected stormwater infiltration scenario was also chosen to avoid impacts on the nearby internationally listed Hunter Estuary Wetlands Ramsar site and SEPP 14 coastal wetlands.

Midal's assessment concludes that the project is unlikely to have a significant impact on threatened biota listed under the TSC Act or EPBC Act.

The Department considers that the indirect impacts of the project on GDEs have been minimised where possible so that they would be minor and acceptable. Further, both NOW and the EPA did not raise any specific issues in relation to impacts on GDEs.

Notwithstanding this, the Department has recommended conditions of approval that would require Midal to prepare and implement a Groundwater Management Plan (GMP) for the project. The GMP would be prepared in consultation with NOW and HWC and include measures (among others) to verify the actual changes in groundwater elevation as a result of the project against the predictions in the EA.

Conclusion

Given the design constraints associated with the construction of the haul road, the Department considers that where possible, Midal has attempted to avoid, manage and mitigate any impacts of the project on native flora and fauna. Further, where impacts are unavoidable, suitable offset measures have been proposed as agreed to with the EPA. Therefore, both the Department and the EPA consider that the impacts of the project on flora and fauna would be acceptable and overall, would result in a 'maintain or improve' outcome subject to the imposition of key conditions of approval including (but not limited) the requirement for Midal to:

- prepare and implement a Flora and Fauna Management Plan (FFMP) for the area of the haul road in consultation with the EPA, detailing the measures to:
 - minimise the impacts of the project on native flora and fauna during construction and operation including measures to restrict the haul road construction zone footprint; and
 - clear fauna from the site prior to construction of the haul road including tree felling of hollow bearing trees and a fauna trapping program.
- undertake surveys for the SD and RD, prior to disturbance of the haul road;
- enter into and finalise a Biodiversity Offset Agreement with the EPA, prior to any construction works or disturbance of vegetation associated with the haul road, for removing 0.68 ha of SBARB and removing any SD and/or RD orchids on site (if found to be present); and
- prepare and implement a GMP for the in consultation NOW and HWC to validate impacts on GDEs.

5.2 Soil and Water

Issue

The project has the potential to impact on existing surface water and groundwater through erosion and sedimentation from earthworks, soil contamination, exposure of acid sulfate soils, and changes to hydrology during operations, particularly in relation to groundwater, stormwater runoff and wastewater.

Construction

Erosion and Sediment Control

Construction of buildings and associated infrastructure on site has the potential to have downstream impacts on nearby watercourses such as the Hunter River in the vicinity of the site, through erosion and sedimentation. To minimise any potential impacts during construction, the Department has recommended a condition that would require Midal to implement suitable erosion and sediment controls on-site in accordance with relevant guidelines. The Department is satisfied that with the implementation of standard erosion and sediment controls, the project is unlikely to have any impacts on downstream waters.

Acid Sulphate Soils (ASS)

The site is identified as having a low probability for occurrence of ASS by Council's *Acid Sulphate Soil Planning Map 2004*. Field pH indicator tests were carried out across the site to test for the presence of potential and actual ASS in accordance with relevant guidelines. Sampling did not identify any actual ASS.

Notwithstanding, Midal proposes to develop procedures in accordance with the NSW State Government's *Acid Sulfate Soils Manual (ASSM)* in the event that ASS is encountered during construction. The Department has formalised and built upon this commitment by recommending a more stringent condition of approval that would require Midal to prepare an ASS Management Plan (ASSMP) for the project outlining measures to

appropriately manage and, if necessary, dispose of any ASS encountered during construction in accordance with the ASSM. With this in place, the Department is satisfied that the potential risk associated with ASS can be minimised and managed.

Groundwater Management

During construction, excavations for footings would generally be shallow (average 1m deep), however excavations would be up to 9m deep beneath elements such as the cooling tower/s which are likely to intercept groundwater and require dewatering. Such excavations may require a separate approval (a licence) for this activity under the *Water Management Act 2000* and/or *Water Act 1912* from NOW and would be determined in consultation with NOW during the detailed design of the facility.

Impacts from dewatering excavations would be short-term and localised and the impacts of the project on groundwater during construction are expected to be minimal. To ensure its effective management, the Department has recommended a condition of approval that would require Midal to prepare and implement a Groundwater Management Plan (GMP) for the project in consultation with NOW detailing the controls that would be implemented during construction (and all other stages) to minimise the impacts on groundwater quality. The EPA and NOW raised no concerns in relation to groundwater and were satisfied that the proposed commitments by Midal and the recommended conditions would suitably manage and monitor any impacts.

Operation

Stormwater Management

Around 30% of the site is currently impervious due to hardstand areas from previous uses and following development, this is expected to increase to over 50%. Therefore, the project has the potential to result in increased stormwater flows across the site with subsequent off-site impacts.

The proposed stormwater management system has been designed to minimise impacts on groundwater dependent ecosystems (see Section 5.1 of this report), treat and re-use stormwater (where possible) to acceptable standards and minimise off-site discharges.

The proposed stormwater management system consists of:

- a combination of pit inlet baskets and gross pollution traps (or equivalent) for the collection and treatment of stormwater runoff before discharge into groundwater infiltration zones;
- 2 X 100 kilolitre (kL) rainwater tanks to collect water from roof areas for re-use in the manufacture process (difference to be sourced from HWC supply); and
- an on-site sewerage treatment system with designated irrigation areas (see Figure 5 and discussion below).

Stormwater from paved areas would be collected and undergo treatment before being discharged into the groundwater infiltration zones (see Figure 5). The infiltration zones would detain the first 15mm of rain (equivalent to a 1 in 10 year Annual Recurrence Interval (ARI) storm event) and allow it to infiltrate to the groundwater aquifer below. The selected infiltration zone capacity is designed (and was selected from 4 different scenarios) to give the optimal balance between on-site stormwater management, and potential off-site impacts on GDEs (see discussion in Section 5.1 of this report).

Council requested that Midal be required to demonstrate that the post-development flows do not exceed pre-development flows for a storm event up to the 100 year Annual Recurrence Interval (ARI). Therefore, to ensure that this is the case, Midal has incorporated on-site detention of approximately 1,030m³ into the design of the proposed stormwater management scheme for the project.

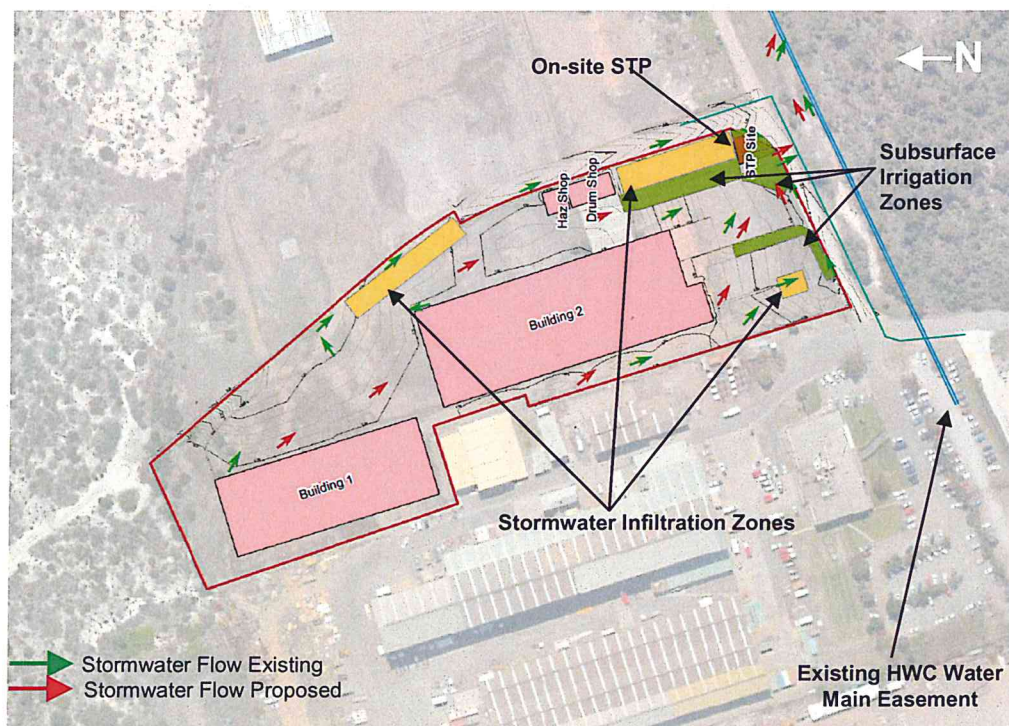


Figure 5: Proposed stormwater infiltration, subsurface irrigation and sewer layout

With the revised system in place, Midal expects that post-development stormwater flows would be equal to or less than pre-development flows up to the 100 year ARI storm event and would follow the existing flow paths (see Figure 5).

To ensure that stormwater is effectively managed at the site, the Department has recommended a condition of approval that would require Midal to prepare and implement a comprehensive Stormwater Management Plan for the site in consultation with all relevant government agencies (e.g. Council, NOW and HWC).

In addition, HWC has also indicated that it has adequate potable water capacity to service the site (i.e. the project's peak water demand of 48 kilolitres per hour).

Wastewater Management

The site is not currently serviced by sewer infrastructure. Therefore, similar to surrounding industrial sites, including the TAC smelter, Midal proposes to construct an on-site package sewerage treatment plant (STP) designed to cater for the anticipated 119 employees a day (over two shifts). The system has been designed in accordance with Council's guidelines and would treat wastewater to a higher quality than required by relevant Council standards. The system would use advanced secondary level treatment to allow wastewater to be re-used to substitute potable water for landscaping requirements at the designated subsurface irrigation areas (see Figure 5).

In its submission, HNEH requested some clarification regarding the design standards of the STP which was clarified by Midal at the RTS stage. HNEH has since indicated they have no further issues regarding the STP design. Further, both Council and the EPA raised no concerns regarding the final design of the on-site STP.

Notwithstanding the above, to ensure that wastewater does not impact on existing surface and/or groundwater quality, the Department has recommended conditions of approval that would require Midal to:

- prepare and implement a Wastewater and Irrigation Management Plan (WWIMP) for the project including measures to:
 - ensure that the on-site STP and subsurface irrigation system are designed to:
 - comply with the relevant Australian Standard/s;
 - treat wastewater to comply with the EPA's *Environmental Guidelines Use of Effluent by Irrigation* and the relevant Council standards;
 - monitor wastewater, soil and groundwater quality during operations;
 - address exceedances of pollutant triggers; and
 - maintain the sewerage and irrigation systems for the life of the project.

With these conditions in place, the Department is satisfied that wastewater would be adequately managed on-site and would not result in any adverse soil or water impacts.

Groundwater Management

The site is located approximately 600m to the south, downstream of the Tomago Sandbeds. A groundwater divide is known to exist within the sand aquifer to the north of the site. Groundwater is encountered at about 1.2m (southern end of the site) to 3.2m (northern end of the site) below the site. Groundwater generally flows under the site in a southerly direction away from the Tomago Sandbeds before discharging into the Hunter River.

Therefore, the project is not expected to impact on drinking water quality in the Tomago Sandbeds HWC Special Water Area.

During operation, the potential for groundwater contamination would be low as the majority of the site would be hardstand and groundwater quality would be periodically monitored including at the infiltration zones (for treated stormwater and wastewater treated by the on-site STP, see discussion above). As noted by the EPA, the depth, locations and parameters of monitoring would be confirmed following determination, listed on the EPL for the site and detailed in the final GMP.

As discussed in Section 5.1 of this report (above), the project is expected to have a negligible impact on GDEs due to a small rise in groundwater levels.

Conclusion

Based on the above, the Department considers that the soil and water impacts from the project can be adequately managed so that they are acceptable, subject to the imposition of strict conditions. In particular, to ensure that the impacts of the project on soil and water are minimised and managed throughout the life of the project, the Department has recommended key conditions of approval that would require Midal to implement suitable erosion and sediment controls on-site in accordance with relevant guidelines during construction and prepare and implement an ASSMP, GMP, SWP and WWIMP for the project, prior to the commencement of construction.

5.3 Traffic and Transport

Issue

The project would generate increased traffic on local roads during construction and operation, which could impact on the safety and efficiency of the surrounding road network.

Consideration

Key local intersections that would be impacted upon by the project in the vicinity of the site include the intersections of (see Figure 6):

1. McIntyre Road/School Drive;
2. Tomago/McIntyre Road; and
3. School Drive/Private Road.

Construction

Traffic generated by the construction of the project would comprise of heavy vehicles associated with the importation of building materials and light vehicles associated with construction workers. The project is estimated to have a peak construction workforce of 35 employees (on-site at the one time) over the 10 month construction period.

Midal's TIA estimates that up to 30 heavy vehicles and 35 light vehicles would ingress and egress from the site during construction, distributed over an 8 hour day (i.e. 130 vehicle movements). The percentage of trips generated by construction traffic on Tomago Road is expected to be minor representing approximately 6% (43 vehicle movements) of existing traffic during the morning peak period and approximately 5% (39 vehicle movements) during the afternoon peak period. Based on an annual average traffic growth rate of 2.7% (from 2004 traffic counts of 9343 vehicles), this equates to approximately 1.1% of total daily traffic on Tomago Road at 2012 (11,562 vehicles).

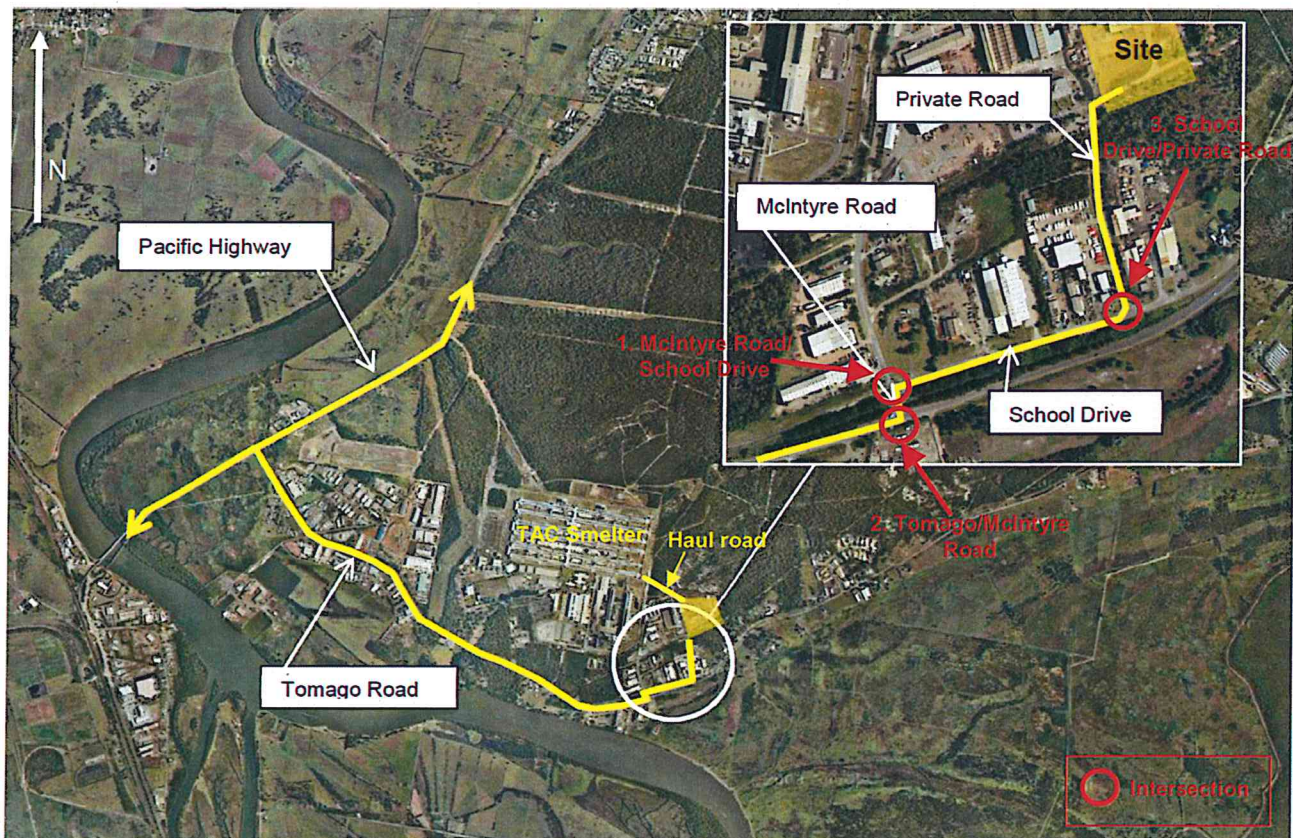


Figure 6: Key roads and intersections in the vicinity of the site

The Pacific Highway between the F3 and Raymond Terrace has been upgraded in recent years and has enough capacity to accommodate any traffic generated by the construction of the project.

The TIA indicates that all three key intersections in the vicinity of the site (see Figure 6) would continue to operate at an acceptable level of service (LOS - A to C depending on time of day and intersection) in the morning and afternoon peak hour traffic periods and would have sufficient capacity to accommodate traffic generated by this construction traffic.

To manage construction traffic, Midal has committed to preparing a Traffic Management Plan (TMP) for the project. While the management measures proposed by Midal are considered appropriate, the Department recommends the following additional information be included in the TMP:

- access and parking arrangements for the site during construction (and operation);
- measures to ensure that the local road network is not utilised by vehicles during construction and operation;
- measures to control traffic movements from the site and ensure traffic safety during construction; and
- measures to promote car-pooling and other shared transport initiatives during construction and operation.

Council requested that conditions be imposed requiring dilapidation reporting on School Drive to ensure any road damage caused by construction of the project is identified and appropriately repaired by Midal. The Department agreed with this request and incorporated it into the recommended conditions of approval.

The site would be accessed during construction via the existing Private Road off School Drive. The road has a combination of sealed and gravel surfaces which would be rebuilt, sealed and designed to comply with the relevant AUSTROADS standards, following the completion of construction works.

Based on the above, both the Department and RMS are satisfied that impacts from construction traffic can be adequately managed and would not impact on the safety and efficiency of the surrounding road network.

Operation

Traffic generated by the operation of the project would include heavy vehicles transporting molten aluminium to the site from the TAC smelter and dispatching finished products to Newcastle Port for export overseas or to internal customers as well as light vehicles from employees, contractors and administration staff travelling to and from the site. The facility would operate 24 hours, 7 days a week over two 12 hour shifts with a maximum of 82 persons on-site at any one time.

Molten aluminium would be delivered to the site in crucibles mounted on specialised small articulated trucks with a capacity of approximately 10 tonnes. After processing, finished product would be transported to market using semi-trailers with a capacity of about 25 tonnes.

Midal's TIA estimates that 18 heavy vehicles and 82 light vehicles would ingress and egress from the site a day during operation (i.e. 200 vehicle movements). Assuming that all staff and contractors in light vehicles would arrive during the morning peak period and depart during the afternoon peak period, the percentage of trips generated by operational traffic on Tomago Road would represent approximately 12% (85 movements) of existing traffic during the morning peak period and approximately 10.9% (85 movements) during the afternoon peak period. Based on an annual average traffic growth rate of 2.7% (from 2004 traffic counts), this equates to approximately 2.4% of total daily traffic on Tomago Road at 2012 (11,562 vehicles).

Similarly, as the Pacific Highway has recently been upgraded, it has enough capacity to accommodate any traffic generated by the on-going operation of the project.

Finally, the TIA indicates that all three key intersections in the vicinity of the site (see Figure 6) would continue to operate at an acceptable LOS (A to C depending on time of day and intersection) in the morning and afternoon peak hour traffic periods and would therefore have sufficient capacity to accommodate traffic generated by the operation of the project.

The TMP for the project (as above), would also include measures to ensure that the operational traffic impacts of the project are adequately managed throughout the life of the development.

Condition of School Drive

The one public submission received supported the project but raised concern that the condition of School Drive (see Figure 6) had deteriorated since the TIA for the project was originally undertaken in March 2011 and requested that road upgrade works should be undertaken to improve the condition of this road. This submission was primarily concerned with the eastern section of School Drive where the road is one lane wide and has a semi-sealed surface in certain parts.

Only 20% of light vehicle traffic associated with the operation of the project is expected to access the site via the eastern entrance of School Drive and Council did not raise any concerns regarding the condition of this road in its submission. However, in response to this submission, at the Department's request, Council undertook a site visit to examine the condition of School Drive.

Council concluded that while School Drive is currently in poor condition, it is a maintenance issue and would be unreasonable to require Midal to fully upgrade the road based on the traffic numbers generated by the project (see above). Council considered that payment of a Section 94 contribution, which could be used towards providing some assistance towards the repair and maintenance of this road would be appropriate in this instance.

The Department has incorporated the requirement for Section 94 contributions into the recommended conditions and imposed further conditions requiring Midal to ensure all heavy vehicles associated with the project, with the exception of those delivering molten aluminium to the site via the haul road, travel to the site using the western entrance of School Drive where the road pavement is in better condition.

Cumulative Impacts

In August 2009, the former Minister approved a major industrial subdivision known as the Redlake Enterprises Industrial Subdivision (the Redlake development) approximately 1 kilometre east of the project site off Tomago Road (see Figure 7).

This approval included:

- a concept plan for subdivision of a 116 hectare site to create approximately 130 industrial lots in three (3) stages; and
- a concurrent project application for bulk earthworks across the site and the construction and operation of an integrated WesTrac machinery manufacturing and training facility on 23 hectares of the site (Stage 1).

The construction of Stage 1 of the Redlake development is now well advanced and will employ up to 400 people once fully operational. Given the size of the Redlake development and the number of persons employed, traffic generation would increase traffic on Tomago Road by up to 39% for Stage 1.

In light of this, the Department and RMS required Midal to undertake a cumulative TIA of the project, together with traffic generated by Stage 1 of the approved Redlake development, consistent with other developments in the area¹.

Midal's cumulative TIA focused on the two key intersections of McIntyre/Tomago Road and School Drive/Tomago Road as these are the intersections that would be affected by traffic generated from both developments (see Figure 7).

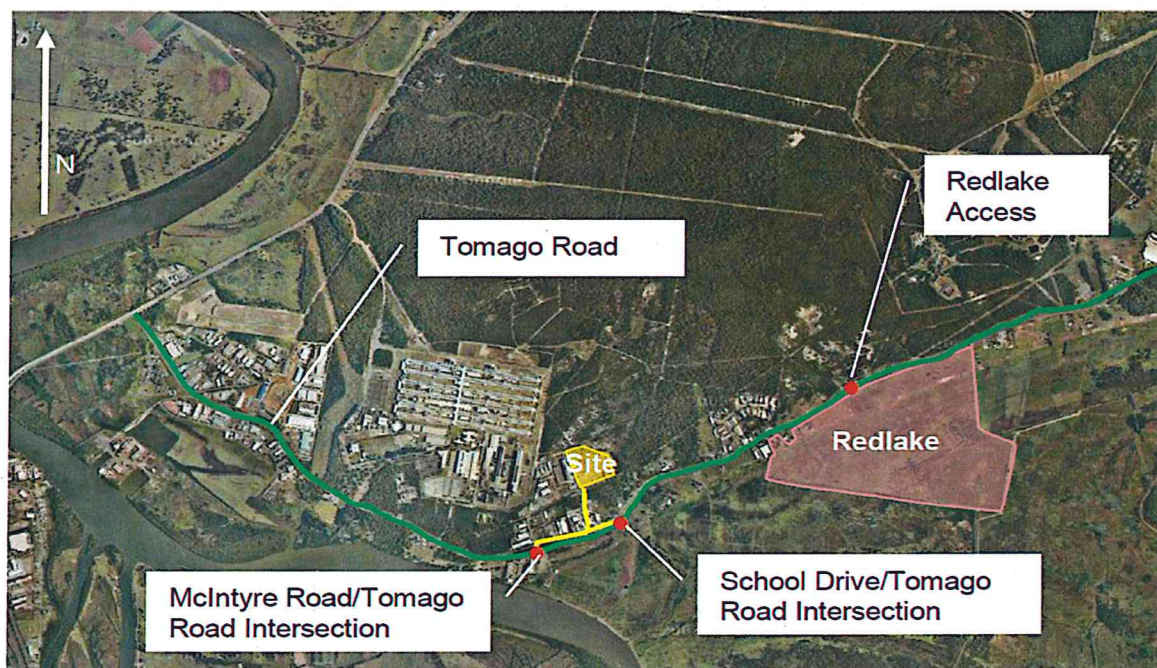


Figure 7: Key intersections to be utilised by traffic associated with the project and the Redlake development

The TIA concluded that with Midal's traffic contribution alone, both of these intersections would continue to operate at an acceptable LOS.

If Stage 1 traffic from the Redlake development is included, the intersection of School Drive/Tomago Road would continue to operate at an acceptable LOS (B). However, the intersection of McIntyre/Tomago Road would deteriorate to an unacceptable LOS (D) during the morning peak hour period, and would need to be upgraded.

RMS indicated in its submission that a reconstruction project involving the upgrade of the intersection of McIntyre/Tomago Road had commenced. The upgrade works would result in the provision of a left turn lane on the western approach to McIntyre Road together with 3m sealed shoulders in the vicinity of the intersection. RMS considers that the upgrade works would adequately cater for the increased traffic resulting from the project at this intersection and considers it unnecessary for Midal to undertake, or make monetary contributions towards, any off-site road infrastructure works.

Based on the above, both the Department and RMS are satisfied that the impacts from operational traffic are acceptable and would not have a detrimental impact on the safety and efficiency of the surrounding road network.

Conclusion

Overall, the Department considers that the traffic impacts of the project during both construction and operation would be acceptable and would not impact on the safety and efficiency of the surrounding road network. Notwithstanding this, to ensure that the traffic impacts of the project are minimised and adequately managed, the Department has recommended a number of conditions of approval that would require Midal to:

- prepare and implement a TMP for the project, prior to the commencement of construction, detailing measures to ensure the proper management of traffic during construction and operation;
- ensure the site access is designed to meet the relevant AUSTROADS and/or Australian standards; and

¹ Should Stages 2 and 3 of the Redlake development go ahead, they would be subject to separate development applications and would similarly need to consider cumulative traffic impacts that exist at the time (including Midal's project) including where off-site infrastructure works may be required.

- pay Council an appropriate section 94 contribution of \$110,000 to ensure local roads are maintained throughout the life of the development.

5.4 Other Issues

The Department's assessment of other issues is provided in Table 2 below.

Table 2: Assessment of other issues

Issue	Consideration	Recommended Conditions
<i>Air Quality</i>	• Any potential dust generation during construction is expected to be short-term, localised and adequately managed and mitigated using standard dust suppression measures (e.g. water carts). • Midal's air assessment indicated that project-specific and cumulative CO, NO², PM₁₀, and VOC emissions would comply with the relevant EPA criteria at all surrounding receivers. • However, the assessment found that existing levels of SO₂ (sulphur dioxide) exceeded the relevant EPA criteria at one residential location, due primarily from emissions from the nearby TAC smelter. • In terms of Midal's project, the assessment concluded that the project would only contribute a small amount of additional SO₂ at the closest sensitive receptors (in the order of 1-2% of the relevant criteria). • The EPA has indicated that on a cumulative basis, local SO₂ concentrations are dominated by existing background sources and that the Midal project is unlikely to cause additional exceedances of the relevant impact assessment criteria. • Furthermore, the EPA has advised that they have been working with TAC to reduce their SO₂ emissions through the implementation of a number of Pollution Reduction Programs. • The EPA has also recommended a number of conditions which the Department has incorporated into the approval (see recommendation). • The Department is satisfied that the air quality impacts of the project are acceptable and would be adequately managed through a series of recommended conditions of approval.	The Department has recommended conditions that would require Midal to: • prepare and implement an air quality management plan as a component of the Construction Environmental Management Plan for the project which would include all detailed air quality management and mitigation measures; • not generate offensive odours from the site, as defined under Section 129 of the POEO Act; • comply with the specified dust limits for the project; • comply with all monitoring (points) requirements and pollutant (stack) discharge and design parameters as specified in the EPL; and • prepare and implement an (Operational) Air Quality Management Plan for the project.
<i>Transport Risk</i>	• The Department is satisfied that with all the proposed management measures implemented by Midal (e.g. safely securing the aluminium crucibles, speed restrictions and securely fencing the haul road), the potential transport risk on the surrounding land uses would be negligible.	The Department has recommended a condition that requires Midal to ensure that all molten aluminium is transported to the site from the TAC smelter using the purpose-built haul road.
<i>Hazards and Risks</i>	• A qualitative and quantitative risk analysis was prepared by Midal as part of a PHA to consider the risks associated with the development and to compare them with the risk criteria for land use safety planning adopted in NSW. • The Department is satisfied that the methodology applied is consistent with the Hazardous Industry Planning Advisory Paper (HIPAP) No 6 Hazardous Analysis. • Based on the information provided in the PHA, the Department considers that the major hazards with potential for offsite safety or environmental effects are related to the handling/storage/use of natural gas, molten aluminium and aluminium dross. • The Department is satisfied that the PHA provided sufficient information on the hazards and risks associated with the development and that the estimated risks would be below the relevant land use safety criteria.	The Department has recommended conditions that would require Midal to: • prepare a Fire Safety Study in consultation with NSW RFS; • prepare a Final Hazards Analysis, Hazard and Operability Study and Construction Safety Study consistent with the Department's relevant guideline/s; • prepare an Emergency Plan and Safety Management System for the project; and • undertake on-going independent Hazard Audits for the project to ensure safety and compliance with all statutory documents and approvals.
<i>Noise</i>	• Both construction and operational noise is predicted to comply with all relevant policies and guidelines at all surrounding sensitive receivers. • The EPA did not raise any issues in relation to noise. • The Department is satisfied that there would be no adverse noise impacts and that this issue can be managed through a series of recommended conditions.	The Department has recommended conditions of approval that would require Midal to: • prepare and implement a noise management plan as a component of the Construction Environmental Management Plan for the project which would include all detailed noise management and mitigation measures; • comply with relevant noise criteria; and • prepare and implement an (Operational) Noise Management Plan for the project.
<i>Waste</i>	• Construction waste generated by the project would consist of	The Department has recommended

	steel and timber off-cuts, packaging (e.g. plastic and cardboard), masonry block waste and general waste. - Operational waste generated by the project would consist of non-hazardous domestic waste (including sewerage), waste oil and aluminium dross. - Midal has committed to preparing and implementing a Waste Management Plan for the construction and operational phases of the project. - The Department is satisfied that on-site waste can be easily managed and has recommended standard conditions accordingly.	conditions of approval that would require Midal to: - prepare and implement a Waste Management Plan for the project as per Midal's commitment; and - ensure that all waste generated by the project is classified in accordance with the EPA's <i>Waste Classification Guidelines</i> and disposed of to a facility that may lawfully accept the waste.
Contamination	- Due to previous industrial activities, Midal undertook an assessment of the level of contamination at the site including soil sampling. - This assessment found that key pollutants (heavy metals, petroleum hydrocarbons, polycyclic aromatic hydrocarbons and organochlorine pesticides) were all below relevant criteria and that the site would be suitable for the proposed use. - The EPA raised no concerns in relation to contamination. - The Department is satisfied that the site is suitable for the proposed use.	The Department has recommended a condition of approval that requires Midal to prepare and implement a Contamination Management Plan (CMP), prior to construction of the project outlining suitable measures to control erosion, manage and dispose of contaminated soil in accordance with the relevant EPA guidelines in the event that they are not suitable for re-use at the site.
Heritage	- Midal's heritage assessment found that the project would not impact on any listed items of local or State heritage significance in the vicinity of the site. - The assessment also included field surveys which found that there were no known sites, identified items or artefacts of Aboriginal heritage significance located on the site, including the area of the haul road. - Registered Aboriginal stakeholder groups within the study area were notified and invited to comment on the project, prior to lodgement of the application. Responses were received from some stakeholders but no issues were raised in relation to the project. - If there are any heritage items present on the site they are likely to be highly damaged due to a long history of previous industrial uses on the site dating back to the 1970s. It is also unlikely that there are any significant items present in the area of the proposed haul road. - However, Midal has committed to ensuring that registered Aboriginal parties and an archaeologist are present to monitor the initial ground disturbance works for construction of the haul road. - The Department does not foresee any adverse heritage impacts arising from the project subject to the imposition of a series of standard conditions.	The Department has recommended conditions of approval that would require Midal to: - conduct heritage education inductions for all construction personnel and contractors working at the site in consultation with suitable representatives of the local Aboriginal community; - ensure initial ground disturbance works for the construction of the haul road are monitored by a suitably qualified archaeologist and representatives of the local Aboriginal community, to the satisfaction of the EPA; and - cease works and notify the relevant authorities in the event that any Aboriginal cultural object(s) or human remains are uncovered on-site.
Visual	- The project involves the construction of 2 large industrial buildings approximately 8m in height with vent stacks approximately 13m above ground level which have the potential to impact on visual amenity. - However, the site is located in an established industrial area that is visually dominated by the adjacent TAC smelter. These structures would be consistent with the height, scale and built form of the TAC, as well as other nearby industrial operations. - Further, the height of these structures complies with the maximum building height limit of 15m for industrial development in Council's DCP (2007). - The nearest sensitive receivers in the surrounding area are not anticipated to be visually affected because of the distance from them to the project (~230m) and the fact that the site is screened by existing vegetation. - The Department is satisfied that the project would not have an adverse impact on visual amenity but nonetheless recommends a series of standard conditions to minimise impacts.	The Department has recommended conditions of approval that would require Midal to: - prepare and implement a Landscaping and Vegetation Management Plan for the project detailing landscaping treatments to minimise visibility of the site from residences and public vantage points, prior to construction; and - ensure lighting associated with the project complies with the relevant Australian Standards and does not create a nuisance to surrounding properties or the public road network.
Bushfire Risk	- The EA included a bushfire assessment as the site is located on bushfire prone land and the existing vegetation adjoining the site constitutes a potential bushfire hazard. - The project has been designed to comply with the NSW RFS's <i>Planning for Bushfire Protection 2006</i>, including provision of Asset Protection Zones. - NSW RFS recommended conditions of approval that would	The Department has recommended conditions of approval that would require Midal to: ensure that landscaping and all water, electricity and gas infrastructure at the site complies with the principles of <i>Planning for Bush Fire Protection 2006</i>;

	require certain aspects of the project to comply with <i>Planning for Bushfire Protection 2006</i>. The Department has incorporated these and other requirements into the recommended conditions of approval and is satisfied that impact of bushfires on the project can be adequately managed.	- prepare and implement a Fire Safety Study for the project in line with the Department's guidelines and to the requirements of NSW RFS and Fire and Rescue NSW; and - prepare and implement an Emergency Plan for the project in line with the Department's and NSW RFS's guidelines.
<i>Greenhouse Gas Emissions</i>	- Estimated annual Scope 1 and Scope 2 greenhouse gas emissions (GHGs) would be approximately 52,000 tonnes (t) CO₂-e per annum. - Scope 3 emissions would be significantly greater, contributing approximately 975,000t CO₂-e per annum. Most of this GHG (950,000t CO₂-e per annum or 97% of total Scope 3 emissions) is embodied in molten aluminum production at the TAC smelter which would be used by Midal in its production process. - Midale argue that whilst it has been required to examine this component of Scope 3 GHG, the project in itself would not result in a significant increase of Scope 3 emissions from this source because there would be no change to production output at the TAC smelter as a consequence of the project. - The project would still generate about 25,000t CO₂-e per annum of Scope 3 emissions, which, when coupled with the estimated Scope 1 and 2 emissions (52,000t CO₂-e per annum), totals approximately 77,000t CO₂-e per annum. - Overall, this represents 0.048% of total greenhouse gas emissions in NSW which is considered to be negligible and would not significantly contribute to climate change. - Midale has committed to reducing greenhouse emissions by investigating energy saving measures and renewable energy opportunities. The Department has formalised and built upon this commitment in its recommended conditions of approval. - Notwithstanding, the Department is aware that the Commonwealth's Clean Energy Legislative Package and carbon pricing mechanism commenced on 1 July 2012. - The legislation aims to provide a coordinated nationwide response to greenhouse gas management, reduce Australia's carbon pollution and provide incentives for industry to move to using clean energy. - The Department is therefore satisfied that the GHG emissions of the project would be acceptable and are likely to continue to reduce in the future as a result of Midale's commitments and as a result of the new Commonwealth legislation.	The Department has recommended conditions of approval that would require Midale to: - implement all reasonable and feasible measures to minimise energy use and greenhouse gas emissions; - prepare and implement an Energy Efficiency Plan on the project, prior to operations; and - prepare and implement an Air Quality Management Plan for the project, prior to operations including measures to manage greenhouse gas emissions.

6. CONCLUSION

The Department has assessed the merits of the project having regard to the objects of the EP&A Act and the principles of ecologically sustainable development.

This assessment has concluded that with the implementation of the recommended conditions of approval, the impacts of the project can be mitigated and/or managed to ensure an acceptable level of environmental performance.

It has also found that the project would add value to the output of TAC's smelter, reducing the amount of aluminium products currently imported into Australia. The project has a capital investment value of \$47.45 million, would employ approximately 100 people during construction and 119 people during operation, and thereby provides a significant contribution to the NSW economy and local job security.

Consequently, the Department considers that the project is in the public interest and should be approved, subject to conditions.

Midale, the EPA and Council have reviewed and generally accepted the draft recommended conditions.

7. RECOMMENDATION

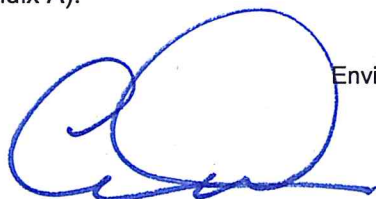
It is recommended that the Deputy Director-General:

- **consider** the findings and recommendations of this report;
- **approve** the project application under section 75J of the EP&A Act; and
- **sign** the attached project approval (refer Appendix A).

Andrew Hartcher
Environmental Planner, Industry


31/7/12.

Chris Ritchie
Manager – Industry
Mining & Industry Projects


2.8.12

Chris Wilson
Executive Director
Major Projects Assessment


5/8/12

Richard Pearson
Deputy Director-General
Development Assessment & Systems Performance

APPENDIX A: CONDITIONS OF APPROVAL

APPENDIX B: CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy (Major Development) 2005 (Major Development SEPP)

The project meets the criteria of Schedule 1 Clause 9 of the Major Development SEPP because it includes development for the purpose of metal works with a capital investment value of greater than \$30 million and would employ more than 100 people.

Consequently, the project is classified as a Major Project under the now repealed Part 3A of the EP&A Act. This report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the Project.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/or offence (odour, noise etc). A development is defined as potentially hazardous and/or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/or offence impact, on off-site receptors.

The numbers of vehicle movements transporting molten aluminium to the site are above the screening threshold published in the Department's Guideline *Applying SEPP33*. Therefore, the project may be potentially hazardous with respect to the transport. The development is also potentially hazardous industry with respect to the storage of Dangerous Goods and as such, a Preliminary Hazards Assessment (PHA) has carried out to demonstrate that the development will not pose unacceptable risks to the surrounding land uses.

The Department's Major Hazards Unit has reviewed the project and the EA and the PHA prepared by GHD Pty Ltd and is satisfied that, subject to the implementation of hazard and risk mitigation measures and recommended conditions of approval, the project would not pose an unacceptable level of risk to surrounding land uses. The Department's detailed assessment of the project against the provisions of SEPP 33 is provided in Section 5.4 of this report.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application.

The Department has reviewed all contamination issues associated with the project and outlined in the EA. A detailed assessment of these issues is provided in Section 5.2 of this report.

The site was suspected to be contaminated from previous industrial land uses on-site. As such, Midal undertook an assessment of the level of contamination at the site including soil sampling. This assessment indicated that key pollutants are below relevant criteria and that the site would be suitable for industrial use.

The Department is satisfied that the site is suitable for the proposed development and has recommended conditions of approval that would require Midal to ensure suitable measures are in place to control erosion manage and dispose of contaminated material in accordance with the relevant EPA guidelines during construction and operation (in the unlikely event that a spill or leak occurs).

The Department is satisfied that, subject to the implementation of recommended conditions of approval, the project would not result in adverse impacts on the environment as a result the potential presence of contaminated material on the site.

State Environmental Planning Policy (Infrastructure) 2007 (the ISEPP)

The ISEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

The project constitutes traffic generating development under Schedule of the ISEPP and was referred to the RMS for comment. A summary of RMS submission is detailed in Section 4 of this report. The project is

considered to be consistent with the aims and objectives of the Infrastructure SEPP given the consultation and consideration of the issues raised by RMS has been undertaken and detailed in Section 5 of this report.

State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)

SEPP 44 aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for Koalas. The Port Stephens local government area is listed in Schedule 1 of the SEPP, therefore SEPP 44 applies to the project.

Both the Proponent's ecological assessment in the EA and the Department's assessment of the project have considered the potential for the project to impact on any 'potential' or 'actual' koala habitat. While the koala was not recorded within the site during surveys, an estimated 0.55 hectares of supplementary koala habitat would be cleared as a result of the project.

However, the Proponent's ecological assessment concludes that the site is unlikely to provide habitat of local importance for koala. Further, as requested by Council, the Proponent undertook an assessment of the impacts of the project against the Council's *Comprehensive Koala Plan of Management* (CKPM, 2002). Council indicated they were satisfied the CKPM criteria has been satisfactorily addressed by Midal and requested Midal undertake some replacement planting of supplementary koala habitat at the site, the requirement for which the Department has incorporated into the recommended conditions of approval.

The Department is therefore satisfied that, subject to the implementation of Midal's commitments and recommended conditions of approval, the project would not result in adverse impacts on koalas or koala habitat. A detailed assessment of these issues is provided in Section 5.1 of this report.

Port Stephens Local Environmental Plan 2000

The *Port Stephens Local Environmental Plan 2000* (PLEP) generally aims to provide environmental control over the development of land, achieve the objectives of each identified land use zone, promote community involvement, ensure attractive living environments and ensure that development has regard to the principles of ecologically sustainable development.

As detailed in Section 3.6 of this report the subject site is zoned '4(a) Industrial - General' under the PLEP and the project is permissible with consent in this zone. Key objectives of the '4(a) Industrial - General' zone are to allow industrial development only after comprehensive hazard analysis and risk assessment with adequate safeguards to protect the surrounding environment, to provide for sufficient buffers between adjacent zones and to enable a wide range of industrial activities.

The Department has considered the project against provisions of the PLEP and is satisfied that it is consistent with its aims and objectives. The project is for an industrial use on suitably zoned land and has been subject to a comprehensive hazard analysis and risk assessment (see Section 5.4 of this report), the result of which concluded the project would not pose an unacceptable level of risk to surrounding land uses. All other relevant provisions of the PLEP are considered to have been addressed in the Department's assessment of the project in Section 5 of this report.

APPENDIX C: SUBMISSIONS

APPENDIX D: RESPONSE TO SUBMISSIONS

APPENDIX E: ENVIRONMENTAL ASSESSMENT