



Review of Environmental Assessment

Tasman Mine Extension Project

Reference No: SSD-4962

Submission

Construction Forestry Mining and Energy

Union (Mining and Energy Division)

Northern District Branch

August 2012

Donaldson Coal Pty Limited (Donaldson Coal) applied to the Minister for the Department of Planning seeking approval to extend underground mining operations at the Tasman Underground Mine for an additional operational life of approximately 15 years.

The Director General made the Environmental Assessment publicly available on the 3 July 2012 at the DPI Information Centre Sydney, Cessnock City Council, Lake Macquarie City Council and Nature Conservation Council Newtown.

The Union is pleased to take the opportunity to comment on the Tasman Underground Extension Project and related activities Environmental Assessment.

The Mining and Energy Division is a Division of the CFMEU under the Federal Workplace Relations Act 1996, with over 120,000 members, one of the largest in Australia. The Division covers several industries including the coal industry, coal ports, metalliferous mining industries, electrical power generation, oil and gas and the Nation's small coking industry.

The Northern District Branch of the CFMEU Mining and Energy Division, being the branch that on behalf of the organisation which is making the submission is the principal Union representing coal miners in the Northern District coalfields of New South Wales. The Tasman Underground Mine with its site approximately 20 kilometres west of the Port of Newcastle at Seahampton is wholly within the State's Northern District coalfields.

The Union is familiar with the Tasman Underground Mine Complex site and engaged the services of an Environmental Consultant with extensive experience in local government and environmental assessments on coal mining related projects.

After reviewing all the material and taking advice, the Union supports on balance the proponent's application to extend the operational life of the Tasman Underground Mine.

Project Overview

The Tasman Extension Project is a proposed extension of underground mining operations at the Tasman Underground Mine for an additional operational life of approximately 15 years.

The Tasman Extension Project would include the following key components:

- Continued bord and pillar underground mining of the Fassifern Seam using a combination of total and partial pillar extraction methods within the existing Mining Lease (ML) 1555;
- Board and pillar underground mining of the West Borehole Seam using a combination of total and partial pillar extraction methods;
- Production of run-of-mine (ROM) coal up to 1.5 million tonnes per annum (Mtpa);
- Development of a new pit top ventilation infrastructure and associated ROM coal handling infrastructure off George Booth Drive; and
- Continued transport of R\$OM coal to the Bloomfield CPP via trucks on George Booth Drive and John Renshaw Drive.

A new pit top facility would be developed off George Booth Drive to allow access to the West Borehole Seam. The new pit top facility would reduce the ROM coal haulage return trip to the Bloomfield CHPP on the public road network by approximately 6 kilometres. A roundabout would be constructed on George Booth Drive for access to the new pit top facility.

The new pit top would be developed during the first 18 months of the Project. Construction activities would generally be restricted to daytime hours (i.e. 7.00 am to 6.00 pm).

The new pit top would comprise ROM coal handling infrastructure, administration facilities, worker amenities and stores buildings, workshop compound, bunded fuel tank area, electricity reticulation, water management equipment and structures and other associated infrastructure.

The new pit top facility has been designed to achieve a number of environmental outcomes, including:

- avoidance of a known population of *Tetratheca juncea* (a threatened flora species);
- avoidance of Hunter Lowlands Redgum Forest vegetation (an endangered ecological community);
- avoidance of a known roost tree for the Yellow-bellied Glider (a threatened fauna species);
- limiting clearance of the Lower Hunter Spotted Gum – Ironbark Forest (an endangered ecological community) as far as practicable; and

- limiting clearance of *Rutidosia heterogama* (a threatened flora species) as far as practicable.

Community Consultation

Donaldson Coal held Community Information Sessions at Valley Fresh Flowers to discuss the Tasman Extension Project. All members of the local community with an interest in the Project were welcome to attend.

The information sessions were an opportunity to learn more about the Project and how Donaldson Coal will be designing the mine plan to manage subsidence impacts on the built and natural environment. Information regarding transport of coal on George Booth Drive and John Renshaw Drive was also available.

Ongoing community consultation included leaflets, meetings with groups and/or individual landholders and provision of Project information on the website.

The Tasman Underground Mine CCC will also be informed with the status of the Project. Additional community information sessions will be conducted following the completion of the specialist studies for the Environmental Impact Statement.

Following community feedback at previous information sessions, the proponent commissioned GHD to undertake an inspection and safety review of driveways on George Booth Drive between John Renshaw Drive and Richmond Vale Road.

This review indicated a number of supplementary improvements could be made to further improve road safety for private vehicles turning onto and off George Booth Drive at, or in the vicinity of, the majority of these driveways.

The proponent details a commitment to implementing the identified private driveway safety improvements works within one year of obtaining Development Consent for the Project.

Subsidence

Subsidence Impacts Observed at the Existing Tasman Underground Mine

Secondary extraction commenced at the Tasman Underground Mine in March 2008. Monitoring of subsidence movements and impacts above extracted panels at the Tasman Underground Mine has been undertaken in accordance with the approved Subsidence Management Plan.

There have been no observed and/or reported service difficulties from subsidence impacts on surface infrastructure and no community complaints in regards to subsidence impacts.

Notwithstanding a geological model of the West Borehole Seam mining area was developed by consultants DgS based on known geological structure locations and data from 34 exploration boreholes, including bore logs, core testing data and geophysical logging.

Prediction of Subsidence Effects

Some panels would have lower subsidence than the parameters as partial pillar extraction or no secondary extraction would occur in some areas to meet subsidence performance measures for surface features.

The caving and subsidence development process above a pillar extraction panel usually results in sub-surface fracturing and shearing of sedimentary strata in the overburden. The extent of fracturing and shearing is dependent on mining geometry and overburden geology.

In areas of total pillar extraction surface cracks between 50 and 300mm are likely to develop above the goaf. These surface cracks could be greater than 600mm in areas of adverse or anomalous geological or topographical conditions.

Consultants DgS determine it is 'very unlikely' that surface cracks would develop above areas of first workings pillars and 'unlikely' that they would develop above partial pillar extraction panels.

Analysis of the pre-mining and post-mining surface levels suggests that ponding would be likely to develop near existing streams. DgS determined that depressions with maximum depths of

between 0.1 and 0.7m may occur outside of existing stream alignments after mining in the West Borehole Seam is completed.

Actual ponding depths would depend upon several other factors, such as rain duration, surface cracking and effective percolation and evapotranspiration rates, in addition to the post-mining surface levels.

Local pillar extraction mining has not resulted in any large scale, sliding instability due to mine subsidence, in undulating terrain with slopes up to approximately 1 in 2.

In general, it is possible that localised instability could occur where slopes are steeper than 1 in 2 and if the slopes are also affected by mining induced cracking and increased erosion rates due to subsidence in excess of 300mm. Subsidence Control Zones (SCZ's) would be applied to steep slopes greater than 1 in 2 and cliff lines areas to minimise environmental consequences and impacts to public safety. The proposed subsidence performance measures can be achieved for slopes between 1 in 3 and 1 in 2 without limiting extraction.

The cumulative subsidence effects along the steep slopes and cliff line areas are unlikely to result in cracking, toppling or slope instability after completion of mining in the Fassifern and West Borehole Seams.

Depressurisation of Groundwater Aquifers

Continuous subsurface fracturing would result in pressure loss within the groundwater system due to a direct hydraulic connection to the underground workings. Discontinuous subsurface fracturing would result in an increase in rock mass storage capacity with horizontal permeability.

The mine layout would be designed to achieve negligible environmental consequences for the third order portion of Surveyors Creek 2 within the West Borehole Seam mining area.

Subsidence impacts on other streams within the mining area would be managed to achieve not more than minor environmental consequences and negligible connective cracking to underground workings.

The mine layout would also be designed to achieve negligible environmental consequences to Coastal Warm Temperate – Sub Tropical Rainforest and Alluvial Tall Moist Forest, which are considered groundwater dependent ecosystems and are listed as EECs.

The mine layout will also be designed to achieve negligible environmental consequences to the Hunter Lowlands Redgum Forest community that is present along the third order portion of Surveyors Creek 2.

DgS assessed that the use of partial pillar extraction areas beneath groundwater dependent ecosystems and riparian vegetation would provide a high level of protection from continuous fracturing from surface to seam.

Potential consequences (eg cracking) may occur to sandstone based Aboriginal heritage sites as a result of subsidence.

There are currently three privately-owned principal residences within the underground mining areas.

Mining under principal residences would be restricted to first workings only. As a result, subsidence impacts to principal residences would be minimal.

This would also reduce impacts to structures located adjacent to principal residences (eg water tanks and on-site effluent disposal areas).

DgS indicates that the majority of subsidence movements likely to affect undermined properties would occur within a period of approximately six to eight weeks after each panel is extracted.

The mine layout will be designed to maintain safety and serviceability for electrical infrastructure. Negligible subsidence impacts are anticipated on the communication towers on Mount Sugarloaf, the Orica Richmond Vale facilities, the proposed TransGrid substation on Sheppard Drive, George Booth Drive and the Hunter Expressway.

Groundwater

A Groundwater Assessment for the Project was undertaken by consultants RPS Aquaterra.

Groundwater use in the vicinity of the Project is negligible, as there are no significant useable aquifers underlying, or close to, the Project area.

There are nine registered bores within approximately 5 km of the Project area. Four of these registered bores are monitoring bores associated with the Tasman Underground Mine. Of the remaining registered bores, none are located within aquifers with the potential to be hydraulically connected to the Project.

Predictive modelling was conducted for the life of the Project, with the annual development of underground mining reflected in the groundwater model.

Groundwater inflows in the West Borehole Seam workings are predicted to be approximately 0.2 ML/day within the first year of mining, increasing to a peak of approximately 1.35 ML/day in 2024, before decreasing to less than 0.6 ML/day by the end of mining.

Groundwater inflows would be captured in sumps, and piped to a mine water storage dam. Water stored in the mine water storage dam would not be transferred off-site; rather it would either be used to meet underground mining requirements or would be returned directly into historic workings in the West Borehole Seam.

The Project is predicted to have a very limited impact on baseflow to Surveyors Creek. Impacts to baseflow in other streams/creeks in the Project region would also be negligible.

Impacts on flows and ground water levels within the colluvium associated with the Surveyors Creek catchment are predicted to be insignificant, both during mining and post mining. Therefore it is very unlikely that groundwater dependent ecosystems associated with Surveyors Creek would be impacted by the Project.

Potential Risk to Geomorphic Character

The risk to geomorphic character was determined by consultants Fluvial Systems over short stream lengths (average 6m long).

For the majority of stream lengths within the West Borehole Seam mining area, the potential risk to geomorphic character was determined to be ‘insignificant’.

For a few isolated, short stream lengths, the potential risk to geomorphic character was determined to be ‘low’, ‘moderate’ or ‘high’. As such ongoing monitoring of potential impacts to geomorphic character would target these locations. If necessary, mitigation measures would be implemented to mitigate long-term environmental consequences.

The stream lengths where the highest potential risk was identified were located on the “Valley’fill, Fine’grained, Discontinuous” geomorphic stream type on S2F, as these stream sections were identified as having high fragility, and high relative subsidence.

The key subsidence-related risk to the geomorphic character of streams in the West Borehole Seam mining area was identified as the development, and upward migration of knick points.

For the streams in the West Borehole Seam mining area, large wood structures are considered to be the most appropriate control works for the mitigation of knick point development and migration. However, if it is determined during the adaptive management process that control/remediation structures are required, the most suitable structure would be assessed on a case-specific basis and in consultation with relevant stakeholders.

Surface Water

A Surface Water Assessment for the Project was undertaken by consultants Evans & Peck.

The following potential impacts to surface water and quality were identified:

- Potential for subsidence induced cracking to create a pathway for loss of water from the catchment or creek channels, alternative subsurface flow paths or changes in the amount of water held in pools;

- Potential changes in groundwater levels leading to changes to the interactions between the ground water system and creeks in the Project area; and
- A reduction in the contributing catchment area as a result of the proposed stormwater retention for pollution control purposes at the new pit top facility.

Potential subsidence impacts associated with the Project were predicted by DgS, including the potential for surface cracking, changes in stream bed gradient and ponding and changes in stream alignment.

Potential subsidence impacts were not predicted to have any significant effect on the surface water flow characteristics of the streams in the West Borehole Seam mining area, and no significant change to the amount of water stored in pools.

Potential changes to the contribution of baseflow from groundwater to/from the streams in the West Borehole Seam mining area, attributable to changes in groundwater levels associated with the underground mining, were predicted by RPS Aquaterra.

These predicted changes in baseflow to/from these streams are negligible in comparison with average runoff, and therefore, are predicted to have no measurable effect on the surface water flow characteristics of the streams in the West Borehole Seam mining area.

The only material surface development associated with the Project would be the construction of the new pit top facility and upcast ventilation shaft.

The net retention of surface runoff from disturbed areas would be negligible.

Existing water quality data has not indicated that there is evidence of changes to water quality associated with surface cracking due to subsidence from existing workings.

On the basis that no material impacts to surface water characteristics or water quality of streams in the West Borehole Seam mining area are predicted during the Project, no additional surface water impacts to water quality outside of the West Borehole Seam mining area were predicted due to the Project.

Aquatic Ecology

An Aquatic Ecology Assessment was undertaken for the Project by consultants FRC Environmental.

Potential Impacts of Project Surface Activities on Aquatic Fauna and their Habitat

The Project would require the removal of approximately 11.2 ha of dry forest/woodland for construction of the pit top facility and upcast ventilation shaft.

No streams, creeks, water bodies or riparian vegetation would be removed by the Project. As such, vegetation clearance would not have a significant impact on aquatic fauna and their habitat.

Consultants FRC Environmental concluded that subsidence is unlikely to impact on key aquatic habitats in the Project area or have locally significant impacts on aquatic flora and fauna.

Flora

A Terrestrial Flora Assessment was conducted for the Project by consultants Hunter Eco.

Key potential impacts of the Project on terrestrial flora and their habitats include vegetation clearing and subsidence. Other potential impacts associated with the Project include increased weed incursion and increased fire frequency.

The new pit top facility has been subject to various design iterations during development of the proposed Project. The design parameters relevant to flora include:

- Limiting vegetation clearance as far as practicable. The property boundary is approximately 24 ha and the disturbance for the new tip top facility and upcast ventilation shaft has been limited to 11.2 ha.
- Avoiding clearance of the Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions.
- Avoidance of a known roost tree for the threatened fauna species Yellow-bellied Glider recorded within the initial disturbance footprint of the new pit top facility.

- Avoiding clearance of the threatened flora species Black-eyed Susan including a 20m buffer.
- Limiting clearance of the Lower Hunter Spotted Gum – Ironbark Forest in the Sydney Basin Bioregion EEC as far as practicable.
- Limiting clearance of the threatened flora species Heath Wrinklewort as far as practicable.

Apart from very minor clearing associated with ongoing exploration, management and monitoring activities, the Project would result in the clearance of approximately 11.2 ha for the new pit top facility and upcast ventilation shaft.

Considering the implementation of the various SCZ's, the majority of vegetation over the proposed full extraction panels, empirical observation by Hunter Eco suggests that communities can tolerate a range of conditions as expressed in their varying composition. These communities present as dry open forest through to moist shrubby forest. These communities are not groundwater dependent and therefore, as with a lot of Australian vegetation have adapted to a wide range of water availability.

For long-term detrimental impact to occur to flora species or communities, changes to habitat would need to be widespread. There is no recorded experience of this occurring as a consequence of the mining methods relevant to the Project. Hunter Eco reports that worst case scenario would be localised loss of individual plants, an event that would be unlikely to place any local population at risk of extinction.

Terrestrial Fauna

A Terrestrial Fauna Assessment has been prepared for the Project by consultants Biosphere Environment Consultants.

Key potential impacts of the Project on terrestrial fauna and their habitats include habitat removal/modification and subsidence. Other potential impacts associated with the Project include increased vehicular traffic, artificial lighting, noise, increased fire frequency and increased occurrence of introduced fauna.

The potential clearing impacts associated with the Project are comparable to other land uses in the vicinity of the Project which have resulted in small scale vegetation clearance.

The Project would involve progressive rehabilitation of minor Project surface disturbance in areas and rehabilitation of surface disturbance areas at the cessation of the Project.

The Project includes substantial commitments to limit consequences associated with subsidence. The commitments, in the form of proposed subsidence performance measures greatly reduce the risk of subsidence consequences on fauna or their habitats.

Vehicular traffic movements associated with exploration, construction and operation of the Project have the potential to increase the incidence of fauna mortality via vehicular strike. Traffic movements are expected to increase along existing public roads as a result of the Project. There is limited vehicle access in the underground mining area and therefore the Project is not expected to increase the risk of vehicle-fauna collisions in this area.

Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment was undertaken for the Project by consultants South East Archaeology Pty Limited.

Surface impacts would be largely confined to the proposed new pit top facility and upcast ventilation shaft. No Aboriginal heritage sites have been identified in this area. Surface impacts within the proposed underground mining areas would be limited to works such as the construction and maintenance of access tracks and the installation and operation of monitoring equipment.

Potential impacts from subsidence on Aboriginal heritage sites include the cracking of rock-based features, such as rock shelters and grinding grooves, and potential isolated rock falls. The potential cultural areas have been significantly reduced by the implementation of SCZ's to achieve the various Project subsidence performance measures.

Open artefact sites are not particularly susceptible to subsidence impacts. Any effects to open artefacts sites due to subsidence are likely to be short-term, minimal and confined to the

sediments within the site context rather than directly on the actual artefacts. Potential impacts to these sites are limited to surface disturbance associated with access tracks and environmental monitoring.

Subsidence impacts on rock-based sites have been defined in terms of cracking potential for grinding groove sites and cracking potential and toppling damage for rock shelters. Many of the most significant cultural areas (i.e. the Men's Area, Grinding Groove Area, Sugarloaf Pathways and Keepa Keepa Pathways Areas) are located within the proposed SCZ's and potential subsidence impacts would be minimised in these areas.

Non-Aboriginal Heritage

A Non-Aboriginal Heritage Assessment for the Project was conducted by consultants Maxim Archaeology & Heritage.

Maxim Archaeology & Heritage considered the archaeological and historical records of the Project Area and the physical context of the Project area and determined that there is no evidence to suggest that the Project area possesses any elements of non-Aboriginal historical cultural heritage.

Road Transport

A Road Transport Assessment for the Project was conducted by consultants Halcrow.

The Project site is located to the north-west of the Sydney-Newcastle (F3) Freeway which links Sydney and Newcastle and forms part of the Pacific Highway.

The Hunter Expressway is also located to the north-east of the Project. When completed in late 2013 the Hunter Expressway will materially alter the local traffic conditions in the vicinity of the Project by providing an alternative connection between the F3 Freeway near Seahampton and New England Highway at Branxton, including an interchange with John Renshaw Drive at Buchannan.

Total road haulage (including ROM coal transport and waste rock from the new tip top construction) for the Project would be maintained at existing approved volumes up to 4 000

tonnes per day prior to commissioning of the Hunter Expressway. Following commissioning of the Hunter Expressway, the Project would involve ROM coal transport of up to 6 200 tonnes per day along George Booth Drive and John Renshaw Drive.

Movement of ROM coal would be restricted to 5am to 10 pm Monday to Friday and 7am to 6pm Saturday.

Irrespective of the Project, changes to local traffic conditions are expected on both George Booth Drive and John Renshaw Drive over the life of the Project. These changes would be the result of growth in baseline traffic, changes to the physical traffic network and other cumulative traffic sources.

The opening of the Hunter Expressway is expected to result in a decrease in traffic of around 5% on John Renshaw Drive and a decrease of over 90% on George Booth Drive.

The Road Transport Assessment concluded that the Project's contribution to overall traffic conditions on George Booth Drive and John Renshaw Drive would be such that no significant impacts on the performance, capacity, efficiency and safety of the road network are expected to arise as a direct result of the Project. Notwithstanding Donaldson Coal would implement a range of road transport management and mitigation measures which include:

- Upgrading the existing Daracon Buttai Quarry access road intersection with George Booth Drive to a roundabout that incorporates the new pit top facility access road;
- A second wheel wash facility would be established at the new pit top facility during construction for use by all waste rock and coal haulage trucks prior to departure;
- Upgrading of works at a number of private driveways located on George Booth Drive between Richmond Vale Road and John Renshaw Drive including road shoulder widening and sealing as a component of the approved Tasman Underground Mine road upgrades.
- Donaldson Coal will continue to commission independent traffic audits at intervals in accordance with the requirements of the DP & I and in consultation with the RMS and Cessnock City Council; and
- All Project oversized vehicles would have the relevant permits, licences and escorts.

Noise and Vibration

A Noise and Blasting Impact Assessment was undertaken for the Project by consultants SLR Consulting.

Key potential impacts of the Project from noise and vibration include:

- On-site operational and construction noise;
- Off-site road traffic noise;
- Vibration from construction and underground blasting; and
- Vibration from coal haulage trucks.

Based on the result of the operational noise modelling, the Project specific noise criteria were predicted to be met at all receiver locations for Project Years 2 and 7 during the day, evening and night under all meteorological conditions. In addition, no exceedance of the Project specific noise criteria was predicted on greater than 25% of any privately-owned vacant land.

Potential noise impacts associated with all construction activities were predicted to be below the Interim Construction Noise Guideline construction noise goals and Project specific criteria at all receivers at all times.

No exceedance of the road traffic noise assessment criteria of 60 dBA $L_{Aeq(15 \text{ hour})}$ and 55 dBA $L_{Aeq(9 \text{ hour})}$ for the day and night, respectively was predicted at the closest receivers along George Booth Drive or John Renshaw Drive for Project only road traffic.

The maximum instantaneous charge of any blasts required during excavation of the box cut at the new pit top facility would be designed to achieve the relevant vibration damage criteria for all surface infrastructure and residences.

Igneous rock dykes have been identified to intersect some underground mining areas, and these dykes may require blasting to allow underground mining to continue.

For all surface infrastructures, except residences, underground blasting was not predicted to exceed the relevant vibration damage and annoyance risk criteria for any location within the Project underground mining area. Underground blasting for the Project would not occur within

the minimum offset distance (144m) for residences identified by SLR Consulting or the blast size would be lowered such that vibration levels would comply with the relevant damage criteria.

Truck hauling coal from the Project to the Bloomfield CHPP was not expected to exceed the damage or annoyance vibration criteria at any receiver located along the coal haulage route.

Air Quality

An Air Quality and Greenhouse Gas Assessment for the Project were undertaken by consultants PAEHolmes.

Potential air quality impacts resulting from the Project were only predicted to be well below the relevant air quality criteria at all privately owned residences. In addition no exceedance of the relevant air quality criteria was predicted on greater than 25% of privately-owned vacant land.

No exceedances of the relevant annual average criteria were predicted when accounting for background concentrations. The maximum predicted increment in 24-hour PM₁₀ and PM_{2.5} concentrations from the Project at any residential receptor were predicted to be well below relevant criteria. As such any potential exceedance of the relevant criteria would be largely due to non-mine sources.

Emissions associated with the handling of ROM coal, ROM coal haulage on unsealed roads at the pit top facilities and wind erosion from the active ROM coal stockpile would continue to be managed and mitigated through the use of water carts at both the existing and the new pit top facilities.

The existing monitoring network would be reviewed and augmented for the Project. This would include additional dust deposition gauges at strategic locations.

The potential for reducing greenhouse gas emissions from the Project is related predominantly to consumption of diesel by plant and equipment. Minimising diesel and electricity consumption is an integral part of mine and financial planning at the Tasman Underground Mine, and this would continue for the Project.

Visual Amenity

The visual character of the local area would not be significantly altered by the Project, as the Project involves underground mining with minimal surface disturbance.

Elements of the Project considered to have the potential to impact the visual landscape include:

- The continuation and eventual decommissioning of the existing Tasman Underground Mine pit top facility;
- Development of the new pit top facility and upcast ventilation shaft;
- Night-lighting;
- Exploration works and other short-term surface activities;
- Subsidence related impacts on watercourses; and
- Subsidence related impacts on cliffs, other rock features and steep slopes.

Minimal changes to the existing pit top facility would occur prior to placement in care and maintenance or decommissioning.

Given the low visibility of the existing pit top facility, there would be minimal improvement in the visual modification following decommissioning of the existing pit top facility.

The presence of extensive mature native vegetation and undulating topography would limit the potential impacts of the new pit top facility and the upcast ventilation shaft.

Potentially sensitive visual settings in the vicinity of the new pit top facility and upcast ventilation shaft include George Booth Drive, the Daracon Buttai Quarry access road, the Orica Richmond Vale facilities and access roads and tracks within the Sugarloaf State Conservation area.

Overall the visual modification to users along George Booth Drive would be low with a low potential visual impact. This would be reduced by the development of a visual bund adjacent to the George Booth Drive road easement.

The visual impact from the Project on areas beyond the sub-regional setting are considered to be very low given the reduction in clarity of viewing that occurs with distance and the level of visual modification compared to the overall view.

Night-lighting would continue to be used at the existing pit top facility and would be installed at the new pit top facility and upcast ventilation shaft. Potential impacts of night-lighting are expected to be minimal given the distance to private residences, intervening topography and vegetation.

Disturbance associated with short-term surface activities would be rehabilitated progressively and any visual impacts would therefore be limited in extent and temporary in nature.

Project Justification

The potential for adverse environmental impact as a result of the Tasman Underground Extension Project has been kept to a minimum through:

- Obtaining a detailed understanding of the issues and potential impacts via risk assessment, consultation and, where necessary, specialist assessment.
- The existing proactive strategies employed by Donaldson to avoid, minimise, mitigate, offset or manage potential impacts.
- A commitment to review and update the environmental management plans and monitoring program already implemented at Tasman Underground Mine; and
- A thorough Statement of Commitments listing the actions that Donaldson will implement, in addition to that already in place, for environmental monitoring, mitigation and management of the proposed mine modification.

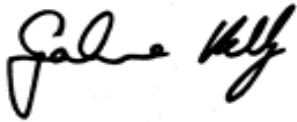
Based on the assessment of environmental and socio-economic considerations, the Tasman Underground Extension Project is anticipated to have limited environmental consequences beyond those already assessed and approved.

In Summation

Review of the EA for the Tasman Underground Extension Project details limited environmental impacts are predicted. It is also not anticipated to have any adverse impacts upon the social and/or economic fabric of the local area. The Project does not pose any notable social impacts

over and above those previously assessed and approved. Potential social issues primarily relate to subsidence, which has been appropriately addressed within this EA through Subsidence Control Zones, with no significant or limiting impacts identified.

The Union therefore on balance supports the proponent's application for the Tasman Underground Mine Extension Project.

A handwritten signature in black ink, appearing to read 'Grahame Kelly', written in a cursive style.

Grahame Kelly

DISTRICT SECRETARY