



19 December 2018

Independent Planning Commission Statement of Reasons Sunrise Mine Project (DA 347-11-00 MOD 4)

1. INTRODUCTION

1. On 25 September 2018, the Independent Planning Commission NSW (the **Commission**) received from the NSW Department of Planning and Environment (the **Department**) a modification application (the **application**) from Clean TeQ Sunrise Pty Ltd (the **proponent**), to amend an existing development consent under section 75W of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).
2. The ability to modify transitional Part 3A projects under section 75W of the EP&A Act is being discontinued, however as the request for this application was made before 1 March 2018, the provisions of Schedule 2 continue to apply.
3. The Commission has been delegated the Minister's function to determine the application in accordance with the Minister's delegation of September 2011, because the Department received more than 25 submissions from the public objecting to the application and Forbes Shire Council objected to the application.
4. Professor Mary O'Kane, Chair of the Commission, nominated Ross Carter (as Panel Chair), Professor Alice Clark, and Dr Ian Lavering to constitute the Commission to determine the application.

1.1 Site and locality

5. According to the Department's Assessment Report dated 24 September 2018 (**Department's AR**), the Sunrise Project mine (formerly known as the Syerston Project) is an approved nickel cobalt scandium mine (the **mine**) located approximately 4.5 kilometres (**km**) north-west of Fifield and 45 km north-east of Condobolin in the Central West Region of NSW.
6. The development is located within a rural landscape, where the dominant land use is agriculture, principally grazing and cropping. The village of Fifield is located approximately 4.5 km to south east of the mine site.
7. The Sunrise mine (the **Project**), includes the processing facility and gas pipeline, which are located in the Lachlan local government area (**LGA**), the limestone quarry and rail siding, located in the Parkes LGA, the borefield located in the Forbes LGA and the water pipeline traverses the Lachlan and Forbes LGAs. The communities most affected by the Project are the residents surrounding the mine and quarry sites, the landowners around the borefield and the residents of Fifield and Trundle.
8. The Department's AR stated that mineral exploration and mining have been conducted in the area since the 1860s, with gold, platinum, tin and magnesite mining and more

recently, exploration focus has shifted to concentrate on enriched elements, including nickel, cobalt and scandium in near-surface weathered strata.

1.2 Modification Application

Background

9. The Department's AR stated that the Project was originally approved by the Minister for Urban Affairs and Planning on 23 May 2001 and has been modified five times. The consent was physically commenced in 2006 with partial development of the borefield, but further development of the Project was suspended due to unfavourable economic conditions existing at the time. Construction of the mine and other components of the Project have not yet commenced.
10. In its presentation to the Commission on 11 October 2018, the proponent provided the following Project overview summary:
 - *“1980s and 90s - various owner explored, drilled and studies the Project area, primarily focused on platinum, nickel and cobalt*
 - *1999 - Black Range Minerals acquired the Project, completed a Feasibility Study and submitted an EIS*
 - *2001 - Development Consent issued for the Project*
 - *2004 - Ivanplats acquired the Project from Black Range Minerals*
 - *2005 - Ivanplats completed an updated Feasibility Study*
 - *2006 - Project commenced under current Development Consent*
 - *2015 - Clean TeQ acquired the Project after identifying strong potential value-add of the Clean iX® technology to the Project*
 - *2016 - Clean TeQ completed Pre-Feasibility Study (PFS) and approval (MOD 3) for Scandium*
 - *2017 - Project optimisation, defining design criteria and conducting extensive test work*
 - *2018 - Mining Lease Granted*
 - *2018 - Clean TeQ completed Definitive Feasibility Study”.*
11. The Department's AR stated that the demand for nickel and cobalt (particularly for use in lithium-ion batteries), and scandium (used in aluminum alloys and specialist products such as vapour lamps) has grown significantly, with growth expected to continue. Since the acquisition, the proponent has undertaken a full feasibility study of the Project and publicly confirmed its economic viability which has led to four modification applications over the past two years.

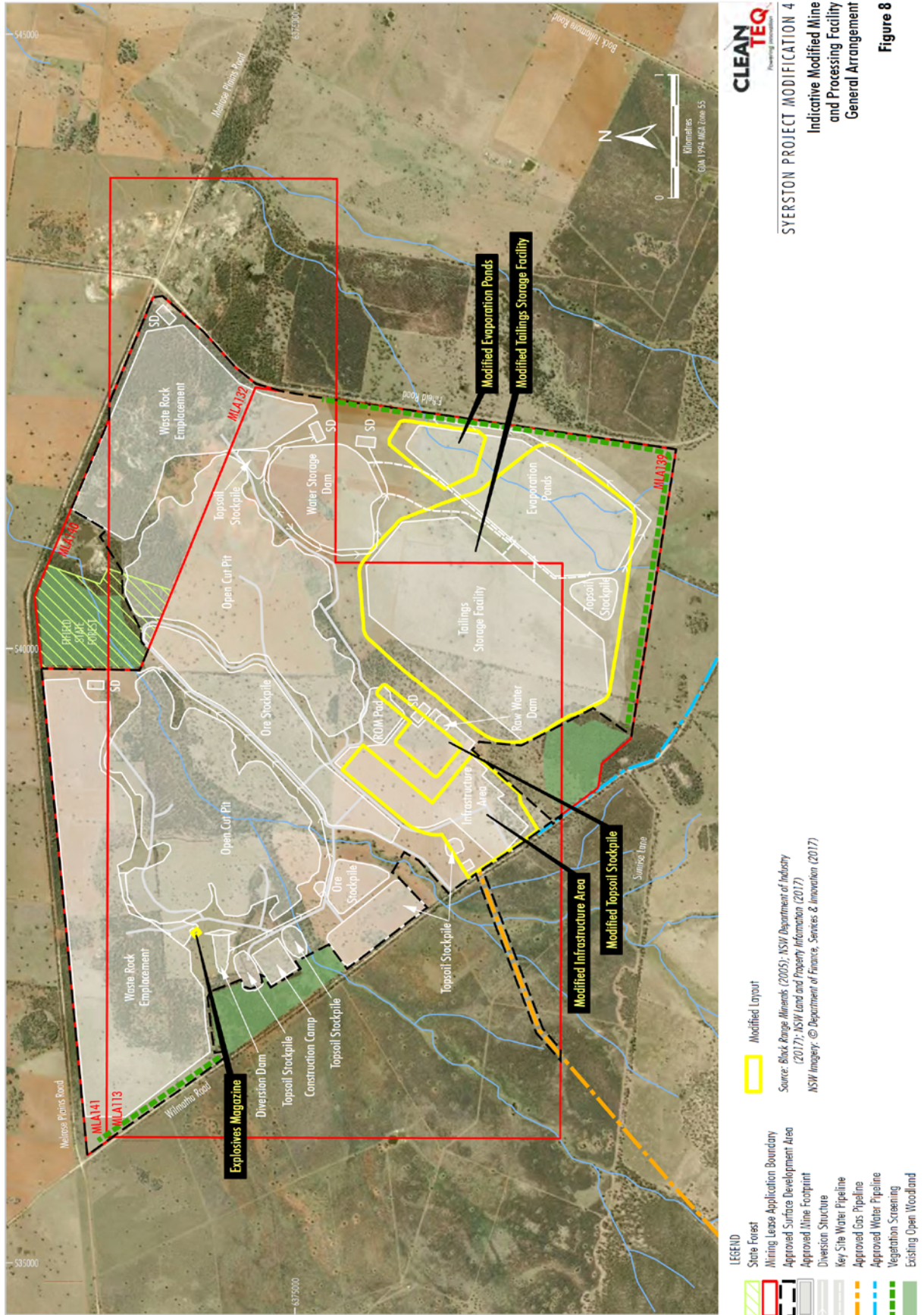
Summary of Modification Application

12. According to the Department's AR, the application proposes changes to the mineral processing facility and mine layout, an additional supply of limestone from third-party suppliers for the processing facility, and a diversification of the mine's water supply to include surface water from the Lachlan River. The purpose of the application is to facilitate mining in a more selective manner to target higher-grade ore in the early part of the Full Production Phase of the Project.

13. The application before the Commission for determination, includes:
- replacement of the counter-current decantation processing method with a resin-in-pulp (**RIP**) processing method;
 - increase limestone processing from 790,000 tonnes per annum (**tpa**) to 990,000 tpa, with up to 560,000 tpa of limestone to be sourced from third party suppliers;
 - increase sulphur and sulphuric acid production from 700,000 tpa to 1,050,000 tpa;
 - production of ammonium sulphate up to 100,000 tpa;
 - increase size of the tailings storage facility (**TSF**) and subsequently decrease the size of evaporation ponds;
 - addition of a crystalliser to the processing facility and a water treatment plant;
 - construction of surface water extraction infrastructure.
 - drilling and blasting at the mine site and not just the limestone quarry;
 - changes to approved transport routes, sources, frequencies and methods;
 - changes to layouts and mine infrastructure inside the approved surface development area to improve operational efficiency; and
 - road upgrades in accordance with the conditions of consent and the Voluntary Planning Agreements (**VPAs**) with Lachlan, Parkes and Forbes Shire Councils.

Figure 1 shows the general layout of the site and the total disturbance footprint.

Figure 1: Mine and Processing Facility – General Layout



14. The proposal does not involve any increase in the mining or processing rate, however the higher-grade ore feed would require an increase in sulphuric acid use for processing. The additional sulphuric acid would require a corresponding increase in limestone for acid neutralisation. This in turn would produce a greater volume of tailings, which would necessitate a larger tailings storage facility. The application does not seek to change scandium oxide production or the limestone quarry and would not amend the Initial Production Phase, with the exception of alteration to water supply.

Need for the Modification Application

15. The proponent stated in its Environmental Assessment (EA), that:
“The Modification involves the implementation of opportunities to improve the overall efficiency of the approved Project that were identified in a Project Optimisation Study undertaken by Clean TeQ.

This EA has demonstrated that the Modification can be implemented with limited additional biophysical and environmental impacts above those already approved at the Project, with the implementation of the mitigation measures described in Section 4.

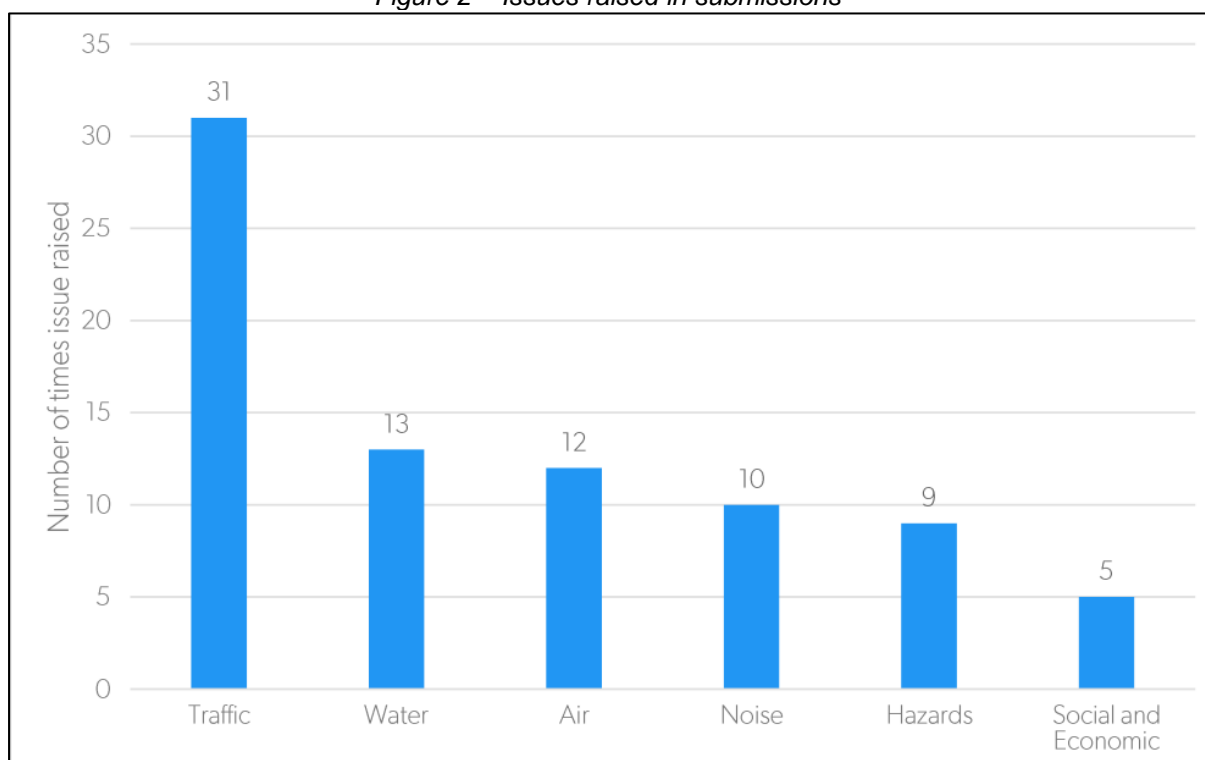
The modified Project would have substantial economic and social benefits in the region. The modified Project would stimulate demand in the local and regional economy leading to increased turnover in a range of sectors and increased employment opportunities.”

2. THE DEPARTMENT’S CONSIDERATION OF THE MODIFICATION APPLICATION

2.1 Key steps in Department’s consideration of the Modification Application

16. The Department received the application on 10 November 2017, which was accompanied by the proponent’s EA and specialist reports.
17. The Department publicly exhibited the EA from 28 November 2017 to 13 December 2017. The Department received a total of 54 submissions in response to the exhibition period, including 39 submissions in the form of objections and 10 submissions from public authorities. The objections included a number from the general public and special interest groups as well as one of the public authorities, Forbes Shire Council. Council’s objection was on the grounds that *“the proposed extraction of surface water from the Lachlan River would adversely impact water supply to agricultural land users within the Forbes LGA.”*
18. A breakdown of the matters raised, and the number of submissions attributed to these matters is provided in *Figure 2*.

Figure 2 – Issues raised in submissions



Source: Department of Planning and Environment

19. In response to submissions received during the public exhibition, the proponent provided a Response to Submissions (**RtS**), dated 16 February 2018; seeking to address issues and concerns raised during the exhibition period. The report was made publicly available on the Department's website and was provided to key government agencies for comment.
20. The Department received further submissions from public agencies seeking for the proponent to provide additional information on matters raised. On 23 March 2018 and 14 May 2018, the Department formally requested the proponent to provide information to address agency comments.
21. On 17 and 24 May 2018, the Department received the proponent's response seeking to address agency comments.

2.2 The Department's Assessment Report

22. The Department's AR, dated September 2018, identified key issues associated with this proposal to be impacts on:
 - traffic;
 - air quality;
 - water;
 - noise and blasting; and
 - environmental management.
23. In terms of the key issues, the Department's AR stated: "*the key issues are associated with the increase number of heavy vehicles, particularly through Trundle, the extraction of water from the Lachlan River, and noise and air quality at residences surrounding the*

mine.”

“The Department considers that all other impacts associated with the proposal are unlikely to be significant, and can be effectively managed through the existing and proposed condition of approval. These conditions include Clean TeQ to monitor both noise and air emission, including continuous monitoring of in stack emission and real time monitoring of emission at ground level.”

24. The Department recommended that the application should be approved for the following reasons:
- *“traffic level would still be well below the capacity of these roads, and the roads and key intersection would be able to operate at a good Level of Service.”*
 - *“traffic is unlikely to result in significant safety, hazard, amenity or socio-economic impacts in the town, and a bypass around the town is not warranted.”*
 - *“proposed extraction of water from the Lachlan River is relatively minor and would allow Clean TeQ to diversify its water sources.*
 - *noise increase “by up 2dB(A)...are generally not discernible and the Department considers that there would be no significant additional impacts at any of these residences;” and*
 - *“total SO₂ emissions from the processing facility would decrease. The levels of SO₂, all other gaseous pollutants, and dust would be well below the applicable health and amenity criteria at all off-site receivers, and the Department considers that there would be no significant air quality impacts from the modification.*
25. Overall, the Department’s AR concluded that *“Department considers that the proposed modification represents a reasonable amendment to the approved project...Given these findings, the Department considers that the proposed modification is approvable, subject to the recommended amendments to the conditions of consent”*

3. THE COMMISSION’S MEETINGS AND SITE INSPECTION

26. As part of its determination, the Commission met with the Department, the proponent and Lachlan, Forbes and Parkes Shire Council’s in a combined meeting. The Commission also inspected the site and conducted a public meeting. Transcripts from these meetings were made publicly available on the Commission’s website on 19 October 2018.

3.1. Meeting with the Department

27. On 11 October 2018, the Commission met with the Department to discuss the Department’s AR, the Project background, the application and nature of submissions.

3.2. Meeting with the Proponent

28. On 11 October 2018, the Commission met with the proponent. Plans provided to the Commission at the meeting were made available on the Commission’s website on 15 October 2018 and a copy of the proponent’s presentation from the day was made available on the Commission’s website on 25 October 2018.

3.3. Meeting with Lachlan, Forbes and Parkes Shire Councils

29. On 16 October 2018, the Commission met with Lachlan, Forbes and Parkes Shire Councils in a combined council meeting to discuss the views of the Councils in relation to the application and draft conditions of consent.

3.4. Public Meeting

30. On 16 October 2018, the Commission held a public meeting at the Parkes Leagues Club, 192 Clarinda Street Parkes NSW 2870. The Commission received requests to speak from 41 people, with 35 of the 41 registered speakers electing to speak at the meeting. A list of speakers and the transcript from the public meeting were made available on the Commission's website on 19 October 2018. Written comments from speakers who presented at the public meeting are available on the Commission's website.
31. Many of the speakers at the public meeting expressed in-principle support for the application and the Project more broadly. However, some speakers raised concern with potential environmental impacts and the proposed management of potential impacts. A summary of the comments is provided below:
- draft conditions of consent and contemporised conditions of consent;
 - potential air quality emissions and noise limit exceedances and the removal of acquisition provisions from the original consent in a previous modification consent;
 - potential adverse surface water impacts as a result of the Project;
 - potential for groundwater seepage as a result of the enlarged TSF;
 - potential adverse impacts on amenity and safety as a result of heavy vehicles;
 - the burden of proof to demonstrate environmental compliance should be placed on the miner and not the community;
 - support for the economic benefits of the Project, including employment opportunities; and
 - positive impact of diversifying industry in the region.
32. The Commission notes that a number of comments made at the public meeting and in written comments received by the Commission raised concerns with broader elements of the Project that are outside the scope of the application and issues relating to these elements, including:
- groundwater impacts on surrounding areas;
 - extraction of water from the borefield and potential impacts on surrounding privately owned bores;
 - landowner consent has not yet been agreed for the limestone quarry; and
 - the 20-year age of the original Environmental Impact Statement (**EIS**) and approval and given the time lapse, a fresh application should be made.
33. Notwithstanding the issues set out in paragraphs 31 and 32, the Commission notes that the majority of speakers at the public meeting and those that provided written comments to the Commission acknowledged the importance of the Project for the region and its role in providing diversification of industry and broad social and economic benefits, contingent on appropriate environmental management and safeguards.

3.5. Site inspection

34. On 17 October 2018, the Commission met the proponent and its consultants and inspected the site. The Commission invited seven local community representatives to attend and observe the site visit. The groups and representatives that attended the site visit were:
- Laurie Hutchison, Wiradjuri Condobolin Corporation;
 - Peter Kelly, Trundle Progress Association;
 - John Lagerlow, Trundle Progress Association;
 - Nana Peters, community representative;
 - Helen Quade, community representative;
 - Narelle Sunderland, community representative;
 - Des Ward, community representative.
35. The site visit commenced in Trundle, heading north-west through Fifield, passing the existing rail siding, to the site of the mine and processing facility. The site visit continued southwest to Henry Parkes Way, then headed east through Derriwong and Yarrabandai, and south to the Lachlan River and the site of the surface water extraction point. The proponent pointed out the location of the key aspects to the Project and key physical attributes of the site and locality. The community representatives and the proponent both identified the mine site, sensitive receivers and where relevant, the location of private properties belonging to the community representatives attending the site visit.

3.6. Public Comments

36. The Commission provided the public with seven days after the public meeting to submit written comments. The Commission received a total of 84 written comments, which were made available on the Commission's website on 25 October 2018.

4. ADDITIONAL INFORMATION

37. On 23 October 2018, the Commission received a letter from the proponent responding to the comments made by speakers at the public meeting. The letter was made available on the Commission's website on 25 October 2018.
38. On 26 October 2018, the Commission received a letter from the proponent responding to written comments received from Lachlan Shire Council in relation to requested amendments to the draft conditions of consent. The letter was made available on the Commission's website on 29 October 2018.
39. On 31 October 2018, the Commission received a further letter from the proponent responding to written comments received by the Commission following the public meeting. The letter was made available on the Commission's website on 1 November 2018.
40. On 31 October 2018, the Commission wrote to the Department seeking clarification regarding the Department's assessment of noise and blasting, details regarding negotiated agreements with landowners and the Department's view on amendments requested by Lachlan Shire Council to the draft conditions of consent. The letter was made available on the Commission's website on 1 November 2018. The Department provided a response on 2 November 2018, which is discussed in paragraph 65.

41. On 31 October 2018, the Commission wrote to the proponent seeking clarification regarding any negotiated agreements with landowners to date, including attempts at negotiated agreements or the purchase of properties. This issue is discussed further in section 5.2.1. The letter was made available on the Commission's website on 1 November 2018. The proponent provided a response on 7 November 2018, which is discussed in paragraph 66.

5. THE COMMISSION'S CONSIDERATION

5.1 Material considered by the Commission

42. In determining this section 75W application, the Commission has carefully considered the following material (the **Material**), including:
- the application;
 - the EA and its appendices prepared by Clean TeQ Pty Ltd, dated 10 November 2017, including environmental reviews of:
 - Air Quality and Greenhouse Gas Assessment;
 - Noise and Blasting Assessment;
 - Preliminary Hazards Analysis;
 - Water Management Assessment;
 - Road Transport Assessment;
 - Aboriginal Cultural Heritage Assessment;
 - Surface Water Extraction Baseline Flora and Fauna Habitat Report; and
 - Alternative Water Pipeline Alignment Baseline Flora Report;
 - all submissions made to the Department in respect of the proposed modification during the public exhibition of the EA;
 - the RtS on the EA and appendices; dated 16 February 2018;
 - the comments to the RtS from:
 - NSW Roads and Maritime Services (**RMS**) advice, dated 7 March 2018;
 - NSW Environment Protection Authority (**EPA**) advice, dated 15 March 2018;
 - NSW Rural Fire Service (**RFS**) advice, dated 15 March 2018; and
 - NSW Crown Lands and Water (**CL&W**) advice, dated 13 June 2018;
 - the Department's additional information request, dated 23 March and 14 May 2018;
 - the Proponent's responses, dated 17 May and 24 May 2018, to the Department's additional information request;
 - the Department's AR, dated 24 September 2018;
 - *Voluntary Land Acquisition and Mitigation Policy (VLAMP)*, September 2018;
 - the visual observations made at the site and locality inspection on 17 October 2018;
 - information provided to the Commission at its meeting with the proponent on 11 October 2018;
 - oral comments from speakers at the public meeting on 16 October 2018 and written comments received after the public meeting up to 26 October 2018;
 - oral and written comments from Parkes, Forbes and Lachlan Shire Councils in the meeting of 16 October 2018;
 - responses received from the Department on 12 October and 2 November 2018;
 - responses received from the proponent on 23 October, 26 October, 31 October, 7 November and 18 December 2018;
 - the public interest; and
 - matters for consideration specified by the EP&A Act, including section 75W.

43. The Commission notes that the public raised concerns that the application should be a new development application and not a modification application. The Commission has reviewed the Department's consideration of the suitability of section 75W and the application in section 3.1 of the Department's AR. The Commission is satisfied that the application is within the scope of section 75W because the application would not change the key element of the Project (including mining methods or production rate) and would not significantly increase the environmental impacts of the approved Project.

5.2 Likely impacts of the development on both natural and built environments

5.2.1 Noise and blasting

Comments received

44. The Commission heard concerns from speakers at the public meeting and received written comments regarding potential noise and blasting impacts as a result of the Project, including:
- potential exceedances of noise and blasting criteria as a result of the application;
 - the use of data obtained from the Condobolin meteorological station to inform the noise modelling is inappropriate as it is 45 km from the site and local knowledge indicates that there can be substantial variation in weather conditions between the site and the Condobolin meteorological station;
 - the removal of acquisition provisions from the consent following approval of a previous modification is not supported. Comments noted that the acquisition conditions afforded a level of protection for potentially effected residences should exceedances occur; and
 - requests made that the Commission reinstate the acquisition provisions, as part of the determination of the application to provide protection to the local community should exceedances occur.

Proponent's consideration

45. A Noise and Blasting Assessment (**NBA**), prepared by Renzo Tonin & Associates, dated October 2017. The NBA focused on the mine and processing facility but did not consider other Project components given that the application would not change approved noise impacts. The NBA noted that the provisions of the *Voluntary Land Acquisition and Mitigation Policy (VLAMP)* were also considered.
46. With regards to operational noise impacts, the NBA identified noise measurement locations and included long-term noise monitoring and short-term monitoring. The NBA stated that for a conservative assessment of noise impacts *"the minimum background noise levels nominated in the INP of 30 dB(A) for day, evening and night periods"* were adopted.
47. The NBA stated: *"An analysis of noise enhancement from adverse meteorological conditions has been conducted in accordance with the INP based upon meteorological data collected at the nearby Condobolin meteorological station. Wind enhancement was not found to be a feature of the area but temperature inversions were included in the operational noise modelling. Noise modelling for the operational phase was undertaken under a varied set of adverse meteorological conditions"*.

48. The NBA stated that based on the background and ambient noise monitoring carried out at the nearest affected receiver locations, the Project Specific Noise Levels (**PSNLs**) are outlined in *Table 1*.

Table 1: Project Specific Noise Levels

Receiver	Land Use	Intrusive LA _{eq} (15 minute) 1			Amenity LA _{eq} (period) 1 (Recommended Acceptable)			Amenity LA _{eq} (period) 1 (Recommended Maximum)		
		Day	Night	Evening	Day	Night	Evening	Day	Night	Evening
All residential receivers	Rural residential	35	35	35	50	45	40	55	50	45
Church hall		N/A			External 50 dBA when in use			External 55 dBA when in use		

1 Daytime 7.00 am to 6.00 pm; Evening 6.00 pm to 10.00 pm; Night-time 10.00 pm to 7.00 am.

Source: Proponent's EA

49. The NBA stated that *"The preliminary noise modelling indicated that in the absence of additional noise mitigation measures, intrusive noise levels at privately-owned dwellings could, with adverse meteorological conditions (i.e. Category F temperature inversion conditions at night), range up to 7 dB(A) above the PSNLs"*.
50. The NBA stated that potential noise mitigation measures were evaluated that would achieve a reduction in Project noise levels of up to 7 dB(A) and the feasibility of implementing such measures under the application were considered by the proponent: *"measures included significant operational shutdowns and attenuation of a number of major mobile equipment"*. The NBA further stated: *"To provide a noise reduction of up to 5 dB(A), significant modifications to mining operations at night during Category F temperature inversions would be required, such as ceasing overburden emplacement operations on the north-eastern waste emplacement as well as other constraints to mining operations"*.
51. The NBA stated that given the costs associated with modifying mining operations, the proponent will *"seek to enter into negotiated agreements with the owners of four properties with predicted moderate and significant exceedances in accordance with the NSW Government's (2014) Voluntary Land Acquisition and Mitigation Policy – SSD Mining. Clean TeQ may also seek to purchase these properties"*. The NBA further noted that if negotiated agreements, or purchase agreements with the owners of the four properties are not reached, the proponent would *"significantly modify mining operations at night during Category F temperature inversions as required to reduce noise levels by up to 5 dB(A)"*.
52. The NBA stated that *"Following the implementation of feasible and reasonable mitigation measures, eight (8) privately owned receivers are predicted to experience negligible (i.e. 1 to 2 dB[A]) exceedances of the PSNL"*. The NBA further stated that in accordance with VLAMP, *"such exceedances would not be discernible by the average listener and would not warrant receiver based treatments or controls"*.
53. Following the public meeting held on 16 October 2018, the proponent submitted written comments in response to issues raised by speakers at the public meeting regarding potential noise and blasting impacts and the removal of the acquisition provisions from the draft conditions of consent. The proponent noted that the EPA raised no concerns

with the NBA in its submission to the Department regarding the application. The proponent further stated that the “*recommended Development Consent conditions are consistent with the Voluntary Land Acquisition and Mitigation Policy (NSW Government, 2018)*”.

Department’s consideration

54. The Department’s AR stated that “*the assessment modelled one construction and three operational scenarios representing worst case operations. Preliminary modelling indicated that, in the absence of any mitigation, noise levels at privately owned residences could exceed the PSNL criteria by up to dB(A) under adverse meteorological conditions (i.e. Category F temperature inversion conditions) at night*”. The Department’s 2 November 2018 letter to the Commission provided the following clarification in relation to the PSNL exceedance: “*The noise modelling indicates that in the absence of noise mitigation, intrusive noise levels at privately-owned residences could exceed the project-specific noise levels (PSNLs) by up to 7 dB(A) under adverse meteorological conditions*”.
55. The Department’s AR stated that the “*noise emissions from the project would comply with the applicable noise criteria at most privately-owned receivers. However, noise levels at 8 residences on 7 properties around the mine site are still predicted to be up to 2 dB(A) higher than the PSNL, and up to 2 dB(A) higher than the approved noise limits*”.
56. The Department’s AR further noted that the application would “*comply at all sensitive receivers with the amenity criteria of 40 dB(A) and with the sleep disturbance criteria of 45 dB(A) set out in the Industrial Noise Policy*”. In addition, the Department’s AR stated: “*The predicted changes to the noise levels are largely a consequence of improved noise modelling techniques rather than any changes in work practices that would increase noise generation on the sites*”.
57. The Department’s AR considered the application against the VLAMP, noting that the VLAMP and the *Noise Policy for Industry (2017)* “*characterise increases of 0-2 dB(A) as negligible and generally not discernible to the average listener*”.
58. The Department’s AR further stated that given the predicted noise increase is not likely to be discernible to the average listener, the application is unlikely to result in significant noise impacts at residences. Based on this, the Department recommended that “*the noise criteria be revised to reflect the predicted noise. The Department has also recommended that the contemporary sleep disturbance noise limits be set in the conditions, and that Clean TeQ be required to implement the proposed noise mitigation measures*”.
59. In relation to the removal of acquisition provisions from the conditions of consent as part of the modification 3, the Department’s AR stated: “*apart from very minor exceedances of the noise limits at a relatively small number of receivers, the development as modified is predicted to comply with applicable noise, blasting and air quality criteria....in accordance with the Voluntary Land Acquisition and Mitigation Policy (VLAMP), contemporary approvals for mining projects only include land acquisition provisions where a project is predicted to exceed the applicable acquisition criteria....the Department has not found any additional impacts from the proposed modification that would warrant the inclusion of acquisition criteria*”.

60. The Department's AR concludes: *"the environmental criteria and performance measures in the development consent are strict limits. In the event of any exceedance of these limits, the mine would be required to adjust its operations to comply. Any exceedance of the limits would constitute a potential breach of the consent and would be subject to investigation and potential enforcement measures"*.
61. Following the meeting with the Department held on 11 October 2018, the Department provided clarification regarding the noise assessment in the Department's AR, in a response provided to the Commission on 12 October 2018. The response stated: *"Page 25 of the report [the Department's AR] incorrectly identifies changes to noise impacts at the "Moorlands residence. These changes have also been included in the recommended amendment to the conditions"*.
- The Department notes that *"there are no predicted changes to the noise limits at any properties around the limestone quarry"*.
62. The Department noted that *"The correct noise criteria for the limestone quarry with the introduction of sleep disturbance limits"* has been included in the conditions of consent.
63. Overall, the Department's AR concluded that it is *"satisfied that the existing conditions already require Clean TeQ to effectively monitor, manage and report on noise emissions as part of a detailed noise management plan, and that in the event of any exceedance, Clean TeQ would be required to adjust operations to comply"*.

Commission's consideration

64. The Commission heard from speakers at the public meeting and received written comments in relation to the removal of acquisition conditions following approval of a previous modification. The comments further noted that the community had not been consulted regarding removal of the acquisition conditions. The Commission notes that the original approval (see paragraph 9) included conditions of consent that afforded acquisition rights to neighbouring properties should exceedances occur. The Department confirmed in an email to the Commission on 26 October 2018, that the acquisition provision was removed from the consent in the determination of Modification 3, as no exceedances of the relevant criteria were predicted for the Project.
65. As set out in paragraphs 40 and 41, on 31 October 2018, the Commission wrote to the Department and the proponent seeking further information in relation to negotiated agreements with landowners to date. The Department's letter, dated 2 November 2018 provided the following response: *"Moderate or significant noise exceedances are only predicted under adverse meteorological conditions, and only in the absence of noise mitigation..."*

...noise levels can be reduced by up to 5 dB(A) by modifying mining operations during these meteorological conditions...

With the proposed operational controls, noise is predicted to be 1 to 2 dB(A) above PSNLs (instead of 7 dB(A) above PSNLs). These are the noise levels reflected in the recommended conditions. If approved, Clean TeQ would be required to comply with these noise limits at all residents, unless they have an agreement in place to generate higher noise levels...

The Department notes that any such agreement would be a commercial matter between the neighbour and the company, and not a requirement under the Voluntary Land Acquisition and Mitigation Policy (VLAMP). The VLAMP requires the consent authority to apply mitigation or voluntary land acquisition rights where noise levels, with the adoption of all reasonable and feasible avoidance and/or mitigation measures, are predicted to be ≥ 3 dB(A) above the PSNLs and ≥ 5 dB(A) above the PSNLs respectively”.

66. The proponent’s 7 November 2018 letter to the Commission (see paragraph 41), stated: *“CleanTeQ has commenced negotiations with the four landholders referred to in the IPC’s letter... One of the four properties (Wanda Bye) has been acquired by Clean TeQ. No compensation agreements with the remaining three landholders have been obtained”.* The proponent further stated: *“...consistent with the Modification 4 Environmental Assessment, Clean TeQ will modify its mining operations at night during Category F temperature inversions to reduce noise levels. This noise control commitment prevails, unless compensation agreements are obtained, or the properties are acquired”.*
67. The Department provided further information to the Commission on 20 November 2018, which included feedback from the Department’s noise specialist, which stated: *“the data used to underpin the NIA [Noise Impact Assessment] for the project is satisfactory for the establishment of noise objectives for the project. Furthermore, I believe that the predictions represent a reasonable worst case scenario that can be adequately complied with. Notwithstanding this, the Dept has Conditions and a process to ensure satisfactory noise performance of the project”.*
68. The Commission notes that the NSW Government’s *Voluntary Land Acquisition and Mitigation Policy (VLAMP)*, dated September 2018, describes voluntary mitigation and land acquisition actions undertaken to address noise as well as dust (particulate matter) impacts from State significant mining, petroleum and extractive industry developments. The VLAMP states: *“Clause 12A of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 requires that consent authorities consider this policy when assessing and determining development applications and modification applications for mining, petroleum and extractive industry developments subject to the State significant development provisions of the Environmental Planning and Assessment Act 1979”.*
69. The Commission notes that the VLAMP is a relevant consideration to the application and was considered by the proponent in its NBA (see paragraphs 45 and 53) and in the Department’s AR (see paragraphs 57, 58 and 65), however the Department did not apply a condition giving effect to the VLAMP within the draft conditions of consent, for the reasons set out in paragraphs 57, 58 and 65.
70. The Commission acknowledges the position of both the Department and the proponent, as set out in paragraphs 65-67 however, the Commission finds that the reduction of noise by 5 dB(A) is based on significant modifications to mining operations at night, to achieve the 5 dB(A) reduction during adverse meteorological conditions (see paragraph 50) and that in the absence of mitigation, a predicted exceedance of up to 7 dB(A) would be a significant impact.
71. The Commission also heard evidence from the community that the Condobolin Meteorological station, approximately 45 km from the mine site, utilised to inform the noise modelling may not be representative of the actual mine site. While the Commission

understands that the Department and the EPA were satisfied with the use of this meteorological data, the Commission considers that it introduces some uncertainty to the modelled noise impacts, in addition to the assumptions on the veracity of reasonable and feasible avoidance and/or mitigation measures. Should this uncertainty eventuate and result in increased noise levels to those predicted the potential impact may exceed the VLAMP description of negligible and be marginal/moderate or even significant.

72. The Commission acknowledges that the Department intends to pursue strict enforcement of the noise criteria, as set out in paragraphs 59 and 60. However, given the uncertainty (paragraph 71), costliness of further mitigation (paragraphs 50 and 51), and community concern at the removal of acquisition conditions from the original consent under Modification 3 (paragraph 64), the Commission therefore considers that reinstatement of noise acquisition criteria in this instance is warranted.
73. Accordingly, the Commission imposes condition 3A of Schedule 3, which stipulates that if noise generated by the Project causes sustained exceedances of the noise criteria, at any residence on privately-owned land, upon receiving a written request for acquisition from the landowner, the proponent must acquire the land in accordance with the procedures set out in in the conditions 3-4 of schedule 4. The Commission finds that in the absence of a negotiated agreement, reinstatement of noise acquisition is appropriate, should sustained noise exceedances occur, for the reasons set out in paragraphs 71 and 72. The Commission notes that reinstatement of the noise acquisition criteria for the mine is based on updated modelling information related to mine operations. The Commission further notes that noise acquisition criteria have not been reinstated for the limestone quarry, as there is no change to the proposed operations of the limestone quarry under this application.
74. The Commission accepts the conclusions of the Department outlined in paragraphs 54-58. However, the Commission does not accept the Department's position set out in paragraph 59, for the reasons provided in paragraphs 71 and 72.

5.2.2 Air quality

Comments received

75. The Commission heard concerns from speakers at the public meeting and received written comments regarding potential air quality impacts as a result of the Project, including:
 - potential exceedances of air quality criteria and impacts on air quality as a result of the application;
 - air quality modelling data was obtained from a weather station in Condobolin. Weather in Condobolin and weather at the Project site can vary. A weather station should be provided on site;
 - real-time monitoring of air quality emissions (stack monitoring) and publish the monitoring results on the proponent's website; and
 - requests made that the Commission reinstate the acquisition provisions as part of the determination of the application to provide protection to the local community should exceedances occur.

Applicant's consideration

76. An Air Quality and Greenhouse Gas Assessment (**AQGGA**), prepared by Ramboll Environ Pty Ltd, dated 11 November 2017 was submitted with the application. The proponent's EA stated that the assessment focused on the mine and processing facility and did not consider other Project components and considered "gaseous emissions generated by the processing facility;" including sulphur dioxide and sulphuric acid; "and fugitive dust or particulate matter (PM), generated during the open cut mining."
77. The proponent's AQGGA stated: "An on-site meteorological monitoring station was installed for the original Environmental Impact Statement (EIS) (in September 1998), however the site is no longer in use and the historical data are not available for this assessment".
78. In relation to gaseous pollutants, the proponent's EA stated: "No exceedances of the criteria for gaseous pollutants described in the Approved Methods were predicted at any receivers, or beyond the site boundary, in Years 1, 6, 11 and 21. For all gaseous pollutants, the predicted concentrations were well below the relevant criteria (i.e. less than 50% of the relevant criteria) (Appendix A). "
79. In relation to particulate matter, the proponent's EA stated: "No exceedances of the Development Consent DA 374-11-00 or Approved Methods criteria were predicted at any privately-owned receivers in all scenarios for:
- annual average dust deposition levels (both incremental and cumulative);
 - cumulative annual average TSP concentrations;
 - cumulative annual average and 24-hour PM10 concentrations; or
 - cumulative annual average and 24-hour PM2.5 concentrations".
80. The AQGGA stated: "Analysis of the contour plots...indicates that Project-only 24-hour PM₁₀ concentrations would not exceed 50 µg/m³ across more than 25% of any private land". The AQGGA stated that to assess the predicted cumulative annual average PM₁₀ and Total Suspended Particulate Matter (**TSP**) a background value was added to the incremental contour plots for year 11, the year with the highest modelling predictions: "Based on this, no additional land would be subject to voluntary land acquisition as the cumulative annual average PM₁₀ and TSP contours at the voluntary land acquisition criteria level do not extend beyond the mining lease". In relation to dust deposition, the Project's only contribution does not exceed the acquisition criteria "2 g/m²/month across more than 25% of any private property", or the cumulative contribution criteria of "4g/m²/month across more than 25% of any private property".
81. The proponent's AQGGA concluded:
- "the predicted Project-only and cumulative annual average PM₁₀, PM2.5 and TSP concentrations and dust deposition levels indicate that no private receptors would experience exceedances of the NSW EPA's impact assessment criteria. The predicted cumulative 24-hour average PM10 and PM2.5 concentrations demonstrated no additional exceedances of the impact assessment criteria at private receptors".
 - "Annual average Scope 1 emissions represent approximately 0.2% of total GHG emissions for NSW and 0.06% of total GHG emissions for Australia, based on the National Greenhouse Gas Inventory for 2015".

82. The proponent's EA concluded overall: *"The increase in sulphuric acid production would generate additional steam for power generation, reducing the Project gas demand ... This would improve the Project economics and reduce greenhouse gas emissions."*
83. On 16 October 2018, the proponent submitted written comments in response to issues raised by speakers at the public meeting regarding potential air quality impacts, management and monitoring and draft conditions of consent. The proponent noted that the EPA raised no concerns with the AQGGA in its submission to the Department regarding the application. The proponent further stated that the *"recommended Development Consent conditions are consistent with the Voluntary Land Acquisition and Mitigation Policy (NSW Government, 2018)"*.
84. In response to concerns raised regarding air quality management and monitoring, the proponent stated: *"Continuous and real-time monitoring of the sulphuric acid plant in-stack concentration is required in the Air Quality Management Plan" (Condition 23, Schedule 3). Real-time monitoring of the sulphuric acid plant in-stack concentration will allow Clean TeQ to implement proactive air quality management measures"*. The proponent's 31 October 2018 further noted that real-time particulate monitoring would be undertaken in accordance with the requirements of the proponent's EPL.
85. The response further stated: *"regular reporting on the environmental performance of the Project (including monitoring results) on the Clean TeQ website (Condition 9, Schedule 5)"*. In addition, the proponent stated: *"Confirmation that stack emissions comply with relevant criteria and best practice emission concentrations using an updated air quality model is required as part of the Air Quality Verification Report to the satisfaction of the EPA (Condition 24A, Schedule 3)"*.

Department's consideration

86. In relation to the emissions of gaseous pollutants, the Department AR stated: *"The levels of all gaseous emissions are predicted to be well below the applicable health and amenity based criteria at all off-site sensitive receivers, and at the property boundary, during all stages of the project. For all emission, levels were found to be less than 50% of the applicable criteria at sensitive receiver locations"*.

The Department and EPA accept that *"Clean TeQ's air quality assessment demonstrate that the mine would comply with all applicable criteria for gaseous emissions."*

87. The Department's AR also stated: *"there are a number of standard regulatory requirements for ensuring industrial facilities comply with relevant gaseous concentration limits. These include the requirement for facilities that discharge gaseous emissions to obtain an Environmental Protection Licence (EPL) prior to any such discharge, and to demonstrate that the final design of the plant would comply with relevant discharge limits."*
88. In relation to dust, the Department's AR stated: *"The Department considers that the project as modified is unlikely to result in any significant dust-related impacts on the surrounding community, and that the existing condition of consent are adequate to appropriately manage dust-related issues. These include requirements for Clean TeQ to comply with applicable criteria, and to prepare and implement a detailed Air Quality Management Plan and Air Quality Monitoring Program for the project"*.

The Department has recommended changes to the air quality criteria to be consistent with contemporary EPA criteria, which includes a more stringent standard for annual average PM₁₀, as well as criteria for PM_{2.5}".

89. The Department's AR concluded: *"The Department considers that the modified project would comply with all relevant criteria for both gaseous emission and dust.*

The Department also considers that actual gaseous emission from the processing plant can be verified through the air quality audit following construction of the processing plant, and by continuous monitoring of in-stack emission.

The existing condition of consent require Clean TeQ to prepare an air quality management plan that includes a monitoring program and measures to ensure compliance with the air quality criteria. With the implementation of this plan, the Department considers that both gaseous emission and dust can be identified and appropriately managed".

90. In relation to GHG, the Department's AR stated: *"The direct emissions represent approximately 0.2% of NSW's total GHG emission, and are unlikely to materially contribute to climate change. The existing condition require Clean TeQ to minimise GHG emission associated with the development. Clean TeQ is also required to assess and report GHG emission under the Commonwealth's National Greenhouse and Energy Reporting System".*

91. The Department overall concluded in its AR *"Although the modification would increase the SO₂ emissions from the sulphuric acid plant stack, total SO₂ emission from the processing facility would decrease. The levels of SO₂, all other gaseous pollutants, and dust would be well below the applicable health and amenity criteria at all off-site receivers, and the Department considers that would be no significant air quality impacts from the modification. Nevertheless, as a precautionary measure, the Department has recommended that an air quality verification report be required to confirm that the gaseous emission from the final design of the processing plant would comply with all relevant criteria".*

Commission's consideration

92. The Commission notes the concerns raised by speakers at public meeting and in written comments to the Commission regarding the location of the weather station being in Condobolin and concerns that the weather can vary significantly between the mine site and the site of the weather station. The Commission notes that the predicted ground level concentrations are well below acceptable levels to the extent that any uncertainty arising from the use of Condobolin weather station data is unlikely to result in a ground level concentration that exceeds standards. In addition, the Commission acknowledges concerns raised regarding the removal of acquisition provisions from the conditions of consent (see paragraph 64).
93. The Commission notes that a condition of consent requires the proponent to provide an Air Quality Verification Report (Condition 24A, Schedule 3) to the satisfaction of the EPA. A further condition requires the proponent to undertake Meteorological Monitoring (Condition 25, Schedule 3), to ensure there is a suitable meteorological station operating in the vicinity of the mine site, which must be operational for the remaining life of the Project and which would over time, address the localised meteorological data gap.

94. Based on comments made at the public meeting in relation to access to real-time monitoring data, Condition 23 of Schedule 3 requires an Air Quality Management Plan which includes an air quality monitoring program with real-time monitoring. The Commission notes that while real-time monitoring would be required in accordance with the proponent's EPL (see paragraph 84), the Commission has included a requirement for the monitoring program to consider what real-time and/or regular reporting on air quality monitoring data would be useful and accurate to provide regularly on the proponent's website, in addition to the proponent's current reporting regime (see paragraph 85).
95. The Commission accepts the Department's assessment at paragraphs 86-90 for the reasons set out in paragraph 91.
96. Based on the Material, the Commission finds that air quality impacts and GHG emissions resulting from the application are acceptable subject to the conditions of consent and amendments to the conditions, as set out in paragraphs 93 and 94.

5.2.3 Water

Comments received

97. The Commission heard concerns from speakers at the public meeting and received written comments regarding potential water and groundwater impacts as a result of the Project, including:
 - potential for groundwater impact including impact on supplies and on private bores as a result of the application;
 - potential groundwater impacts as a result of seepage from the TSF;
 - Lachlan, Forbes and Parkes Shire Council's should be included as consultee in the updating and staging of strategies, plans and programs, particularly the preparation of management plans; and
 - the compensatory water supply condition lacks transparency for neighbours of the mine site.

Proponent's considerations

98. A Water Management Assessment (**WMA**), prepared by Golder Associates, dated 10 November 2017 was submitted with the application. The WMA considered surface water flow regimes, Lachlan River surface water extraction, surface water quality, flooding and post-mining surface water impacts.
99. The proponent's EA stated that the *"water treatment plant would allow greater volumes of process water to be recycled and re-used in the processing facility"*. The EA further noted that to *"improve the water supply security of the Project, it is proposed to diversify supply sources by including licensed extraction of surface water from the Lachlan River which is regulated by upstream releases from Wyangala Dam...Relevant water licences to allow for the extraction of surface water from the Lachlan River would be obtained"*.
100. In relation to the potential surface water impacts on the mine site, the proponent's Responses to Additional Information Requests (**RAIR**), dated 24 May 2018, stated: *"Potential changes to approved surface water flows associated with the progressive development of the modified mine and associated capture and re-use of drainage from operational disturbance areas. As the Modification would not increase the extent of the approved surface development area and would only include minor changes to the water*

management system (e.g. diversions)”.

101. The proponent’s RAIR further states: *“Potential changes to approved surface water quality associated with the progressive development of the modified mine (e.g. surface water runoff from disturbed areas could potentially contain sediments, dissolved solids, oil, grease, metals and salts). The Modification is predicted to have no change to the approved potential surface water quality impacts with the implementation of existing water management performance measures and controls”.*
102. In relation to potential water supply impacts, the proponent’s RAIR stated: *“Potential surface water flow impacts associated with the licensed extraction from the Lachlan River. As all extraction from the Lachlan River would be conducted in accordance with the licensed entitlements issued by the Department of Industry - Water, and in accordance with the rules in the Water Sharing Plan for the Lachlan Regulated River Water Source, 2016, impacts to the Lachlan River water source are not anticipated to be of any significance, as licensed water extractions are regulated by upstream releases from Wyangala Dam”.*
103. In relation to potential groundwater impacts on the mine site, the proponent’s RAIR stated that the application has potential to instigate *“changes to approved groundwater flow and quality impacts associated with seepage from the modified tailings storage facility...No changes to groundwater flow impacts associated with the open cut pits as they are not proposed to change”.*
104. In response to comments from the Department of Industry in relation to potential TSF seepage, the proponent’s RAIR stated: *“Coffey (2018) has undertaken modelling of the potential tailings storage facility seepage and considered the predicted seepage impacts against the requirements of the NSW Aquifer Interference Policy (NSW Government, 2012). Coffey (2018) concluded the following:*

Given the effectiveness of the engineering controls (>97% control) and very low infiltration rate, only small or negligible vertical or lateral seepage outflows are predicted from the modified TSF. In addition, the approved open cut pits would act as a sink and continue to collect the majority of seepage from the TSF which contains a finite volume of water (i.e. seepage would not continue to migrate from the TSF in the long-term)”.
105. The proponent’s letter to the Commission, dated 23 October 2018, responded to comments made at the public meeting, which reiterated: *“Supply of surface water from the Lachlan River would reduce demand on the Project borefield, resulting in reduced groundwater extraction”.*
106. The proponent’s letter to the Commission, dated 26 October 2018, responded to comments made by the Council’s at the combined Council meeting and in the written comments provided by Lachlan Shire Council, which stated it *“considers that the suggested conditions regarding water pipeline construction and operation as proposed by LSC and FSC are unnecessary”,* because, the proponent would *“need to enter into an easement agreement (including survey plans) with the LSC [Lachlan] and FSC [Forbes] in accordance with the NSW Conveyancing Act with the Council’s irrespective of whether this requirement is included in the Development Consent”,* and *“Any access agreements between Clean TeQ and private landholders is a commercial agreement between Clean TeQ and the private landholder and is not relevant to the LSC or FSC”.*

107. In relation to the TSF and diversions design, the proponent's letter to the Commission, dated 31 October 2018, stated: *"The tailings storage facility will be designed, constructed and operated in accordance with the Dam Safety Committee's requirements (Condition 29, Schedule 3)".* The letter further stated: *"the diversions will be designed in accordance with the Development Consent requirements (Condition 29, Schedule 3) and a detailed description of the diversions will be included in the Surface Water Management Plan (Condition 30[b], Schedule 3)".*
108. With regards to potential water supply groundwater impacts, the RAIR stated: *"No changes to groundwater impacts as no change to the Project borefield is proposed".*

Department's considerations

109. The Department's AR stated: *"the proposed addition of a water treatment plant would significantly reduce the water demand associated with the project by reducing raw water use at the processing facility".*
110. The Department's letter to the Commission, dated 12 October 2018, stated: *"The Department notes that 1,451 ML/year would be supplied by the water treatment plant, and an additional 3,135 ML/year would be required from external sources (the borefield and Lachlan River)".*
111. The Department's AR further stated: *"The proposed surface water extraction from the Lachlan River is consistent with the Department of Industry's recommendations for the project to diversify its external water supply options beyond just the borefield. However, any extraction of this water would be subject to Clean TeQ acquiring the appropriate water entitlement on the water market, in accordance with the rules of the relevant Water Sharing Plan".*
112. The Department's AR stated that *"although the extraction of water from the borefield is approved in principle by the development consent, Clean TeQ is still required to hold the necessary water entitlements in the same way as any other irrigator, farming enterprise or other water user".*
113. In relation to the potential pollution of waters from seepage from the TSF, the Department's AR stated: *"subject to the appropriate engineering controls, seepage would be negligible".* The Department's AR further stated that the *"modified TSF would comply with the NSW Aquifer Interference Policy, as it is not expected to lower the beneficial use category of the groundwater within 40 metres of the activity. Consequently, the modification would not impact any privately-owned groundwater bores or groundwater dependent ecosystems".*
114. The Department's AR concluded *"that the proposed extraction of surface water from the Lachlan River would be relatively minor and unlikely to significantly affect other water users".*

Commission's considerations

115. The Commission acknowledges the concerns raised by speakers at the public meeting and in written comments regarding potential water supply impacts and comments regarding the compensatory water supply process. The Commission however notes that the application does not propose changes to the extraction of water from the borefield

and therefore issues relating to groundwater and the extraction of water from the borefield is not open to the Commission to re-examine in the context of this application.

116. The Commission accepts the conclusions of the Department outlined in paragraph 114, for the reasons provided in paragraphs 109-113.
117. The Commission accepts that the water treatment plant would allow greater volumes of water to be recycled and re-used in the processing facility (see paragraph 99) and that the extraction of water from the Lachlan River would be conducted in accordance with the licensed entitlements, as set out in paragraph 102. The Commission further notes that the application seeks to diversify water supply for the Project overall thereby reducing demand on the borefield, as set out in paragraph 105.
118. The Commission notes that existing conditions of consent require the proponent to ensure it has sufficient water for all stages of the development (Condition 26, Schedule 3) and a compensatory water supply be provided to anyone whose basic landholder rights (as defined in the *Water Management Act 2000*) are adversely and directly impacted as a result of the development, to be provided in consultation with Department of Industry Lands & Water (Condition 28, Schedule 3).
119. The Commission notes that while groundwater seepage associated with the TSF is likely to occur, this would not be significant and would comply with the NSW *Aquifer Interference Policy* (see paragraphs 104 and 113). In addition, the conditions of consent require the proponent to comply with water management performance measures, with the following amendments to address potential impacts associated with the application, including:
 - clean water diversion infrastructure to be designed, constructed and maintained to capture and convey the 100-year, peak flow rainfall period; and
 - mine and limestone quarry water storages to be designed, installed and maintained a seepage interception system in the TSF embankments in accordance with Dam Safety Committee (DSC) guidelines.
120. Therefore, the Commission finds the potential low levels of groundwater seepage to be acceptable, for the reasons set out in paragraphs 104 and 107 and because of the conditions of consent, as set out in paragraph 119.

5.2.4 Traffic

Comments received

121. The Commission heard concerns from speakers at the public meeting, and received written comments regarding the traffic impacts associated with heavy vehicle use, including:
 - volume of heavy vehicle traffic and safety implications particularly for children;
 - requests for the provision of a bypass of Trundle and Fifield; and
 - heavy vehicle haulage impact on community of Fifield and Trundle.

Proponent's consideration

122. The proponent included in its EA a Road and Transport Assessment (TIA) prepared by GTA Consultants on behalf of Clean TeQ. The TIA presented “*the findings of an assessment of the road transport implications of the proposed modification*” and “*considered the implications of the modified Project on the operation of the road*”

network.”

123. The TIA concluded that *“the Modification would have acceptable impacts on the operation of the surrounding road system. No significant impacts on the performance, capacity, efficiency and safety of the road network is expected to arise as a result of the traffic associated with the Modification;”* with the implementation of the management or mitigation measures.
124. In its letter dated 31 October 2018, the proponent stated:
- *“the Bogan Way is suitable for the modified Project traffic because it:*
 - *is part of the existing arterial/regional road network;*
 - *has adequate capacity to accommodate the Project heavy vehicles;*
 - *has suitable geometry - priority at intersections, avoids sharp turns; and*
 - *is approved to carry Project heavy vehicle types.*
 - *The Pedestrian Access Review found:*
 - *the existing pedestrian and vehicular environment in Forbes Street is generally satisfactory, with no major issues which would require immediate upgrading to meet current standards; and*
 - *that it is unlikely that a significant deterioration in the safety of the existing pedestrian and vehicular environment would result with the modified Project.*
 - *If a bypass was to be required, use of it would potentially result in amenity impacts (e.g. road noise and dust) at residences located on roads that do not currently experience significant traffic volumes and are likely to be inadequate for the Project heavy vehicles”.*
125. In relation to the approved Fifield bypass, the proponent’s 31 October 2018 letter stated:
- *“Modification 4 would reduce the overall total Project traffic by approximately 34%.*
 - *In accordance with the terms of the Voluntary Planning Agreement, a road safety audit would be conducted to determine if the Fifield Bypass is required. If the road safety audit determines that the approved Fifield Bypass is required, Clean TeQ will construct and use the Fifield Bypass”.*

Department’s consideration

126. The Department’s AR stated in relation to traffic generation:
- “The proposed modification would increase total traffic volumes associated with the project. Most of this increase would be to light vehicle numbers. Heavy vehicle numbers associated with the project would increase only marginally (by 2.4% overall)”.*

However, the proposal would change some of the transport routes used by project traffic and consequently the increase in heavy vehicles numbers would be more significant on some roads. This would be accompanied by a reduction of heavy vehicle traffic on other roads. In particular, there would be fewer trucks travelling between Condobolin and the mine site, but more trucks travelling between Parkes and the mine site.”

127. The Department stated that the existing consent requires the proponent *“to prepare and implement a detailed traffic Management Plan for the project, in consultation with the relevant roads authorities. The existing condition include a number of relevant requirements for ensuring that traffic through Trundle (and other areas) is appropriately managed;”* which is reflected in Condition 45, Schedule 3.
128. In addition to the above, the Department’s AR recommended, additional requirements for the Traffic Management Plan to further mitigate traffic-related impacts on Trundle

and other areas. This is reflected in Condition 45, Schedule 3 of the current consent. The Department also included for the recommended upgrades resulting from the additional traffic assessment provided in the RtS, which included modification to the “*kerb extension treatments and speed reduction warning signs on the approaches*” to the town of Trundle.

129. The Department’s AR stated: *“Although the modified project would increase the number of heavy vehicles on some roads, the Department considers that traffic level would still be well below the capacity of these roads, and the roads and key intersection would be able to operate at a good Level of Service.”*

“While there would be additional heavy trucks travelling through Trundle, the Department considers that the traffic is unlikely to result in significant safety, hazard, amenity or socio-economic impacts in the town, and a bypass around the town is not warranted.”

130. The Department overall concluded that the required *“upgrades to a number of roads and intersection for the approved project, in accordance with VPA’s with all three Councils;”* and with the implementation of the conditions, *“the modification would not adversely affect road safety.”* In addition, the Department concluded: *“The modification would increase the number of heavy vehicles on some roads...these changes are largely the result of a re-distribution of the traffic rather than a significant increase in truck numbers”.*

131. The Department’s letter to the Commission, dated 12 October 2018, provided updated traffic data that the proponent had provided to the Department, following the recommendation being made to the Commission. The updated information considers the application with the use of high capacity trucks and shuttle buses. The Department’s letter stated that *“This shows that overall the modified project would generate 34% less traffic than the approved project, including 10% fewer heavy vehicles movements”.*

Commission’s considerations

132. The Commission acknowledges the concerns raised by speakers at the public meeting and in written comments regarding potential traffic and safety impacts. Based on the Material, the Commission accepts the conclusions in the Department’s AR, that while the application would increase the number of heavy vehicles on some roads, the changes are the result of re-distribution of traffic, rather than a significant increase in volumes, for the reasons set out in paragraphs 126 and 129-131. The Commission also notes that the proponent is required to prepare a detailed traffic management plan, in accordance with the conditions of consent, as set out in paragraphs 127 and 128 and upgrade a number of local roads and intersections in accordance with the VPAs contained in the conditions of consent (see paragraph 130).
133. The Commission also accepts the information provided by the proponent in relation to the Trundle bypass and the Fifield bypass, for the reasons set out in paragraphs 124 and 125.
134. In addition, the Commission finds the conclusions in the Department’s AR and set out in its letter to the Commission, dated 12 October 2018, acceptable for the reasons outlined in paragraphs 130 and 131.

5.3 Public interest

Comments received

135. The Commission heard from a number of speakers at the public meeting, from the relevant Council's and in written comments, support for the economics of the application and the Project more broadly, the social benefits to the region, including the provision of local employment opportunities and diversification of industry.

Proponent's consideration

136. As set out in paragraph 15, the proponent stated in its EA that the *"modified Project would have substantial economic and social benefits in the region"*. The proponent further stated that the *"earlier construction and operations commencement would also bring forward employment opportunities associated with the Project"*.

137. In its presentation to the Commission, 11 October 2018, the proponent set out the mining and processing improvements associated with the application, including the adoption of RIP and mining in a more selective manner to optimise ore feed grade, which it stated would improve environmental outcomes, decrease Project costs and increase the overall metal recovery and Project economics. The proponent also set out the water supply improvements, including water recycling at the mine site, which it stated would increase project water supply security and decrease raw water demand.

138. The proponent also noted the following Project benefits over the life of the mine:

- *"1000 jobs over construction and 300 in operations"*
- *\$1.9 billion in employee salaries and wages (forecast for initial 25 years)*
- *Opportunities for local business and economic growth*
- *\$18.3m Voluntary Planning Agreement for Lachlan, Parkes and Forbes Shires - community enhancement, road maintenance and other payments (inclusive of CPI, for 21 year mine life plus construction)*
- *Upgrades to local infrastructure and community enhancements*
- *~A\$630 Million State royalties and payroll tax over life of mine*
- *~A\$2.2 Billion corporate tax over life of mine"*.

Department's consideration

139. The Department's AR stated: *"The Department considers that the proposed modification would improve the overall viability of the project and make it more likely that the significant socio-economic benefits of the project are realised. Consequently, the proposed modification is in the public interest and is approvable subject to the imposition of the recommended conditions of consent"*.

Commission's consideration

140. In determining the public interest merits of the application, the Commission has had regard to the objects of the EP&A Act.

141. Under section 1.3 of the EP&A Act, the relevant objects applicable to the application are:

a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's*

natural and other resources,

b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

c) to promote the orderly and economic use and development of land,

e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State, and

j) to provide increased opportunity for community participation in environmental planning and assessment.

142. A key relevant object of the EP&A Act to the application, as outlined in paragraph 141, is the facilitation of Ecologically Sustainable Development (**ESD**). The Commission notes that section 6(2) of the *Protection of the Environment Administration Act 1991* states that ESD requires the effective integration of social, economic and environmental considerations in its decision-making, and that ESD can be achieved through the implementation of:

a) the precautionary principle;

b) inter-generational equity;

c) conservation of biological diversity and ecological integrity; and

d) improved valuation, pricing and incentive mechanism.

143. The Commission accepts the proponent's analysis of the benefits, as set out in paragraphs 136-138 and finds that the application, if approved, would be generally consistent with ESD principles and the objects of the EP&A Act, because it involves:

- opportunities to improve the overall efficiency of the approved Project;
- mining in a more selective manner to initially increase the processing facility ore feed grade;
- improvements to water supply and water recycling at the mine site;
- minimal environmental impacts above those already approved; and
- economic and social benefits in the region.

144. The Commission is satisfied with the Department's considerations that the application would improve the overall viability of the Project and is in the public interest, as discussed in paragraph 139 above and having regard to the following:

- inclusion of noise acquisition criteria to protect neighbouring properties against potential noise exceedances as discussed in paragraphs 68-73;
- inclusion of a condition of consent requiring the proponent to consider what real-time and/or regular reporting on air quality monitoring data would be useful and accurate to provide regularly on proponent's website, as discussed in paragraph 94; and
- impacts can be effectively managed through existing and proposed conditions of consent.

6. HOW THE COMMISSION TOOK COMMUNITY VIEWS INTO ACCOUNT IN MAKING DECISION

145. The views of the community were expressed through public submissions and written comments received (as part of exhibition and as part of the Commission's determination process) and members of the public who spoke at the public meeting or sent written comments during or after that meeting as discussed in paragraphs 31, 44, 75, 97, 121 and 135.

146. The Commission carefully considered all of these views as part of making its decision. The way in which these concerns were taken into account by the Commission is set out in section 5 above.

7. CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

147. The Commission has carefully considered the Material before it.

148. The Commission finds that the proposed modification to the development is within the scope of section 75W, in that it would not change the key element of the Project (including mining methods or production rate) and would not significantly increase the environmental impacts of the approved Project (as set out in paragraph 43). Therefore, the request to modify can be considered under section 75W.

149. For the reasons above at paragraphs 71, 72, 91, 104, 107 109-113, 124-126 and 129-131, the Commission has determined that the consent should be granted subject to conditions. These conditions are designed to prevent, minimise and/or offset adverse environmental impacts and impacts on the community. In addition, the Commission finds that the application is generally consistent with the objects of the EP&A Act and is in the public interest, for the reasons set out in paragraphs 143 and 144.

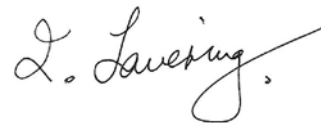
150. The reasons for the Decision are given in this Statement of Reasons for Decision dated 19 December 2018.



Ross Carter (Chair)
Commission Member



Prof. Alice Clark
Commission Member



Dr Ian Lavering
Commission Member