



Our Reference: EF13/3972 SF21/41645 DOC21/289719-41
Contact: Bryce Gorham
Date: 3 June 2021

James McDonough
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Department of Planning, Industry and Environment
GPO Box 39
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Dear Mr McDonough

**Re: Major Projects – New Request for Advice
Hanson Tweed Sand Plant Expansion (SSD–10398) Phase 5 to Phase 11 (Tweed Shire)
Environmental Impact Statement**

I am writing to you in reply to your 14 April 2021 request for advice, to the Environment Protection Authority (EPA) on the State Significant Development (SSD) application 10398 for the above project. Documentation provided included the Hanson Tweed Sand Plant Expansion Phase 5 to Phase 11, Environmental Impact Assessment dated 30 March 2021 prepared by Zone Planning Group Pty Ltd for Hanson Construction Materials Pty Ltd (EIS).

The EPA requests that this submission be read in conjunction with its letter dated 4 December 2019 in respect of the requirements for the environmental assessment for the project. The EPA notes that the proposal involves:

- expansion and redevelopment of the existing Hanson Tweed Sand Plant (HTSP);
- expansion would access a sand resource of approximately 30-35 million tonnes of a maximum 950,000 tonnes of sand per annum;
- quarry life is expected at 30 years;
- expansion footprint of 190 hectares (ha), resulting in a total footprint of HTSP of approximately 236ha;
- utilising the existing wash plant and stockpile area, however as extraction phases progresses, the area would be relocated to match operational requirements (from Phase 7 onwards);
- material extraction is via dredge with a variable depth (20m below ground level nominal);
- the operating hours for extraction, processing, loading and dispatch of trucks, and maintenance twenty four (24) hours, seven (7) days a week; and,
- end use of the extraction area being a public access multi-use facility/lake, including rehabilitation and creation of 'habitat'.

The HTSP has an existing Environment Protection Licence (EPL) No.11453 issued by the EPA. If this proposal proceeds to approval the proponent will be required to apply to the EPA to have the existing licence varied to accommodate the expanded operation.

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In relation to noise, the EPA has made specific comments on the Noise Impact Assessment and potential noise impacts which can be seen in Attachment A.

The EIS describes surface and ground water monitoring being conducted over a seven month period across the proposed expansion area to establish baseline conditions. If the HTSP Expansion is approved, the EPA recommends that baseline monitoring should continue on an ongoing longer term basis (taking into account seasonal variability) from Phase 5 onwards to further establish and confirm baseline conditions.

Environmental Management Plans (EMP) are developed and used to demonstrate environmental management due diligence by the site/premise operator for the various aspects of the proposed operation. The EPA does not regulate EMP's and to maintain transparent regulatory oversight consequently the EPA has not reviewed in detail any EMP forming part of or referred to in the EIS. The EPA has however, made some comments which can be seen in Attachment A.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of other divisions and branches within the Department of Planning, Industry and Environment and Heritage NSW.

The Proponent should be made aware that any commitments made in the EIS may be formalised as approval conditions and may also be established as formal licence conditions.

The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of a financial assurance and/or assurances. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an EPL.

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

If you have any questions, please contact Bryce Gorham on 02 6640 2557.

Yours sincerely,



Bryce Gorham
Unit Head - Regulatory Operations
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Attachment A

Air

The EIS states that:

- air quality criterion will be achieved in practice through a proactive and reactive management strategy, whereby, watering will be increased and/or certain operations will cease during periods of elevated dust risk.
- Real time PM₁₀ monitoring is to be implemented on-site.
- An air quality monitoring program will continue to operate if the expansion is approved.

Noise

Operational Noise Assessment

EPA notes that the site is currently operating in Phase 4 and is proposing to move to the next phases of Phase 5 to Phase 11 over a 30-year period.

The existing approved hours of operation in Environment Protection Licence (EPL) 11453 are 7am to 5pm Monday to Friday and 7am to 4pm Saturday, with loading and dispatch of trucks from 7am to 5pm Monday to Friday, and 7am to 12pm Saturday. It is proposed to change operation hours to 24 hours 7 days a week. The existing EPL daytime noise limit is 40 dBA at any sensitive receiver.

Background noise levels –

- The NIA does not mention the existing daytime noise limit in EPL 11453. The NIA includes details of long term background noise monitoring that was undertaken to determine Project Noise Trigger Levels for the proposed expansion (which for the daytime are up to 2 dBA higher than the existing noise limit at the nearest receivers and up to 6 dBA higher at the receivers in close proximity to the Pacific Highway).
- EPA is concerned about the proposed night time operations and the potential for noise impact during this sensitive time. The area around the site is rural in nature, with numerous elevated residences and the village of Cudgen nearby.
- The noise monitoring graphs in Appendix E of the NIA appear to show some influence from extraneous noise that keeps the levels elevated, particularly during the night time. It is stated in the NIA that the background noise levels were influenced by insects (Section 2.3 and under Table 3.1).
- It is also stated in Table 2.1 that the site was operating during the noise monitoring, but that the days when dredging occurred were excluded from the background noise level calculation. Table 2.1 also states “Product loading was still carried out on these days but had negligible contribution to the measured background noise at Locations 1 and 2.” It is not clear in the NIA how this was determined.

The NIA should include more detail and justification that the measured and calculated background noise levels are representative of all seasons and are not influenced by existing site noise, insect noise or other extraneous noise, in accordance with the *Noise Policy for Industry* (EPA, 2017).

Predicted noise levels –

- The sound power level of the dredge between Option 1 (existing dredge) and Option 5 (dredge 3), as shown in Table 5.2, needs to reduce by 20 dBA in order to achieve the Project Noise Trigger Levels (PNTLs). EPA is not clear whether this level of noise attenuation is possible for a dredge.

- The predicted noise levels, in Section 4.3, during the evening and night are higher than daytime. It is not clear from the scenarios what is proposed to operate during the evening and night that is different to the daytime.
- The Noise Monitoring Report September 2020 (available on the Hanson website, Appendix 12 of the Annual Environmental Management Report 2019-2020) indicates a noise contribution from existing operations at the site of 43 dBA at the nearest residential receivers. The predicted noise level for Phase 5 at the same receivers (535C and 543 Cudgen Road) is 37 and 38 dBA. It is not clear how the operation changes to bring about a 5-6 dBA reduction in noise level from the existing operations to the next phase.

The NIA should:

- **provide confirmation that the required 20 dBA noise attenuation for the dredge is practical and achievable.**
- **clarify the proposed operations during different time periods to explain the increase in predicted noise level during the more sensitive evening and night period.**
- **provide a detailed explanation for the 5-6 dBA reduction in noise level from the existing operation (Phase 4) to the proposed Phase 5.**

Construction noise assessment

The construction noise management levels (NMLs) in Table 3.2 are not correct. The NMLs for outside standard hours are RBL + 5 dBA, not RBL + 10 dBA as stated in the table. Nonetheless it appears that construction is proposed to be conducted during standard hours only, so this is just for noting.

Soil and Water

Groundwater

- Localised and minor changes to pre-development groundwater flow regimes will occur in the vicinity of the extraction lakes, within and external to the development footprint.
- Changes to groundwater elevation within and external to the development footprint including: up to 0.3m decrease outside the northern perimeter of Lot 51 DP1166990 (northern portion of expansion area); 0.5m decrease outside the site boundary to the west of Lot 1 DP1250570 (southern portion of expansion area); 0.5m decrease within the Low Potential GDE on the southern boundary west of Lot 1 DP1250570.
- Minor changes in the local hydraulic regime are caused by a loss in conveyance storage.

Surface Water

- The EIS discusses discharges from the southern lake and proposed northern lake. Discharge/monitoring points would need to be incorporated into any Environment Protection Licence for both lakes.

Summary

Appendix B – Surface Water Assessment & Appendix C – Ground Water Assessment both mention surface and ground water monitoring being conducted over a seven month period across the proposed expansion area to establish baseline conditions and determine similarities and differences between the expansion and current TSP site.

The establishment of baseline conditions is essential for the proposed expansion area. The EPA recommends that if the expansion is approved that baseline monitoring for both surface and ground water across the full expansion area continue on an ongoing basis (taking into account seasonal variability) from Phase 5 onwards.

As with the existing EPL, groundwater and surface water monitoring will be required and expanded to the proposed areas if approved formalised through a specific licence condition(s).

Acid sulfate soils (ASS)

The EIS states that:

- the existing approach to ASS Management will also be adopted for operations within the proposed expansion area.
- The Potential ASS fines from the extracted sand are returned to the dredge lake to a deposition depth of at least 8 metres, via a hydraulic separation and fines reinternment methodology.

As with the existing EPL the assessment and management of ASS and PASS will be formalised through a specific licence condition(s).

Erosion and Sediment Control Plan (ESCP)

Management of sand extraction

The Erosion and Sediment Control Plan (ESCP) states that HTSP must provide calendar year annual production data to the DPIE Division of Natural Resources and Geosciences, and include a copy of the form in the HTSP Annual Review.

As with the existing EPL the volume of: material extracted; and, extracted material transported, from the quarry will be formalised through a specific licence condition(s).

Release of surface waters

The EPA notes the detail re rainfall events that may require release of surface waters outside of EPL licence conditions.

Waste Management

The EPA notes from the EIS that no additional waste streams or generating activities would be introduced than already exists.

Contaminated Lands

A number of potentially contaminating activities/potential contaminants have been identified with the site through a Preliminary Site Investigation (Appendix L – Preliminary Site Investigation). Detailed investigations will need to be undertaken, and a Remediation Action Plan (RAP) prepared for a staged approach to investigation and remediation.

Material Import

The EPA notes from the EIS that the project would import 60,000 tonnes per annum of Virgin Excavated Material (VENM) including rock.

HTSP need to ensure that any material (e.g. VENM) received on-site has been classified/certified accordingly (including testing requirements). VENM is defined in the *Protection of the Environment Operations Act 1997* (POEO).

For example, Potential Acid Sulfate Soil (PASS) is a waste as per the waste classification guidelines. If this HTSP was processing or storing this material on site exceeding those volumes in Schedule 1 of the POEO at any one time the activity would require an EPL for waste processing.