

**GALES-KINGSCLIFF PTY LTD**

ABN 75093540080

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19 May 2021

Department of Planning, Industry & Environment  
4 Parramatta Square, 12 Darcy Street,  
PARRAMATTA NSW 2150

**Submitted via Major Projects Portal**

Dear Sir/Madam

**Re: Submission for Proposed Hanson Tweed Sand Plant Expansion (SSD-10398)**

I am writing on behalf of Gales-Kingscliff Pty Limited (Gales), owner of Cudgen Lakes Sand Quarry (CLSQ), to formally lodge our submission regarding the proposed Hanson Tweed Sand Plant Expansion (SSD-10398). This submission has been prepared with input from R.W. Corkery & Co Pty Limited (Environmental Consultants) and Venant Solutions (Drainage and Flooding Consultants).

While Gales does not object to the aims of the Hanson Tweed Sand Plant Expansion, Gales objects to the application as it is currently written/assessed on the following grounds.

- A. Cumulative Impacts. Failure to adequately address cumulative impacts, especially air quality assessment (AQA) of cumulative air quality impacts.
- B. Stormwater / Agricultural Drainage System. Inaccuracies in the depiction assessment and management of the stormwater / agricultural drainage system.
- C. Flood Assessment. Potential inadequacies in the approach to flood modelling and assessment.
- D. Hanson Truck Movements and the western route. Failure to explicitly state what appears intended, that Hanson's increased truck movements above those currently approved would use the new western egress and ingress to/from Tweed Valley Way, and that all Hanson truck movements will use this new route once it is constructed.
- E. Clarification on several matters.

Further discussion on these matters and the requested clarifications is provided below.

## A Cumulative Impacts

The Secretary's Environmental Assessment Requirements (SEARs) requires the assessment of cumulative impacts. Section 6.13 of the Environmental Impact Statement (EIS) supporting the application addresses cumulative impacts and includes the following statement (emphasis added).

*“Despite the project being in proximity to other extractive land uses there will be no significant cumulative risks because of the proximity of the project to these operations. All technical assessments of the potential impacts of the project, have where relevant, considered the cumulative impacts of the development combined with existing activities in the area thereby assessing the cumulative impacts of the project.”*

However, our review of the technical reports indicates that neither the existing approved nor proposed extended operations at the Cudgen Lakes Sand Quarry (CLSQ) have actually been incorporated into the cumulative outcomes assessed for the Hanson expansion.

In particular, the air quality assessment (AQA), dated 12 February 2021, does not appear to include any emissions from existing approved or proposed operations at CLSQ. Section 5.4.1 of the AQA addresses the existing environment and states the following.

*“The existing environment in the Cudgen area is influenced by climatic conditions of the region and local natural and anthropogenic activities. Emission sources of dust (particulate matter) are mainly diffuse sources such as road transport (motor vehicles), intensive agriculture (sugar cane farming) and Tweed Sand Plant.”*

There is no mention or recognition of the approved Cudgen Lakes Sand Quarry, nor the proposed 2,000,000m<sup>3</sup> filling operations (to occur over at least 8 years) proposed in 2019 by the Australian Bay Lobster Producers (ABLP), both of which are significant. It also does not mention the less significant DA 20/0965 ('Altona DA') which was lodged on 19 November 2020 and subsequently approved by Council on 6 May 2021 and allows for the importation of 340,000m<sup>3</sup> of uncompacted VENM/ENM onto the CLSQ site.

Furthermore, Section 3.5.1 of the AQA explains the assessment methodology for cumulative impacts. It is stated that the “Cumulative concentrations of air pollutants have been assessed by adding the air pollutant concentrations associated with the Tweed Sand Plant expansion with an ambient background concentration”. The ambient background concentration adopted, discussed in Section 5.4.3 of the AQA, is based upon data collected at the Queensland Department of Environment and Science air quality monitoring station located at Springwood, Queensland, 80km to the north. Whilst the utilisation of this data is appropriate for the general ambient air quality, it does not account for the adjacent CLSQ or ABLP filling operations.

It is noted that, for emissions from the approved CLSQ, previous air quality assessments are publicly available from which appropriate emission estimates could have been included within the air quality model to provide a more accurate cumulative assessment. It is also noted that Hanson have been made aware of Gales intention to extend operations at the CLSQ since at least July 2020. Furthermore, in response to Hanson's consultation request on 18 January 2021, Gales provided Hanson a letter two weeks later, on 1 February 2021 (see attached), detailing the proposed extended operations and requesting Hanson to consider the cumulative impacts of the existing and proposed operations at the CLSQ, especially whilst the Hanson processing area remains adjacent the CLSQ. Gales also requested being provided with the preliminary outcomes of the assessments so any areas of concern and optimisation could be discussed prior to finalisation. Hanson did not further consult with Gales on these matters in preparing the reports that form part of the Hanson submission.

In comparison, the 2008 air quality assessment for the CLSQ included specific emission sources within the model for the Hanson Tweed Sand Plant with modelled contours presented for these cumulative emissions.

**It is requested that the AQA submitted for the Hanson Tweed Sand Plant Expansion be revised to include the cumulative effects of both the CLSQ (current and proposed) and the ABLP filling operations and present the cumulative assessment contours. It is also requested that the modelling provide for the sealing of the “temporary internal haulage road” (discussed further below).**

## **B Stormwater / Agricultural Drainage System**

We believe that the depiction of the stormwater and agricultural drainage system within the EIS and supporting Flood & Stormwater Report (Burchills, 2021) is erroneous. Specifically on Figures 3.2 and 3.3 of Burchills (2021) report the drain along the south-east part of the existing Quarry lake is not shown as a drain and Catchment 10 shows flow from Cudgen Plateau draining towards the east and north across bunded areas of CLSQ rather than to this unmarked drain. This is incorrect and is inconsistent with previous correspondence between Hanson and Gales regarding inundation of Gales lands caused by blockage in the agricultural drainage system impeding drainage from CLSQ to the west and contributing to wetting up of Gales land to the east of the blockage.

It is acknowledged and appreciated that, in response to Gales raising this matter, Hanson commissioned Gilbert & Sutherland to investigate and provide reporting on this matter. Whilst the drainage lines and blockage appears to be on land immediately south of the Hanson operation (and where not owned by Hanson not a Hanson responsibility), the G&S report correctly depicts a portion of the drainage line south of the Hanson Tweed Sand Plant and indicates that this is tidal to the west by presence of salt tolerant aquatic vegetation. This is not reflected within the Burchill (2021) report.

Whilst Gales continues to consult with Council, EPA and relevant land owners regarding removal of blockage to the drainage, it is requested that the Flood & Stormwater Report be revised to account for the correct drainage. This is of particular relevance given that Hanson’s proposed expansion would remove the tidal connection of this area to the west and north to the Tweed River and as such should account for and consider the correct catchments on the basis of the properly functioning drainage system. The Burchill (2021) report appears to omit the existing drainage channel along the south-east part of the Hanson lake and to substantially underestimate the catchment area that would drain into the Hanson extraction pond. Given that the Hanson proposed expansion would permanently change the local drainage, proper assessment of this matter is essential.

In addition to the above, in the drainage schematics shown in Appendix C of Burchill (2021) it is noted that the drainage direction for the existing drain adjacent Altona Road is incorrectly depicted as flowing from west to east. This drain cannot drain towards the east but drains westwards (towards the Tweed River).

Gales is extremely concerned about the local drainage. CLSQ and Gales land beyond has become wetted up and Gales is currently in discussions with Council, local landowners and the EPA to determine to causes of the wetting up and blockages to drainage west.

**It is requested that the Burchill (2021) Flood & Stormwater Report be revised to account for the correct existing drainage, the blocked drains preventing flow west, and the impact of Hanson’s proposed changes.**

## C Flood Assessment

Venant Solutions have also reviewed the Burchill (2021) Flood & Stormwater Report and have raised the following matters.

- The assessment has not properly defined the external catchment influencing flood levels at the site (Figure 3.2). A local catchment flood assessment of the broader area undertaken for Gales by Venant Solutions established that during a 1% AEP event the drain along Altona Road flows from east to west towards the Hanson site. Further, this drain receives runoff from the catchment to the east of Tweed Coast Road.
- There is no reporting of flood levels under existing and developed conditions at the eastern end of the site (western edge of Gales land) to demonstrate non-worsening.
- For the regional flood assessment, the afflux limits in Section 4.1.1 of Burchill (2021) are taken from the BMT WBM report prepared for Tweed Shire Council's cumulative fill assessment. Hence these are limits for the cumulative fill scenario, not an individual assessment. To use these limits, the proposed Hanson development should have been tested in combination with Council's cumulative fill scenario and assessed against a no fill scenario.
- The modelling did not include the proposed bund walls at 1.3 m AHD and 1.75 m AHD. A statement is made in Burchill (2021) that the bund walls were not included because they would have negligible effect, but the purposes of the modelling should have been to demonstrate that this is the case. If the bunds are included and the lakes are at 1.0 m AHD (the level of the weir outlet) when the main river flooding arrives this will represent a loss of flood storage which has not been included in Council's cumulative fill scenario as noted above. It is plausible that the lakes would be at 1.0 m AHD because of rainfall falling locally over the lakes prior to the main river flood arriving.

**It is requested that the Burchill (2021) Flood & Stormwater Report be revised to account for these deficiencies.**

## D Hanson Truck Movements and the western route

### Private Haul Road to enable western egress and ingress to/from Tweed Valley Way

The EIS states that the haul road to be constructed to enable western egress and ingress to/from Tweed Valley Way (the western access) will be a private road with no public access and no through connection with existing Altona Road. It is also stated that a "temporary" internal haulage route would be utilised from the existing processing plant entrance until the relocation of the processing area in Phase 7, i.e. from year 9 onwards. This 900m section of 'internal' haulage would occur within the public road reserve for Altona Road along an unsealed road. Given that the temporary portion of haul road is to be utilised for an approximately 9 year period and that wheel generated dust is a significant source of emissions (69% of total TSP emissions and 56% of PM<sub>10</sub> emissions), it is unclear why the temporary portion of haul road is not proposed to be sealed (also refer above to cumulative impact considerations). The sealing of this section of road would provide quantifiable public benefit and represents best practice air quality management.

**It is requested that a commitment be included to seal the "temporary" internal haulage route.**

The EIS states that all Hanson traffic would utilise the western access and the existing Altona Road route would be “abandoned”. The EIS states:

*The project will provide new private haulage road with connection to the Tweed Valley Way / M1 Interchange. The existing HTSP Phase 1 to 4 haulage route of Altona Road / Crescent Street / Tweed Coast Road will be abandoned, removing all HTSP vehicles from local roads. (Section 1.1); and*

*Of the construction works identified within Section 3.17, the only activity considered an enabling work is the access and associated road upgrade construction. These works would be undertaken prior to commencing extraction. (Section 3.17)*

However the EIS does not explicitly state that the Hanson sand production increase requested would not increase prior to construction of the western access.

**It is requested that a Statement of Commitment and/or Approval Condition be included to ensure that Hanson production levels will not increase prior to the western access being established.**

Gales support the establishment of the western access for industrial traffic from a holistic and overall public benefit perspective but submit that, should it have capacity, it should connect to the existing Altona Road to enable not only all traffic from Hanson, but also industrial traffic from CLSQ and Council’s Depot and Wastewater Treatment Plant to ultimately use it to its capacity, in order to reduce such traffic from the future Kingscliff recreational precinct on Gales site and from Tweed Coast Road, the Shire’s main coastal road.

Gales letter to Hanson of 1 February 2021 stated:

*Gales supports the proposed western extension of Altona Road to the Motorway because it would remove industrial traffic from Tweed Coast Road and the existing Altona Road and would result in a positive outcome for surrounding residents and Tweed Coast Road users including people accessing Kingscliff TAFE and the Tweed Valley Hospital, which is under accelerated construction.*

*Further details are requested about the new western route to enable further comment and input from Gales. The western extension of Altona Road could be used by Gales, Council and other industrial users and retained as a permanent public road servicing future land uses.*

...

*The western route to the Motorway will reduce or perhaps totally remove the currently approved and possibly large increase in industrial traffic (two sand quarries and Council WWTP and Depot) from the existing Altona Road and Tweed Coast Road and the major busy roundabout planned at their intersection along with Turnock Street extension. Gales believes that this will be one of the busiest intersections in the Shire. Removal of this industrial traffic will have many benefits including for the recreational precinct planned on land around Altona Road, nearby residences in Cudgen, and separating heavy industrial traffic from residential and commercial traffic including traffic to the new Hospital, TAFE, Kingscliff schools and retail and holiday activities that use Tweed Coast Road.*

*Gales believes that if Hanson’s increase in extraction is approved it should be conditioned on all Hanson trucks using the proposed western route to the Motorway, and in the interim no increase in transportation from the Hanson quarry eastwards prior to establishment of the western access.*

*It is requested that Hanson formally request DPIE to chair a roundtable discussion involving the Department, Transport for NSW/RMS, Tweed Shire Council, ABLP (MOD4 currently in assessment), Hanson, Gales, and any other significant user / stakeholder these stakeholders are aware of. This is because of the benefits of considering all these matters holistically.*

In response to Gales letter, Hanson noted the following in email correspondence dated 5 February 2021.

*To comply with safety legislation, Hanson traffic management and safety policies, and with consideration to Hanson's sand plant operations; the proposed haul route will not connect to Altona Road; nor allow public or through access from Altona Road to the Pacific Motorway (M1)*

**Further information is requested on the specific obstacles to providing access to the private haul road / western access for both Council and Gales heavy vehicles and what would be required to enable this access.**

## **E Matters for Which Clarification / Commitment Is Sought**

### *In situ Bulk Density*

Previous and current assessment reports specify an in situ bulk density of 1.95t/m<sup>3</sup> for the sand resource. However, the basis for bulk density is not clear.

**It is requested that the report clarifies the basis for the sand resource in situ bulk density of 1.95t/m<sup>3</sup>.**

### *Real-Time Particulate Monitoring*

A real-time PM<sub>10</sub> monitoring station is proposed to be located to the south / southeast of the existing Hanson wash plant. Given the existing Hanson processing area is adjacent the CLSQ processing area, it does not appear that the monitoring station could be located in a manner that enables emissions from the operations to be separated. As such, an integrated monitoring approach for both operations may be necessary.

**Further information is requested on the intended location of the real-time PM<sub>10</sub> monitoring station and confirmation of the utilisation of the station as an integrated monitoring point for both the Hanson and CLSQ operations.**

### *Coverage of Matters Raised by Gales During Consultation*

In response to Hanson's consultation request 18 January 2021, Gales provided comments to Hanson on 1 February 2021, two weeks later. We are unable to locate within the EIS or supporting documentation acknowledgement of this consultation or consideration of the matters raised.

**Confirmation is requested of where within the EIS and/or supporting documentation the consultation with Gales and the matters raised are acknowledged / addressed.**

### **Summary of information / clarifications requested**

Based on the above, the following information / clarifications are requested.

1. That the AQA submitted for the Hanson Tweed Sand Plant Expansion be revised to include the cumulative effects of both the CLSQ (current and proposed) and the ABLP filling operations and present the cumulative assessment contours.
2. That a commitment be included to seal the “temporary internal haulage route”.
3. That the modelling provide for the sealing of the “temporary internal haulage road”.
4. That the Burchill (2021) Flood & Stormwater Report be revised to account for the existing and corrected drainage (after blockage removal) and the deficiencies in flood modelling identified by Venant Solutions.
5. That a Statement of Commitment and/or Approval Condition be included to ensure that production levels will not increase prior to the western access being established.
6. That information on the specific obstacles to providing access to the private haul road / western access for both Council and Gales heavy vehicles be provided and what would be required to enable this access.
7. The basis for the sand resource in situ bulk density of 1.95t/m<sup>3</sup>.
8. Further information on the intended location of the real-time PM<sub>10</sub> monitoring station and confirmation of the utilisation of the station as an integrated monitoring point for both the Hanson and CLSQ operations.
9. Confirmation of where within the EIS and/or supporting documentation the consultation with Gales and the matters raised are acknowledged / addressed.

We appreciate the opportunity to provide a submission on the application and look forward to receiving a response in relation to the above matters and the opportunity to review and provide comment on the revised AQA and Flood & Stormwater reports.

I apologise in advance if I have made any errors in incorporating the comments of our consultants. Should it be of assistance, we would be pleased to meet with or further discuss any matter with the Department and / or Hanson and their consultants.

Yours sincerely

Stephen Segal  
Director  
Gales-Kingscliff

Attached: Gales letter to Hanson 1 Feb 2021

# GALES-KINGSCLIFF PTY LTD

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20 Ginahgulla Rd Bellevue Hill NSW 2023

1 February 2021

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Dear Greg

## **Hanson increase in sand extraction**

Thank you for inviting Gales' comment and involvement in consideration of Hanson's proposed increase in sand extraction. We note that, in addition to your email on 18 January 2021 regarding community and stakeholder input we have been in correspondence with Murray Graham during December 2020 regarding Council's request that Hanson's flooding and engineering consultants liaise with Gales consultants to ensure the respective studies for the proposed developments take a coordinated approach to assessing the cumulative effects. Murray has provided Gales with three flood modelling images and we welcome the opportunity to consider the proposals in a broader context.

We understand that Hanson is currently preparing the EIS in response to the SEARs issued in late 2019. Please see below our initial feedback and request for further information.

### **In summary:**

- Gales supports the proposed western extension of Altona Road to the Motorway because it would remove industrial traffic from Tweed Coast Road and the existing Altona Road and would result in a positive outcome for surrounding residents and Tweed Coast Road users including people accessing Kingscliff TAFE and the Tweed Valley Hospital, which is under accelerated construction.
- Further details are requested about the new western route to enable further comment and input from Gales. The western extension of Altona Road could be used by Gales, Council and other industrial users and retained as a permanent public road servicing future land uses.
- Gales requests that the assessments of Hanson's proposal take into account the cumulative impacts with Gales existing operations and consider Gales planned increase in operations and truck movements.
- Gales seeks that increases in sand extraction by Hanson and Gales are considered equitably, noting that Gales is currently preparing but has not yet submitted its scoping report for increased extraction/processing and transportation, and that a roundtable discussion be held regarding the western access between the relevant stakeholders.

### **Background**

Gales is also preparing for a modification application of Project Approval 05\_0103 for the Cudgen Lakes Sand Quarry and has commenced communications with the Department about this. Despite Covid and border closures there has been strong inquiry and demand over the startup period since Gales started testing the market with operations commencing in April 2020, with increased demand indicated when the permanent sand wash plant is installed (delivery assembly and commissioning expected during February and March 2021). As a result, Gales is preparing a modification seeking an increase in the amount of sand products exported by truck and VENM imported from Gales currently approved 300,000tpa and 45,000tpa respectively. Inquiry about Gales products has come from many sources and Gales plans to focus on supply of specialised products for many uses and companies in varied industries.



## **Gales supports the western connection with the Motorway**

Gales has been in contact with Tweed Shire Council and with the Department of Planning, Industry & Environment (DPIE) seeking a stakeholder meeting in support of the western route to the Motorway previously identified by Hanson. The western route to the Motorway will reduce or perhaps totally remove the currently approved and possibly large increase in industrial traffic (two sand quarries and Council WWTP and Depot) from the existing Altona Road and Tweed Coast Road and the major busy roundabout planned at their intersection along with Turnock Street extension. Gales believes that this will be one of the busiest intersections in the Shire. Removal of this industrial traffic will have many benefits including for the recreational precinct planned on land around Altona Road, nearby residences in Cudgen, and separating heavy industrial traffic from residential and commercial traffic including traffic to the new Hospital, TAFE, Kingscliff schools and retail and holiday activities that use Tweed Coast Road.

Gales believes that if Hanson's increase in extraction is approved it should be conditioned on all Hanson trucks using the proposed western route to the Motorway, and in the interim no increase in transportation from the Hanson quarry eastwards prior to establishment of the western access.

It is requested that Hanson formally request DPIE to chair a roundtable discussion involving the Department, Transport for NSW/RMS, Tweed Shire Council, ABLP (MOD4 currently in assessment), Hanson, Gales, and any other significant user / stakeholder these stakeholders are aware of. This is because of the benefits of considering all these matters holistically.

## **Information requested**

Hanson has not indicated what assumptions it has taken into account in their assessments regarding Gales operations – existing and planned increases. Gales' main concerns about the increase sought by Hanson relate to:

- Cumulative impacts (noise, dust, traffic) from Hanson operating at the increased rate, especially while the Hanson processing area remains adjacent to Gales processing area.
- Altona Road westward. As indicated by Council in its letter of 16 December 2019, Hanson's plans do not indicate the timing and detail of the westward route or the relocation of the Hanson office and wash plant. We request details including:
  1. Is it intended to dedicate the road as a public road?
  2. Is it intended to link with the Cudgen Lakes Sand Quarry, Kingscliff WWTP and the existing Altona Road and then to Tweed Coast Road?
  3. Does it have capacity for item 2 above?
  4. Can Hanson confirm that its proposed increase in Hanson quarry trucks will not use Altona Road eastwards to Tweed Coast Road?
  5. What is the proposed timing of the above 1 – 4?
  6. What height – elevation is planned for the westward Altona Road? This is required for flood modelling.
- Drainage channels. Currently local drainage from Gales quarry seems blocked by filling in around the southern edge of the Hanson lands, wetting up Gales land. We have spoken with Council about this and we are not sure exactly where the main blockage is, but this blockage and also impacts of the Hanson proposals on drainage should be assessed.

We would appreciate being provided with the preliminary outcomes of Hanson's assessments before public exhibition so that the parties can discuss areas of concern and optimisation before exhibition, including matters relating to flooding, traffic, noise, air quality, and future planning for the area. Gales would also be pleased to share relevant information to assist with the assessment of cumulative air, noise, traffic etc.

Thank you for giving Gales to opportunity for involvement and we look forward to receiving further information and continuing to consult with Hanson regarding these matters.

Kind Regards

Stephen Segal

Director

Gales-Kingscliff

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