December 17, 2025

Ron Davidson Land Use Planning Consultant Inc.
265 Beattie Street
Owen Sound, Ontario
N4K 62

Attention: Ron Davidson
ronalddavidson@rogers.com

Re: Response to Peer Review Comments
Bentinck Gravel Pit
382063 Concession 4 NDR
West Grey, Ontario
VCL File: 123-0064

Dear Mr. Davidson:

On behalf of the Municipality of West Grey, WSP Canada Inc. (WSP) has completed a peer review of our Peer Review Response letter, dated October 3, 2025. The peer review comments are outlined in WSP's letter dated October 31, 2025. Responses to the peer review comments are provided herein.

1.0 SECTION

1. 2.3 Peer Review Comment #6 – Programme of Operation. Please provide confirmation that the findings of the noise assessment would not be altered with the consideration of these additional noise sources. It is also advisable that the Operations Plans provide a list that differentiates the equipment between Operations and Construction and Rehabilitation Phases.

The equipment required for daily or regular pit operations has been reviewed with the pit owner. The following was confirmed:

- A hydraulic hammer is not required and will not be used on this site.
- A hydraulic excavator, dozer, skid steer and grader could be used on this site.
- The crusher, screener, generator and air compressor are part of the processing plant.

As this is a relatively small operation (annual extraction limit of 200,000 tonnes), all of the equipment will not operate on the site simultaneously since there will not be that many equipment operators employed at the site. The noise assessment currently accounts for two front end loaders operating on the site simultaneously. Since the sound emission levels for the equipment listed in the second bullet above would be similar to that of a loader, provided there are only two of the loaders, excavator, dozer, skid steer and grader operating simultaneously, the noise assessment

remains valid and additional noise mitigation is not needed. It was confirmed that all of this equipment would operate at the base of the pit and not atop the working face.

A recommendation is added to the noise mitigation requirements limiting the loaders, excavator, dozer, skid steer and grader to having a maximum of two of these operating simultaneously.

The processing plant noise sources are accounted for in the reference sound level used to complete the assessment. Note that the sound emissions for all equipment are limited to the maximums provided in the recommendations Table 2 (see item 3 below).

2. 2.5 Peer Review Comment #8 – Programme of Operation. The noise study should speak to the potential impact to the existing homes for the haul route analysis, which considers OLA and Plane of Window (POW). It may be helpful to consider 'typical' expected increases in noise levels from the facility's off-site haul traffic as opposed to the 'predictable worst-case impacts'. Please also provide confirmation if mitigation strategies have been considered, which could include:

- *Administrative controls to limit maximum truck volumes during periods of minimal ambient traffic;*

- *Physical controls.*

The front façades of the dwellings, which represent the Plane of Window (POW) along the proposed haul route are as close as about 30 m from the roadway centreline. All of the existing dwellings have driveway access directly onto either Concession 4 NDR or Mulock Road and front towards the roadway resulting in their Outdoor Living Area (OLA) being acoustically screened from the traffic on the roadway by the dwelling itself.

The typical haul route noise impacts at a 30 m front facade setback from the haul route were calculated using these assumptions:

- The AADT was calculated by multiplying the peak hour volumes provided in the traffic report by 10. 90% of the AADT is assumed to occur between 7 am and 11 pm. The average hourly background traffic volume during the operating hours of the pit is 1/16th of 90% of the AADT. Numerically, this hourly sound level is the same as the $L_{eq\ Day}$.

- The average hourly pit truck volume is 6 taken from Table 1 in the traffic report. Note that this average truck volume assumes that the annual extraction is at the 200,000 tonne limit. It is common for the annual extraction to be significantly lower than the annual limit which would result in lower truck volumes and lower noise impacts.

TABLE 1: TYPCIAL HAUL ROUTE NOISE IMPACT

Haul Route Segment	Typical Ambient (dBA)	$L_{eq\ 1Hr}$ with Average Haul Route Traffic (dBA)	Sound Level Increase (dBA)	Subjective Impact
Concession 4 NDR	51.6	56.3	4.7	Noticeable
Mulock Road	52.4	56.6	4.2	Noticeable

The rear yard OLA for these dwellings is setback further from the road and is acoustically screened from traffic on the roadway by the dwelling itself. Our conservative analysis indicates the typical ambient and with haul traffic sound levels in the OLA are about 6 dBA lower than the sound levels predicted at the front façade.

As per the original peer review request prepared by WSP, a noise assessment of road traffic along the public roadways was completed. The assessment relied upon the guidance for assessing off-site source vehicles provided in the draft MECP Noise Guidelines for Landfill Sites as there is no other guidance provided by the Ministry for assessing the noise impact from adding licensed traffic to a public road.

The draft MECP Noise Guideline for Landfill guideline states "*An access route for off-site source vehicles shall be selected which will result in a minimum noise impact. The selection process shall be based on a detailed quantitative assessment of noise impact on individual receptors and the number of affected receptors along the alternative haul routes. The municipality and the affected residents must be clearly informed of any potential noise impact.*"

In this case:

- There are two options for the off-site haul route. Trucks could travel either east or west on Concession 4 NDR.
- The background traffic volume is very low and the same to the east and west of the proposed pit site.
- The resulting noise impact due to the addition of the gravel pit traffic will therefore be the same regardless of which direction the trucks travel.
- Since there are essentially the same number of residential dwellings on Concession 4 NDR to the east and west of the site, both haul route alternatives are considered equal from a noise impact perspective.
- Based on the above, the proposed haul route meets the objective of being the one that results in a minimum noise impact. Note that there are no sound level limits or impact limits that must be met for the haul route traffic.

- Noise mitigation strategies as suggested by the peer reviewer have been considered and were found to not be practical:

  - Limiting maximum truck volumes to periods of minimal ambient traffic is not possible since the operator has no control over when trucks will be travelling to the site. In addition, other than the morning and evening peak hours, there will be very little background traffic through the remainder of the day.

  - Implementation of physical controls is also not possible. The owner/operator does not have the ability to install physical measures, such as sound barriers, along public roads or on private property.

Based on the above, a qualitative assessment has been completed and the selected haul route meets the requirements of the guidance provided in the Noise Guideline for Landfill Sites.

3. *2.24 Peer Review Comment #49 – Results. Are different trucks supposed to be used for Phase 5, please confirm no additional mitigation is required when using the higher sound power level for haul trucks. It is also advisable that the Operations Plans are updated to reflect the sound level limits.*

   The inconsistency regarding the reference sound levels and the volume for the trucks transporting material from the working face to the processing plant is because using either licensed type trucks or dedicated off road rock trucks were being considered. Using the larger and noisier rock trucks results in fewer trips per hour being permitted/required versus using the smaller trucks where a larger number of trips is needed to transport a similar amount of material in an hour. For either scenario, the noise guideline limits are predicted to be met at the receptors.

   An updated list of noise mitigation recommendations is provided below. This includes mitigation measures recommended by the WSP peer review. These recommendations should be added to the Site Plans to ensure they are part of the license conditions.

Mitigation Recommendations

These noise mitigation measures are recommended for the gravel pit and should be included on the Site Plans:

- All operations at the pit should only be done during the daytime (i.e., 0700 to 1900 hours) period.

- The sound emission level for all pieces of equipment used for construction activities including site preparation and rehabilitation must comply with the limits outlined in MECP Publication NPC-115, “Construction Equipment”.

- Construction activities should only be done during the daytime (0700 to 1900 hours) Monday to Friday and should not be done on weekends or statutory holidays.

- Alternative technologies to back-up beepers (such as broadband alarms) should be used on the equipment operating at the site. Internal haul routes should be designed to minimize the need for reversing to reduce the use of back-up alarms.

- The amount and sound emission levels from the equipment operating on site must not exceed those outlined in Table 5.

TABLE 2: EQUIPMENT LIMITS

Type	Maximum Number	Maximum Sound Emission Level (dBA)
Front End Loader, Excavator, Dozer, Skid Steer, Grader	Maximum of any 2 at any time	76 @ 15 m
Processing Plant (Crushers, Screens, Stackers, Generator, Compressors)	1	90 @ 15 m
Haul Trucks(1)	5 loads per hour	82 @ 15 m
Shipping Trucks	10 per hour	75 @ 15 m

- To ensure noise emissions comply with the recommendations of the NIS, sound emission levels from equipment to be used on site should be measured to ensure they do not exceed the levels outlined herein (Table 3). For equipment brought to the site on an as-needed basis, they may have appropriate C of A's or ECA's implying that measurements would have been completed prior to approval.

- An off-site noise audit should be completed within 6 months of the start of extraction while processing operations are being done on the site to confirm the MECP noise guideline limits are not exceeded. The audit must be done by a qualified acoustical engineer.

- If alternate noise mitigation measures are to be implemented, if there are any changes to the site operations or if there are any changes to the noise mitigation measures, they be reviewed and approved by a qualified acoustical consultant to ensure the MECP noise guideline limits will not be exceeded.

- All equipment operating on the site must have effective and continuously operating mufflers.

- The speed limit for trucks operating on the site be posted as being 20 km/hr.

- There should be policy to minimize or eliminate tail gate banging from occurring on the site.

- To mitigate the noise impact from the gravel pit at existing noise sensitive uses:

  - A 2.0 m high sound barrier is recommended at the north end of Phases 1 and 2. This barrier is required prior to the start of any work in Phases 1 or 2.

  - A 4.0 m high sound barrier is recommended along the west side of Phase 2, returning east along the south extent. This barrier is required prior to the start of any work in Phases 1 or 2.

  - A 4.0 m high sound barrier is recommended along the west side of Phase 5, extending east approximately 30 m at the north end. This barrier is required prior to the start of any work in Phases 3 to 5.

- Mitigating the noise levels at the vacant noise sensitive lots is only required if a noise sensitive use (such as a residential dwelling) is built on the lots. To mitigate the sound levels at the vacant noise sensitive lots:

  - A localized sound barrier up to 10 m in height would be required around the west side of the processing area. The crest of this barrier must be no more than 30 m from the equipment in the processing plant;

  - A sound barrier up to 17 m in height would be required along the east side of Phases 3 and 4; and

  - The 4.0 m high sound barrier along the west and south sides of Phase 2 would need to increase to 5.0 m in height.

If there are any questions, please do not hesitate to call.

Yours truly,

VALCOUSTICS CANADA LTD.

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