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February 4, 2020

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**Re: Response to Shantz Station Pit Air Quality Assessment – Technical Peer Review  
Capital Paving Shantz Station Pit  
RWDI Reference No. 1803181**

Dear Mr. Lourenco,

I have reviewed the comments raised in the “Shantz Station Pit Air Quality Assessment – Technical Peer Review”, prepared by Dillon Consulting Limited, dated December 19, 2019. Table 1, attached, provides the detailed responses to these comments.

In addition, I have prepared the Best Management Practices Plan for Dust (BMPP) for Shantz Station Pit, which is attached as a standalone document. This document provides detailed controls that are to be implemented at the site. Based on my experience at mining and aggregate sites throughout Ontario and Canada, the controls specified in the BMPP are expected to achieve the levels of control indicated in the 2019 Air Quality Assessment. Several of the responses in Table 1 reference this document.

Please do not hesitate to contact me if you have any questions.

Yours truly,

**RWDI**

Brian G. Sulley, B.A.Sc., P.Eng.  
Technical Director, Principal

BGS/RS/hta  
Attach.



Table 1: Detailed Responses to Dillon Consulting Limited Comments

#	Dillon Consulting Comment	RWDI Response
1.	<p>In general, the methodology followed in this assessment appears to be reasonable and may follow industry standards. The Report considers ambient concentrations and the impact of Site operations at surrounding receptor locations, and has generally relied on provincial guidance and standards. However there are areas where assumptions and information have not been provided and therefore it is not possible to fully assess the completeness and appropriateness of the Report.</p>	<p>Please see the responses to the individual comments for clarification.</p>
2.	<p>The Report makes reference to a Best Management Practices Plan (BMPP) for dust, which has not yet been developed. In some cases, the Report states that if the BMPP is followed, off-site impacts from an air quality perspective will be acceptable. For example, the selected emission rates for all processing activities included in the modelling are listed as “controlled” emission rates (i.e. include control mechanisms). The Report does not include a description or commitment to the types of controls which will be implemented at the Site.</p> <p>It is recommended that a BMPP be developed, with direct linkage to the levels of mitigation required from within the modelling (e.g. frequency of application of suppressants, moisture contents of materials in piles, levels of traffic at site, road cleaning activities) and reviewed for appropriateness prior to approval of the undertaking.</p>	<p>A BMPP for the site has been developed and is attached to this response.</p>



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FEBRUARY 4 ,2020

3.	<p>Section 7 states that “Dispersion modelling was conducted to confirm that the proposed mitigation measures will be sufficient to control off-site impacts at the residential receptor locations.” It is unclear what mitigation measures have been included in the modelling. It is recommended that the report describe all required mitigation measures and that these measures be included as operational requirements for the Site. These measures can have a material impact on compliance/level of impact and would require review to ensure alignment with industry standards.</p>	<p>A description of these measures is included in the BMPP.</p>
4.	<p>Section 11 of the Report states that “...with a high level of control on the haul routes and appropriate setback distances, compliance with the relevant criteria can be achieved at all residential receptors...” The Report should include a clear description of the control methods to be implemented on the haul routes as well as the required setback distances to achieve compliance. These setback distances and control methods can have a material impact on compliance/level of impact, and would require review to ensure alignment with industry standards. These setback distances should form part of the approval provided by the Region for the undertaking.</p>	<p>The setbacks are described in the recommendations of the report, and have been included in the BMPP, which also described other mitigation measures.</p>
5.	<p>The Report states that conifer trees will be used as a mitigation measure for visible dust. Further details, such as required tree density and assumed control efficiency should be provided which supports the use of trees as a mitigation measure. These assumed efficiencies and required density can have a material impact on compliance/level of impact and would require review to ensure alignment with industry standards.</p>	<p>A description of these measures is included in the BMPP.</p>



6.	<p>The Report assumes a 95% control efficiency for fugitive dust emissions from on-site unpaved roads which represents a very high level of control. This control efficiency is well above typical assumed control efficiencies, and would require management well above industry standard practices. The report should include justification for this control efficiency and this information would be required to be reviewed to ensure appropriateness of assumptions.</p>	<p>The 95% level of control used in the assessment for dust on the internal haul route is an outcome of the modelling, not an input assumption requiring justification. It represents the level of control found to be needed to achieve acceptable results at the nearest receptors. Published studies show that it is achievable. Rosbury (Dust Control at Hazardous Waste Sites. EPA/540/2-85/003, 1985) summarized results from various studies showing that levels of control as high as 98% were attained in some cases.</p> <p>Rosbury went on to prescribe a watering rate that would achieve near 100% control (approximately 1.7 L/m<sup>2</sup>/h). The US EPA (AP-42, Chapter 13.2.2) showed that by maintaining a road surface moisture level of 5 times that of the ambient soil, a 95% level of control could be achieved.</p> <p>It is clear therefore that the 95% level of control prescribed by RWDI is attainable through sufficient watering. This finding of the studies is consistent with RWDI's experience in observing the effect of intensive watering programs.</p> <p>A description of these measures is included in the BMPP.</p>
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7.	<p>The Report includes specific operational limitations which have been accounted for in the impact assessment. These limitations should form part of the operational plan for the site and/or the approval that will be issued by the Region. All assumptions included in the emission calculations which would impact site operation (for example, minimum emission ratings from on-site vehicles and equipment) should be included in the Report as requirements for Site operation.</p>	<p>A description of these measures is included in the BMPP. RWDI agrees that the requirement for the development and implementation of the BMPP should be included as a condition on the Site Plans.</p>
8.	<p>The dispersion modelling assessment supporting the report used the Ozone Limiting Method (OLM) to calculate the nitric oxide (NO)/ nitrogen dioxide (NO<sub>2</sub>) ratio from total nitrogen oxides (NO<sub>x</sub>). The report states that 90th percentile measured ozone (O<sub>3</sub>) concentrations were used within OLM. The United States Environmental Protection Agency (US EPA) – who developed the AERMOD dispersion model used in the Report – states that the use of the OLM requires hourly ozone data be provided to the model. The use of 90th percentile data in lieu of hourly ozone data should be justified in the report.</p>	<p>The OLM option in the AERMOD model was not used, and the OLM calculations were done during post-processing. This is a standard industry methodology used for environmental assessments prior to the inclusion of the OLM in the AERMOD model.</p> <p>The only real benefit of using the OLM option in AERMOD is to obtain the 3-year average of the 98<sup>th</sup> percentile daily maximum 1-hour values for each year required under the Canadian Ambient Air Quality Criteria, which do not apply in this case.</p> <p>The approach in the assessment is entirely adequate, and no new useful information will be provided using the OLM option in AERMOD. Differences in the two approaches are not material to the conclusions or recommendations of the report.</p>



9.	<p>The Report discusses a property which is leased by the Site (R1). It is understood that the property will be kept vacant while the Site is operational. It is recommended that documentation be provided which confirms that the property will remain leased and vacant or, in the absence of such documentation, R1 be treated as a normal receptor within the Report.</p>	<p>R1 is owned by the current owners of the property and will continue to own and reside on the property during and post extraction. Capital Paving has a lease agreement with the owners to operate a pit on the owner's lands.</p> <p>While the air quality assessment was not prepared in support of an ECA application, s. 2 of O. Reg. 41905 and MECP Guideline A11 indicate that R1 would not be considered a point of impingement. The same logic applies for assessments of this nature.</p>
10.	<p>The Emission Summary Table (Table 2) provides some provincial (AAQC) and federal (CAAQS) criteria, however the all the AAQCs and CAAQS have not been presented. For example, the Report has not included the CAAQS for nitrogen dioxide (NO<sub>2</sub>). Justification should be provided for the exclusion of provincial or federal criteria or standards.</p>	<p>The relevant benchmarks for air quality assessments of this nature in Ontario are the AAQCs, not the CAAQS.</p> <p>As per the 2019 Guidance Document on Air Zone Management, guidance from the Canadian Council of Ministers of the Environment (CCME), the CAAQS were not developed as facility level regulatory standards and are meant to consider all important sources of air pollution emissions in an air zone. They are intended to guide air zone management actions on a broader scale.</p> <p>PM<sub>2.5</sub> does not have an AAQC, and therefore the CAAQS was only used because no relevant AAQC exists.</p>
11.	<p>Dispersion modelling input and output files have not been provided. Without these files it is not possible to review the modelling setup or check the model results. Source configurations within the model can have a material impact on compliance/level of impact and therefore warrants review. These files should be provided for review.</p>	<p>Due to the size of the files, they will be provided via FTP site. Dillon Consulting Limited is asked to e-mail me directly to facilitate the transfer the files.</p>



12.	<p>The Report provide figures which show the modelled location of various activities throughout the phases of operation. It is unclear if the modelled locations represent the worst-case scenario; i.e. the operations occurring closest to relevant receptors. Rationale should be provided for the location of sources within the model, and these locations should be translated into operational setback distances that are prescribed within the approval of the undertaking.</p>	<p>The modelled source locations reflect the worst-case locations with respect to the recommendations in the report, specifically the operational set-back distances of 200 metres from the nearest residence for extraction operations.</p>
13.	<p>Appendix C includes several sources which are assumed to be 100% controlled. The Report should provide justification for this control efficiency.</p>	<p>There is a missing footnote in both Appendix B and Appendix C. 100% control reflects washed product, which contributed insignificant emissions due to the absence of silt in the material processed or handled.</p> <p>The MECP has accepted this approach for ECA applications, and in their review of assessments conducted as part of applications under the ARA. This approach is consistent with the approach used in other jurisdictions as well.</p> <p>A review of available literature (e.g., San Joaquin Valley Air Pollution Control District, University of Minnesota, Golder) show a similar approach in other jurisdictions.</p>



<p>14. The Report has not included on-site storage of material or exposed land as a fugitive source. MECP Guidance discusses the assessment of fugitive sources including storage piles and open material conveying. For regulatory compliance assessments (i.e. prescribed assessments required for approvals under Ontario Regulation 419/05), the MECP states that with the implementation of an effective BMPP, fugitive sources can be excluded from modelling. Land use compatibility relates to the potential for impacts on adjacent lands, and air quality impact assessments (as opposed to compliance assessments) should consider all fugitive sources of dust.</p> <p>Further, the MECP's land use planning guideline, Guideline D-6, states that for fugitive sources such as dust from traffic and storage piles "...separation of incompatible land uses will help minimize potential adverse effects from fugitive emissions." In this case, based on Guideline D-6 guidance, the recommended setback to the nearest sensitive receptors should be 300 m from any source of emissions. When these setback distances cannot be met, a study should be provided to appropriately demonstrate the land uses are compatible.</p> <p>The Report should be updated to include all sources of air emissions including fugitive dust and the Report reviewed for adherence to industry standards. The resulting setback distances should be reviewed prior to approval of the undertaking. The resulting setback distances should be prescribed within the approval of the undertaking.</p>	<p>The MECP recognizes that estimation and modelling of fugitive dust emissions from aggregate stockpiles are prone to uncertainty and are best managed through the implementation of a BMPP. RWDI agrees with this stance, based on more than 30 years of experience studying and developing mitigation strategies for fugitive dust from aggregate, mineral and forest product material stockpiles throughout Ontario around the world.</p> <p>In RWDI's experience, including these sources in the dispersion modelling analysis does not materially affect the outcome of the modelling assessment, and only increases the level of uncertainty in the analysis. This is especially true given that approximately 75% of the material stockpiled will be washed (as per Appendix C), which by nature generates little, if any, fugitive dust, even when handled.</p> <p>It should also be noted that while Guideline D-6 does provide some relevant context, it does not actually apply to pits and quarries, as per Section 1.2.4 of Guideline D-6. The separation distances provided in Guideline D-6 are generally applicable and used in instances where a proposed land use is unable to provide onsite mitigation and controls.</p>
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15.	<p>The Report does not assess the potential impact associated with off-site vehicle traffic. Guideline D-6, requires assessment of all industrial uses in proximity to sensitive receptors and states "...industrial land uses which have the potential to produce point source and/or fugitive air emissions... from associated traffic/transportation." should be assessed. Assessing off-site traffic associated with an industrial site is a regulatory grey area in Ontario; the MECP states that off-site traffic does not need to be assessed for industrial regulatory approvals (i.e. compliance approvals), however the MECP does consider off-site traffic for assessments performed under the Environmental Assessment Act (i.e. impact assessments). The Report should include an assessment of off-site traffic impacts and any applicable operational measures which will be implemented to minimize the impacts of off-site traffic. This assessment should be reviewed for accuracy prior to approval of the undertaking.</p>	<p>As noted in the previous response, Guideline D-6 does not apply to pits and quarries. Furthermore, the Ontario Environmental Assessment Act does not require an environmental assessment for applications for a license under the Aggregate Resources Act. The potential impacts from aggregate operations are well-understood, and the impacts are best managed through implementation of best management practices and Site Plan controls.</p> <p>Trucks will access a Regional Road that is already a designated truck route, and the trucks are licensed for operation on public roads. The assessment of air quality impacts along the Regional and Provincial highway networks is not required, as it is already considered in the designation of approved truck routes by both Regional and Provincial governments. No useful information will be provided through this analysis.</p>
16.	<p>The conclusions of the Report state that "The Shantz Station Pit has been appropriately designed, managed, and separated from surrounding sensitive land uses to prevent and mitigate adverse effects." Sufficient supporting information has not been provided to support this conclusion (e.g. a completed BMPP, dispersion modelling input and/ or output files, description of the assumed mitigation measures and efficiencies, and required separation distances). It is recommended that the Report be updated to include sufficient information to support this conclusion and the revised Report be reviewed for completeness and accuracy.</p>	<p>We believe that Shantz Station Pit has been appropriately designed, managed, and separated from surrounding sensitive land uses to prevent and mitigate adverse effects. The Best Management Practices Plan, which was recommended in our original assessment, provides the appropriate level of detail for the operator to ensure that potential air quality impacts are within acceptable levels.</p> <p>The methodology used in the report and the BMPP have been successfully used at other aggregate sites across Ontario, including sites that are far more intensive with higher production rates than what is proposed for the Shantz Station Pit.</p>

## CAPITAL PAVING INC. – SHANTZ STATION PIT

TOWNSHIP OF WOOLWICH, ONTARIO

BEST MANAGEMENT PRACTICES PLAN FOR DUST

RWDI # 1803181

January 30, 2020

### SUBMITTED TO

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## VERSION HISTORY

Index	Date	Pages	Author
1	January 30, 2020	All	Brian Sulley

## REPORT SIGNATURES

A handwritten signature in black ink, appearing to read 'B. Sulley', written over a horizontal line.

Brian G. Sulley, B.A.Sc., P.Eng.



# 1 INTRODUCTION

## 1.1 Overview

This Best Management Practice Plan (“BMPP”) for dust was prepared for Capital Paving Inc. (the “Company”) for implementation at their Shantz Station Pit (the “Pit”) in the Township of Woolwich, in the Regional Municipality of Waterloo. This plan includes dust control measures that meet and/or exceed the current industry standards. Implementation of these measures will ensure that dust is effectively controlled and impacts to neighbouring residents are minimized.

## 1.2 Components of A Best Management Practices Plan

A BMPP is a detailed document that outlines the fugitive dust sources at a given site and describes the measures that shall be used to control emissions from these sources. The BMPP is used to manage fugitive dust emissions from sources such as on-site haul routes, material processing, material handling, and wind erosion. The Ontario Ministry of the Environment, Conservation and Parks (“MECP”) recommends that the BMPP be based on a process of “Plan, Do, Check Act”, as described in the Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources<sup>1</sup>. This BMPP is designed to meet the recommendations of the MECP in a form that provides clear and concise procedures for site personnel.

## 1.3 Size and Composition of Fugitive Dust at Sand & Gravel Operations

Typically, the dust at a sand and gravel operation has the following characteristics:

- Primarily composed of calcium carbonate, oxides of iron, magnesium and aluminum and/or silicon;
- Fraction of dust smaller than 10 micrometres (PM10), 19-55%<sup>2</sup>; and,
- Fraction of dust smaller than 2.5 micrometres (PM2.5), 3-14%<sup>2</sup>;
- Crystalline silica content of onsite material, estimated at less than 17%

## 1.4 Overview of the Best Management Practices Plan

This document provides a separate section for fugitive dust sources at the Pit, including a description of each source, complete with control measures applicable to each particular source.

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<sup>1</sup> Standards Development Branch, Local Air Quality Section, Ontario Ministry of the Environment and Climate Change (MOECC)

<sup>2</sup> Based on data from the AP-42 Compilation of Air Pollutant Emission Factors, published by the United States Environmental Protection Agency.



## 2 SITE PREPARATION & REHABILITATION

### 2.1 Activities Included

- Overburden removal using excavators, loaders and haul trucks.
- Berm construction using loaders, haul trucks and bulldozers.
- Rehabilitation using loaders, haul trucks and bulldozers.

### 2.2 Controls

- Avoid, if possible, overburden removal, berm construction and rehabilitation operations, if possible, during dry months, such as July, August and September and during peak periods of extraction and processing of aggregates.
- Stripping, berm construction and rehabilitation shall be monitored hourly when all of the following criteria are met:
  - Dry weather is anticipated;
  - Excavation and loading activities are within 200 m of a residence; and
  - Winds are anticipated to be blowing towards the residence.
- If visible dust is observed under these conditions, these operations shall be reduced, or additional mitigation measures shall be undertaken, such that visible dust is prevented from leaving the site.



## 3 AGGREGATE EXTRACTION

### 3.1 Activities Included

- Excavation of virgin aggregate at the active working face by excavators and / or front-end loader; and,
- Transfer of virgin aggregate to the portable crusher by excavators and / or front-end loader.

### 3.2 Controls

- Extraction, transfers, crushing and conveying shall be visually monitored when the following criteria are met:
  - Extraction is occurring within 200 meters of a residence;
  - Winds are blowing from the operations towards those residences; and,
  - Dry weather is anticipated (operations can proceed at full production under rainy conditions);
- If visible dust is observed blowing towards residences adjacent to the site, water should be applied as quickly as possible. Activities may need to be reduced or stopped completely if the dust cannot be mitigated.



## 4 AGGREGATE PROCESSING

### 4.1 Activities Included

- Crushing of virgin aggregate in the portable crusher;
- Conveying of crushed aggregate back to the main processing plant.
- Aggregate crushing, screening, washing and stockpiling at the main processing plant.
- Aggregate stockpile area and loading of trucks around the stockpiles.

### 4.2 Controls

- In Phases 4 and 5, the portable crusher shall only be located within the Portable Crusher Operating Zones shown on the Operational Plan.
- All processing equipment shall be equipped with dust suppressing or collection devices (such as a water spray system). If a water spray system is used, spray bars shall be located at crushers and screen decks.
- Dust suppressing or collection devices shall be operated at all times, except when precipitation is sufficient to offset the operations of the dust suppressing or collection devices.
- The dust suppressing or collection devices will be operated at a level sufficient to suppress visible dust.
- If water sprays are used for dust suppression, watering is not technically feasible due to possible icing of the equipment when the temperature is below 4°C. Under these conditions, operations may need to be reduced, or other mitigation measures implemented.
- For screenings and other high-fines materials, stackers will be kept as close to the tops of stockpiles as is feasible, to achieve a drop height of approximately 1m or less.
- The processing rate shall not exceed 4,800 tonnes/day.



## 5 UNPAVED HAUL ROUTES

### 5.1 Activities Included

- Unpaved haul routes for loader traffic from working face to portable crushing plant.
- Unpaved haul routes for shipping traffic from main processing plant to paved portion of haul route.

### 5.2 Controls

- A watering system (spray truck or suitable alternative) and sufficient water supply shall be available to provide water to all significant unpaved traffic areas.
- The watering system shall be able to deliver the water evenly over the haul route surface and shall have the capacity to deploy water on all active haul routes at a rate of at least 1.5 L/m<sup>2</sup>/hour.
- The actual watering rate shall vary, depending on surface moisture conditions and traffic conditions, and shall be triggered by the Operational Watering Forecasting guidance provided in Section 8 of this BMP Plan.
- At the start of each day, prior to trucks accessing the haul routes, the travel surfaces will be inspected, and water will be applied if dry conditions are found.
- A speed limit of 20 km/h shall be posted near the site entrance. Haul truck and highway truck operators will be directed to observe the speed limit.
- Application of chemical dust suppressants may be used in conjunction with application of water. The rate of watering may be reduced below the trigger levels in the Operational Watering Forecasting guidance provided in Section 8 of this BMPP, subject to the condition that no visible dust shall migrate off-site.



## 6 PAVED HAUL ROUTES

### 6.1 Activities Included

- Paved haul route for shipping traffic.

### 6.2 Controls

- The first 100 metres of the site entrance driveway, measured from Shantz Station Road, shall be paved.
- A speed limit of 20 km/h shall be posted near the site entrance. Haul truck and highway truck operators will be directed to observe the speed limit at all times.
- The facility shall have the capability to sweep and / or flush the on-site paved surface.
- In dry weather, the paved entrance area shall be inspected at the end of each day's shift and swept and / or flushed if necessary, to provide a clean entrance for the start of the next day's operations.
- The frequency of sweeping / flushing shall vary, depending on surface moisture conditions and traffic levels, and shall be triggered, as soon as practical, whenever routine inspections indicate that there is visible track-out on the pavement (may need to be swept / flushed once or twice per day, during peak operating periods).



## 7 WIND EROSION

### 7.1 Activities Included

- Wind erosion may occur at disturbed areas, or at stockpiles that have relatively high silt contents, such as screenings or granular aggregate
- Disturbed areas include the working face, areas that have been stripped but not yet extracted, and areas that have been extracted but not yet rehabilitated.
- Wind erosion of these piles will only occur when winds exceed a threshold wind speed level, which is typically on the order of 5-7 metres per second (18-25 km/h).

### 7.2 Controls

- The amount of disturbed area will be kept to the minimum necessary for extraction to proceed in an efficient manner. Progressive rehabilitation will be used to reduce erosion from previously extracted areas, in accordance with recommendations in Section 2: Site Preparation & Rehabilitation.
- Stockpiles of finer-grained material will be located on the eastern side of the plant area so as to be sheltered from prevailing winds by other piles.
- A row of conifers will be planted along the top of the berm adjacent to Receptor R3, on the portion of that berm located in Phase 1. This dwelling is owned by the owner of the gravel pit lands. If this dwelling becomes and remains vacant during the life of the site, then this tree screen will not be required.
- Where possible, existing tree screens should be maintained between the limit of extraction and the surrounding receptors.



## 8 OPERATIONAL WATERING FORECASTING

### 8.1 Activities Included

- The decision of when to conduct watering of haul routes and stockpiles requires the operator to use observations of meteorological conditions to ensure that dust is mitigated.

### 8.2 Conditions Under Which Watering is Required

- The site operator should monitor local weather conditions using local weather forecasts.
- The frequency of watering shall be determined approximately using the guidance provided in the table below:

Temperature	Relative Humidity	Hours Between Watering @ 1.5 L/m <sup>2</sup>
<b>Below 4°C</b>	Any	Watering not recommended
<b>4°C - 10°C</b>	75% or less	3
	75-90%	7
	90-100%	15
	Wet Weather (e.g., rain, drizzle)	Not required
<b>10°C - 20°C</b>	75% or less	1.5
	75-90%	3
	90-100%	7
	Wet Weather (e.g., rain, drizzle)	Not required
<b>Above 20°C</b>	75% or less	1
	75-90%	1.5
	90-100%	3
	Wet Weather (e.g., rain, drizzle)	Not required

- Regardless of the criteria above, watering will be implemented immediately if dust is observed to be blowing toward the residences adjacent to the site.
- When the temperature is below 4°C, watering is not recommended for safety reasons. Under these conditions, operations may need to be reduced, or other mitigation measures implemented.



## 9 ADMINISTRATION

### 9.1 Implementation Schedule

- All control measures should be in a state of readiness before operation of the pit commences.

### 9.2 Implementation Plan

- Formal training on new and existing operating procedures shall be provided to relevant new and existing staff at a minimum of once every 3 years, and in the event of changes to the BMPP.
- The company's management shall communicate the BMPP to responsible supervisors, who shall ensure personnel are following operating procedures defined in the BMPP.
- The Site Manager shall be responsible for ensuring the BMPP is followed.
- Management shall ensure the controls described in the BMPP are reviewed annually to maintain the levels of control outlined in the Air Quality Assessment, and to ensure operations will not have a negative environmental impact on the surrounding area.
- The BMPP shall be kept on file at scale house (or with other health and safety information and procedures on site).



## 10 INSPECTION & MONITORING

### 10.1 Inspection and Maintenance

- The water spray system for processing equipment should be inspected weekly;
- The paved road section will be inspected weekly, and maintenance will be performed as soon as practicable.

### 10.2 Monitoring

- Weather forecasts will be checked daily, to plan for current and next-day watering needs according to the Operation Weather Forecasting procedure described in Section 9.
- Visual inspection for dusty conditions shall occur at a minimum of twice daily.
- In accordance with Sections 2 and 3 of this BMPP, visual inspections shall be carried out hourly when overburden removal, berm construction, rehabilitation, excavation and loading operations are near a residence; dry weather is anticipated; and, winds are anticipated to be blowing towards the residence.
- The Site Manager or their delegate will be responsible for monitoring current conditions and weather forecasts from Environment & Climate Change Canada, to subsequently help plan for current and next day watering needs and other measures.

### 10.3 Record Keeping

- Records shall be kept of when and how dust control measures are implemented and when complaints are received, if any. As a minimum, the following activities or events shall be recorded:
  - Watering is applied on paved roads, unpaved roads and regularly travelled areas;
  - Visible dust is observed; and
  - A complaint is received.
- In addition, records shall also be kept of the results of all Inspection, Maintenance and Monitoring activities, including the following:
  - Inspection and maintenance of the water spray system for the processing plant;
  - Inspection and maintenance of the water truck, if applicable, and water delivery system;
  - Inspection and maintenance of the paved road surfaces; and,
  - Results of visual inspections including the time of the inspection and meteorological conditions at the time of the inspection.



## 11 COMPLAINT TRACKING AND RESOLUTION

### 11.1 Complaint Tracking

- A sign posted at the site entrance, and on the Company website, shall include a phone number for neighbours to call if they have concerns.
- The Company shall request that the local MECP office and the Township of Woolwich notify them immediately if they receive a complaint, to allow for prompt response and follow-up.
- Complainants shall be requested to identify the location of the incident as well as the time of day that it was detected and any other information that they feel is relevant.

### 11.2 Complaint Resolution

When a complaint is received, the Site Manager shall ensure the following steps are undertaken:

1. Inspect the site and surrounding area to identify possible sources of visible dust;
2. Obtain weather data for the time of the event; and,
3. Note all on-site activities at the time that the complaint was made.
4. If the information indicates that the facility is not the source of the dust complaint, the complainant shall be notified of this finding.
5. If it is determined that the complaint may, in fact, have been related to the facility operations, the following response procedures shall be followed, in the order provided below:
  - Level 1 - Correction of operations as soon as practical. The Site Manager shall ensure that all element of the BMPP are being followed. Control measures shall be stepped up or operations may be curtailed, as required.
  - Level 2 – Review of Best Management Practice Plan. If the Level 1 response does not adequately resolve the problem, the BMPP shall be reviewed to look for additional control measures to address the source of the dust complaint.
  - Level 3 – Operational modifications. If the Level 2 response does not adequately resolve the problem, the operator shall commit to making physical changes to the facility to address the source of the dust complaint, such as additional enclosures, relocation of equipment, or additional paving.