Fugitive Dust Management Plan

Prepared for Sumas Gro-Media Ltd.

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Table of Contents

1. Introduction

1.1. Background

Sumas Gro-Media Ltd. (the Facility) is located at 42181 Industrial Way, Chilliwack, BC on parcel ID 032-089-121. The Facility is a potting soil facility, mixing various soils and medias into plant growing media. The Facility consists of a central building for receiving and mixing, a mulch storage area (sawmill residuals such as hog and sawdust) and peat moss stockpiles, a mixed storage area, a bagged product storage area, and an lined holding pond.

1.2. Purpose of the Fugitive Dust Management Plan (FDMP)

According to the BCMOE's guidance on the management of dust emissions, dust causes negative impacts to nearby properties as it can affect vegetation, can be a human health concern if respirable, and can act as a transport mechanism for other contaminants or can be a nuisance, disrupting the enjoyment of personal property. Fugitive dust emissions generated by road dust are one of the main factors contributing to public complaints.

This FDMP has been developed to identify, minimize, and control the potential onsite generation and the offsite transport of fugitive dust at the subject facility. The FDMP identifies sources of fugitive emissions, control measures to reduce emissions, and additional actions the facility will take if fugitive emissions become an issue.

Although the facility has not received any complaints as at the date of this report, the operators must continue to maintain control of dusts to prevent nuisance.

2. Roles and Responsibilities

This FDMP will be developed, implemented, and maintained by the individuals identified in Table 1. If the roles and responsibilities are changed, the table must be updated accordingly and the updated FDMP submitted to the Director.

Table 1. Fugitive Dust Management Plan personnel, roles rand responsibilities

Name	Position or Title	Responsibilities
Bert Bischoff	Site Manager	Developing the Plan: • setting goals and approving the FDMP. • ensuring that sufficient resources are available for the plan to be effective.
Raj Dhaliwal	Operation Manager	Implementing the Plan: • Ensuring compliance with the Plan, and appropriate Regulations, and Standards • Regulatory Reporting as required • Reviewing and Updating the Plan as required

3. Facility Description and Setting

3.1.Location

Sumas Gro-Media Ltd. is located at 42181 Industrial Way, Chilliwack, BC on parcel IDs 032-089-121 and (Figure 1). The Facility is west of Chilliwack. The Fraser River lies 470 m to the north and flows from east to west. Figure 2 shows the nearby land use around the site. The land use south of the site across Highway 1 is agricultural. There are no residential areas or sensitive receptors within 2 km.

Figure 1. Site location and nearby parcels

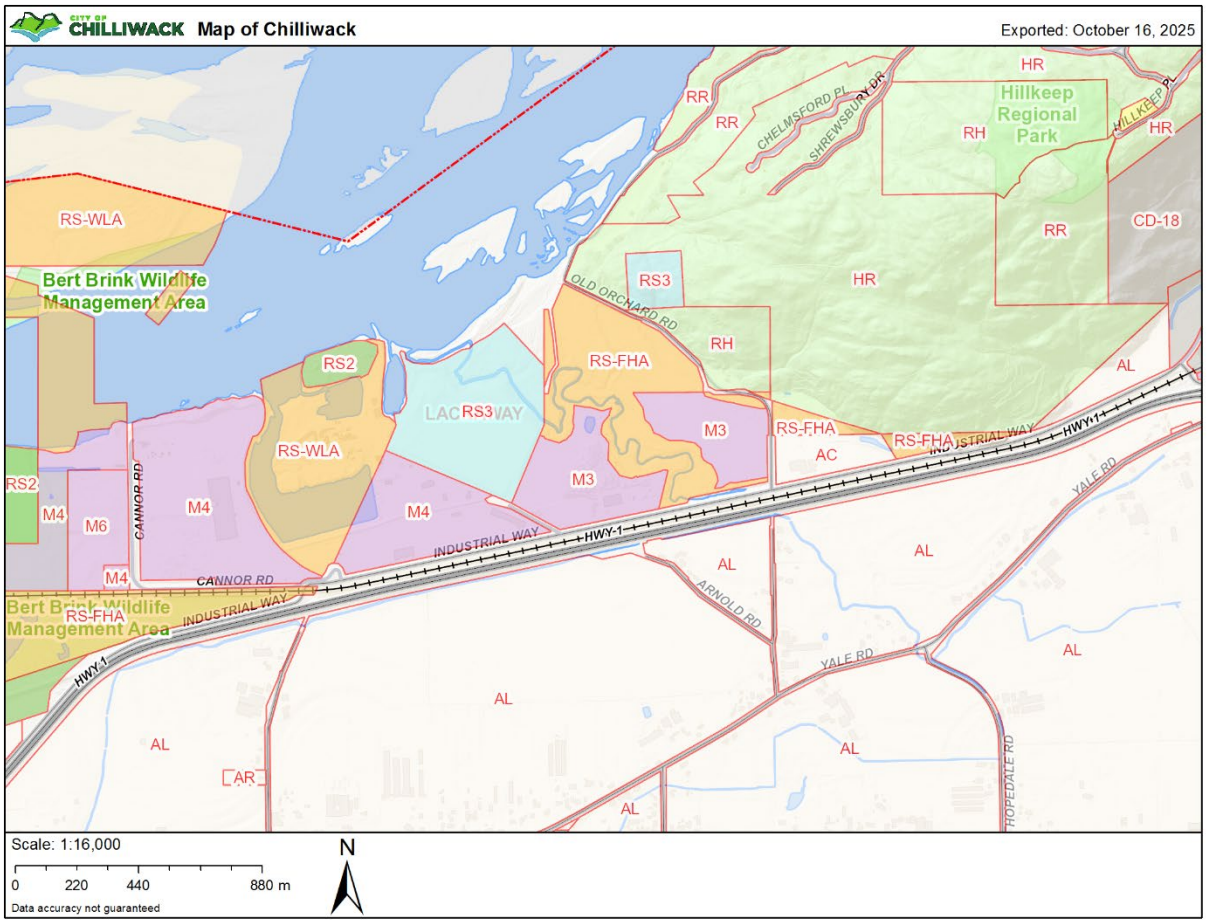

Figure 2. Site location and nearby land use

Legend	
Short Form	**Zone Designation**
Agricultural	
AC	Agricultural Commercial
AL	Agricultural Lowland
AR	Agricultural Residential
Comprehensive Development	
CD-18	Comprehensive Development Zone 18
Industrial	
M3	General Industrial
M4	Heavy Industrial
M6	Special Industrial
Reserve	
RS-FHA	Reserve – Flood Hazard Area

RS-WLA	Reserve – Water Lot Area
RS2	Public Use Reserve
RS3	Special Jurisdiction Reserve
Residential	
R1-A	Urban Residential
Rural	
HR	Hillside Residential
RH	Rural Hillside
RR	Rural Residential

3.2.Site Layout

Figure 3 shows the layout of the site. Access to the site is via Industrial Way. The main processing building is in the south of the site, close to the entrance area. The stormwater pond is at the northern tip of the site. Entrance to the site is at the southern edge of the site.

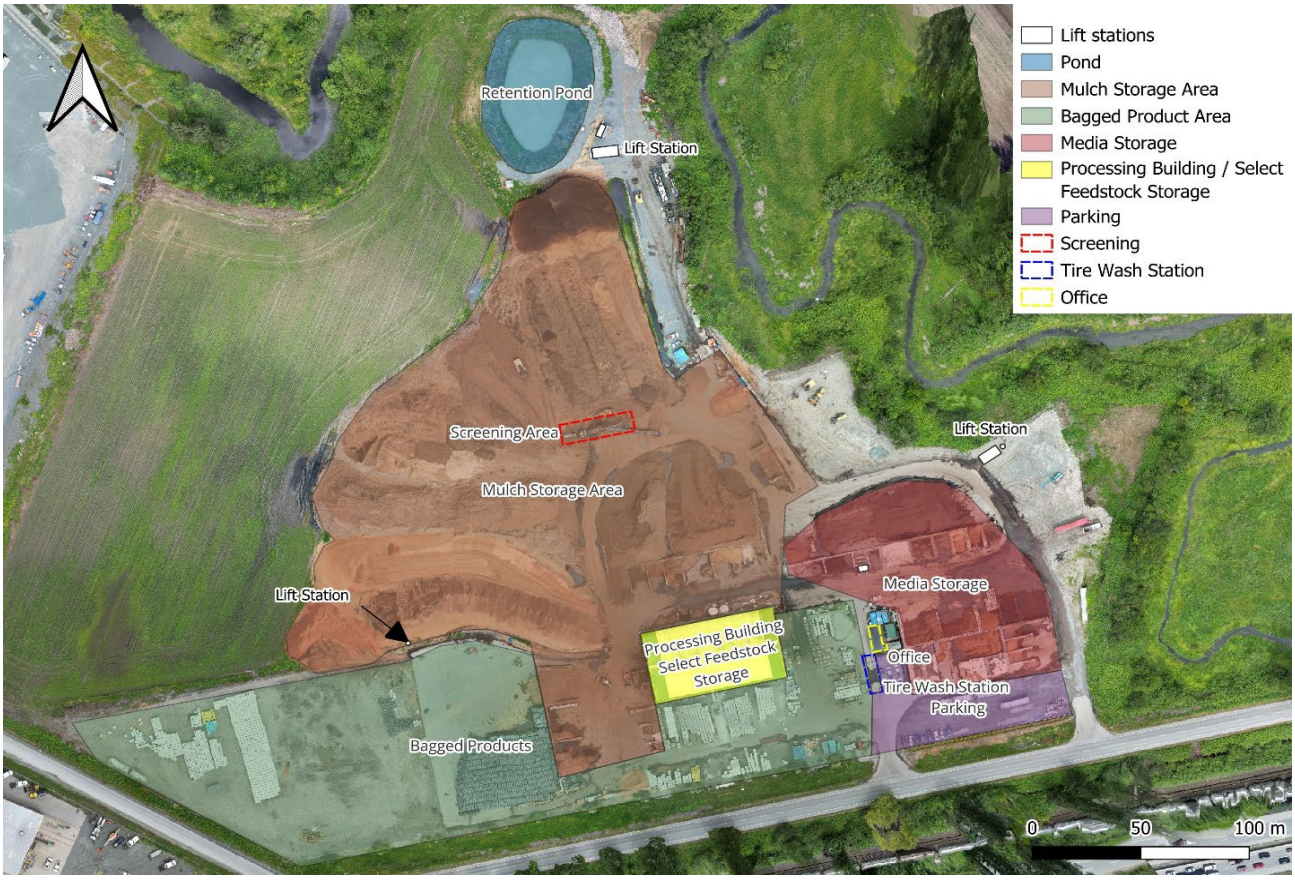

Figure 3. Site layout

4. Identification of Potential Sources of Fugitive Dust

This plan includes the management of dust generated from the fugitive sources shown in the table below.

Activity	Location	Potential Source	Dust Generating Materials	General Conditions	Description	Level of Dust Generation Risk	Possible Contaminants
Gravel road dust	Main access driveway and parking area	Dust kicked up by vehicle tires	Road dust	Vehicles kicking up dust on dry days	Wind-blown dust or wood fines tracked onto municipal roads or blown beyond property boundary	Seasonal – summer medium risk at site, lower risk in winter / fall / spring	Road dust, particle sizes PM10 or larger
Inventory unloading and moving	Outdoor Stockpiles	Loading and handling	Inventory fines	Stored indoor	Fine debris agitated during unloading and moving	Medium	Some PM 10 or larger fractions.

Inventory screening	Screening area near mulch storage location	Screening products	Inventory fines	Screening Inventory can result in dust emissions from screening action if inventory is dry	Wind-blown fines during screening	Seasonal – summer medium risk, lower risk in winter/fall/ spring	Some PM 10 or larger fractions.
Inventory blending	Products building	Blending equipment, feedstock stockpiles	Inventory fines	Stored indoor	Fine debris generated from mixing action	Medium	Some PM 10 or larger fractions.
Product loading	Main access roads, loading area	Dust kicked up by vehicle tires	Product fines	Drop loading can result in visible dust emissions from truck bins	Wind-blown fines during loading of the product	Seasonal – summer medium risk, lower risk in winter/fall/ spring	Road dust, particle sizes PM10 or larger

4.1.Source List and General Plan Review

A regular review of the Fugitive Dust Management Plan will occur to ensure the plan is continuing to be effective. The adaptive management approach will track all records and reports to ensure trends are not missed. As more data becomes available, it will be easier to determine areas that need improvement.

A designated review schedule and committee will ensure regular reviews are undertaken, and the plan is updated as needed. The committee include the site manager and facility owner, Bert Bischoff and Dennis Augustine. Meetings will be conducted annually in April, prior to the start of each dry season when dust potential is greatest.

Topics to cover in annual meetings:

- Discussion of complaints during previous year and how they were addressed
- Review of each source, determine if mitigation measures should be improved
- Updates to this plan
- Generate action items list, assign responsible people
- Schedule follow up dates for action items

5. Fugitive Dust Mitigation Measures

5.1.Feedstock Unloading, Transporting, and Grinding

Feedstock can be dry during hot weather. When grinding or moving the feedstock, dust can be generated. Mitigation measures include:

1. **Keep blending action indoors or enclosed**

The facility's blending operations already occur indoors and have every intention of retaining this practice. Subsequently this is the main mitigation measure.

2. **Wetting stockpiles**

The facility already routinely wets its stockpiles for fire prevention. This will be continued to manage dust emissions.

5.2.Transporting and Loading Product

Mitigation measures for reducing dust generation during transport of products onsite include:

1. **Wet products before loading for transport offsite**

Maintaining product moisture is standard practice. This action can be performed by wetting the product to maintain a constant moisture level. This practice mitigates dust generation during handling.

2. **Tarp loads**

Current standard practice is to tarp material once it is loaded into truck boxes. This prevents dust from blowing out of the truck's box once the vehicle is underway.

5.3.Vehicle Movements Onsite

Dozens of trucks, in addition to employee and business vehicles, arrive and depart from the facility daily. This vehicle traffic can generate road dust that can become wind-borne. The following control measures are to be implemented to minimize the generation, frequency, and/or intensity of this occurrence.

1. **Housekeeping**

The facility already makes remarkable efforts to maintain a clean and tidy site. Continuing these efforts, with an added emphasis on keeping roadways clean and free of dust producing material, will significantly control dust emissions.

2. **Water dust suppression**

Most of the roads within the plant footprint are paved and do not require wetting. For the few roadways that have a gravel surface, sprinklers or water spread by a front-end loader can be used to suppress dust if required. Wetting any gravel roads can be initiated on the first day that visible road dust emissions begin. Wetting does not need to occur on days where there are no visible dust emissions. If wetting is insufficient, the facility may consider paving these roads.

3. **Tire wash station**

A vehicle tire washing station is located in front of the site office for any vehicles entering/leaving the storage area to prevent tracking dirt/dust offsite.

6. Monitoring and Record Keeping

Records of fugitive dust management practices can be kept in a Fugitive Dust Monitoring Log. Records kept for the monitoring log will be reviewed by the FDMP personnel identified in Table 1 during the annual review of the FDMP. Monitoring activities, and respective record keeping, include:

- Keeping records of public complaints and facility's responses.

- Keeping records of instances of:
    - Sweeping/housekeeping.
    - Wetting
    - Fugitive dust observed to leave the site

Records for the Fugitive Dust Monitoring Log can be kept in a log similar to Table 2 below.

Table 2. Example Fugitive Dust Monitoring Log

Date/Time	Fugitive Dust Source	Comments (Weather, Visible Emissions, Unusual Conditions)	Person Initials

7. Summary

Based on the available information and rationale described above, the Fugitive Dust Management Plan (FDMP) includes the following measures:

Dust Generation Source	Mitigation Measures
Feedstock unloading, moving, blending, and screening	Irrigate feedstock piles with water during hot and dry season
	Keep blending indoors with dust control practices
Transporting/loading soil products	Maintain sufficiently wet inventory to prevent dust generation when loading.
Vehicle movement onsite	Housekeeping

	Water dust suppression
	Vehicle/tire wash station

For any questions regarding the content of this Fugitive Dust Management Plan, please contact the undersigned.

Regards,

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