Dust Mitigation & Monitoring Plan

Scully Mine

Tacora Resources Inc.
Wabush, NL

Rev 02
December 19, 2025

Prepared by:

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Table of Contents

List of Figures

List of Tables

List of Appendices

List of Acronyms & Abbreviations

AQM	Air Quality Monitoring
CACs	Criteria Air Contaminants
CCME	Canadian Council of Ministers of the Environment
CO	carbon monoxide
DMMP	Dust Mitigation and Monitoring Plan
GHG	greenhouse gas
ha	hectare
IH	Industrial Hygiene
NIOSH	National Institute for Occupational Safety and Health
NO_2	nitrogen dioxide
PM_{10}	particulate matter less than or equal to 10 microns
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns
PPD	Newfoundland and Labrador Pollution Prevention Division
SO_2	sulfur dioxide
TIA	Tailings Impoundment Area
TPM	total particulate matter

Revision History Log

Revision #	Sections (s) Revised	Prepared By	Approved By	Date Issued
00	First Issue	B. Connolly / K. Dawe	K. Jacobs / S. Baird	2024-08-19
01	Front Cover, 4, 5,7, Appendix B(C)	B. Connolly	K. Jacobs	2024-11-22
02	Front Cover, 1.2, 2.0, 3.0, 4.0, 5.2, 5.4, 5.7, 5.9, 7.1, 7.2, 7.3, 9.0	P. Power / B. Connolly	P. Power	2025-12-19

Index of Major Changes/Modifications in Revision 02

Item #	Description of Change	Relevant Section
1	Addition of distribution history log and executive summary	Front Cover
2	Addition of text distinguishing terms “particulate matter” and “dust” as used in the plan.	Section 1.2
3	In response to PPD comment #3 – Reference updated to Air Pollution Control Regulations, 2022	Table 1.1
4	Minor revisions of job titles and responsibilities consistent with Tacora’s current operations.	Section 2.0
5	Revisions consistent with Scope of plan focusing on particulate matter (i.e. removal of NO_2, SO_2, CO). Addition of text discussing silica and revision of Table 3.1 to focus on silica dust emissions.	Section 3.0, Table 3.1
6	In response to PPD comments #1 and #4 - Table 4.1 and associated text was revised to more explicitly indicate dust emission sources considered in the dispersion modelling assessment.	Section 4.0, Table 4.1
7	In response to PPD comment #2 - Revised text and added 5 tables preceding Table 4.3 (now Table 4.8) to explain rationale for criteria assigned to tailings dust emissions, and to more explicitly describe the magnitude criterion and how it was assigned. Columns in Tables 4.3 and 4.4 (now Tables 4.8 and 4.9) were adjusted accordingly. Tailings dust magnitude was re-evaluated as “Medium” as described in revised text.	Section 4.0, Tables 4.3-4.8
8	In response to PPD comment #10 - Text in Section 4 (and the Executive Summary) was added to further describe the identified sensitive receptors including nearby communities.	Section 4.0, Executive Summary

Item #	Description of Change	Relevant Section
9	In response to PPD comment #6 - Potential source in Table 4.8 revised to "Light vehicle and heavy mobile equipment traffic on unpaved access roads and laydown areas".	Table 4.8
10	In response to PPD comment #5 - Added text summarizing the Action Plan regarding air pollution control (APC) equipment updates in the mill operations and ore processing facilities. Details are minimal and reference to the Action Plan is provided to minimize repetition between the plans.	Section 5.2
11	In response to PPD comment #7 - Removed guidance for paved roads (paved haul roads do not currently exist onsite).	Section 5.4
12	In response to PPD comment #8 – Revised text to indicate that the water truck would only be used in areas on the TIA where it is safe to do so.	Section 5.7
13	In response to PPD comment #2 – Revised summary of tailings reclamation program to better harmonize with Rehabilitation and Closure Plan (RCP) dated December 2024. Brief description is provided for ease of reference; however further details are contained under separate cover (i.e. Tacora Resources Inc. Scully Mine Project Rehabilitation and Closure Plan Section 9.4 Revegetation Plan). Future updates of the RCP will incorporate any changes to recommendations on the method and type of revegetation based on ongoing trials and revegetation monitoring.	Section 5.9
14	Minor revisions to text for consistency with Environmental Department responsibilities.	Section 7.1
15	In response to PPD comment #10 – Revised text for clarity and additional information regarding results of monitoring, regular maintenance and quality assurance of data, audit performance, and data capture rates (i.e. uptime). Revised section title to "Ambient Air Quality Monitoring Program".	Section 7.2
16	In response to PPD comment #10 – Added section describing proposed remote air quality monitoring of PM_1, $PM_{2.5}$, and PM_{10} within the boundaries of the TIA. Pending feasibility, monitoring will continue annually to inform future revisions of the DMMP and dispersion modelling - and thereby decisions regarding dust mitigation and monitoring for the TIA Expansion Project. Tacora commits to providing results of this monitoring in future revisions.	Section 7.3
18	Re-numbering of Sections 7.3-7.4 (now 7.4-7.5) to accommodate above revision and preserve document flow.	Sections 7.4-7.5
19	Reference updates consistent with latest revisions.	Section 9.0
20	In response to PPD comment #9 – Removal of Environment Protection Plan from appendices	Appendices

Distribution History Log

Revision #	Purpose	Distributed By	Distributed To	Date
00	In response to directive	S. Baird	NL OHS	2024-08-19
01	Gathering feedback on draft DMMP from regulators	G. Letto	PPD	2024-12-06
01	Gathering feedback on draft DMMP from representatives of Indigenous Groups	G. Letto	Innu Nation	2024-12-11
			Innu Takuaikan Uashat mak Mani-Utenam (ITUM)	2024-12-11
			Nation Innu Matimekush - Lac-John (MLJ)	2024-12-11
			Naskapi Nation of Kawawachikamach (NNK)	2024-12-11
			NunatuKavut Community Council (NCC)	2024-12-11
02	Gathering feedback on DMMP from regulators	R. Williams	PPD	2025-12-19

Executive Summary

Tacora Resources Inc. (hereinafter "Tacora") operates the Scully Mine located in Wabush, Newfoundland and Labrador (NL). The Scully Mine is an existing iron ore mine, having operated in the same location for over 50 years. Operations occur on two properties separated by the Town of Wabush: (1) the Scully Mine, consisting of open pit mines, a concentrator, and supporting processing facilities; and (2) the tailings impoundment area (TIA) at Flora Lake. The Scully Mine Tailings Impoundment Area Expansion Project (the TIA Expansion) entails further deposition of tailings into the Flora Lake TIA, as well as into the area south of the TIA over a gradual period. In this document, both of Tacora's operational properties and the area pertaining to the future TIA Expansion are referred to collectively as the "Project Area". The Dust Mitigation and Monitoring Plan (DMMP) presented herein applies to current and future operations across the Project Area.

Iron ore mining forms the industrial base for the Towns of Labrador City and Wabush and is the main industry affecting the quality of the local atmospheric environment. Concerns regarding emissions of fugitive dust (defined as incidental, or unintended emissions of dust that is not emitted from a definable point source) commonly arise in relation to mining activities in the region.

The DMMP was developed to manage dust emissions from Tacora's mining operations, ensure compliance with environmental regulations, and minimize impacts on human health and the environment. Dust management at Tacora requires cooperation amongst the Environment Department, Mine Operations Team, and Safety Department, as well as all employees and site visitors. The Environment Department is primarily responsible for overseeing all activities to ensure that environmental objectives are met. The Environment Department receives environmental complaints pertaining to dust and coordinates investigation, implementation of corrective actions, and follow-up monitoring together with applicable personnel in the event of non-conformities with the DMMP or regulated standards.

Dust is generated by point and fugitive sources throughout the Scully Mine and TIA and will be generated by construction activities planned for the TIA Expansion. Source testing and emission estimates conducted by Tacora in 2021 and 2024 indicated that most emissions of total particulate matter (TPM) related to current operations are primarily due to:

- Ongoing operation of the dryers at the main processing facility (71% of TPM annually);
- Road dust generated by traffic on unpaved haul roads (24%);
- Mining activities and supporting operations in West Pit and West Pit Dump such as surface clearing, material loading/unloading, and dozing (2.8%); and,
- Fugitive dust due to wind erosion of tailings (1.2%).

There are two communities near the Project Area: Wabush which is situated in between the Scully Mine and TIA, and Labrador City which is situated northeast of the Scully Mine. Recreational lands (such as campgrounds or cabin properties) are sparsely distributed in the region, mostly along the Trans-Labrador Highway. Dispersion modelling indicated that TPM emissions attributed to Tacora would most frequently be disbursed to the east, and ground-level concentrations become lower further away from the source. This information indicates that the people most often exposed to elevated levels of dust are those working outside in close vicinity to dust-generating activities and equipment operators (i.e. people working within the Project Area). Potential off-site dust receptors include waterbodies in close proximity to dust-generating activities or materials, and residents of Labrador City and Wabush. Dispersion modelling indicated that the maximum impacts of dust from the TIA occur away from the Town of Wabush, consistent with the prevailing meteorology which shows high frequency of westerly wind. The eventual deposition of wet tailings, flooding of land, and progressive reclamation of dried tailings in the TIA Expansion area is expected to contribute a small proportion of fugitive dust to Tacora's overall emissions profile.

Dust mitigation practices conducted by Tacora are focused on utilizing best available control technologies within the mill operations and ore processing facilities, ensuring mobile equipment and light vehicles are equipped with emission controls and properly maintained, increasing the application frequency of topping materials and water on unpaved access roads during dry and windy periods, and conducting progressive reclamation of tailings to stabilize surface material and prevent wind erosion. General best practices (site-wide or not activity specific) and tailored dust mitigation measures for activities such as earth-moving works, blasting, tailings disposal and storage, and vegetation clearing are detailed in the report.

Ongoing monitoring of dust emissions are accomplished by regular inspections of active work areas, ambient air quality monitoring, and auditing to assess compliance and effectiveness of mitigation measures. There are five ambient air quality monitoring (AQM) stations situated in Labrador West: two of which are currently operated and maintained by

Tacora in Wabush and three by Rio Tinto in Labrador City. Air contaminants monitored at Tacora's AQM stations include TPM, fine particulate matter ($PM_{2.5}$), and sulfur dioxide (SO_2). Data from both stations are reviewed daily by a Tacora representative to look for elevated values and other data trends that may indicate air quality concerns which need to be addressed. As well, the NL Pollution Prevention Division has real time access to all industrial AQM stations and complete data checks independently.

Tacora's Environment Department personnel are responsible for recording instances of non-conformity with the DMMP or non-compliance with regulations, coordinating an investigation of cause and developing proposed corrective actions together with appropriate personnel, and verifying that corrective actions have been implemented within an appropriate timeframe. All personnel visiting the Project Area will receive training that provides an overview of the DMMP and includes awareness of health effects of uncontrolled dust exposure, roles and responsibilities of all workers, site- and activity-specific dust control requirements, reporting procedures, and appropriate selection of PPE.

Appended to the DMMP are Tacora's overarching Environmental Protection Plan, a summary of tailings reclamation activities completed in 2024, and Tacora's Environmental Non-Conformity Record template. Tacora is committed to ensuring that all procedures outlined in this DMMP are enacted and monitored to evaluate effectiveness for dust control throughout the Project Area.

1.0 Purpose and Scope

Tacora Resources Inc. (hereinafter "Tacora") operates the Scully Mine located in Wabush, Newfoundland and Labrador (NL). The Scully Mine is an existing iron ore mine, having operated in the same location for over 50 years. Operations occur on two properties separated by the Town of Wabush: (1) the Scully Mine, consisting of open pit mines, a concentrator, and supporting processing facilities; and (2) the tailings impoundment area (TIA) at Flora Lake. On July 21, 2021, Tacora registered the Scully Mine Tailings Impoundment Area Expansion Project (the TIA Expansion) with the NL Department of Environment and Climate Change Environmental Assessment Division. The Project entails further deposition of tailings into the Flora Lake TIA, as well as into the area south of the TIA over a gradual period, until the end life of mine in 2047. On March 31, 2022, the Project was released from further Environmental Assessment (EA) subject to conditions issued in the EA Release Letter. In this document, both of Tacora's operational properties and the area pertaining to the future TIA Expansion are referred to collectively as the "Project Area", provided in Figure 1.1.

Iron ore mining forms the industrial base for the Towns of Labrador City and Wabush and is the main industry affecting the quality of the local atmospheric environment. Concerns regarding emissions of fugitive dust (defined as incidental, or unintended emissions of dust that is not emitted from a definable point source) commonly arise in relation to mining activities in the region.

The DMMP presented herein applies to current and future operations across the Project Area. This report identifies potential receptors of dust and documents current monitoring and mitigation practices developed by Tacora. Furthermore, this report includes recommendations regarding any further implementation and monitoring measures that may be required to mitigate effects of dust generation by Tacora activities.

Current and future operations at Scully Mine will generate airborne emissions from operation of equipment required for mining operations and tailings disposal, explosive use to support mining operations, and construction activities necessary to expand the existing TIA. Fugitive dust emissions will also occur from wind erosion, and vehicle traffic on unpaved roads. Tacora will implement the mitigative strategies detailed in this DMMP to prevent exceedances of allowable ambient air quality standards. Tacora is committed to ensuring that all procedures outlined in this DMMP are enacted and monitored to evaluate effectiveness for dust control throughout the Project Area.

1.1 OBJECTIVES

The objectives of the DMMP are as follows:

- Implement documented Best Management Practices to control dust generation from Tacora operations;
- Maintain emissions of dust in air emissions within the acceptable standards; and
- Maintain concentrations of total particulate matter (TPM), specifically particulate matter less than 10 microns (PM_{10}) and 2.5 microns ($PM_{2.5}$), in ambient air off-site and at sensitive receptors either on or off-site, within applicable standards.

1.2 SCOPE

The DMMP has been established to address construction and operational activities associated with the Project Area that may have a significant impact upon the local air quality. The terms dust and particulate matter (PM) are often used interchangeably, but they have different scopes and contexts. These terms are distinguished in the DMMP as follows:

Particulate Matter (PM) = A broad term that includes all tiny solid and liquid particles suspended in air, regardless of their origin. It includes dust as well as smoke, soot, aerosols, pollen, metal particles, and chemical droplets. PM is categorized based on size, and it is assumed that the concentration of total PM (TPM) equates to the sum of the concentrations of the different size fractions (e.g., TPM = $PM_{>10}$ + $PM_{10\text{-}2.5}$, + $PM_{2.5}$). Depending on the monitoring method, TPM is typically limited to PM less than 44 microns (NL Department of Environment and Climate Change, 2023).

Dust = A type of particulate matter made up of solid particles that are generally visible to the naked eye but does include some fine particles as well (i.e., PM greater than or equal to 10 microns and less than 44 microns). This document generally applies to fugitive dust rather than dust generated by point sources unless explicitly stated. To monitor ambient air concentrations of dust, measurement of TPM is used as a proxy. Dust is usually created by mechanical processes such as grinding, crushing, or wind erosion.

Sources of dust emissions have been identified along with their control measures and mitigations during operations and tailings disposal. The requirements laid out in the DMMP apply to all personnel working within these areas whose activities may cause dust emissions to air. This plan has been developed in consultation with guidance from the National Institute for Occupational Safety and Health (NIOSH), the British Columbia Ministry of Environment

and Climate Change, the Canadian Council of Ministers of the Environment (CCME), and the NL Pollution Prevention Division (PPD).

The scope of the DMMP includes the following activities that may release dust into the air:

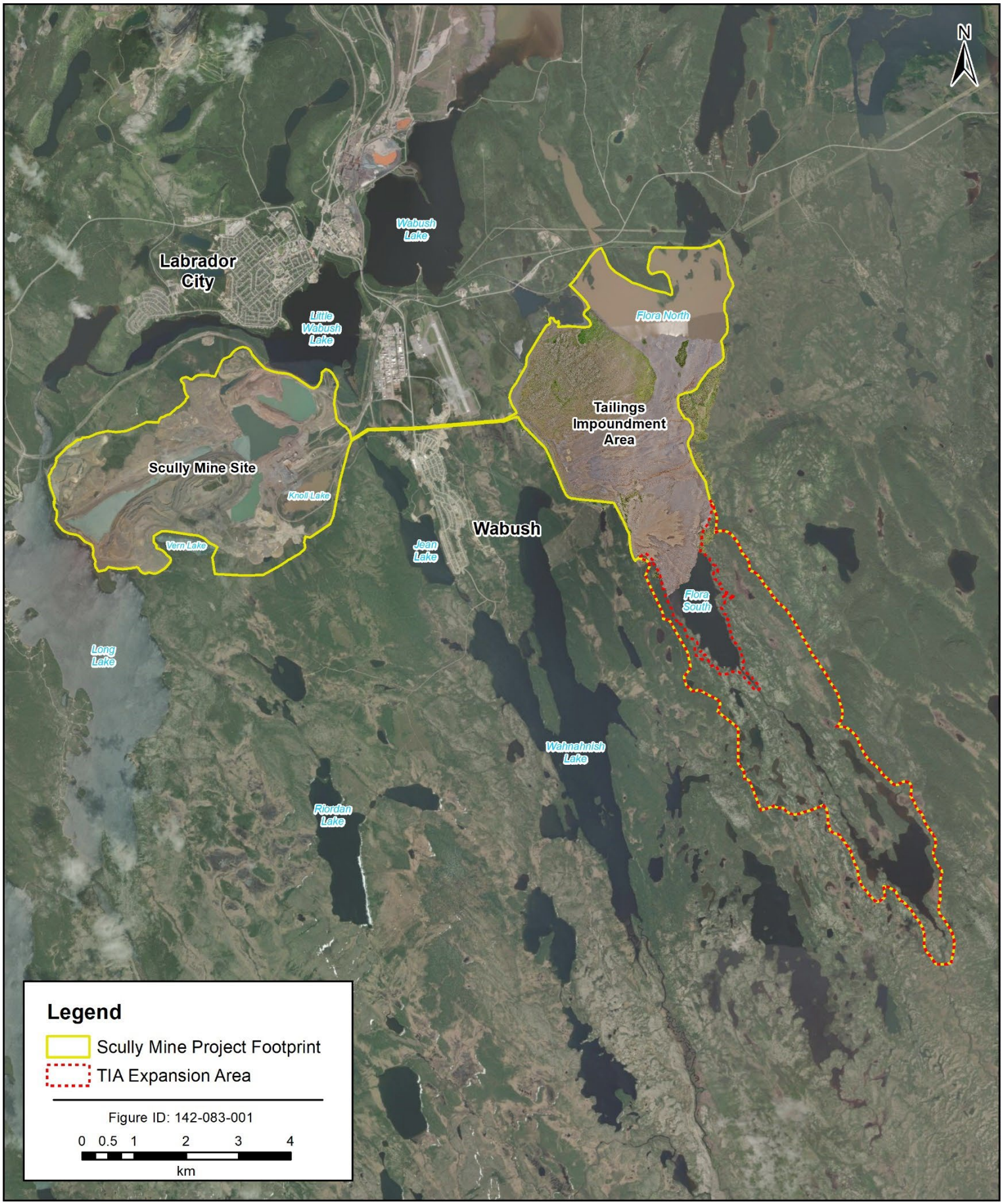
- Mill operations and ore processing facilities;
- Light vehicle and heavy mobile equipment traffic on unpaved access roads;
- Weathering of open material storage piles (i.e., exposed areas that are not vegetated);
- Earthworks such as excavation, filling, trenching, and transport of materials; and,
- Blasting.

1.3 REGULATORY SCOPE

The DMMP identifies activities to monitor air emissions and evaluate performance of mitigations, as well as monitoring environmental quality as prescribed by legislation. Primary regulations that apply depending on the jurisdiction are outlined in Table 1.1.

Table 1.1 Legislative Air Quality Guidelines Applicable to the Project.

Jurisdiction	Legislation / Guideline
Federal	Canada Wide Standards for Particulate Matter (PM)
Provincial	• Environmental Protection Act, SNL2002 Ch. E-14.2 • Air Pollution Control Regulations, 2022 • Pollution Prevention Division Certificate of Approval for Construction and Operations • Service NL Certificate of Approval for a Waste Management System • Application to Develop Land • NL Silica Code of Practice
Municipal	Permits/approvals from the Towns of Labrador City and Wabush for construction sites or unpaved yards that may prescribe dust control measures include: • Industrial/Commercial General Development Application; and • Industrial/Mining/Airport Excavation Application.



TACORA RESOURCES	Dust Mitigation & Monitoring Program	AUTHOR: CRB	PREPARED BY: sem
	Project Area	COORDINATE SYSTEM: NAD83 UTM Zone 19	DATE: 23/07/2024

2.0 Roles and Responsibilities

Execution of the DMMP requires cooperation amongst the Tacora Environment Department, Mine Operations and Maintenance Departments, contractors, and site visitors. Specific responsibilities for the identified roles are provided below.

2.1 TACORA ENVIRONMENT DEPARTMENT

The Tacora Environment Department includes the Environment Manager, the Environmental Coordinator, the Environmental Technician and temporary work-term students. Responsibilities for each member of the team are outlined in Table 2.1.

Table 2.1 Tacora Environment Department Roles and Responsibilities.

Role	Responsibilities
Environment Manager	• Oversee all activities and ensure that environmental objectives are communicated to all site personnel. • Refer and coordinate environmental complaints pertaining to dust to applicable departments or contractors for investigation. • Liaise with Tacora's Communications team as required regarding air quality and dust. Assist with gathering information appropriate to investigation and responses for all public complaints regarding construction and operations activities. • Coordinate the yearly revegetation program and Dust Mitigation and Management Program with Mine Operations Team, Continuous Improvement, Engineer of Record (EOR), and Consultants. Ensure that progressive rehabilitation and sacrificial revegetation of dry tailings areas is achieved to mitigate long term dust liftoff. • Under the direction of the EOR, communicate tailings disposal strategies with the Mine Operations Team. • Review the DMMP on an annual basis and revise as required.

Table 2.1 Tacora Environment Department Roles and Responsibilities (cont'd).

Role	Responsibilities
Environment Coordinator	• Ensure all environmental permits for operation and construction activities in the Project Area are obtained and update all departments of any amendments or changes. Inspect and audit environmental activities for compliance to regulatory requirements as well as the DMMP. • Engage Tacora's Operating Departments on a weekly basis to inquire about dust generating activities. • Provide environmental information training materials and programs to all personnel involved in work at the Project Area, including regular operations personnel, construction personnel, and site visitors. Ensure each participant understands their role as outlined in the DMMP. • Maintain the existing ambient air monitoring network for anomalies and augment as required. • Collect information and submit reports on the investigation of air exceedances potentially caused by dust generating activities. • Collect information for the classification of environmental incidents, and internal communication processes.
Work-term Student	• Assist with maintenance of the existing ambient air monitoring network. • Assist with visual monitoring of dust conditions on Tacora property.

2.2 TACORA MINE OPERATIONS TEAM

Coordination of construction activities with Tacora's Mine Operations Team is crucial for dust management. The team includes the Mine Area Manager, Mine Shift Managers, Mine Operations Supervisor, and all Mine Equipment Operator/Maintainers. Responsibilities for each team member are outlined in Table 2.2.

Table 2.2 Tacora Mine Operations Team Roles and Responsibilities.

Role	Responsibilities
Mine Area Managers, Mine Shift Managers, Mine Operations Supervisors	• Oversee all activities pertaining to Mine Operations and work with the Environment Department personnel to ensure that environmental directives under the Certificate of Approval are communicated to all site personnel. • Coordinate regular activities to allow for efficient operations and minimize overall air emissions from the areas of operation. • Coordinate with Engineer of Record activities pertaining to tailings deposition and communicate with Environmental Department personnel to ensure that activities follow environmental directives. • Ensure that preventative maintenance and necessary repairs are conducted on all equipment involved in ore processing and tailings disposal, including dust control systems. • Communicate observations of excessive dust to the Environment Department personnel. Assist with investigation and reporting on all incidents of non-compliance with the DMMP and/or regulations; specify corrective actions and ensure their timely completion. • Ensure that Operator/Maintainers receive environmental information on a weekly basis and understand their role as outlined in the DMMP. • Mobilize the water truck to unpaved roads when required. • Monitor and enforce site speed limits on unpaved roads, such that dust generated from vehicle traffic is minimized.
Mine Planner	• Ensure mine plan incorporates accessibility for progressive rehabilitation activities to exposed inactive areas on the mine site.
Mine Equipment Operator/ Maintainers	• Ensure all dust control and vehicle emissions systems are operational and well-maintained. • Participate in toolbox talks information sharing with Environmental Department personnel and suggest job-specific dust control measures if any gaps are identified. • Communicate observations of excessive dust levels to the Mine Operations Supervisor and Environment Department personnel. • Follow requirements outlined in the DMMP pertaining to day-to-day work activities. • Mobilize water truck to unpaved roads when required.

2.3 TACORA SAFETY DEPARTMENT

The Tacora Safety Department includes the Safety and Contractor Manager, the Industrial Hygiene (IH) Business Partner, and the Safety Business Partners for Mine Operations and Concentrator. The responsibilities of the IH Business Partner are outlined in Table 2.3.

Table 2.3 Tacora Safety Department Roles and Responsibilities.

Role	Responsibilities
IH Business Partner	• Ensure that the hazards of dust and requirements for respiratory protection are understood by all personnel working at the Project Area. • Inspect all equipment for proper dust control, including positive pressure checks inside cabs, and ensure window/door seals are intact. • Coordinate on-person dust or silica monitoring as required. • Perform additional visual monitoring of dust conditions on Tacora property when unfavorable environmental conditions are forecasted.

2.4 ALL EMPLOYEES / CONTRACTORS

All employees and contractors working at the Project Area must be aware of ongoing efforts to manage dust. As such, the general responsibilities for site visitors are outlined in Table 2.4.

Table 2.4 All Employees and Contractors Responsibilities.

Responsibilities
• Follow all requirements of the DMMP and guidance from Tacora on matters related to air quality and dust management. • Implement the requirements of the DMMP relative to the work undertaken (e.g., tarping loads, following speed limits, applying dust suppressant, etc.). • Respond to all dusting events that may be identified, including modifying activities as required. • Follow Tacora procedures established for reporting all air quality or dusting events. • Where requested by Tacora, participate in complaint investigation processes, and implement recommended mitigative responses. • Inform Environmental Department of any issue of non-compliance with this DMMP and/or regulations.

3.0 Emission Guidance and Human Health

There are three classifications of dust: total dust, inhalable dust, and respirable dust. As previously defined in Section 1.2 (Scope) concentration of TPM is used to approximate the total amount of dust in ambient air, however the size fraction of the PM that the dust is composed of has important health considerations. The larger size fraction of PM in dust (particulates larger than 10 microns) is visible and typically is what people often notice and are most concerned with. However, this coarse PM is typically associated with a nuisance issue rather than a health issue. Short-term exposures to dust have shown temporary adverse effects including irritation to the upper respiratory tract.

The smaller components of PM in dust do pose health concerns when people are exposed to high concentrations for a prolonged period. Inhalable dust composed of particulate matter less than or equal to 10 microns in diameter (PM_{10}) poses a health concern because it can be inhaled into and accumulate in the respiratory system (NL DECC, 2023, 2024).

Respirable dust composed of particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$) is believed to pose the greatest health risks (NL DECC, 2023, 2024). Respirable dust particles can pass through the body's natural defenses including mucus membranes and cilia and move deep into the lungs, resulting in lung damage or cancer.

Silica falls into the respirable dust category and is the second most common mineral on earth making up nearly all of what we call "sand" and "rock." Silica exists in many forms—one of these, "crystalline" silica (including quartz), is the most abundant and poses the greatest concern for human health. Silica is so common that many workplace activities that create dust can expose workers to airborne silica. In Newfoundland & Labrador, the *Occupational Health and Safety Regulation* has adopted the American Conference of Governmental Industrial Hygienists (ACGIH) occupational exposure limits (OELs) for crystalline silica.

Silica is naturally a component of Tacora's ore body, and it is a primary component of many common construction materials. Silica-containing dust can be generated throughout the mine operation processes. Unprotected workers performing any one of the following tasks with one or more of these sources, can be exposed to harmful levels of airborne silica.

Table 3.1 Iron Ore Mining – Sources of Silica Dust Emissions.

Source Material	Task Example
Rock and sand	Blasting
Topsoil and fill	Dumping
Concrete, cement, and mortar	Belt transfers
Masonry, brick, and tile	Grinding
Granite, sandstone, and slate	Crushing
Asphalt (containing rock and stone)	Drilling
Fibrous-cement board containing silica	Sweeping

Crystalline silica dust can cause a disabling, sometimes fatal disease called silicosis. The fine particles are deposited in the lungs, causing thickening and scarring of the lung tissue. The scar tissue restricts the lungs' ability to extract oxygen from the air. This damage is permanent, but symptoms of the disease may not appear for many years. A worker may develop chronic, accelerated, or acute silicosis depending on the concentrations of silica dust and the duration of exposure.

Chronic silicosis develops after 10 or more years of exposure to crystalline silica at relatively low concentrations. Accelerated silicosis develops 5 to 10 years after initial exposure to crystalline silica at high concentrations. Acute silicosis develops within a few weeks, or 4 to 5 years, after exposure to very high concentrations of crystalline silica.

Initially, workers with silicosis may have no symptoms; however, as the disease progresses, a worker may experience shortness of breath, severe cough, and weakness. These symptoms can worsen over time and lead to death. Exposure to silica has also been linked to other diseases, including bronchitis, tuberculosis, and lung cancer.

4.0 Sources of Dust

Dust is generated by point and fugitive sources throughout the Scully Mine and TIA and will be generated by construction activities planned for the TIA Expansion. Point sources at Scully Mine include wet scrubbers, baghouses, concentrate dryers, and boilers. Fugitive dust is generated via mechanisms such as wind erosion of exposed surfaces, traffic on unpaved surfaces (road dust), and explosive use (blasting). Tailings storage facilities are a known source of fugitive dust emissions across the mining industry, as dry fine particulate is susceptible to wind erosion and air dispersion.

It is important to note that Tacora uses a wet tailings distribution and disposal system, which minimizes dust during transport and disposal. Coarse tailings are cycloned and delivered directly to the tailings pump box while fine tailings are slurried (i.e., thickened) and dosed with flocculants to avoid build-up in the process water distribution system. Three rubber-lined pipelines, each outfitted with two pumps, transport tailings from the concentrator to the TIA. Currently, there is a series of 13 pumping stages in eight pump houses on each pipeline to maintain the required volume capacity and velocity to transport tailings over the 7 km distance from the plant to the TIA. Once the tailings slurry reaches the TIA, it is distributed using either an end of pipe discharge or spigot system that allows for even distribution and settling.

Source testing and emission estimates conducted by Tacora in 2021 and 2024, respectively, indicated that the most substantive emissions related to current Scully Mine and TIA operations are due to dryers, fugitive dust, road dust and blasting emissions (Ramboll, 2024). The following Table 4.1 presents the total emissions broken down into individual areas, which include emissions from all types of sources identified in that area including due to equipment activity, offroad traffic, material handling, or windblown dust. For example, Reclaim Pile emissions include those from offroad sources (loader traffic, material handling) and wind erosion (Ramboll, 2024). Air dispersion modelling was then conducted to predict maximum ground-level concentrations within a 17.5 km by 17.5 km area receptors within the Project Area as well as residential and recreational areas. Dispersion modelling predicted maximum ground-level concentrations of TPM at the east south-east property boundary (i.e. Main Plant), suggesting the concentrations are driven by emissions from the processing facility and associated operations (Ramboll, 2024). A copy of the 2024 Dispersion Modelling Report is available upon request.

Table 4.1 Estimated Emissions by Source/Area (Ramboll, 2024).

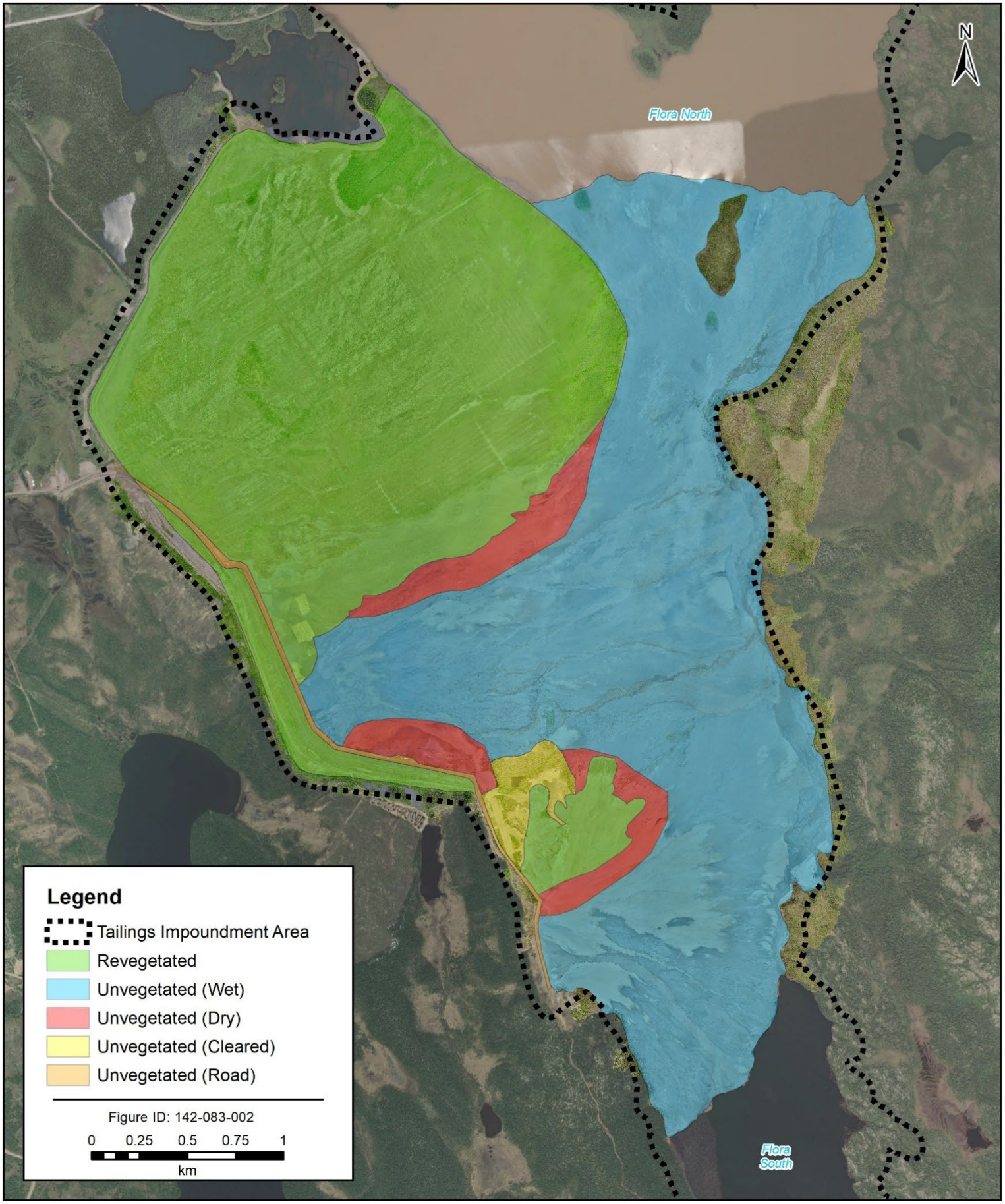
Source Type	Area	TPM	PM_{10}	$PM_{2.5}$	TPM	PM_{10}	$PM_{2.5}$
		tonnes/year			%		
Point	**Main Processing Plant**	2,851	1,104	214.2	**71%**	**78%**	**84%**
Onroad	**Unpaved Roads (i.e. Haul Routes)**	945.1	250.2	25.0	**24%**	**18%**	**10%**
Offroad	**West Pit**	48.0	9	1.3	**1.2%**	0.6%	0.5%
Offroad, Wind Erosion	Boot Pit	18.5	3.3	0.7	0.5%	0.2%	0.3%
Offroad, Wind Erosion	**West Pit Dump**	64.5	12	1.8	**1.6%**	0.8%	0.7%
Offroad, Wind Erosion	Boot Pit Dump	15.2	2.5	0.8	0.4%	0.2%	0.3%
Offroad, Wind Erosion	Blended Stockpile and Stockpile 2	8.7	1.9	0.2	0.22%	0.13%	0.07%
Offroad, Wind Erosion	Reclaim Stockpile	18.0	8.2	1	0.45%	0.58%	0.48%
Wind Erosion	**Tailings Lines 1 and 2/3 and Tailings Seasonal**	49	25	10	**1.2%**	**1.7%**	**3.9%**
Offroad	Rail Loadout	1.6	0.8	0.1	0.04%	0.05%	0.04%
	Total	**4,020**	**1,417**	**255**	**100%**	**100%**	**100%**
	Bold denotes source/areas which contribute more than 1% of TPM emissions.						

The proportion of fugitive dust generated by dry and unvegetated tailings within the TIA is small compared to dust generated in the open pit mine (Ramboll, 2024). A map illustrating revegetated areas of the TIA, current to 2023, as well as active tailings disposal areas are provided in Figure 4.1. The area of revegetated and unvegetated land in the TIA is summarized Table 4.2. Appendix A presents further details regarding progressive rehabilitation activities undertaken in 2024.

While wind-blown dust from the TIA is a significant source of $PM_{2.5}$, dispersion modelling indicated that the maximum impacts occur away from the Town of Wabush, consistent with the prevailing meteorology which shows high frequency of westerly winds (Ramboll, 2024).

Table 4.2 Land Area According to Vegetation Status in TIA (2023).

Status	Revegetated	Unvegetated				Total
		Cleared	Dry	Road	Wet	
Area (ha)	555.1	15.6	58.7	9.4	578.7	1,217.5
Portion of Total (%)	45.6	1.3	4.8	0.8	47.5	100



TACORA RESOURCES	Dust Mitigation & Monitoring Program	AUTHOR: CRB	PREPARED BY: sem
	Flora Lake Vegetation Status 2023	COORDINATE SYSTEM: NAD83 UTM Zone 19	DATE: 23/07/2024

A current list of dust sources at the Scully Mine and TIA, including level of risk and identification of receptors, is outlined in Table 4.7.

Quantities of dust generating materials were estimated based on existing geospatial resources, conceptual designs, and source inventories available at the time of reporting, as was carried out in the Dispersion Modelling study to determine the emissions estimates provided in Table 4.1. Quantities of dust emissions were "scored" based on the reporting thresholds prescribed in the 2025-2027 NPRI substance list for tonnes of TPM, PM_{10}, and $PM_{2.5}$ emitted per year (Government of Canada, 2025), combined with the percentage of total emissions from Tacora. The scoring criteria are provided in Table 4.3. Where emissions estimates were not available, conservative estimates were made.

Table 4.3 Dust Emissions Scoring Criteria.

Size Fraction	Emission Score	Tonnes Emitted per Year	Percentage of Total Facility Emissions
TPM	1	less than 20	less than 1%
	2	between 20-100	between 1 and 30%
	3	greater than 100	greater than 30%
PM_{10}	1	less than 0.5	less than 1%
	2	between 0.5-10	between 1 and 30%
	3	greater than 10	greater than 30%
$PM_{2.5}$	1	less than 0.3	less than 1%
	2	between 0.3-10	between 1 and 30%
	3	greater than 10	greater than 30%

An overall quantity of dust emissions was then assigned by taking the average of the scores for each dust fraction. The following ranges were used as presented in Table 4.4.

Table 4.4 Quantity of Dust Emissions Scoring Ranges and Categories.

Quantity Score	Average Emissions Score Range	Descriptor
3	2.45 - 3	High
2	1.45 – 2.44	Medium
1	1 – 1.44	Low

The probability of dust generation (regardless of particulate size fraction) under normal conditions was rated as Very Frequent (more than 10 months of the year), Frequent (more than 6 months), Occasional (2-6 months), Rarely (1-2 months), or Almost Never (less than 1 month), as presented in Table 4.5.

Table 4.5 Probability of Dust Generation Scoring Criteria.

Probability Score	Criteria	Descriptor
5	Generation conditions/activities occur more than 10 months in a calendar year	Very Frequent
4	Generation conditions/activities occur more than 6 months, but less than 10 months, in a calendar year	Frequent
3	Generation conditions/activities occur more than 2 months, but less than 6 months, in a calendar year	Occasional
2	Generation conditions/activities occur more than 1 month, but less than 2 months, in a calendar year	Rarely
1	Generation conditions/activities occur less than 30 days in a calendar year	Almost Never

Finally, the overall magnitude of dust emissions was evaluated by multiplying the quantity score and the probability score, and a corresponding identifier was assigned according to the following ranges in Table 4.6.

Table 4.6 Magnitude of Dust Emissions Scoring Ranges and Categories.

Quantity x Probability		Probability Score				
		5	4	3	2	1
Quantity Score	3	15	12	9	6	3
	2	10	8	6	4	2
	1	5	4	3	2	1

Resulting Magnitude Ranges	
High	9-15
Medium	5-8
Low	1-4

An illustrative example of this evaluation applied to the wind erosion of tailings is provided in Table 4.7, accompanied by the subsequent narrative.

Table 4.7 Example Evaluation for Dust Emitted from Tacora TIA.

Potential Source	Emission Fraction Scores		Avg	Quantity (Score)	Probability (Score)	Magnitude (Score)
Exposed dry tailings areas that are not vegetated	TPM Tonnes per Year (Score)	49 (2)	2.2	Medium (2)	Occasional (3)	Medium (6)
	PM_{10} Tonnes per Year (Score)	25 (3)				
	$PM_{2.5}$ Tonnes per Year (Score)	10 (2)				
	TPM % of Total (Score)	1.20 (2)				
	PM_{10} % of Total (Score)	1.70 (2)				
	$PM_{2.5}$ % of Total (Score)	3.90 (2)				

The TIA can potentially generate windblown dust under specific conditions – when the substrate is uncovered such as at springtime after the snow melts, before seasonal vegetation growth, and before snow cover in autumn. The wetness of the tailings material also contributes to susceptibility of dust lift-off; therefore, periods of rain tend to result in less fugitive dust generation. Estimates from the 2024 dispersion modelling study indicated that particulate emissions from the TIA contributed to between 10 - 49 tonnes (1.20 – 3.9 %) of Tacora's total facility emissions of TPM, PM_{10}, and $PM_{2.5}$. Using the emissions scoring criteria, the average emissions score was calculated as:

$$Average\ of\ Emissions\ Scores = \frac{2+3+2+2+2+2}{6} = \frac{13}{6} = 2.2$$

This falls within the range of Medium (1.45 – 2.44) on the Quantity criterion. Wind erosion of tailings has been observed during periods of warm, dry, windy weather in July/August – i.e. after the snow melt and surface drying has occurred in late May/June, before the active growing season promotes regrowth of the vegetation, and before the seasonal rainy period begins in September. The expected probability of dust generation was initially selected as Rarely (1-2 months), as wind conditions sufficient to disperse dust from the TIA do not occur continuously during the 2-month period in July and August. Comparatively, the Processing Plant operates practically year-round emitting dust regardless of ground cover, wind speed, and precipitation. The probability of dust generation from the Processing Plant was accordingly characterized as Very Frequent (more than 10 months of the year). In acknowledgement of climate change influencing the length of seasonal dryness and more frequent high winds, Tacora revised the probability of dust generation via wind erosion of tailings as Occasional (2-6 months, i.e. a score of 3). Therefore, the overall Magnitude of dust emissions from the tailings was calculated as Medium, according to the following:

$$Magnitude = \ Quantity\ x\ Probability = 2\ x\ 3 = 6$$

This evaluation was applied to current potential sources of dust in the Scully Mine and TIA and is presented in Table 4.8. A similar exercise was completed for potential sources of dust resulting from construction activities planned at the TIA Expansion, as presented in Table 4.9. These estimates were based on the information provided in the EA Registration for the Tailings Impoundment Area Expansion Project, existing geospatial resources, and conceptual designs available at the time of reporting. The TIA Expansion area currently does not contain any significant dust emission sources as it is comprised of mainly wetlands and forest. The eventual deposition of wet tailings, flooding of land, and progressive reclamation of dried tailings in the area is expected to contribute a small proportion of fugitive dust to Tacora's overall emissions profile. Additionally, given the results of recent air dispersion modelling, prevailing westerly winds, absence of other municipalities and sparse distribution of recreational areas (e.g., campgrounds, cabins) near the TIA Expansion area, dust generated during construction or operations of the various TIA Expansion components is unlikely to be detected at sensitive receptors. This evaluation will be updated annually as dispersion modelling is updated, more details regarding the TIA Expansion become solidified, and results from ongoing monitoring (see Section 7.0) are obtained.

Table 4.8 Potential Dust Sources – Scully Mine and TIA.

Potential Source	Dust-generating Material	Generation Conditions	Quantity	Probability of Dust Generation	Dust Emission Magnitude	Possible Contaminant Receptors
Mill operations and ore processing facilities	Aggregate dust of various particle sizes	Processing of ore-containing materials, material handling and transfers	High (3)	Very Frequent (5)	High (15)	• Equipment operators • People working outside in close vicinity • Town of Labrador City
Light vehicle and heavy mobile equipment traffic on unpaved access roads and laydown areas	Road dust, particulates from vehicles	High winds, operational activities, dry conditions	High (3)	Very Frequent (5)	High (15)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity
Exposed dry tailings areas that are not vegetated	Fine particulates, tailings dust	High winds, dry conditions	Medium (2)	Occasional (3)	Medium (6)	• People working outside in close vicinity • Town of Wabush • Waterbodies in close vicinity
Earthworks such as excavation, trenching	Soils of various particulate sizes, tailings dust	Construction activities, dry conditions, high winds	Low (1)	Occasional (3)	Low (3)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity
Blasting	Airborne particulates of various sizes and composition	Blasting activities, high winds	Low (1)	Rarely (2)	Low (2)	• People working outside in close vicinity

Table 4.9 Potential Dust Sources – TIA Expansion.

Potential Source	Dust-generating Material	Generation Conditions	Quantity	Probability of Dust Generation	Dust Emission Magnitude	Possible Contaminant Receptors
Vegetation clearing	Soils of various particulate sizes	Construction activities, dry conditions, high winds	Total of 55 ha planned for clearing prior to flooding habitat compensation pond, constructing access road, and constructing laydown area. Medium (2)	Occasional (3)	Medium (6)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity
UTV traffic on mulched access trail	Mulched organic debris, soil	High winds, presence of vegetation stabilizes soil	5 ha of cleared access trail, to eventually become an access road Low (1)	Low (1)	Low (1)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity
Light vehicle and heavy mobile equipment traffic on unpaved access roads	Road dust, particulates from vehicles	High winds, operational activities, dry conditions	15 ha of access road planned Medium (2)	Very Frequent (5)	High (10)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity
Exposed dry tailings areas that are not vegetated	Fine particulates, tailings dust	High winds, dry conditions	Various amounts depending on phase of construction / tailings deposition Medium (2)	Occasional (3)	Medium (6)	• People working outside in close vicinity • Waterbodies in close vicinity
Earthworks such as excavation, trenching	Soils of various particulate sizes, tailings dust	Construction activities, dry conditions, high winds	Various amounts depending on phase of construction / operations Low (1)	Occasional (3)	Low (3)	• Equipment operators • People working outside in close vicinity • Waterbodies in close vicinity

5.0 Dust Mitigation Measures

5.1 GENERAL

Activities occurring at the Project Area could potentially generate high volumes of dust due to routine operations as well as demolition and construction activities. High concentrations of suspended particulate generated during dust events may affect the natural environment. If uncontrolled, air quality standards in the nearby communities of Labrador City and Wabush may be exceeded, worker exposure may be increased, and visibility may be affected. The DMMP focuses on abatement and control of dust generated during operation.

Contractors that bid on work for activities with high dust generation potential, including demolition, substantial earth-moving, and high traffic volume on unpaved roads, will be required to submit detailed work plans that indicate dust mitigation practices and procedures applicable to the work. Contractors must use Best Management Practices during dry or windy conditions especially if prevailing winds are towards sensitive areas, including:

- Reschedule/postpone high dusting activities (such as trucking, demolition, earthworks) during unfavorable environmental conditions, which are defined as wind speeds higher than 20 kilometers per hour (km/h), as agreed with the Environment Department;
- Stop work and modify activities if dust levels from construction are excessive in density or magnitude. Obtain Environment Department approval to continue work with modifications;
- Locate or relocate dust generating activities away from high traffic areas and site boundaries, especially adjacent to residential or recreational areas,
- Store sand, gravel, and other aggregates so that they are protected from the wind (i.e., in hoppers or bunkers), and keep conveyor belts and hoppers covered or enclosed unless the material transferred does not generate visible emissions;
- Immediately clean up or dampen spilled material that can generate dust (e.g., cement) to minimize dust emissions generated by the wind or vehicle traffic;
- Dampen dust generating materials using water prior to handling (e.g., loading wetted material into a haulage truck), if required;
- Manage and reduce open areas and pile shape as per site layout plans for construction;
- Utilize a mobile truck wash system, if required;
- Utilize, where appropriate, large sized aggregate as a sacrificial base to avoid driving trucks though mud;

- Utilize wind barriers when specified to achieve wind speed reduction;
- Don appropriate PPE while doing work outside in dusty conditions; and
- Construct unpaved roads as per standard methods (provide appropriate crowning, slope, and drainage).

5.2 MILL OPERATIONS AND ORE PROCESSING FACILITIES

Mill operations and ore processing facilities with elevated dust-generation potential are equipped with dust abatement technologies (e.g., cyclones, scrubbers). To mitigate further dust emissions from mill operations and ore processing facilities, routine inspection and maintenance, where required, will be conducted to ensure optimal performance of dust abatement technologies.

Plume dispersion modelling results indicated that Tacora's emissions from the mill and ore processing facilities are in non-compliance with Section 3 (2) and Schedule A of the Air Pollution Control Regulations, 2022. In November 2024, Tacora provided an "Action Plan" to the PPD outlining planned efforts to update Air Pollution Control (APC) equipment on site between 2024 and 2027. APC equipment in High Tension, Loadout, Dryer, Crusher, Classifier (i.e. point sources of dust throughout the mill operations and ore processing facilities) are planned to be updated such that Tacora shall comply with legislated requirements. Further details and updates are contained under separate cover, and are available upon request.

5.3 MOBILE EQUIPMENT AND LIGHT VEHICLES

Mobile equipment, including light vehicles, powered by gasoline, diesel, or propane must be:

- Operated in accordance with manufacturer's instructions and emission standards;
- Repaired immediately if exhaust is cloudy and discoloured;
- Equipped with appropriate emission controls such as catalytic converters and operator pollutant controls such as cabin air filters where possible. All windows must be kept closed while driving;
- Maintained regularly for optimal performance;
- Covered when transporting bulk granular materials to and from the site (e.g., by using tarps to inhibit dust generation originating from pans of light vehicles);
- Operated in accordance with posted speed limits to minimize fugitive dust emissions from unpaved roads and unpaved site areas. Speed limit compliance will be monitored by Tacora security personnel; and
- Operators of mobile equipment and light vehicles must obtain health and safety training outlining the risks of dust and silica. If required, operators will comply with equipment

inspections or on-person air monitoring if required by the Tacora Environmental Department.

5.4 ACCESS ROADS AND LAYDOWN AREAS

Dust mitigations pertaining to access roads and laydown areas are outlined below.

- Environmental Department will assess the condition of unpaved roads and order appropriate applications of topping materials, water, surface binding, stabilizers or other dust suppressants to minimize erosion and the generation of fugitive dust.
- Wet unpaved roads using mobile water trucks, whereby the frequency of application will depend on assessment and observed/expected conditions of dryness, amount of traffic, and signs of fugitive dust emissions. Note that the use of anything other than water or calcium chloride as a dust suppressant is prohibited by Tacora's current Certificate of Approval for Operations and must be approved prior to use. Calcium chloride must not be applied in the vicinity of a waterbody.
- The Environmental Department shall approve all access routes and communicate them to contractors before the start of work.

5.5 EARTH-MOVING ACTIVITIES

Earth-moving activities will be subject to the following dust mitigations:

- Wheels and undercarriages of all trucks and heavy equipment in contact with natural soils (e.g., arable soil, clay, silt, etc.) should be checked for cleanliness, and cleaned if required, prior to leaving the site using dust/mud track out control stations. Track out control stations must be established at locations where vehicles exit construction areas onto paved roadways.
- Contractors shall use slope stabilizers such as fabric filters, plastic sheeting or wind fencing to reduce the amount of soil that may become airborne dust during earth moving activities;
- Contractors shall cover stockpiles and disturbed soils with non-toxic soil binders (e.g., water). Tarps or temporary coverings may also be used for stockpiles of fine materials as long as they can be properly secured;
- Material handling equipment or processes (e.g., boring machines, crushing machines, conveyor elevators, aggregate screening, etc.) must be equipped with fugitive dust abatement systems (e.g., tarps, water sprays, or enclosures); and
- All windows shall be kept closed while operating heavy mobile equipment.

5.6 BLASTING

Blasting is required to support operations at the Scully Mine site. Blasting activities will be subject to the following dust mitigations:

- Wherever possible, blasting mats will be utilized to suppress dust and debris such as fly rock;
- All blasting will be scheduled depending on meteorological conditions (i.e., low wind speed and low inversion potential) to minimize the impacts of dust generation;
- The blast area will be cleared of personnel prior to blast initiation. Work shall not be allowed in the affected area until the dispersion of dust and gases is completed.

5.7 TAILINGS DISPOSAL AND STORAGE

Tacora's Mine Operations team are responsible for day-to-day operations and disposal of tailings within the TIA. Tailings disposal and storage will be conducted in accordance with the following dust mitigations:

- During operations, coordinate unpaved road dust suppression with the existing program for operations by mobilizing water trucks when required;
- The spigot system is the first line of defence in mitigating dust liftoff during active tailings deposition such that materials deposited are wet. If high dust conditions are visually observed within the TIA, or if the spigot system is down for maintenance, a water truck will be mobilized to spray water on the exposed tailings surfaces where safe to do so;
    - If the spigot system is down for maintenance, and the area cannot be accessed by a water truck, a dozer will be mobilized to re-distribute wet tailings material into dry areas bordering on the active disposal area, where safe to do so.

5.8 VEGETATION CLEARING

Dust mitigations pertaining to vegetation clearing activities (including grubbing, brush cutting, stripping, etc.) required for the TIA Expansion work are outlined below.

- To reduce the exposure of erodible soils, appropriate scheduling should be arranged so that grubbing, stripping and excavation will be quickly followed with the remainder of required construction work. All infilling, compaction, grading and surfacing must then be completed as soon as possible to stabilize and protect exposed soils.
- Water is a safe method of controlling dust during vegetation clearing and may be applied on the exposed area when cutting is complete.

- All topsoil and/or organically rich soils that are stripped or removed must be stored at or near the construction site and protected from erosion so that the material may be subsequently used to help revegetate disturbed areas.
- Practice controlled open burning only at sites where the practice is allowed under the appropriate permits for wood disposal and only when weather is favorable (check Forest Fire Index, avoid on windy days).

5.9 TAILINGS RECLAMATION PROGRAM

Tacora is committed to progressive rehabilitation of the TIA in accordance with its approved Rehabilitation and Closure Plan (RCP). The objective is to complete portions of the TIA Expansion rehabilitation as opportunities arise, with the annual revegetation program keeping pace with the expansion of tailings surfaces. This approach minimizes the extent of exposed tailings at any given time, thereby reducing fugitive dust emissions and limiting the potential for erosion.

Progressive rehabilitation will occur as tailings deposition advances in a southerly direction, beginning in the northern sector of the tailings beach and moving southward into the TIA Expansion area and the upper Flora Lake valley. Active tailings areas will be continually vegetated, while areas at final elevation will be progressively reclaimed. This strategy reduces the exposed tailings surface area, minimizes dust lift-off, and prevents the formation of erosion gullies that could transport solids.

Revegetation measures will include hydroseeding dike slopes and exposed tailings beaches with select native species seed mixes, spreading fertilizers, regrading dike embankments where required, and constructing ditches for surface water management. A combination of direct seeding, hydroseeding, transplanting, and sacrificial revegetation will be applied annually to inactive tailings areas where further deposition is not anticipated. A typical program will consist of seeding and fertilizing approximately 40 ha per year, using methods that have proven successful at the site—such as hay mulch application (~4,500 kg/ha), poultry manure fertilization (~400 kg/ha), and seed mixtures (~290 kg/ha).

Experience has demonstrated that tailings can be successfully revegetated using conventional agricultural equipment, establishing self-sustaining vegetation covers on both gentle slopes and steep dike faces. To improve outcomes, Tacora has contracted SEM to conduct trials and research on phytoremediation and to develop seed mixes containing species native to Labrador that are tolerant of low-nutrient conditions. Findings from these

studies will be incorporated into future updates of the RCP to refine revegetation methods and improve vegetation success rates.

In addition to progressive reclamation, Tacora employs a suite of fugitive dust control measures throughout the Project Area. These include sacrificial revegetation of active TIA sections, minor revegetation along berms and unused mine areas, and regular road watering. Collectively, these measures contribute substantially to reducing dust levels in the Project Area and in neighboring communities.

At closure, all remaining exposed tailings surfaces, including dam slopes and benches, will be revegetated using the same procedures developed during operations, supplemented by findings from ongoing trials and monitoring. This will ensure the establishment of a robust, self-sustaining ecosystem that will persist over the long term.

6.0 Training

Tacora requires that all personnel visiting the Project Area complete a series of training modules (Site Orientation training) prior to accessing site. Site Orientation training is delivered by the HSE department and includes awareness of approved dust control methods, as well as the health effects of uncontrolled dust exposure. Site Orientation training shall be updated to include an overview of the DMMP, roles and responsibilities of all workers, site- and activity-specific dust control requirements, reporting procedures, and appropriate selection of PPE.

7.0 Ongoing Monitoring

7.1 INSPECTION

The Environmental Department shall participate in weekly toolbox talks within active work areas to communicate environmental information and ensure supporting controls are effective. These meetings are considered a minimum standard to achieve necessary compliance actions. Meeting notes will be documented and shared at monthly Operations Update meetings, or earlier as required. The Tacora Environment Department may create a site-specific Environmental Checklist to include DMMP control elements, to assist with information sharing and collection if deemed necessary by all department managers.

Unless addressed by a straightforward stop and correct action, non-conformities reported to the Tacora Environment Department must be recorded on an Environmental Non-Conformance Form (Appendix B) as detailed below in Section 7.4.

The Environment Department may review equipment and site inspection records to ensure compliance with the DMMP. Identified issues shall be investigated as needed and discussed with the appropriate personnel to ensure compliance requirements are satisfied.

Daily visual monitoring of dust conditions may be completed at the Project Area when unfavorable environmental conditions are forecasted. These inspections will help to detect possible fugitive dust issues, allowing for enactment of additional control measures in a timely manner.

7.2 AMBIENT AIR QUALITY MONITORING PROGRAM

Ambient air quality monitoring (AQM) focuses on outdoor environments, with monitoring stations typically placed in or near communities where people may be exposed. The measured concentrations in the air respond to both the amount of emissions released and to meteorological factors such as wind speed and direction, temperature, and precipitation(Canadian Council of Ministers of the Environment, 2025). Overall air quality is influenced by a range of elements, including weather conditions, human activities (such as industry, vehicles, and residential wood burning), natural sources, cross-border pollution, and unusual events like wildfires (Canadian Council of Ministers of the Environment, 2025).

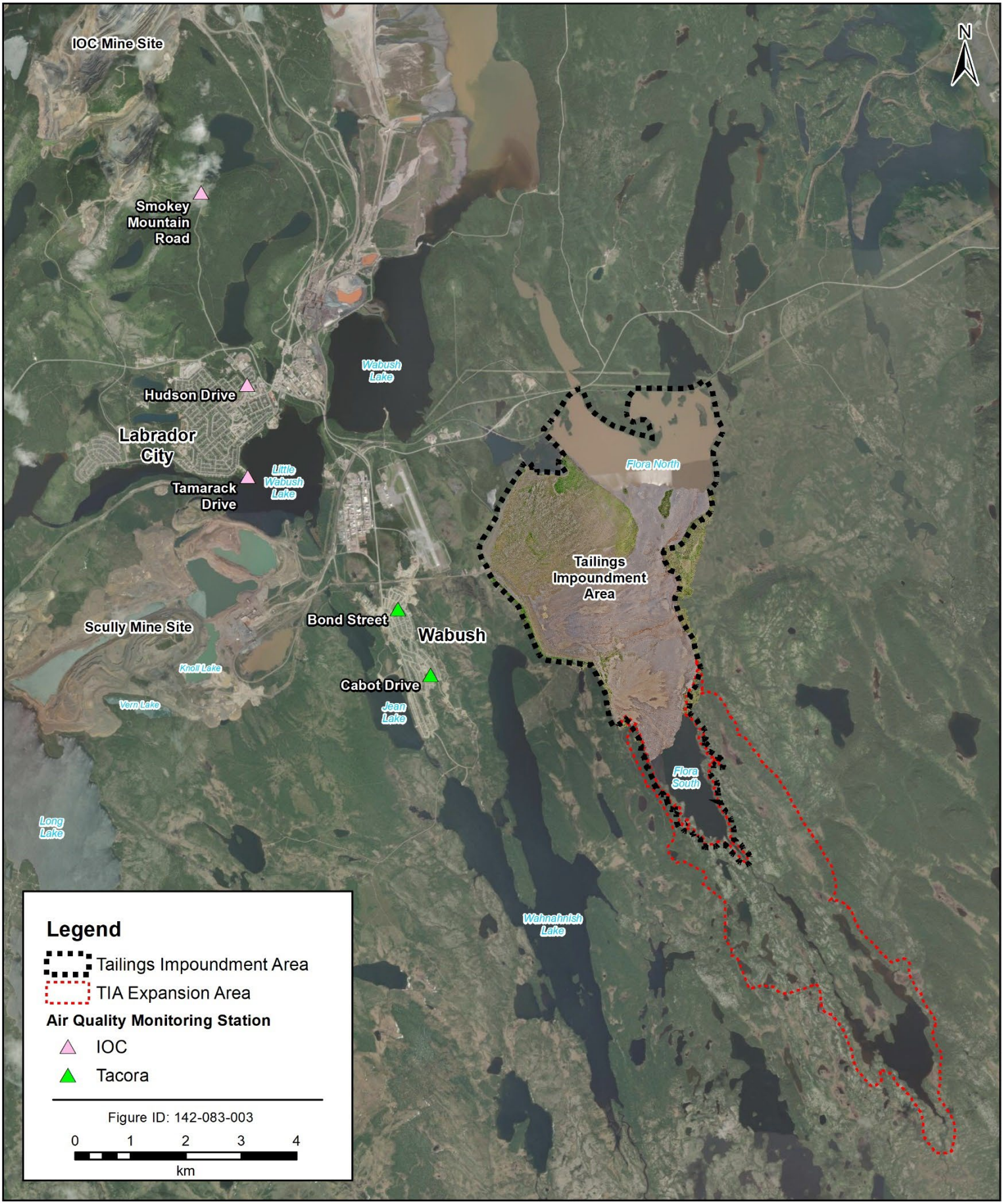
Tacora currently maintains two ambient air quality monitoring (AQM) stations in Wabush: one on Bond Street near the Provincial Court building and another on Cabot Drive near the

J. R. Smallwood school (Figure 7.1). CACs monitored at the Cabot Drive station include $PM_{2.5}$ and TPM, whereas SO_2, $PM_{2.5}$, and TPM are monitored at the Bond Street station. In addition to the Tacora AQM stations, the neighboring Rio Tinto – Iron Ore Company of Canada (IOC) mine owns and operates three ambient AQM stations in Labrador City: one each at the dog park off Tamarack Drive, the fire hall on Hudson Drive, and the base of the Smokey Mountain ski hill on Smokey Mountain Road (Figure 7.1). Together with data from the two Tacora AQM stations, this network of ambient AQM stations encompasses Labrador City and Wabush.

Data from the monitoring stations are compiled by the PPD, and the results are assessed for compliance with the NL Air Pollution Control Regulations and published in annual Air Quality reports. These reports can be viewed at: https://www.gov.nl.ca/ecc/publications/env-protection/. The most recent report acknowledges that in 2024, air quality across NL was heavily impacted by multiple sources of $PM_{2.5}$, including major wildfires across Canada, fugitive industrial dust, and volcanic activity in Iceland (NL DECC, 2025). In 2024, most exceedances of $PM_{2.5}$ recorded at Tacora's AQM stations occurred in July (23 at both Bond Street and Cabot Drive), August (76 at Bond Street and 77 at Cabot Drive), and November (4 at Cabot Drive). Exceedances of TPM recorded at Tacora's AQM stations occurred only in November (21 at Bond Street) (NL DECC, 2025).

SEM routinely monitor both AQM stations and their data, which ensures timely maintenance of monitoring apparatus, accurate capture of AQM data, prompt identification of air quality concerns, and fast resolution of any exceedance. These monitoring activities include daily data review, weekly station maintenance, monthly data compilation, and quarterly equipment calibrations. All the data and maintenance activities are compiled, and available to NL DECC when requested. Recent audits by NL DECC in 2024 and 2025 indicated strong data validity and capture rates across both monitoring stations. At the Bond Street AQM station in 2024, 96.0% of $PM_{2.5}$ data and 92.2% of TPM data were successfully captured (NL DECC, 2025). At the Cabot Drive AQM station in 2024, 90.9% of PM2.5 data and 76.0% of TPM data were captured over the year (NL DECC, 2025).

Since there exists operating open-pit mines and processing facilities at the Tacora and IOC sites, it may be difficult to differentiate dust contribution from normal ongoing mining operations and non-mining related sources. Alternative methods to assess dust control may be required to identify problems more readily. Additionally, the Tacora Environment Department may inspect activities for the purposes of assessing plume density through quantitative opacity observations and will make recommendations for corrective actions as appropriate.



TACORA RESOURCES	Dust Mitigation & Monitoring Program	AUTHOR: CRB	PREPARED BY: sem
	Ambient Air Quality Monitoring Stations	COORDINATE SYSTEM: NAD83 UTM Zone 19	DATE: 23/07/2024

7.3 TAILINGS DUST MONITORING PROGRAM

AQM stations in Labrador City and Wabush monitor ground-level particulate concentrations at community receptors. The next closest community is more than 20 kilometers away, to the west, in Fermont, QC. Observations of high levels of dust by personnel routinely working in the area (e.g. equipment operators, revegetation workers), paired with complaints received from residents of Labrador West anecdotally indicate problematic areas in which wind erosion generates large quantities of fugitive dust. However, scientific monitoring of seasonal fugitive dust levels within the boundaries of the TIA has never been conducted.

An in-situ pilot study was initiated in 2025 to test the feasibility of deploying remote air quality monitoring sensors at the Scully Mine TIA. The objective of the program is to further evaluate the contribution of tailings dust to air quality concerns from nearby communities. Four PurpleAir sensors were deployed in October 2025 across the TIA and at a nearby AQM station to obtain localized measurements of PM_1, $PM_{2.5}$, and PM_{10}. A meteorological station will also be established at the TIA to assess how dust entrainment at the TIA is related to meteorological processes, including high wind and arid conditions. The monitoring will continue throughout the 2026 calendar year along with data processing, compilation, and analysis. Tacora commits to share the technical pilot study design with PPD if required.

Subject to the outcomes of the pilot study, Tacora will implement remote air quality monitoring on an annual basis to support dispersion modelling for the TIA Expansion Project, inform progressive rehabilitation planning, and enhance operational management and worker safety. Program data will be evaluated to identify dominant dust source areas and to optimize rehabilitation measures, including soil amendment application and targeted dust suppression. Monitoring results will be used to quantitatively assess the effectiveness of tailings rehabilitation stages in reducing PM exceedances, refine site-specific dust dispersion models for the TIA environment, and improve the prediction of dust transport under evolving climatic conditions. Tacora commits to incorporating findings of the program into future revisions of the DMMP to support evidence-based decisions regarding dust mitigation and monitoring requirements at the TIA.

7.4 AUDITING PROGRAM

An annual auditing program will be conducted by the Tacora Environment Department to review and update the DMMP, as well as to assess overall performance of conformity with the DMMP and compliance with regulatory requirements. The list of dust sources and receptors will also be reviewed and updated at that time.

7.5 MANAGEMENT OF NON-CONFORMITIES

The Environmental Department will assess environmental performance based on information from Tacora Management, contractors, and internal inspection and audits. Issues and non-conformities will be reported and discussed on an as-needed basis.

If non-conformity with the DMMP or non-compliance with regulations is observed, the observer (Reporting Person) must report to the Tacora Environment Department immediately. Environment Department personnel are responsible for recording all observations of non-conformity on an Environmental Non-Conformance Record form (Appendix B), which shall be logged in Tacora's reporting system. The Environment Department and appropriate personnel (e.g., Operations Team, contractors) shall participate in the development of proposed corrective action(s) for all identified non-conformances and shall identify a Responsible Person for overseeing the implementation of corrective actions. All personnel involved shall sign the Non-Conformance Record form and select a target completion date. Environment Department personnel shall verify that corrective actions have been implemented within an appropriate timeframe of the target completion date. Environment Department personnel are responsible for closing out the non-conformance once all corrective and follow-up actions have been completed.

8.0 Communication and Reporting

All site personnel are encouraged to report air quality concerns to their immediate supervisor.

All ambient AQM data from both stations are reviewed daily by Tacora or a Tacora Representative, and compiled for annual Air Quality report publication by the PPD. If elevated values are observed, Tacora will investigate potential causes and take appropriate corrective actions if necessary.

Complaints pertaining to air quality from the public shall be reviewed and investigated internally by the Tacora Environment Department. Tacora does not respond to complaints posted on social media. Any complaints received by regulatory officials are relayed to the Tacora Environment Department, investigated internally, and findings are communicated to the complainant(s) (i.e., referring regulatory officials). Tacora only communicates directly with the public through a Communication Specialist designated by Tacora.

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Appendix A

2024 Dust Suppression & Progressive Rehabilitation Activities

2024 Dust Suppression & Progressive Rehabilitation Activities

Scully Mine & TIA

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DUST SUPPRESSION

Airborne dust is a byproduct of activities at the Tacora Resources Inc. (Tacora) Scully Mine and Tailing Impoundment Area (TIA). Mining activities are known to generate fugitive dust through the process of particle liftoff and saltation. Fugitive dust can be transported by wind, potentially reaching nearby communities and affecting the natural ecosystem. Tacora is fully aware of the potential adverse effects this dust may have on both the environment and human health and is committed to its eradication, along with the reduction of visible dust clouds.

To mitigate the impact of dust dispersion, Tacora implements robust dust control and land rehabilitation initiatives each year. The company is dedicated to finding prompt and effective solutions to address this issue.

The map below (Figure 1) demonstrates areas which have undergone progressive rehabilitation and dust suppression at the Tailings Impoundment Area (TIA) in recent years. It is important to note that the land surface in the TIA is a dynamic space which continually changes. Some areas are inaccessible to mitigation equipment such as areas of active discharge. Other areas may need multiple years of treatment as foreign dust is carried by wind from other regions and tailings discharge flow changes the surface composition.

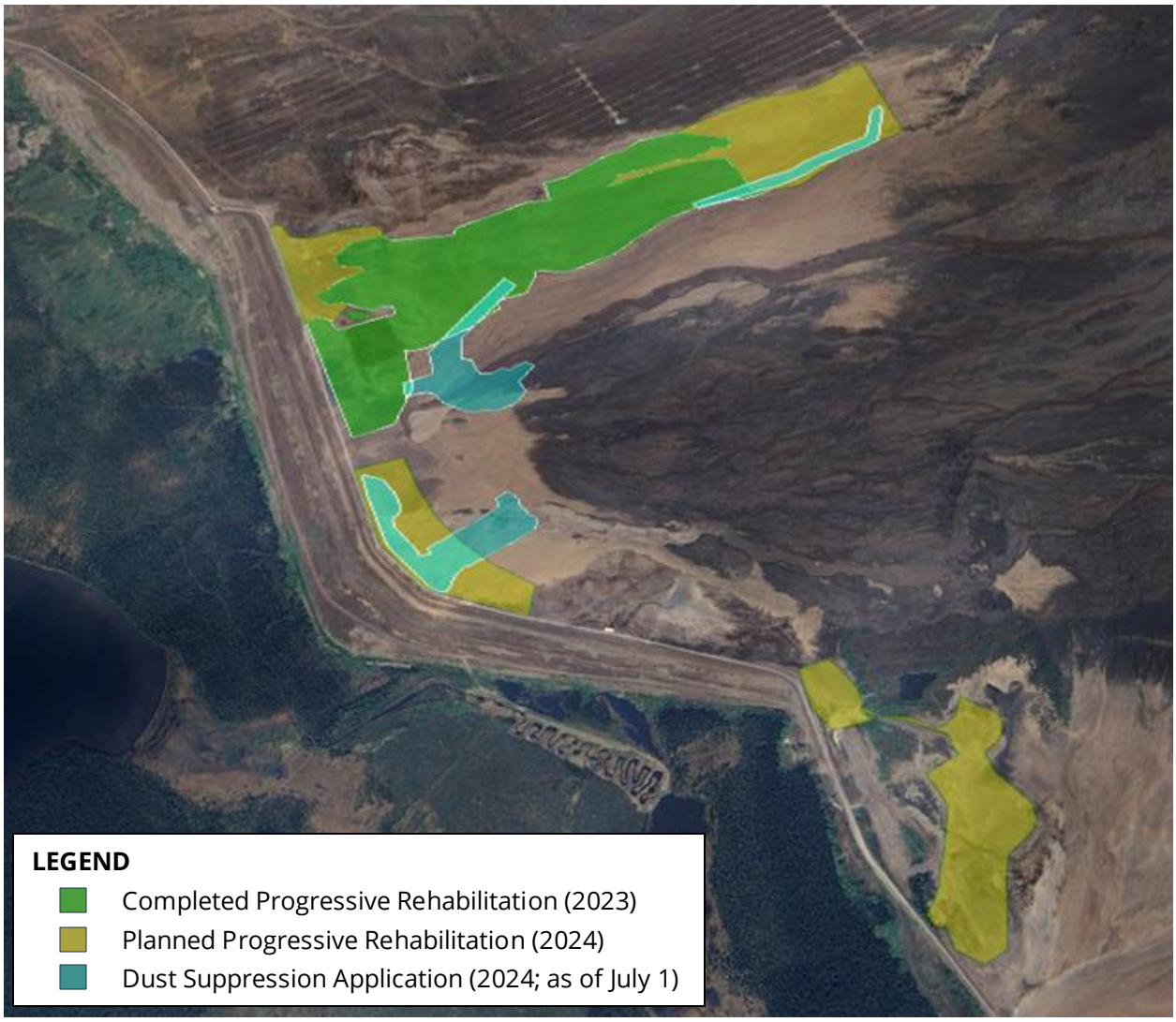

Figure 1 TIA Progressive Rehabilitation and Dust Suppression (2023-2024).

TIA ACTIVITIES

- Tacora currently has two water trucks at the TIA. One is dedicated to road dust and is equipped with a spray bar system.

- The other is equipped with a jitter for side discharge and a hose that reaches almost 100 meters on the beach side to mitigate dust from dry areas.

- Tacora will also be restarting the spigot systems on all three tailings lines which will increase the wet area that is not susceptible to dust lift-off

- Extensive revegetation programs will continue, which have been achieved through hydroseeding, broadcasting, and hand planting. This is an annual and planned activity that commences in the early summer. Revegetation work provides a permanent dust suppression barrier in inactive areas. Revegetation work in 2024 will encompass 25 hectares (ha) of the TIA.

- Plans for rehabilitation and dust suppression will continue to evolve, through programs aiming to incorporate biodiversity and ecosystem succession into the remediation of the tailings. This will use custom seed mixes, scientifically and historically proven techniques, and will be supplemented or enhanced with high-quality tackifier products.

- The dust suppression agent EcoAnchor will be applied using the hydroseeder in areas where a quick and effective solution is needed. This product is diluted in water and sprayed over problem areas. The EcoAnchor dust suppressant will be applied to 10 ha in 2024.

- Secondary planting will occur using proven, effective secondary growth species to achieve an efficient start to an evolving landscape that is more biodiverse and ecologically valuable. Approximately 900 trees, shrub, and berry plants have been planted already in 2024.

- Previously established experimental plots will be monitored, new plots will be developed, and further testing of different plant species will be completed during the 2024 season.

- As the 2024 season progresses, Tacora will monitor dust generation and apply dust suppressants to areas of concern.

- Tacora will aid natural ecological succession of tailings by supplementing practices of previous revegetation programs with ecologically valuable habitat creation initiatives. The establishment of the grassy herbaceous meadow will continue to progress in 2024 along with additions of specialized habitat boxes for Tree Swallows, Bank Swallows, bumblebees, and bats. Encouraging these species to live in the area will increase biodiversity and further the transition to shrubland and eventually to a naturally valuable forest in future.

SCULLY MINE ACTIVITIES

- The Tacora water truck, which holds 50,000 gallons of water, is in service and addressing dust lift-off from roadways and active areas in the mine.

- A second water truck is available for the mine area if required.

- The fill station in the mine is operational which allows for more time on the road to suppress dust lift-off.

- Hydroseeding will be conducted on 5 ha of inactive mine areas. The objectives of the Scully Mine revegetation program are similar to those of the TIA revegetation program, in that dust will be suppressed permanently and higher species biodiversity will be incorporated. However, the methodology will be adapted to suit conditions at each specific site in the mine.

Appendix B

Tacora Environmental Non-Conformance Record

ENVIRONMENTAL NON-CONFORMANCE RECORD

Activity:	Observation Time:
Location:	Observation Date:
Weather:	
REPORTING PERSON DETAILS	
Name:	
Company:	
Phone Number:	
NATURE OF NON-CONFORMANCE (NC) (check all applicable)	
☐ Water Management ☐ Waste Management and Spills ☐ Air Quality and Dust Management ☐ Incidents or Complaints ☐ Others (please specify)	☐ Historic Resources Management ☐ Wildlife Management ☐ Safety and Emergency Preparedness
Description of NC	
Root Cause of NC	

RECORD ID # _____

ENVIRONMENTAL NON-CONFORMANCE RECORD

CORRECTIVE ACTIONS AND FOLLOW-UP	
Corrective Actions Recommended	
Target Completion Date	
Persons / External Agencies Contacted (if applicable)	
Follow-Up Actions Recommended	

Participant(s):_____ Date:_____

Participant(s):_____ Date:_____

Participant(s):_____ Date:_____

Responsible Person:_____ Date:_____
(Corrective Action Implementor)

CLOSEOUT VERIFICATION (to be completed by Tacora Environment Department personnel upon completion of follow-up only)		
Name:	Signature:	Date:

RECORD ID # _____