

## Weekly Environmental Monitoring Report 2017 (Version 0)

Project title	Mont-Joli Airport – 2017-2018 environmental site remediation (Phase 2, Part 2)
PWGSC / TC file number	PWGSC: R.082515.001 TC: 7075-Q140-37
Name of proponent	Transport Canada
Monitoring lead	
Timeframe planned for completing the work	September to December 2017
Weekly period covered in this report	

Notes: This environmental monitoring form (or an equivalent report) must be completed by the site supervisor and sent weekly to Public Works and Government Services Canada (hereinafter "PWGSC"), which will forward it upon receipt to Transport Canada (hereinafter "TC"). The Contractor must also immediately notify PWGSC, which will notify TC, of any change considered or made to work methods, the scope of the work and/or the schedule.

Mitigation measures	Measure taken (yes /no)	Verification dates	Comments <sup>1</sup>	Items To provide <sup>2</sup>	
				Photos	Documents
<b>General measures</b>					
The Contractor must perform the work in accordance with the applicable federal, provincial or municipal acts, regulations, codes, guides and standards.					
Inform the authorities concerned of any changes in project implementation and operating methods or conditions (schedule, equipment layout, technical aspects, etc.).					
Photographs must be taken to document all stages of the project.				X	
Stop all earthmoving or excavation work during heavy rainfall or periods of flooding. If necessary, the various sites and temporary structures at the site must be protected from erosion.					
<b>Use of heavy machinery</b>					
All vehicles moving on the site must observe a 10 km/h speed limit on unpaved roads (within the construction area) and the Highway Safety Code.					
If dust suppressants are used, they must be certified as meeting the standards of the Bureau de normalisation du Québec (BNQ).					X
When vehicles, equipment and machinery are not in use, turn off their engines.					

<sup>1</sup> Any relevant comments, including explanations if the measure was not applied, verbal or written notices of non-compliance, additional explanations, a diagram or a sketch, etc. If needed, cite by number and complete explanations at the bottom of the form in the space provided.

<sup>2</sup> Photos (with a title to indicate what is being shown, the date, and if applicable, the bearing,) and documents (e.g. specifications, minutes of worksite meetings, notices of non-compliance, sketches, etc.) must be provided for at least the items requested in the table.

Do an initial inspection of the machinery and trucks used, followed by regular inspections, in order to ensure that they are in good condition and clean and free of hydrocarbon leaks. In case of breakdown, diligently repair or replace the equipment at the appropriate locations.					
Park more than 60 m from the banks of a stream, a water body or any other aquatic environment or from the edge of any wetland, machinery, construction vehicles and any temporary facilities (washrooms, site trailer, generators, etc.).					
Carry out machinery maintenance and refuelling on an impermeable surface located more than 60 m from the banks of a stream, a water body or any other aquatic environment and from the edge of any wetland.					
Do not store gasoline, oil or hazardous material at less than 60 m from the banks of a stream or a water body, a wetland or any other aquatic environment.					
Near banks of streams, water bodies or any other aquatic environment and at the edge of any wetland, adapt work to the size of machinery. Whenever possible, tracked machinery should be used.					
<b>Excavation and backfilling</b>					
If excavation work must be done on sloped surfaces, stabilize all reworked areas as the work is being completed.				X	
Use appropriate, recognized erosion-control measures on slopes that have been reworked.					
Before backfilling the excavated areas, ensure that quality control is performed on the sides and bottom of each excavated area by a specialized contractor.					X
Backfill the excavated areas with excavated soils that meet the remediation criteria, and, if needed, with imported, clean soil (< criterion A) to blend into the natural contours. When selecting the soil, take into consideration the favourable development of the plant species used as part of revegetation work. The Contractor is responsible for demonstrating the environmental quality (< criterion A) of the backfill materials.					X
Do not create depressed areas during the backfilling.					
<b>Management of stockpiled soil</b>					
Ideally, soil that is temporarily left on the site is piled in the excavation area or placed in a pile on top of an impermeable membrane. To prevent piles of soil from being washed, an impermeable membrane must cover the top of the pile and be weighted down.				X	
Piles should be located over 30 m from any water body or stream and beyond the edge of any wetland.					
Ensure that piles are stable and not in danger of collapsing.				X	

Ensure that only authorized persons have access to the piles.				X	
<b>Managing water at the bottom of an excavated area</b>					
The Contractor must perform the work in accordance with the applicable federal, provincial or municipal acts, regulations, codes, guides and standards, including, but not limited to, municipal bylaw 2016 -1347 concerning water management.					
If water accumulates at the bottom of an excavated area, the water should be managed in accordance with existing regulations and sound environmental practices.					
To limit water discharges into the environment, control runoff and, if possible, discharge water into sewers and establish appropriate attenuation measures to properly manage water pumped out to keep excavated areas dry. To the extent possible, direct infiltration of water into excavated areas (for example, by creating a soaking pit).					
In all cases, when water at the bottom of an excavated area is pumped out, use a system that avoids suction of sediments when drying out excavated areas.					
When water is discharged into the environment, move pumped water into a sedimentation pond or a vegetation area. In the vegetation area, the end of the discharge hose must be located at least 30 m from a lake, a stream or any wetland, without causing any erosion (for example, ensure the water is released into a rocky area) and ensuring that there is infiltration into the soil. Pumped water running into a water body or a stream must not contain suspended solids, apart from background levels, that are visible to the naked eye. If the vegetative cover is not effective, additional mitigation measures must be considered, such as adding a sedimentation pouch or an infiltration basin. A sedimentation basin can also be installed at least 30 m from a lake, stream or any wetland, and water discharged from the sedimentation basis outlet must not contain suspended solids, beyond background levels, that are visible to the naked eye.					
When contamination of surface water (including water seeping into excavated areas) by petroleum hydrocarbons is observed [i.e. when there is a film discolouring the surface of the water (an oil sheen) or a petroleum products odour], release, if possible, the water into sewers or pump the water into a tank truck for off-site treatment.					
<b>Work near aquatic environments or wetlands</b>					
Before starting work near an aquatic environment (stream or water body) or wetland, delineate on the site (using clearly visible stakes attached with rope) the edges of the wetlands and on the banks of streams or water bodies.				X	X <sup>3</sup>
Near wetlands or an aquatic environment (stream or water body), delineate on the site (use clearly visible stakes attached with rope) the access route to the areas to be excavated.					X <sup>3</sup>

<sup>3</sup> An appropriately scaled map showing the delimited areas (wetlands, banks of the Thibeault stream and access road) and where excavation will take place before work begins.

Do not enter wetlands or travel along the shores of any aquatic environment unless required to remove residual materials or contaminated soil as part of remediation work. If applicable, advise PWGSC and TC of the situation to determine what additional steps will be required. In all cases, restrict access in order to keep encroachment to an absolute minimum in wetlands, streams or water bodies.				X	X
In cases where excavation work is planned within 15 m of an aquatic environment, install sediment fences <sup>4</sup> on the banks of the aquatic environment to preserve the quality of water in the latter. These fences are installed before work begins and are left in place until the soil has stabilized.				X	
Carry out excavation work and a residual material removal from the area closest to the wetlands or aquatic environment to the terrestrial environment (i.e. going far away from the wetlands or aquatic environment). This should limit disturbance to the wetlands, the shores of the aquatic environment and bordering areas.					
In the former railway sector, carry out excavation and slag removal from west to east. In this way, the movement of machinery will occur almost exclusively on slag fill, which will limit disturbance to bordering areas.					
Near an aquatic area, a wetland or a drainage ditch, do not undertake any excavation or earthwork during periods of flooding or heavy rain.					
Maintain at all times inflow of water for any water body.					
No machinery should be located in an aquatic environment. No fording of a water body will be allowed.					
Do not discharge debris, garbage, waste, materials, etc. into the aquatic environment, and take any measures required to avoid any contamination of this environment. If required, clean up the aquatic environment without delay and make sure the flow pattern of any stream is not changed.					
<b>Erosion control</b>					
Any temporary piling-up on non-consolidated materials (e.g. topsoil and underlying soil) located within 30 m of the shore of a lake, a stream or a wetland must be protected to avoid sediment from being transported into these environments.					
In channel beds and on shores of streams or water bodies, in wetlands and with slopes steeper than 1.5 H: 1 V, a coconut fibre, wood mulch or straw mattress must be placed on all land where soil has been laid bare, disturbed or reworked to protect the soil from erosion. At any other location, when there has been significant surface erosion with soil laid bare, disturbed or reworked, a mattress or loose straw mulch must be applied with a minimum application rate of 400 g/m <sup>2</sup> . If straw mulch (in the form of a mattress or loose straw) is put in place, make sure that the mulch used is free of invasive alien species.					

<sup>4</sup> Fence consisting of a geotextile held up by wooden posts driven into the ground (e.g.: [https://www.ville.quebec.qc.ca/gens\\_affaires/developpement\\_residentiel/docs/fiches\\_gestion\\_sediments/2\\_barriere\\_a\\_sediments.pdf](https://www.ville.quebec.qc.ca/gens_affaires/developpement_residentiel/docs/fiches_gestion_sediments/2_barriere_a_sediments.pdf)).



<b>Transportation and disposal of materials</b>					
Dump trucks must be fitted with tarpaulins that cover the entire load.				X	
The trucks used must be sufficiently watertight that liquid from the soil being carried cannot be released into the environment					
Before leaving the site, inspect and clean the trucks, if required. Upon completion of the work, the shovel will also be inspected and cleaned and the soil thereby recovered will be managed in the same way as excavated soil.					
Contaminated soil must be properly disposed of at an authorized site, based on the soil's characteristics. Transport manifests must be provided to PWGSC / TC.					X
Comply with all existing regulations concerning the storage, disposal and transportation of hazardous materials.					
In the former railway sector, do not drive beyond Perreault Avenue East and Airport Road to avoid harming the wetlands located there. However, an access road to the excavation areas could be built.					
<b>Revegetation</b>					
Proceed with the final recovery of disturbed areas (excavated, striped, backfilled and/or in areas where vegetation has been disturbed by the passage of machinery) by a layer of at least 15 cm of topsoil prior to revegetation. In the former dump sector, the grass patties recovered during the excavation of areas to rehabilitate was replaced in December 2016 on soils reworked without adding the topsoil (to avoid erosion). Loosen the ground (i.e., by shredding the grass and earth clumps) before adding the layer of topsoil.				X	
Proceed with the revegetation of disturbed areas by hydroseeding. The use of a mixture of seeds from a nursery will be required. Use a mixture of seeds of plant species observed in the surrounding environment and free from unwanted or exotic invasive species. The mixture of seeds being considered for the revegetation will be submitted to PWGSC / TC prior to revegetation work. Approval of the revegetation plan by the MDDELCC is required.				X	X
Unless hydromulching is the method used to revegetate, install a mulch on the disturbed areas to be planted by following best practices listed in the Sheet 2 - Planting and mulch - (or Sheet 3 - Seeding and anti-erosion mattresses) of the <i>Guide technique – Gestion environnementale des fossés</i> ( <a href="http://www.mddelcc.gouv.qc.ca/eau/pluviales/publications-references.htm">http://www.mddelcc.gouv.qc.ca/eau/pluviales/publications-references.htm</a> ). Note that installing a mulch in the ditch sector will be required, regardless of the method used for the revegetation.					X
<b>Accidental spills</b>					
The Contractor must draw up an Environmental Emergency Response Plan (EERP). The EERP must be available on site and communicated to all employees. The players in the implementation of this EERP (stakeholders) must be aware of their respective roles and have been trained beforehand. Alternates must be indicated in the EERP in case stakeholders are absent.					X



The Contractor must have on hand at all times and know how to use a petroleum-product or other substance spill-response kit.				X	
In the event of an accidental spill, take all necessary action to stop the spill and contain the product spilled, then recover the product and the contaminated soil, dispose of them, and restore the site.					
The water contaminated by an accidental spill must be contained and recovered or managed directly by a specialized environmental services company.					
All spills on the site must be reported. Report the incident as soon as possible to the responsible authorities and to PWGSC / TC as well. Contact the Environment Canada emergency services (1-866-283-2333) and the Quebec environmental emergency services (1-866-694-5454).					
Recover soil contaminated as a result of a spill and manage the situation in accordance with existing regulations and sound environmental practices.					
<b>Closure of project site</b>					
Ensure that all waste and materials are removed before the site is closed.				X	
Dispose of waste in accordance with the existing standards. Do not burn waste.					

**Additional comments** (use another page if need be)

**COMPLETION OF MONITORING**

Prepared by: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Tel. No.: \_\_\_\_\_

**I certify that the above information is accurate and complete and corresponds with my interpretation of the work.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Il est à noter que la version française de ce rapport hebdomadaire de surveillance environnementale prévaut sur la version anglaise en cas de divergence.  
 It should be noted that the French version of this weekly environmental surveillance report prevails over the English version in case of any discrepancy.