Comment Index

Waste Oil Recycling and Water Treatment Facility

April 8, 2021

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	None	

Public

Number	Source	Date Received
1	Native Council of Nova Scotia	07-May-21

Fisheries and Oceans Canada | Pêches et Océans Canada

PO Box 1006, P500
Dartmouth, NS B2Y 4A2

April 9, 2021

Your file *Votre référence*
19-1742-1000

Our file *Notre référence*
21-HMAR-00146

Rachel Bower
Environmental Assessment Officer
Nova Scotia Environment
1903 Barrington Street, Suite 2085
Halifax, NS B3J 2P8

Subject: Environmental Assessment Registration Document (EARD) – Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Dear Rachel Bower:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your request to review the EARD for the proposed Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility – Dartmouth, Nova Scotia Project on April 6, 2021.

DFO has reviewed the EARD document as well as related appendices with respect to fish and fish habitat and no impacts to fish and fish habitat are anticipated at this time. As with all land based activities the proponent should follow standard measures to protect fish and fish habitat, which can be found on the DFO projects near water website at the following link: https://dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html

In particular, measures should be implemented to maintain riparian vegetation, carry out all aspects of the project on land, ensure proper sediment control, and prevent entry of deleterious substances in water. Any future work, undertaking or activities below the ordinary high water mark (e.g. shoreline stabilization or infilling) in fish habitat should be sent to the Program for review under the *Fisheries Act*.

If you have any questions with the content of this letter, please contact Colleen Smith at our Dartmouth office at (902) 293-7834 or by email at Colleen.Smith@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Colleen Smith
Senior Regulatory Reviews Biologist
Ecosystems Management
Maritimes Region

Canada

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PO Box 442
Halifax, NS
B3J 2P8

Tel: (902) 424-3600
Fax: (902) 424-0503

MEMORANDUM

DATE: **April 19, 2021**

TO: **Rachel Brower**

FROM: **Neil Morehouse Manager Protected Areas and Ecosystems**

SUBJECT: **Envirosoil Limited - Waste Oil Recycling and Water Treatment Facility Environmental Assessment**

The Protected Areas and Ecosystems Branch have reviewed the Environmental Assessment Application for the Envirosoil Limited - Waste Oil Recycling and Water Treatment Facility

As there are no protected areas in the vicinity of this project, no impacts to protected areas are anticipated.

NOVA SCOTIA
Environment

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: April 28 ,2021

To: Rachel Bower, Environmental Assessment Officer
Environmental Assessment Review, Nova Scotia Environment and Climate Change

From: Nova Scotia Environment and Climate Change
Inspection, Enforcement and Compliance
Central Region

Subject: EA Registration Envirosoil Limited
Waste Oil Recycling and Wastewater Treatment Facility
750 Pleasant Street, Dartmouth, N.S.

In general, the project has the potential to assist with the protection of the environment by providing a central collection facility for the management and recycling of Used Oil and a variety of wastewater sources in the region.

The registration did outline the various wastewater treatment technologies and expected annual volumes and maximum contaminant concentrations expected in waste feedstocks. However, the registration should more clearly identify wastewater sources, their characteristics and volumes that could possibly be received and treated at the facility.

Various wastewater technologies were presented in the registration. However, the registration did not detail the capabilities of the various wastewater treatment system units or trains, or what technologies would be used in different treatment scenarios. Treatment capabilities in the form of effluent quality and quantity should be provided and compared to appropriate Sewer Discharge Bylaw criteria, CCME marine water quality guidelines for the protection of aquatic life and the Nova Scotia Environment Contaminated Sites Regulations, Tier I EQS for surface water.

The registration also does not examine the impact that wastewater effluent volumes or quality will have on the sanitary wastewater treatment facility, understood to be the HRWC Eastern Passage Wastewater Treatment Plant. Input from the HRWC on this matter would be helpful. The review did not examine the expected environmental impact that wastewater effluent will have on the receiving environment, primarily the marine environment.

If the project is recommended to proceed to the next stages of development, Approval(s)

pursuant to Part V of the Environment Act will be required prior to the commencement of construction and operation. Approval(s) would be required in accordance with the Activities Designation Regulations, including the following sections:

10(1) (aa) *a waste dangerous goods facility, if the facility treats, processes, packages, re-processes, recycles, disposes of or stores dangerous goods listed in Column I of Schedule A that have become waste dangerous goods in quantities that exceed the quantities listed in Column II of Schedule A for those goods*;

17(2)(h) a used oil collection facility capable of pickup and storage capacity in excess of 1000 L of used oil including the necessary trucks or storage facilities;

21(2) The treatment or processing of wastewater and wastewater sludges is designated as an activity.

The following issues should be taken into consideration when providing information to support an application:

1. Provide verification of any municipal development permits the facility may require.

2. Since there is an existing asphalt handling facility operating at the site, EA approval would result in two different legal entities operating on site. It will be necessary to distinguish between impacts associated with the two legal entities including GLC Asphalt Handling Facility and the proposed waste oil recycling and wastewater treatment plant. A clear distinction of responsibility of the two entities sharing the one site will be required. Prior to the commencement of construction and operation, baseline monitoring for surface water, groundwater and noise should be conducted to establish pre-existing conditions associated with the asphalt handling operation.

3. It is understood that pipeline routes will be established between the wastewater treatment building, the loading/unloading racks and the bulk tank field. Identify the location of pipeline routes and provide protection measures to monitor for the detection of leaks in the pipeline and along the pipeline route?

4. Leak detection monitoring programs should be provided for all bulk storage tanks

5. A surface water and groundwater monitoring program should be submitted for the facility and the site to ensure protection of the environment.

6. The plans should consider impounded tank lot water or water captured within secondary containment systems and oil/ water separation systems. This water should be evaluated and adequately treated prior to released. Proposed discharge locations should be identified.

7. Runoff in the area of the loading/unloading rack was described in the registration as impermeable having “positive drainage”. What environmental control measures will be in place to collect spillage and runoff in the area of the loading/unloading rack and surrounding areas. The submission of a stormwater management plan for the

facility and the site would assist in supporting the application with attention to liquid transfer locations and vehicle travel areas.

8. As part of an application for approval the applicant must submit to the Central Regional Office for review and approval, site plans and engineered drawings with specifications for the containment features and environmental controls for all tankage and piping to demonstrate consistency with The Petroleum Management Regulations and Nova Scotia Standards for Construction and Installation for Petroleum Storage Tanks Systems https://novascotia.ca/nse/dept/docs.policy/Petroleum.Storage.Tank.Systems.pdf

9. The registration documents indicates that activated carbon filters will reduce odours by 90%. What types of odours are expected to be present and how will they be mitigated? Provide technical data which demonstrates that the treated off-site ground level air emissions from the filters will be within accepted health-based limits, within odour thresholds and within safe VOC's threshold limits values.

10. A storage layout for the management of dangerous and waste dangerous goods should be included with all applicable applications for Part V Approvals. Substances to be identified would include, but not be limited to, all tankage liquids, treatment reagents and sludges.

11. All environmental control systems proposed for the facility should be supplied with the applications for Part V Approval and include the design and specifications which are stamped by an engineer licensed to practice in the Province of Nova Scotia. Include storage tank systems, secondary containment, the oil/water separator, air emission controls.

12. The company should finalize the Complaint Resolution Procedure for submission to the Department. It should document and address any ongoing address public concerns associated with the undertaking and include but not be limited to the appointment of a contact person designated to deal with concerns from the public. At the request of NSE, the company should form a Community Liaison Committee (CLC).

13. In accordance with Section 30(1) (b) of the Activities Designation Regulations an activity for the handling and treatment of waste dangerous goods is required to provide financial security with the application for Part V Approval. The security should be adequate to address financial exposure the Province may incur if the operator is no longer capable of providing resources to reclaim the facility.

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NOVA SCOTIA
Communities, Culture and Heritage

1741 Brunswick Street
3rd Floor
P.O. Box 456
Halifax, NS
B3J 2R5

Date: May 04, 2020

To: Rachel Bower, Nova Scotia Environment

From: Coordinator Special Places, Culture and Heritage Development

Subject: Envirosoil Ltd. - Waste Oil Recycling and Water Treatment Facility

Staff of the Department of Communities, Culture and Heritage has reviewed the Waste Oil Recycling and Water Treatment Facility EA documents and have provided the following comments:

Archaeology

Staff reviewed the sections of the EA document pertaining to archaeology and have no archaeological concerns, as the project will take place on an existing industrial site in Dartmouth that has been in use for some time. The archaeological potential is assessed to be low on the site give the history of industrial disturbance. However, if archaeological resources are found they should contact CCH immediately.

Botany

Staff reviewed the sections of the EA document pertaining to botany and have no concerns. Based on available maps, available public observations, and surveys by the AC CDC indicate the presence of species of concern, and the area is largely industrial with little suitable habitat.

Palaeontology

Staff have reviewed the sections of the EA document pertaining to palaeontology. The bedrock geology in the area of the proposed facility is composed of Halifax Formation (Cambrian to Ordovician) slates, so disturbance of significant fossil resources are not likely. At this time there do not appear to be any issues with palaeontology heritage resources.

Zoology

No CCH staff were available to review the sections relating to zoology.

Health Canada Santé Canada

Environmental Health Program
Regulatory Operations and Regions Branch
1505 Barrington Street, Suite 1817
Halifax, NS B3J 3Y6

May 4, 2021

Rachel Bower
Policy, Planning and Environmental Assessment
Nova Scotia Environment and Climate Change
1903 Barrington St. Suite 2085
Halifax, NS, B3J 2P8

Subject: Health Canada's Response – Review of the Envirosoil Limited Waste Oil Recycling and Water Treatment Facility Environmental Assessment Registration Document[1]

Dear Ms. Bower,

Thank you for your e-mail dated April 6, 2021 requesting Health Canada's review of the above-mentioned Environmental Assessment (EA) Registration document[1] with respect to issues of relevance to human health. Health Canada has reviewed the document and is providing the following information with respect to noise, air quality, and water quality.

Atmospheric Environment:

The registration document states:

"*The closest residential development is approximately 20 m to the northeast on Pleasant Street, opposite the entrance to the site on Pleasant Street. The waste oil recycling and water treatment activities are located well over 100 m from residential receptors, within a contained building structure. The proposed project is not anticipated to interact with or cause potential effects to the atmosphere or air quality.*"

However, the document also states that the primary sources of noise and air pollution from the project will be related to additional truck traffic. As there are residential receptors located approximately 20 metres from the Pleasant Street entrance, the proponent should consider atmospheric impacts of the project, including noise and air quality.

[1] Dillon Consulting and Envirosoil Limited Environmental Assessment Registration for the Waste Oil Recycling and Water Treatment Facility, Dartmouth, Nova Scoita. 2021. April.

Sent by e-mail to Rachel.Bower@novascotia.ca

Noise:

The registration document notes that noise during the construction phase will primarily be caused by vehicle traffic:

"*During installation, noise is expected to be primarily related vehicle and truck traffic at the site. Installation of the majority of system components will be completed inside the existing building, thus significantly reducing any exterior noise.*"

The document also states that noise during the operation phase will primarily result from truck traffic:

"*Noise during operations will be primarily from vehicles entering and exiting the property. Noise levels are expected to be very short term in nature, and localized.*"

The document also notes that the project is not expected to exceed NSE Noise Guidelines:

"*Predicted noise levels are not expected to exceed the NSE Noise Guideline, and local noise by-laws will be adhered to. A baseline noise survey was completed in July 2020 for the existing liquid asphalt storage facility at the site and it found that the average LAeq values for the two monitoring locations ranged from the mid-50's to the high 60's with the dominant contributing factor to background noise being traffic on Pleasant Street and the adjacent railway. The L90 baseline results indicated that during 90 percent of the day, evening and night, the levels are 10-20 decibels lower and are below the NSE guidelines.*"

While the project is located in Nova Scotia (NS) and NS has developed a provincial guideline for acceptable sound levels, Health Canada (HC) encourages proponents to consult its guidance for evaluating noise impacts on human health (Health Canada, 2017)[2], including national and international standards.

- HC suggests considering the use of Percent Highly Annoyed (%HA), a widely accepted indicator of the human health effects of long-term project noise exposure (more than one year).

- For night-time noise associated with a project, HC suggests considering the World Health Organization's (WHO) guidelines regarding sleep disturbance. The WHO's recommended annual average night-time noise level (Ln) is 40 dBA outdoors[3]. HC also suggests considering adjustments to these guidelines if there are sensitive receptors, such as nursing homes, located in the vicinity of the proposed project.

[2] Health Canada. 2017. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

[3] World Health Organization (WHO). 2009. Night Noise Guidelines for Europe. Hurtley, C. (Ed)

- HC suggests considering additional noise guidelines on interference with speech comprehension if there are receptors such as schools located in the vicinity of the proposed project.

- Due to the proximity of the proposed project to residential receptors, if noise complaints are received (following the complaint resolution process outlined in Appendix L), the proponent should consider implementing additional mitigation measures.

For more information on HC's guidelines relating to project noise and the use of these guidelines, please see:

Health Canada. 2017. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. http://publications.gc.ca/pub?id=9.832514&sl=0

Air Quality:

The registration document states that air contaminants from the project will primarily consist of particulate matter and emissions from vehicles:

"*Air contaminant emissions from the project may occur during the construction/installation and operation phases. The potential air contaminant emissions of concern will be limited to particulate matter (PM, including its common size fractions PM10 and PM2.5) from fugitive sources and the normal combustion gas emissions such as carbon monoxide (CO), nitrogen oxides (NOX), and sulphur dioxide (SO2) from the combustion of fossil fuel by vehicles.*"

The document further states that the most significant change to air pollutants from existing operations will be from one or two additional trucks per day:

"*Air emissions at the site are not anticipated to change (from existing operations) in a substantive way through the addition of the proposed waste oil recycling and water treatment activities. The addition of one to two trucks per day accessing the site will be the main cause for a minor change in air emissions.*"

- While air emissions resulting from the proposed project are not anticipated to change substantially, due to the proximity of the proposed project site to residential receptors, if complaints concerning air quality are received (following the complaint process outlined in Appendix L), the proponent should consider establishing additional mitigation measures.

For additional information, please review Health Canada's guidance on air quality:

Health Canada. 2016. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Air. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. http://publications.gc.ca/pub?id=9.802343&sl=0

Drinking/ Recreational Water Quality:

The registration document notes that there are no known groundwater uses in the vicinity of the proposed project:

"*The proposed undertaking will use existing municipal water and sewer services at the site, and will not be using groundwater on the property. There are no known groundwater users (for potable or non-potable purposes) in the vicinity of the project.*"

Additionally, the document notes:

"*The Halifax Harbour (Atlantic Ocean marine environment) borders the site to the south. There are no defined freshwater waterbodies, watercourses, wetlands or other surface water features located at the subject property. The nearest freshwater features include Morris Lake and Russell Lake, located upgradient of the property approximately 2.6 km to the north and northwest.*"

However, the document does not note the distance to the nearest drinking water source (surface water or ground water). Additionally, it does not identify whether any waterbodies in the vicinity of the project are used for recreational purposes, including the Halifax Harbour, which is commonly used for activities such as swimming.

- The proponent should consider identifying the distance to the nearest drinking water source. Additionally, the proponent should consider whether any nearby waterbodies are used for recreational purposes. If complaints concerning water quality are received, the proponent should consider establishing additional mitigation measures.

The document states:

"*The existing asphalt storage facility has a stormwater management plan in place to mitigate flow volumes from the site to Halifax Harbour.*"

and:

"*The proposed project could potentially interact with surface water resources (freshwater runoff) in the event of accidental leakage or spill during vehicle/truck loading/unloading.*"

- In the event of a spill or other accident with the potential to impact recreational water quality, in addition to the steps outlined in the *Emergency Response and Contingency Plan*, the proponent should consider ensuring that all potential recreational water users (including of the Halifax Harbour) are adequately informed.

For additional information, please review Health Canada's guidance on water quality.

Health Canada. 2017. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Water Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. http://publications.gc.ca/pub?id=9.832511&sl=0

Health Canada advises that additional information related to the above topics be provided to the Nova Scotia Department of Environment and Climate Change for review. Health Canada would then be available to provide further support to the Department only if specific concerns regarding potential risks to human health related to this project arise in the future.

If you have any comments/questions, please contact the undersigned at your convenience.

Sincerely,

Ellen Chappell, BSc., MES
Physical Sciences Officer
Health Canada, Atlantic Region
email: ellen.chappell@canada.ca

cc: Beverly Ramos-Casey, Manager, Environmental Health Program, Health Canada, Atlantic Region

Sent by e-mail to Rachel.Bower@novascotia.ca

NOVA SCOTIA

Agriculture

60 Research Drive
Suite A
Bible Hill, Nova Scotia
B6L 2R2

Date: May 5th, 2021

To: Rachel Bower, Nova Scotia Environment

From: Executive Director, Policy and Corporate Services,
Nova Scotia Department of Agriculture

Subject: Waste Oil Recycling and Water Treatment Facility – Environmental Assessment

Thank you for the opportunity to review the Waste Oil Recycling and Water Treatment Facility documents.

Given that there is no active agriculture production within 5 km of the proposed site, the Department of Agriculture has no concerns with the proposal.

NOVA SCOTIA

Fisheries and Aquaculture

60 Research Drive
Suite A
Bible Hill, Nova Scotia
B6L 2R2

Date: May 5th, 2021

To: Rachel Bower, Nova Scotia Environment

From: Executive Director, Policy and Corporate Services
Nova Scotia Department of Fisheries and Aquaculture

Subject: Waste Oil Recycling and Water Treatment Facility – Environmental Assessment

Thank you for the opportunity to review the Waste Oil Recycling and Water Treatment Facility documents.

The Department of Fisheries and Aquaculture has the following comments:

- There is one proposed experimental shellfish site and two commercial rockweed leases within a 25km of the proposed facility.

- There are no anticipated impacts to recreational fishing.

- There is a Small Craft Harbours facility operated by the Eastern Passage Harbour Authority within 3.7 km of the proposed project. The facility serves as home port for commercial fishing vessels and serves as an unloading/docking operation for transient commercial fishing vessels from other ports.

- The commercial lobster fishery (LFA 33) takes place from late November to May, with some activity in this area as commercial fishermen set gear towards the Bedford Basin. The majority of the lobster fishery and other commercial fisheries does however take place further offshore.

- The proposed project is near several retail lobster pounds that constantly pump harbour water through live lobster holding tanks. Any incidents of spillage into the harbour would cause concerns for the fisheries as well as the possibility of such spills reaching the intakes of the live lobster pounds.

1672 Granville Street
3rd Floor
PO Box 186
Halifax, Nova Scotia
B3J 2N2

Environmental Services

NS Environment May 5, 2021
Attn: Rachel Bower, Environmental Assessment Officer
Nova Scotia Environment
Suite 2085 1903 Barrington St
Halifax, NS

RE: NSTAT Comments on the Waste Oil Recycling and Water Treatment Facility Project Environmental Assessment (EA)

Nova Scotia Transportation and Active Transit (NSTAT) staff have reviewed the Environmental Assessment for the Envirosoil Limited Waste Oil Recycling and Water Treatment Facility Project and prepared the following:

There are no traffic-related concerns with this project. The Proponent is proposing to build a facility to be used for the purpose of receiving, processing and recycling of waste oil and the treatment of wastewater. The location of the Facility is 750 Pleasant Street in Dartmouth.

The nearest road infrastructure that is owned by NSTAT is Highway 111, about 1-2 km to the north of the site. The impacts here would be minimal as the truck traffic increase expected for this project is 1 to 2 trucks per day. Any impacts to the rail line and other nearby road infrastructure owned by the Halifax Regional Municipality must be done in communication with those respective parties.

References are made to Working Within Highway Right of Way and Special Moves Permits. They have been identified in the EA as not being required (agreed, not our infrastructure) and to be applied for if necessary, (agreed, appears to be standard trucks that will be used), respectively.

References to potential accidents and transportation of dangerous goods is mentioned in the report. Any contingencies for that have also been addressed in the report.

Sincerely,

Environmental Services
Nova Scotia Transportation and Infrastructure Renewal

NOVA SCOTIA
Environment & Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: 6 March 2021

To: Rachel Bower, Environmental Assessment Officer, Policy, Planning & Environmental Assessment Division, NSECC

From: Brent Baxter, P.Eng.
Senior Science Advisor, Resource Management Unit, SAS Division, NSECC

Subject: Environmental Assessment for Proposed Envirosoil Waste Oil and Water Treatment Facility, Pleasant Street, Dartmouth, NS

I am responding on behalf of the Resource Management Unit, SAS Division. We have reviewed the registration documents for the proposed Envirosoil waste oil and water treatment facility at Pleasant Street, Dartmouth, NS and can offer the following comments:

1. There is very little information provided regarding required analyses (s.5.3.4.1) for receiving contaminated water or used oil other than the proponent will require some information from the shipper. This should be addressed in some detail including criteria and methods of analysis. In addition, there should be a plan for how off-spec material will be handled and safely returned, treated or disposed. There should also be a plan for periodic confirmatory sampling and analysis to check the quality of received materials.
2. There are few details (s.5.2.2) provided on how the proposed oil and water treatment systems will work other than a listing of proposed equipment. It should be clearly outlined which equipment or processes will treat specified contaminants and how these will be monitored to ensure the process is working properly.
3. There does not appear to be a specific process for addressing saline contamination in the incoming waste streams although the overall system proposes to treat ship-sourced bilge water which is usually saline. More information is required on this issue.
4. The information provided on proposed design parameters (s.5.2.2, Table 1) is both limited and confusing since it appears to contradict some of the text in the accompanying description. While the table appears to provide ranges that may be normal operating conditions and perhaps maximum conditions, the text states that these are not limiting and the process can handle concentrations of contaminants beyond these ranges if flows are decreased or additional equipment or processes are used. The proponent should be required to clearly state what are the operating limits that have been proven to achieve the desired

outputs in order to show that the overall proposed system can achieve consistent acceptable outputs for both product and waste streams.

5. It is unclear from the document what is planned to manage surface water from the receiving and external storage areas to ensure that any contamination is recognized and treated to acceptable criteria before being discharged. It is inferred in many areas throughout the registration document that the proponent will install an oil-water separator but there is no detail on how this is connected to receiving, storage and process areas and how it will be monitored. Indeed, in s.10.3.2.1, it is stated that this system "can be monitored and gated closed, if required" not that the proponent plans to do so as part of normal operating procedures.
6. In s.5.6.2, the proponent discusses odour and notes that all indoor storage tanks will be vented through an activated charcoal system to reduce odour by up to 90%. The proponent should provide additional technical details on this to reflect proper sizing and maintenance, particularly for the tank that may be heated to break emulsions. Issues with odour control have been significant at other used oil processing facilities within Nova Scotia and have led to compliance directives and closures.
7. In accordance with the Contaminated Sites Regulations, concentrations of contaminants above the Tier 1 Environmental Quality Standards (or established background), that are ineligible for an exemption, require notification, assessment and remediation/management under the Contaminated Sites Regulations. Confirmed soil, sediment, groundwater or surface water impacts (identified during the construction, operation or reclamation of the facility) above the applicable criteria, must be delineated and managed in accordance with the Nova Scotia Contaminated Sites Regulations.
8. Section 5.2.2 Waste Water Treatment Process , Page 24: *"If the Advanced Treatment, such as electrocoagulation, reverse osmosis or ultra-filtration is used, the solid effluent from the screw press will be trucked to Envirosoil Limited or other appropriate and licensed treatment facility".* **If one of the specified advance treatment processes are not selected for use at this facility, where will solid effluent be shipped for disposal? How will the proponent determine if the solid effluent can be accepted at municipal landfills, the Envirosoil Limited or at an out of province licensed disposal facility with regard to contamination?**
9. Section 5.6.4 Liquid & Hazardous Waste, page 41: "*Other anticipated liquid wastes include lube oil for the pumps and other mechanical equipment which will be changed regularly. This waste stream will be removed from the site in barrels, for delivery to an approved disposal and/or recycling facility".* **As per page 5, section 2.1 of the submission, "*The facility will accept and treat waste water, bilge water, waste oil and ground spill waste*." Why are waste oil products being generated by the process not being managed with the incoming wastes as opposed to shipment to another facility?**
10. Appendix H, section 11 Reporting, page 21: *"The intent of rehabilitation following an incident is to return the impacted area(s) to the pre-incident conditions. Releases will be contained and cleaned up using the appropriate methods as dictated by the material spilled. Impacted ground surfaces will be sampled by a*

qualified professional and submitted to an accredited laboratory to confirm effectiveness of the initial clean up. Soil and other affected material (e.g. concrete, asphalt) will continue to be removed until contaminants are no longer detected. Replace removed soil and other material to the original state prior to the incident. If required, obtain approval from Nova Scotia Environment".
Reference should be made to notification in the context of the Contaminated Sites Regulations and reporting in the context of other areas of the Environment Act (i.e. the Emergency Spill Regulations).

In conclusion, the overall environmental assessment registration document for this proposed project does not include sufficient information for our technical staff to adequately assess many of the aspects of this project or to even consider developing terms or conditions related to ensuring adequate environmental protection at this proposed site is designed, constructed and maintained. It is our recommendation that the proponent either be requested to supply additional detailed information to address these identified issues or that the project as proposed be rejected.

Please let me know if you need any additional information or clarification.

Best regards,

Brent Baxter, P.Eng.

NOVA SCOTIA
Department of Inclusive Economic Growth

1809 Barrington Street
(CIBC Building), Suite M103
Halifax, Nova Scotia
Canada B3J 3K8

Date: April 30, 2021

To: Nova Scotia Environment and Climate Change

From: The Department of Inclusive Economic Growth

Subject: Envirosoils Waste Oil Recycling and Water Treatment Facility Project

The mandate of the Department of Inclusive Economic Growth (IEG) is to lead and align provincial government efforts behind a common agenda for inclusive economic growth. This mandate focuses on strategic priorities and opportunities that encourage Nova Scotia's innovation, competitiveness, entrepreneurship, and export orientation.

Fulfilling this mandate involves working collaboratively with our Crown corporations (Develop Nova Scotia, Halifax Convention Centre Corporation (Events East Group), Innovacorp, Invest Nova Scotia, Nova Scotia Business Inc. and Tourism Nova Scotia), key partners in other levels of government, entrepreneurs, large businesses, post-secondary institutions, venture capital investors and Nova Scotians.

After reviewing the Envirosoils Waste Oil Recycling and Water Treatment Facility project Environmental Assessment Registration Document, the proposed project was deemed to be consistent with the mandate of IEG.

From:	Charles Lloyd
To:	Bower, Rachel M
Cc:	Peverill, Derrick J; MacPhail, Helen; Kenda MacKenzie
Subject:	RE: EA Registration - April 8, 2021 -Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth
Date:	May 6, 2021 10:50:44 AM
Attachments:	image003.png image004.png image002.png image007.png

Rachael

On behalf of Halifax Water, below are our comments related to the above captioned EA.
Please reply to this email to confirm these comments were properly received.

Thanks

The EA states in part. The facility will be operated under Envirosoil's existing Environmental Management System (EMS), and
Envirosoil will implement project specific planning and management strategies that:
•Avoid or minimize the adverse environmental effects of the project, and enhance positive ones;
•Comply with the applicable laws and regulations; and
•Consider the presence of the project and compatibility with the way of life of the surrounding environment

Adverse Environmental Effects
This facility could have an adverse effect on the Halifax Water wastewater system and thus the receiving environment through:

(1) the discharge of excessive quantities of wastewater at certain times (especially during rain events) when the wastewater system is at capacity and any excess discharge contributes to CSO overflow volumes to Halifax Harbour.

(2) the discharge of non-compliant wastewater. We understand that the discharge will be treated discharge and will be compliant with Halifax Water's regulations. However, in the event that a component of the treatment system fails or is unable to treat effectively or there is a contaminant in the wastewater that is unknown, there is a risk that this non-compliant discharge will impair or pass through Halifax Water's treatment system and enter the environment.

(3) through unintentional discharge to a stormwater system. This could occur in the event of a spill within the facility, from a truck transporting liquids to the facility or from an improper plumbing connection to the stormwater system.

It appears that this facility will discharge some amount of extraneous water or wastewater into the Halifax Water wastewater system. Water or wastewater is extraneous when it originates from a source other than Halifax Water's water supply. This extraneous discharge is prohibited under Halifax Water Regulations Section 63(3)(m) without the prior written approval of Halifax Water. An approval, if granted, will be in the form of an agreement per Section 65(1) and other parts of the Halifax Water Regulations.

Bilge Water – It is Halifax Water's understanding that bilge water may contain chloride concentrations far in excess of the limit allowed in the Halifax Water Regulations and that chlorides are difficult to

remove through treatment. How does the proponent propose to ensure that chlorides in discharge do not exceed allowable limits.

We recommend that NSE consider including in the terms and conditions, a requirement that the proponent must enter into discussions with Halifax Water to ensure treatment, testing and discharge protocols will meet all Halifax Water regulatory requirements and that any required changes to the facility design are captured at the planning stage.

Charles Lloyd, P.Eng.
Manager of Environmental Engneering, Halifax Water
450 Cowie Hill Rd, PO Box 8388 RPO CSC Halifax, NS B3K 5M1
O: 902-440-8037 @halifaxwater.ca

From: Kenda MacKenzie <mackenk@halifaxwater.ca>
Sent: Monday, April 26, 2021 8:42 AM
To: Bower, Rachel M <Rachel.Bower@novascotia.ca>
Cc: Peverill, Derrick J <Derrick.Peverill@novascotia.ca>; MacPhail, Helen <Helen.MacPhail@novascotia.ca>; Charles Lloyd <lloydc@halifaxwater.ca>
Subject: RE: EA Registration - April 8, 2021 -Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Hi Rachel,

Doing well here, hope the same for you.

Thanks for passing this along, I'm cc'g Charles to make sure his group has seen it and if not will provide comments by May 8th.

Do you know who at HRM was sent the document? Shannon Miedema? Jim Hunter? – Just want to make sure it made its way to them.

Thanks

Kenda MacKenzie, P.Eng. (she/her)
Director, Regulatory Services, Halifax Water
450 Cowie Hill Rd, PO Box 8388 RPO CSC Halifax, NS B3K 5M1
C: 902-237-7116 **E:** mackenk@halifaxwater.ca

distribute.

Please consider the environment before printing this email.

From: Bower, Rachel M <Rachel.Bower@novascotia.ca>
Sent: Friday, April 23, 2021 12:01 PM
To: Kenda MacKenzie <mackenk@halifaxwater.ca>
Cc: Peverill, Derrick J <Derrick.Peverill@novascotia.ca>; MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Subject: FW: EA Registration - April 8, 2021 -Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Hi Kenda,

Hope all is well. I am reaching out to see if Halifax Water happens to be aware of this recent project that registered for Environmental Assessment? The registration material was sent to HRM but, I am not certain it made it to you so, I thought I would forward it along just in case. Details of the registration are below and attached.

We would welcome comments from Halifax Water given the project involves discharge into the HRM sanitary sewer.

Comments are due by May 8, 2021.

Thanks in advance for your time!

NOVA SCOTIA
Environment and Climate Change

1903 Barrington Street
Suite 2085
PO Box 42
Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

From: Bower, Rachel M
Sent: April 6, 2021 10:56 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; William.Brooke@novascotia.ca; Dawn.Miller2@novascotia.ca; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; elaine.mosher@novascotia.ca; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; heather.macmillan@novascotia.ca; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division@novascotia.ca; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>;

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Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Subject: EA Registration - April 8, 2021 -Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

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Username: nseglc
Password: W#$z!JxzMNUB

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If you have any questions, please do not hesitate to contact me.

Regards,

Rachel Bower

NOVA SCOTIA
Environment and Climate Change

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Suite 2085
PO Box 42
Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

NOVA SCOTIA
Department of Municipal Affairs

Maritime Centre, Floor 8 North
1505 Barrington Street
PO Box 216
Halifax, NS B3J 2M4

May 6, 2021

To: NS Department of Environment and Climate Change

From: Department of Municipal Affairs

Subject: **WASTE OIL RECYCLING AND WATER TREATMENT FACILITY, DARTMOUTH, NS**

As requested, the Department of Municipal Affairs has reviewed the Environmental Assessment Registration Documents for the proposed Waste Oil Recycling and Water Treatment Facility, Dartmouth, Nova Scotia.

Although we have found nothing of concern respecting the Department's areas of mandate, we would like to remind the proponent to ensure that they have undertaken adequate consultation with the Municipality in order to confirm conditions for compliance with municipal planning policies and by-law provisions.

Thank you for the opportunity to review the Registration Documents for the above-noted project.

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

NOVA SCOTIA
Environment & Climate Change

Date: May 6, 2021

To: Rachel Bower, Nova Scotia Environment & Climate Change - EA Branch

From: Wetland Specialist, Water Resources Management Unit

Subject: Envirosoil Waste Oil Recycling and Water Treatment Facility EA - Wetlands

Scope of Review:
The following review of the Envirosoils' Waste Oil Recycling and Water Treatment Facility Project Environmental Assessment Registration Document (EARD) (Envirosoil, April 2021) is specific to the mandate of the NS ECC Wetlands Program within the Sustainability and Applied Sciences (SAS) Division. The review considers whether the environmental concerns associated with wetlands and the proposed mitigation measures to be applied have been adequately addressed within the EARD. The recommendations provided below are meant to supplement the actions outlined in the EARD.

Reviewed Documents:

- Dillon. 2021. *Environmental Assessment Registration Document. Waste Oil Recycling and Water Treatment Facility, Dartmouth, Nova Scotia.* Envirosoil Limited.

General Comments:

- The proposed facility location is on a previously disturbed industrial site, and no wetlands are indicated as present.
- The surrounding industrial context of the Project site is compatible with the type of development proposed.
- Wetlands are not identified as a VEC within the EA.
- The proponent has not identified the need for any wetland or watercourse alteration permits (Section 4.1.1 – Provincial Legislation).
- The facility is noted to be discharging treated water to the HRM sanitary sewer, and not the natural environment; as such, there are no foreseeable effects to wetlands, whether on-site or off-site. There are no wetlands downgradient of the Project site.

Conclusions & Recommendations:

- The NS-ECC Wetlands programs has no concerns related to the proposed undertaking.

From: MacPherson, George E
To: Bower, Rachel M
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth
Date: May 7, 2021 8:38:54 AM
Attachments: image001.png
image002.png

HI Rachel,

No comments from Geoscience and Mines

George

From: Bower, Rachel M <Rachel.Bower@novascotia.ca>
Sent: May 7, 2021 8:31 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; Brooke, William <William.Brooke@novascotia.ca>; Miller, L (Dawn) <Dawn.Miller2@novascotia.ca>; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; Mosher, Elaine <Elaine.Mosher@novascotia.ca>; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; MacMillan, Heather J <Heather.MacMillan@novascotia.ca>; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division <NSE-SAS-Division@novascotia.ca>; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; Smith, Gordon T <Gordon.Smith@novascotia.ca>; Zanth, Kathy M <Kathy.Zanth@novascotia.ca>; iaac.projects-projets.aeic@canada.ca; jeff.reader@dfo-mpo.gc.ca; Ramos-Casey, Beverly (HC/SC) <beverly.ramos-casey@canada.ca>; fcr_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca; Matlock, Bernard <Bernard.Matlock@novascotia.ca>; Peverill, Derrick J <Derrick.Peverill@novascotia.ca>; Garroway, Kevin G <Kevin.Garroway@novascotia.ca>; MacDonald, Jonathan E <Jonathan.MacDonald@novascotia.ca>
Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

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Happy Friday!

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Environment and Climate Change

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Suite 2085
PO Box 42
Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

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Sent: April 6, 2021 10:56 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; William.Brooke@novascotia.ca; Dawn.Miller2@novascotia.ca; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; elaine.mosher@novascotia.ca; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; heather.macmillan@novascotia.ca; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division@novascotia.ca; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; gordon.smith@novascotia.ca; kathy.zanth@novascotia.ca; iaac.projects-projets.aeic@canada.ca; jeff.reader@dfo-mpo.gc.ca; Ramos-Casey, Beverly (HC/SC) <beverly.ramos-casey@canada.ca>; fcr_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca
Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
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If you have any questions, please do not hesitate to contact me.

Regards,

Rachel Bower

NOVA SCOTIA
Environment and Climate Change

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PO Box 42
Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

From:	Mosher, Elaine
To:	Bower, Rachel M
Subject:	RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth
Date:	May 7, 2021 8:48:58 AM
Attachments:	image001.png image002.png

Good Morning Rachel

Thank you for the reminder….I have no comments.
Stay safe

Elaine

Elaine Mosher
Secretary
Wildlife Division
Lands and Forestry
136 Exhibition Street
Kentville NS
B4N 4E5

902-679-6091 (office)

Elaine.Mosher@novascotia.ca

From: Bower, Rachel M <Rachel.Bower@novascotia.ca>
Sent: May 7, 2021 8:31 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; Brooke, William <William.Brooke@novascotia.ca>; Miller, L (Dawn) <Dawn.Miller2@novascotia.ca>; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; Mosher, Elaine <Elaine.Mosher@novascotia.ca>; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; MacMillan, Heather J <Heather.MacMillan@novascotia.ca>; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division <NSE-SAS-Division@novascotia.ca>; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; Smith, Gordon T <Gordon.Smith@novascotia.ca>; Zanth, Kathy M <Kathy.Zanth@novascotia.ca>; iaac.projects-projets.aeic@canada.ca; jeff.reader@dfo-mpo.gc.ca; Ramos-Casey, Beverly (HC/SC) <beverly.ramos-casey@canada.ca>; fcr_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca; Matlock, Bernard <Bernard.Matlock@novascotia.ca>; Peverill, Derrick J

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Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
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Regards,

Rachel Bower

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Environment and Climate Change

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Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

Lands and Forestry

M E M O R A N D U M

TO: Rachel Bower, NS Department of Environment

FROM: Department of Lands and Forestry

DATE: May 7, 2021

RE: Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility: EA Comments

The Department of Lands and Forestry (herein the Department) provides the following comments on the above project:

Crown Lands:

This project would not require approvals/permits/authorities from the Land Administration Division.

Wildlife, Wildlife Habitat and Species-at-Risk:

The Registration document Appendix F, and Section 14.1 of Appendix H, the draft Emergency Response and Contingency Plan (ERCP) largely addresses and mitigates potential interactions between the proposed activities and biodiversity values under the legislative mandate of the Department. There are two omissions that warrant consideration and contingency planning.

1. **Osprey:** Osprey are commonly attracted to poles associated with utility infrastructure (e.g. power, telephone, satellite, etc) where they occur near water. Osprey commonly nest on such structures and use other nearby poles, trees, or buildings to observe the area and defend their territory.
   The Department has the following recommendations as conditions of approval:
   a) **During the construction phase, the proponent must evaluate all final structures on site for the potential to support Osprey nests and any vulnerable structures should be 'invalidated' so as not to support a nest. The Department is available to advise on this matter.**
   b) **If nesting Osprey are observed, the proponent should report to, and**

consult with, the Department for advice on how to proceed. Osprey should also be added to the list of species for which educational material will be provided to on-site staff (in addition to Common Nighthawk and Killdeer).

2. **Human-wildlife Conflict**: The document addresses managing food and food waste to avoid attracting wildlife. Despite this, the facility may experience nuisance wildlife issues with small mammals, raccoons, white-tailed deer, starlings, pigeons, or other species. Lethal methods for managing nuisance wildlife should only be employed as a last resort, after all acceptable measures have been taken to remove attractants and/or deter wildlife, and only in consultation with the local Department of Lands and Forestry Waverley office, or with a licensed Nuisance Wildlife Operator or Pest Control Company.

In addition, the following mitigation measure does not define the type of activities that "may harm or harass migratory birds" so it is not clear how this measure is to be applied:

> "Activities that may harm or harass migratory birds will be scheduled to the extent possible outside of the normal breeding bird and migratory bird season (April 15 to August 31) to ensure that eggs and flightless young are not inadvertently harassed or destroyed. At a minimum, if complete avoidance of these activities during the specified timeframe is not feasible, nest searches will be undertaken by a qualified biologist and avoidance setbacks will be established around active nests. Nest searches will only be completed following consultation with Environment and Climate Change Canada (Canadian Wildlife Service) and by a qualified biologist;"

The Department recommends that the proponent clarify whether this mitigation measure applies generally to "construction activities". If so, it follows that the proponent will have to either avoid any construction during this period, or first conduct surveys and mitigate pending the outcome. If instead it is intended that this condition applies to a more refined list of activities, or some other criteria to determine if/when bird surveys will be needed, the proponent should work with CWS to determine the appropriate trigger for requiring surveys. In any case, the mitigation measure should be clarified through revision.

The Department recommends that the proponent work with the Department to finalize the conditions/guidance related to wildlife that will be included in their Environment Protection Plan or final ERCP.

Impact Assessment Agency of Canada
Agence d'évaluation d'impact du Canada

Suite 200
1801 Hollis Street
Halifax NS B3J 3N4

Bureau 200
1801 rue Hollis
Halifax, NE B3J 3N4

Date: May 7, 2021

To: Rachel Bower, Environmental Assessment Officer, Nova Scotia Environment

From: Trevor Ford, Environmental Assessment Officer, Impact Assessment Agency of Canada

Subject: Waste Oil Recycling and Water Treatment Facility

The federal environmental assessment process is set out in the *Impact Assessment Act* (IAA). The *Physical Activities Regulations* (the Regulations) under IAA set out a list of physical activities considered to be "designated projects." For designated projects listed in the Regulations, the proponent must provide the Agency with an Initial Description of a Designated Project that includes information prescribed by applicable regulations (*Information and Management of Time Limits Regulations*).

Based on the information submitted to the Province of Nova Scotia on the proposed Waste Oil Recycling and Water Treatment Facility, it does not appear to be described in the Regulations. Under such circumstances the proponent would not be required to submit an Initial Description of a Designated Project to the Agency. However, the proponent is advised to review the Regulations and contact the Agency if, in its view, the Regulations may apply to the proposed project.

The proponent is advised that under section 9(1) of the IAA, the Minister may, on request or on his or her own initiative, by order, designate a physical activity that is not prescribed by regulations made under paragraph 109(b) if, in his or her opinion, either the carrying out of that physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation. Should the Agency receive a request for a project to be designated, the Agency would contact the proponent with further information.

The proposed project may be subject to sections 82-91 of IAA. Section 82 requires that, for any project occurring on federal lands, the federal authority responsible for administering those lands or for exercising any power to enable the project to proceed must make a determination regarding the significance of environmental effects of the project. The Agency is not involved in this process; it is the responsibility of the federal authority to make and document this determination.

The proponent is encouraged to contact the Agency at (902) 426-0564 if it has additional information that may be relevant to the Agency or if it has any questions or concerns related to the above matters.

Thank you,

Trevor Ford

Environmental Assessment Officer, Atlantic Regional Office
Impact Assessment Agency of Canada / Government of Canada
Trevor.Ford@canada.ca / Tel: 902-476-7635

Agente d'évaluation environnementale, région de l'Atlantique
Agence d'évaluation d'impact du Canada / Gouvernement du Canada
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NOVA SCOTIA

Environment and Climate Change

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 6, 2021

To: Rachel Bower, Environmental Assessment Officer,

From: Environmental Health

Subject: Waste Oil Recycling and Water Treatment Facility

Scope of review:

The focus of this Environmental Assessment review from the NSECC Sustainability and Applied Science Division's Environmental Health Consultant is potential impacts on human health. In general, the scope of this review includes the assessment of the potential for the proposed undertaking/project to adversely affect human health in all phases of the project. Any recommendations provided below are meant to supplement the actions that are outlined in the EA submission documents.

Documents reviewed:

The documents outlined below formed the basis for this EA review, and is referred to as the 'EA submission' through the rest of this memorandum:

- Environmental Assessment Registration Document – Liquid Asphalt Storage Facility Project. Including Appendices. Report Prepared by DILLON CONSULTING LIMITED. Registered on May 1, 2020, and accessed from https://novascotia.ca/nse/ea/Liquid-Asphalt-Storage-Facility-Project/default.asp

Noise

Given the expected increase in noise levels combined with the proximity to residential properties (approx. 100m), it is recommended as a condition of approval that routine noise monitoring be implemented at commencement of the construction phase. Monitoring should extend into the operation phase to ensure ongoing operations on the site will be within noise level limits.

Air Quality

The full potential for air emission is not well described in the EA submission. There are

no specifics provided on the increased GHG emissions related to boiler use in the treatment process. While the report does state that:

"Air emissions at the site are not anticipated to change (from existing operations) in a substantive way through the addition of the proposed waste oil recycling and water treatment activities."

The EA submission lacks detail on the frequency and duration of the requirement for increased boiler activity to supplement the treatment process.

The proponent discusses that there will be mitigations in place for odour (activated carbon filters). The report does not discuss any practices for monitoring the efficacy of these measures. The report does not speak to additional measures that may be taken if the mitigation measures are inadequate.

NOVA SCOTIA
Environment

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: 5th May 2021

To: Rachel Bower, Nova Scotia Environment

From: Climate Change Unit

Subject: Waste Oil Recycling and Water Treatment Facility Project

1. Quantification of GHG

In terms of GHG identification and estimation, the proponent reports that GHG emissions from the project will mostly occur during operations. Primary sources of GHGs are CO_2, methane (CH_4), and nitrous oxide (N_2O), from fossil fuel combustion in trucks and boilers. The proponent also states that emissions generally at the site are not anticipated to change from existing operations.

- Given that the proponent has proposed to use natural gas as fuel to heat the boilers the proponent should provide an estimate of the quantity of natural gas for the boilers for the given operation specifications over a specified period (monthly, quarterly or annually). This is needed to provide a more accurate estimate for the expected GHG emissions for this project.

- The proponent does not indicate that the wastewater could be a potential source of GHG emissions. The proponent should confirm whether the wastewater treatment process will be aerobic or anaerobic?

2. Mitigation of GHG
   - The proponent provided some mitigation steps to reduce emissions generally in the form of maintenance of emission control equipment and the effort to operate equipment to the specifications and recommendations of the manufacturer. These are sufficient mitigative actions.

3. Adaptation to Climate Change
   - The proponent stated that there is an existing earthen berm around the site perimeter, including the southern property line along the Halifax Harbor. However, it is unclear whether climate change data was used to assess its strength, particularly with regards to rising sea levels and extreme weather events. For advice on which climate projections to use for this context, please contact the Canadian Centre for Climate Services at Environment and Climate Change Canada. https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services.html

NOVA SCOTIA
Environment

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 7, 2021

To: Rachel Bower, Environmental Assessment Officer, Nova Scotia Environment and Climate Change

From: Surface Water Quantity staff, Water Resources Management Unit

Subject: Waste Oil Recycling and Water Treatment Facility Project EA Review

Scope of review:

This review from the Water Resources Management Unit Surface Water Quantity staff with Nova Scotia Environment and Climate Change (NSECC), Sustainability and Applied Science Division focuses on surface water quantity and management. While comments may also include considerations for impacts on general surface water quality, appropriate technical specialists for these areas should be consulted for specific review and comment.

The recommendations provided below are meant to supplement the actions outlined in the EA Registration Documents (EARD).

Documents reviewed:

- ENVIROSOIL LIMITED – Environmental Assessment Registration Document – Waste Oil Recycling and Water Treatment Facility, Dartmouth, Nova Scotia (April 2021-19-1742)

Comments:

General

- Envirosoil proposes to construct and operate a Waste Oil Recycling and Wastewater Treatment Facility on a previously disturbed industrial site, for receiving, treating and recycling waste oil and wastewater. An outdoor area (approximately 34.44 m (113') long, and 10.21 m (33'6'') wide) will be graded for the installation of six new multi-use storage tanks. The expected maximum annual treatment capacity of the facility is up to 8,000 m^3 of waste oil and 10,000 m^3 of wastewater. The liquid waste from operation will be treated to required regulatory criteria and discharged to the local Halifax Regional Municipality sanitary sewer system.
- The EARD states that discharges from the pressure testing in the commissioning

process will be controlled and not released to the environment. However, no information was provided on how the discharge will be addressed (e.g., discharged to municipal sewer system).

- The EARD indicates to use water as a dust suppressant when dust is a concern. No information was provided on the source of this water (e.g., municipal water supply), expected volume usage, and how the wastewater will be addressed (e.g., collected through existing stormwater management system).
- The EARD indicates there are existing erosion and sediment control measures on site. But no detailed information was provided on the layout of these controls.
- Drawings provided in the EARD (Sheet No.1, Appendix A) indicates the existing and proposed wastewater discharge corridor (including water process discharge from the building on site) at the northeast corner of the property. However, no clear information was provided on the location of the downstream receivers (e.g., municipal sewer system).

Surface Water

- The Provincial Landscape Viewer indicates a watercourse flows along Pleasant St. near the proposed project site, and drains into the Halifax Harbour near the Metal Fabricator Facility east to the proposed project site. There was no information provided in the EARD regarding this watercourse. However, the most recent site photos found in Pictometry Eagleview Map (April 26, 2020) did not show the watercourse on surface and the watercourse is likely to be underground near the proposed project site.
- Section 7.1.1.6 of the EARD states that 'no surface water from the active part of the site is captured within this undefined channel'. There was no further information provided in the EARD refers to this undefined channel.
- The EARD states that stormwater will be managed by the existing stormwater management plan and system of the asphalt facility. Runoff (including all loading and unloading areas) will be contained on site through perimeter berm and ditching, and directed to a French drain system and a newly installed First Defense (Stormceptor-type) system before discharge. However, no detailed information was provided on the capacity, layout and discharge point of the existing stormwater management system.
- The EARD indicates that a drainage ditch (located along the eastern extent of the property between the subject site and the neighboring Metal Fabricator Facility) could be a potential surface water collection point at the site. No information was provided to clarify whether this drainage ditch receives discharge from the existing stormwater management system or directly from the subject site, or whether it acts as part of the existing stormwater management system. Furthermore, no information was provided on the discharge point of this drainage ditch.
- Surface runoff from the proposed pad area (with 0.99m (3'3'') high split barricade dike wall) for the six new exterior multi-use storage tanks will be collected and diverted to a new onsite oil-water separator designed as per NSECC requirements, and then be discharged to the Halifax municipal sewer system. However, no information was provided on the capacity of the dike wall and associated oil/water separate system, and whether they can handle water accumulation in the pad area during high precipitation (or flooding) event.

Recommendations

The following recommendations are presented for consideration in the development of conditions for any approvals that may follow the EA process, if the EA is successful.

Operational Issues/Other Permitting Processes

- Although there will be little to no impact to the watercourse from the proposed project, it is recommended to provide related clarification and rationales.
- A site surface water management plan developed by a qualified professional submitted to NSECC for review and acceptance. This plan should include the details of the existing plan as mentioned in the EARD, with the detailed layout of existing surface water management features and final drainage point (e.g., municipal sewers, drainage ditch, Halifax Harbour); this plan should also include considerations for the management of any water collected when the site surface water management system is closed (e.g., during spill events); finally, this plan should include considerations to contain potential water accumulation in and overflow from the pad area for the six new exterior multi-use storage tanks, during high precipitation (or flooding) events.
- Details of the existing environmental protection plan (including erosion and sediment control plan) as mentioned in the EARD, with any necessary supplemental design considering the added features of the proposed project, submitted to NSECC for review and approval prior to the start of construction and operation activities.
- A supplementary surface water quality monitoring plan (e.g., hydrocarbons) to the existing surface water monitoring program should be developed and submitted to NSECC for review and acceptance.

NOVA SCOTIA
Environment

Barrington Place
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 7, 2021

To: Rachel Bower, Environmental Assessment Officer
Environmental Assessment Review, Nova Scotia Environment and Climate Change

From: Nova Scotia Environment and Climate Change
Sustainability and Applied Science, Water Infrastructure and Facilities Unit

Subject: EA Registration Envirosoil Limited
Waste Oil Recycling and Wastewater Treatment Facility
750 Pleasant Street, Dartmouth, N.S.

- The document makes a general statement that the project will meet or exceed the compliance standards outlined in applicable regulations and guidelines but does not provide any specific standard or guidelines the treatment process intends to meet. For wastewaters parameter listed in Table 1 the document should outline the treatment methodologies to be used specifically for each along with expected treated effluent objectives that can be achieved.

- Advanced treatment is proposed when the Basic Treatment train is not sufficient. Water from the sludge of the advanced treatment train will be directed to the Basic Treatment train. Will this material contain wastewater parameters or quality that cannot be treated by the Basic Treatment train?

- The document makes no mention of chlorides, which can be an issue when dealing with marine waste waters. The document should address the possibility of high chloride wastewater and the treatment objectives should it be accepted at the proposed facility.

- The document states that prior to facility operation, approval will be obtained from Halifax Water to discharge to the municipal system. However, the document does not contain enough information to assess treated wastewater quality against Halifax Regional Municipality By-Law W-101. Consultation with Halifax Water on the project should occur and results of the discussion provided to the Department.

- Some parameters listed in the document do not have a corresponding discharge limit in By-Law W-101. The document should include proposed treatment objectives for any parameter not included in By-Law W-101.

From:	Barnett, Codey
To:	Bower, Rachel M
Cc:	Seaboyer, Matt P
Subject:	FW: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth
Date:	May 7, 2021 3:52:34 PM
Attachments:	image001.png image002.png

Hi Rachel,

Please see my comment below, regarding potential air quality impacts related to the Envirosoil Waste Oil Recycling Plant.

Thanks and have a good weekend!

Codey

From: Seaboyer, Matt P <Matt.Seaboyer@novascotia.ca>
Sent: May 7, 2021 1:26 PM
To: Barnett, Codey <Codey.Barnett@novascotia.ca>
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Thanks for this Codey. Appreciate it.

So to confirm, no formal comments then? Perhaps you could simply send this reply back to Rachael so she knows we don't have any concerns from the Air side.

Cheers,

Matt

From: Barnett, Codey <Codey.Barnett@novascotia.ca>
Sent: May 7, 2021 10:15 AM
To: Seaboyer, Matt P <Matt.Seaboyer@novascotia.ca>
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Hey Matt,

The EA was pretty light on details and mentioned the only measurable AQ impacts would be during construction and from 1-2 trucks per day visiting the site during operation. However, they will be running a natural gas boiler to provide heat to some of their treatment tanks. The spec sheet for the boiler indicates it consumes 3900 ft^3 of natural gas per hour (I assume this is if running at max capacity) and they include a table of air emissions per 10^6 BTU of fuel. I didn't see any mention of how often the boiler will be running or at what capacity. I would imagine the air emissions wouldn't

be negligible and perhaps some modelling could be done to confirm/refute their claims.

Thanks,

Codey

From: Seaboyer, Matt P <Matt.Seaboyer@novascotia.ca>
Sent: May 7, 2021 8:57 AM
To: Barnett, Codey <Codey.Barnett@novascotia.ca>
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Good morning Codey,

Just checking in to see how this review was going. Is there potential impacts to AQ with the project? Do we have draft comments? I would like to see them prior to submission if so (and may run them by Sharon or Christina). Thanks!

Cheers,

Matt

From: Bower, Rachel M <Rachel.Bower@novascotia.ca>
Sent: May 7, 2021 8:31 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; Brooke, William <William.Brooke@novascotia.ca>; Miller, L (Dawn) <Dawn.Miller2@novascotia.ca>; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; Mosher, Elaine <Elaine.Mosher@novascotia.ca>; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; MacMillan, Heather J <Heather.MacMillan@novascotia.ca>; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division <NSE-SAS-Division@novascotia.ca>; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; Smith, Gordon T <Gordon.Smith@novascotia.ca>; Zanth, Kathy M <Kathy.Zanth@novascotia.ca>; iaac.projects-projets.aeic@canada.ca; jeff.reader@dfo-mpo.gc.ca; Ramos-Casey, Beverly (HC/SC) <beverly.ramos-casey@canada.ca>; fcr_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca; Matlock, Bernard <Bernard.Matlock@novascotia.ca>; Peverill, Derrick J <Derrick.Peverill@novascotia.ca>; Garroway, Kevin G <Kevin.Garroway@novascotia.ca>; MacDonald, Jonathan E <Jonathan.MacDonald@novascotia.ca>
Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Subject: RE: REMINDER - Day 29 of 30 - EA Registration - Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Good Morning Everyone,

Thank you to those who have sent me comments! For those who haven't had a chance yet, this is just a reminder that we are on Day 29 of the 30-day public comment period for the Waste Oil Recycling and Water Treatment Facility Project. Thought I should send this email along today since it is the last workday before the comment periods ends.

Happy Friday!

NOVA SCOTIA
Environment and Climate Change

1903 Barrington Street
Suite 2085
PO Box 42
Halifax, NS, B3J 2P8

Rachel Bower
Environmental Assessment Officer
Policy, Planning & Environmental Assessment

Tel: (902) 219-2900
Fax: (902) 424-6925

From: Bower, Rachel M
Sent: April 6, 2021 10:56 AM
To: Winn, Rebecca <Rebecca.Winn@novascotia.ca>; William.Brooke@novascotia.ca; Dawn.Miller2@novascotia.ca; Mitchell, David A <David.Mitchell@novascotia.ca>; Petrie, Bob D <Bob.Petrie@novascotia.ca>; elaine.mosher@novascotia.ca; Crewe, Tara <Tara.Crewe@novascotia.ca>; White, Shannon C <Shannon.White@novascotia.ca>; Steele, Cynthia <Cynthia.Steele@novascotia.ca>; Blackburn, Lori M <Lori.Blackburn@novascotia.ca>; Boudreau, Louise O <Louise.Boudreau@novascotia.ca>; Roney, Connie <Connie.Roney@novascotia.ca>; Cross, Anna <Anna.Cross@novascotia.ca>; heather.macmillan@novascotia.ca; Cormier, John Kenneth <John.Cormier@novascotia.ca>; Fielding, Gillian <Gillian.Fielding@novascotia.ca>; Goldberg, Susan <Susan.Goldberg@novascotia.ca>; Pike, Laurie L <Laurie.Pike@novascotia.ca>; Miller, Michelle <Michelle.Miller@novascotia.ca>; NSE-SAS-Division@novascotia.ca; Bird, Michael W <Michael.Bird@novascotia.ca>; MacPherson, George E <George.MacPherson@novascotia.ca>; gordon.smith@novascotia.ca; kathy.zanth@novascotia.ca; iaac.projects-projets.aeic@canada.ca; jeff.reader@dfo-mpo.gc.ca; Ramos-Casey, Beverly (HC/SC) <beverly.ramos-casey@canada.ca>; fcr_tracker@ec.gc.ca; ReferralsMaritimes@dfo-mpo.gc.ca
Cc: MacPhail, Helen <Helen.MacPhail@novascotia.ca>
Subject: EA Registration - April 8, 2021 -Envirosoil Limited- Waste Oil Recycling and Water Treatment Facility - Dartmouth

Good Morning,

This is to advise that on April 8, 2021, Envirosoil Limited will register the *Waste Oil Recycling and Water Treatment Facility* Project for Environmental Assessment, in accordance with Part IV of the

Environment Act.
The purpose of the proposed undertaking is to install and operate a facility that will be used for receiving, processing and recycling of waste oil and the treatment of waste waters. The origin of the waste oil and waste water will be primarily from commercial sources. Treated water will be discharged to the Halifax Regional Municipal sanitary sewer system and collected oil will be sent to approved facilities for reuse. The undertaking is at a commercial/industrial property at 750 Pleasant Street, Dartmouth, Nova Scotia. The installation of processing and treatment equipment is anticipated to commence in Summer 2021 with commissioning and operation planned for Fall 2021.

As of today, April 6, 2021, Dillon (consultant) has made the Registration Document accessible for government reviewers at the following FTP Site:

URL: https://dl.dillon.ca
Username: nseglc
Password: W#$z!JxzMNUB

Please note that all comments must be provided by **May 8, 2021**, to be considered in this environmental assessment. Comments are requested to be provided via e-mail if possible.

You will note that I have attached 2 documents for your reference. The first is the "**IMPORTANT INFORMATION FOR REVIEWERS**" document and the second is the "EA Response Template". The template is provided as a suggested (not required) format for your comments.

On April 8, 2021, all project information including the Registration Document will be available on our website at http://www.novascotia.ca/nse/ea/.

On or before May 28, 2021, the Minister of Environment will decide if the project can be granted conditional environmental assessment approval. All submissions received, will be posted on the department's website for public viewing.

As an aside, if this proponent/project location seems familiar to you as a reviewer, it is because you recently reviewed a Registration Document from GLC for a Liquid Asphalt Storage facility at this same location. An EA Approval was issued for that project on June 22, 2020. A copy of the Approval can be found on our Website should you wish to review it.

If you have any questions, please do not hesitate to contact me.

Regards,

Rachel Bower

NOVA SCOTIA
Environment and Climate Change

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NOVA SCOTIA
Environment and
Climate Change

Barrington Tower
1894 Barrington Street
Suite 1800
PO Box 442
Halifax, Nova Scotia
Canada B3J 2P8

Date: May 7, 2021

To: Rachel Bower
Environmental Assessment Officer

Cc: Manager, Water Resources Management Unit

From: Senior Hydrogeologist, Sustainability and Applied Science Division

Subject: Envirosoil Waste Oil Recycling and Water Treatment Facility, Dartmouth, NS

Environmental Assessment (EA) reviews from the NSE Sustainability and Applied Science Division Senior Hydrogeologist focus primarily on groundwater resources. This includes the potential for the proposed undertaking/project to adversely affect groundwater resources, including general groundwater quality, quantity, municipal water supplies, local water supply wells and groundwater contributions to stream baseflow, groundwater recharge and wetlands. The review is conducted of materials provided by the proponent during the EA registration process. Any recommendations made are based on this review.

Envirosoil Limited is proposing to install and operate a Waste Oil Recycling and Water Treatment Facility ("the project" or "the facility") at 750 Pleasant Street in Dartmouth, Nova Scotia ("the site"). The project will be located entirely within a property currently owned and operated by General Liquids Canada. The facility will be used for receiving, treating and recycling waste oil and liquid waste waters. The facility will accept and treat wastewater, bilge water, waste oil and ground spill waste. Liquid wastes will be treated to meet the required regulatory criteria and discharged to the local Halifax Regional Municipality sanitary sewer via a new 4" discharge line. Waste oils recovered/collected as part of the facility's recycling process will be sent to licensed and approved facilities for beneficial reuse.

The proposed undertaking is on a previously disturbed industrial site, where a portion of the property is currently being used as an operating liquid asphalt receiving, storage and transfer facility. The waste oil recycling and water treatment components of the project will be sited on Parcel Identification Number (PID) 00260703. Access to the main facility from the Pleasant Street entrance will cross General Liquids Canada property (PID 41464280), as well as PID 00643238 which is owned by Canadian National Railway and serves as an active railway corridor

As described by the proponent in the Registration Document:

> "*Envirosoil is proposing to install a modern, industry standard waste oil recycling and water treatment system within the existing primary site building. The treatment unit will employ a multi-stage system that includes optional stages and processes that can be adjusted and optimized to effectively treat the anticipated forms of waste oil and waste water that will be received.*
>
> *Waste water and waste oil will enter the facility by truck via the existing Pleasant Street entrance to Envirosoil's facility. These trucks will connect to the external loading connection on the treatment facility, and product will be pumped into unheated waste water/waste oil storage tanks. This loading will be metered and volumes will be recorded. It is noted that all piping will be separate from the existing asphalt operations at the site, and therefore no potential exists for crossover/errors during movement of liquids."* Page 20

The proposed activity as described includes facilities for waste oil treatment, wastewater storage, recovered oil storage and materials associated with these processes. An underground oil-water separator is also part of the processing setup. This oil-water separator design drawing (Appendix A, Figure Sheet 4) shows one observation well installed. Heat generated from boilers situated on the property for another industrial process is planned to be used in the waste oil recycling process.

Comments

Regarding the proposed Envirosoil Waste Oil Recycling and Water Treatment Facility:

- The location of the undertaking is not within a municipal drinking water Source Water Protection zone, drinking water Watershed or Wellfield Protection Area (WHPA) or a regulated Protected Water Area. The nearest Protected Water Area is the Lake Major Watershed which is about 9 km north of the site. In addition, Municipal Drinking Water Watersheds (Lake Lamont/Topsail Lake and Collin's Park/Shubenacadie River Watershed) are also to the north, about 6 km away.

- The nearest Source Water Protection Area (Groundwater) is for the Halifax Water Silver Sands Municipal water supply about 6 km to the east.

- The nearest Public Registered Drinking Water Supply (drilled well) is located about 6.75 km north of the project site at the Lake Loon Golf Center Ltd.

- The Nova Scotia Environment Well Logs Database (WLB) (as accessed through the Natural Resources Nova Scotia Groundwater Atlas interactive map) locates 8 (eight) drilled water wells within about a 2 km radius of the central point of the project area.

  However, it has been noted previously that the Well Logs Database Records and any mapping based on these records need to be considered in terms of locational errors/accuracy of the original data. In addition, the Well Logs Database does not contain a complete listing of every water supply well in the province and some areas

may contain water supply wells not reported. Field truthing and field surveys for actual water supply well locations would be needed for verification.

- The well records for the above 8 drilled wells (within 2 km) show installation dates ranging between 1945-1984. It is uncertain if the wells identified above are still in operation, or not, given the availability of potable water now in this area of Dartmouth. The well locations are along the harbour shore, cross-gradient to the site. The nearest of these potential wells is about 900 metres to the northwest, at the former Imperial Oil site. It is very unlikely to be affected by any of the proposed site activities.

- The proponent notes previous Phase 1 ESA work done on the site as follows:

  "Recommendations provided in the Phase I ESA report suggested that the site was compatible for Industrial usage and confirmed site conditions met the Tier 1 Environmental Quality Standards for a commercial/industrial property. The proposed undertaking will connect to municipal water and sewer services, and will not be using groundwater on the property." Page 72.

- The proposed activity is located on PID 00260703, which is identified in Appendix J, Figure 2 as owned by General Liquids Canada Ltd. However, it appears that based on the Registration Document, Envirosoil is the operator of the activity.

- There is a recently approved other activity for the same site PID 00260703:
  General Liquids Canada Ltd. PID 41464280, 00260703 and 40268849, Asphalt Cement Storage Facility, Approval No. 2020-2723541-00

  For this other approved activity, 6 monitoring wells were to be installed around the site and there is an approval requirement to monitor groundwater on a regular basis for groundwater levels and petroleum hydrocarbons.

- Section 5.1.1, Existing On-site Structures, Access, and Land Use, page 15, and Figure 1 Site Plan, in Appendix A include the infrastructure for all combined activities on the site property.

- Groundwater environmental monitoring results for the site were not provided in the Registration Document.

- Although an observation well is proposed for the oil-water separator installation, additional groundwater monitoring wells were not proposed to augment the current 6 wells on the property, installed based on the other approved activity

- Valued Environmental Components (VECs) for the site are summarized and discussed by the proponent in Section 9, page 50-53. Groundwater is evaluated in Table 4 Project VEC Scoping, page 51 of the Registration Document. Groundwater is determined by the proponent to not be a VEC for the proposed activity at this location.

  "Not a VEC; no anticipated potential interactions or effects between the Project and groundwater resources" page 51

- Based on the presence of hydrocarbon chemicals, other treatment chemical products, wastewater and materials such as adsorptive media for metals in water there is a potential risk of spill/leaks of these into groundwater. Although not considered a VEC by the proponent – there could be some concerns if released into groundwater or soils.

- Potable water supplies are available for the area and groundwater use for drinking water is not expected. There are no surface watercourses identified on the site and thus the only other potential environmental direct exposure for groundwater is via marine discharge to the harbour waters. Indirect exposure via an on-site vapour inhalation pathway is also possible and could be relevant for site workers in the event of any releases. However, this depends very much on the material released, its volatility and exposure criteria. Any spills or releases of chemicals should be assessed and managed using provincial legislation, including the NS *Contaminated Sites Regulations*.

Recommendations

The following recommendations are suggested for the proposed Envirosoil Waste Oil Recycling and Water Treatment Facility, Pleasant Street, Dartmouth, NS based on the groundwater effects environmental assessment review:

Planning/Design Issues of Significant Importance

None identified.

Operational Issues/Other Permitting Processes

The proposed activity adds to an existing approved activity already on the site. The groundwater monitoring network and monitoring plans for the site property would best be conducted as a combined function, including both separately approved activities. This combined groundwater monitoring and plan should be expanded to include additional groundwater monitoring in the northern part of the property, related to the new waste oil recycling and water treatment activity.

Other Observations

The conclusion that groundwater is not considered a VEC for the purposes of this activity, at this location, is currently agreed with by this reviewer, based on the information provided and other sources reviewed. However, potential impacts to groundwater and related exposure routes/pathways from these chemicals, if released into the environment, may still require assessment and remediation following the Nova Scotia *Contaminated Sites Regulations*.

Environmental Protection Branch
16th Floor Queen Square
45 Alderney Drive
Dartmouth, NS B2Y 2N6

May 7, 2021

Rachel Bower
Environmental Assessment Officer
Nova Scotia Environment
1903 Barrington Street, Suite 2085
Halifax, NS B3J 2P8

Dear Rachel:

RE: Waste Oil Recycling and Water Treatment Facility Project, Dartmouth, Nova Scotia **21-NS-010**

Environment and Climate Change Canada (ECCC) has reviewed the Environmental Impact Assessment (EIA) registration document for the above noted project, and has the following comments:

Water Quality

Section 4.1.2 Canadian Federal Legislation - It is noted that the *Fisheries Act* Section 36(3) as it pertains to the protection of surface water is not listed in the Federal legislation section. Although, there is no potential for approval/permit under this legislation, the general prohibition of Section 36(3) should be acknowledged as an applicable piece of legislation. Pollution prevention and control provisions of the *Fisheries Act* are administered and enforced by ECCC. Subsection 36(3) of the *Fisheries Act* prohibits "anyone from depositing or permitting the deposit of a deleterious substance of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter such water".

It is the responsibility of the proponent to ensure that activities are managed so as to prevent the release of substances deleterious to fish. In general, compliance is determined at the last point of control of the substance before it enters waters frequented by fish, or, in any place under any conditions where a substance may enter such waters.

Wildlife and Wildlife Habitat

Migratory Birds

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds (expect cormorants and pelicans), all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). The list of species protected by the MBCA can be found at https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html. Bird species not listed may be protected under other legislation.

Under Section 6 of the *Migratory Birds Regulations* (MBR), it is illegal to disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the MBR, no permits can be issued for the disturbance or harm of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to depositing substances harmful to migratory birds:

> "5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
>
> (2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance – in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area – that is harmful to migratory birds."

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. In fulfilling its responsibility for MBCA compliance, the proponent should take the following points into consideration:

- Information regarding regional nesting periods can be found at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html. Some species protected under the MBCA may nest *outside* these timeframes.
- While most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows.
- Some bird species may nest in stockpiles of overburden material (e.g., Bank Swallow).
- Some species may nest near headponds or impoundment areas created by restricted flow pathways caused by beaver dams, historical infilling, and/or restricted hydrology.

It is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA. Further information can be found at:

https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html

Nest Searches
Except when the nests searched are known to be easy to locate without disturbance (e.g. previously cleared area, low vegetation), ECCC-CWS generally does not recommend nest searches in vegetation. Nests in complex habitat are difficult to locate, and adult birds avoid approaching their nests in a manner that would attract predators to their eggs or young.

However, nest surveys may be carried out in non-complex habitat (e.g. human-made settings) by skilled and experienced observers using appropriate scientific methodology. Examples of non-complex habitats include:

- An urban park consisting mostly of lawns with a few isolated trees;
- A vacant lot with few possible nest sites;
- A previously cleared area where there is a lag between clearing and construction activities (and where ground nesters (e.g. Common Nighthawk, Killdeer, Bank Swallow), may have been attracted to nest in the cleared area or in stockpiles of soil);
- A structure such as a bridge, a beacon, a tower or a building (often chosen as a nesting spot by robins, swallows, phoebes, Common Nighthawk, gulls and others).

An appropriate-sized buffer must be established should any nests or unfledged chicks be discovered. Identifying nests using flagging tape is not recommended as this may increase the risk of predation. If necessary, flagging tape can be placed at the limits of the buffer zone. Guidelines for reducing risk to migratory birds can be found at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html#toc5

Lighting
In Atlantic Canada, nocturnal migrants and night-flying seabirds (e.g. storm-petrels) are the birds most at risk of attraction to lights. Attraction to lights may result in collision with lit structures or with other birds. Disoriented birds are prone to circling a light source and may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk of depredation.

In order to minimize the risk to migrant birds, ECCC-CWS recommends that proponents avoid or restrict the time of operation of exterior lights such as spotlights and floodlights during construction and operation; their glow can draw birds from far away especially on humid, foggy or rainy nights. It is recommended that facility lights are turned off when the risk to birds is greatest (e.g. migration periods). Lighting for the safety of employees should be shielded to shine down and only to where it is needed. LED lighting fixtures are generally less prone to light trespass.

Species at Risk

Section 33 of the *Species at Risk Act* (SARA) prohibits damaging or destroying the residence of a listed threatened, endangered, or extirpated species. For migratory birds species at risk (SAR), this prohibition immediately applies on all lands or waters (federal, provincial, territorial and private) in which the species occurs.

SAR-Barn Swallow
Barn Swallow, a species listed Threatened on Schedule 1 of SARA, are known to nest in human-made structures (e.g. buildings, ledges) and have been found in the area. A Barn Swallow (*Hirundo rustica*) Residence description (Government of Canada (GoC) 2019) is available at: https://species-registry.canada.ca/index-en.html#/documents/3522

SAR-Bank Swallow
Certain species of migratory birds, such as Bank Swallow, may nest in large piles of soil left unattended/unvegetated. To discourage this, the proponent should consider measures to cover or to deter birds from nesting in these large piles of unattended soil during the breeding season.

A Bank Swallow Residence Description (GoC 2019) is available at: https://species-registry.canada.ca/index-en.html#/documents/3521

A Government of Canada guidance document "*Bank Swallow (Riparia riparia) in Sandspit and Quarries*" (GoC 2020) offers advice in preparing mitigation measures in the management of stockpiles during construction activities: https://species-registry.canada.ca/index-en.html#/documents/1602

Accidents and Malfunctions

- Since even small spills can have a serious effect on migratory birds, the proponent should ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment and ensure that staff and contractors are aware of section 5.1 MBCA prohibitions.

- Since the proposed project is located near the coast, the draft Emergency Response and Contingency Plan (ERCP) should include a consideration of risks to marine wildlife and a wildlife emergency response plan. ECCC's *Guidelines for Effective Wildlife Response Plans* (2021) is available for consideration as component of the ERCP (see attached).

  The following mitigation measures should be included:
  - Measures to deter migratory birds from coming into contact with the oil or contaminants;
  - Measures to be undertaken if migratory birds and/or sensitive habitat becomes contaminated;
  - The type and extent of monitoring conducted in relation to various spill events.

Wildlife incidents should be reported to the National Environmental Emergencies Centre (NEEC) 1-866-283-2333.

- **Section 4.1.2 Canadian Federal Legislation** – It is noted that the ECCC Environmental Emergency Regulations were not listed in the Federal legislation section. The Environmental Emergency (E2) Regulations under the *Canadian Environmental Protection Act,* 1999 (CEPA) aim to help reduce the frequency and severity of accidental releases of hazardous substances into the environment by requiring higher risk facilities to prepare an E2 plan. The E2 Regulations establish a list of hazardous substances (249 substances including several petroleum based products). The E2 Regulations establish minimum threshold quantities for these substances, above which the Minister can require submission of information to ECCC and to prepare and exercise environmental emergency plans. ECCC encourages the proponent to review the E2 regulations to confirm if any of the substances to be stored at the facility are captured by the regulations.

- **Section 5.1.2 Adjoining and Nearby Properties** – Although a generic description of adjacent and nearby properties is provided in the document, ECCC suggests that a more detailed description of the area and potential receptors surrounding the facility that may be affected by any environmental emergencies be identified. Potential receptors include any hospitals, schools, residential, commercial or industrial buildings, public transit infrastructure, parks, forests, wildlife habitats, water sources or water bodies, child care centres, senior citizen and long-term care facilities, public camping facilities, wetlands, etc. ECCC also suggests identifying any transportation corridors not owned and operated by the facility, and any key features that may act as discharge points to off-site areas, such as culverts, catch basins, streams, etc. Methods in which to display the information may include lists, maps, and tables. If possible/practicable, approximate distances from the facility to the different receptors should also be identified.

  ECCC encourages that the proponent undertake environmental sensitivity mapping, especially in and around nearby water bodies and watercourses that have a potential to be affected by a spill incident. ECCC also encourages pre-SCAT shoreline surveys and mapping be conducted around any waterways. ECCC's publication "A Field Guide to Oil Spill Response on Marine Shorelines" is a useful guide for this assessment.

  ECCC also encourages proponents to develop an Emergencies Communications Plan for surrounding communities that would likely be impacted by the consequences of a significant emergency incident in order to:

a) proactively educate area residents about the hazardous substances stored or utilized at the project site, as well as the types of accidents that could potentially occur – including likely incident response actions; and
b) provide emergency instructions to area residents such as shelter-in-place and evacuation directions in the event of a significant emergency incident.

- **Section 5.2 Project Overview** – It is unclear from the project description the exact types of waste material that will be managed by the facility. The only detailed information that could be located in the document was an SDS for the Heat Transfer Mineral Oils. ECCC suggests that a description of the properties and characteristics of the various waste materials to be stored on-site include information on:
  a) Identification Information – chemical name, CAS#, and UN Number;
  b) Properties – pH, vapour pressure, boiling point, density, solubility and other physical/chemical properties; and
  c) Characteristics – toxicity data, reactivity, incompatibilities, flammability and state (e.g., liquefied gas under pressure).

- **Section 10 Accidents, Malfunctions and Unplanned Events and 10.1 Approach** – The document indicates, "As described in Section 5.9, Envirosoil will also develop an ERCP to address malfunctions or accidents that may occur during operation and maintenance activities. A Draft ERCP is provided in Appendix H, which will be finalized as part of the Part V NSE Industrial Approval process". Although it is understood that the ERCP as presented in Appendix H is still in draft form, ECCC suggests the following Hazard Identification and Risk Assessment (HIRA) approach for assessing and managing potential risks is utilized prior to ERCP finalization.
  1. Identify all potential facility hazards and release scenarios;
     a. Identify the hazards that are inherent to the substance (i.e. SDS);
     b. Identify the hazards associated with facility processes;
     c. Identify a list of hazardous scenarios – worst-case, alternate worst-case, and other reasonable scenarios.
  2. Identify and estimate the possible consequences of those scenarios including a prediction of the spatial extent of potential impacts (i.e. predict impact zone/radius and identify what receptors fall within the impact zone and how they would be affected by the release);
  3. Estimate the likelihood or probability of identified scenarios occurring;
  4. Estimate and evaluate the risk associated with all identified scenarios; and
  5. Develop an emergency response plan to prevent, prepare for, respond to and recover from those impacts and consequences.

  While conducting the hazard identification and risk assessment it is important to consider contributing and/or complicating factors. As part of an all hazards approach, it is recommended that the effects of human activities, technological events and natural disasters be considered as part of this analysis. The analysis of natural disasters should focus on those that are most likely to occur in the area.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 1 Introduction** – The document states, "Details included in the Province of Nova Scotia's Contingency Planning Guidelines (dated October 2019) were adhered to in developing this document." ECCC generally recommends that environmental emergency prevention, preparedness, response and recovery plans reflect a consideration of a number of applicable standards and best practices including (but not limited to) the following:
    a. Canadian Standards Association (CSA). Process Safety Management (CAN/CSAZ767-17). Toronto: CSA, 2017. https://store.csagroup.org/
    b. Canadian Standards Association (CSA). Emergency Preparedness and Response: A National Standard of Canada (CAN/CSA-Z731-03 (R2014). Toronto: CSA, 2003. https://store.csagroup.org/
    c. Canadian Standards Association (CSA). Emergency Preparedness and Response for Petroleum and Natural Gas Systems (CAN/CSAZ246.2- 18). Toronto: CSA, 2018. https://store.csagroup.org/
    d. Canadian Standards Association (CSA). Emergency and Continuity Management Program (CAN/CSA-Z1600-14). Toronto: CSA, 2018. https://store.csagroup.org/
    e. 2020 Emergency Response Guidebook (ERG2020) accessible at http://www.tc.gc.ca/eng/canutec/guide-menu-227.htm
    f. Council for Reducing Major Industrial Accidents/Conseil pour la reduction des accidents industriels majeurs (CRAIM) Risk Management Guide for Major Industrial Accidents (2007 edition) accessible at: https://www.craim.ca/produit/guide-de-gestion-des-risques-2017-anglais/
    g. Environment and Climate Change Canada. A Field Guide to Oil Spill Response on Marine Shorelines. July 2016. http://publications.gc.ca/site/eng/9.820227/publication.html
    h. Environment and Climate Change Canada. Technical Guidelines for the Environmental Emergency Regulations, 2019 Version 2.0. Dec 2020 https://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/regulations/technical-guidelines.html

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 2.1 Hazard Assessment** – The table provided in the section indicates that several pieces of information such as the Dangerous/Waste dangerous goods type, name, CAS and UN Number; Maximum Storage Capacity / good type; and Material Storage Locations were provided as part of NSE Part V Application for Approval Process (See Site Plan in Appendix), however, the reviewer was unable to find any information on the Dangerous/waste dangerous goods type, name, CAS and UN

Number. ECCC suggest that the reference to the document section/page number be included in the table or that the missing information is added to the document.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 2.2 Possible Emergency Types** – Although a list of potential emergencies is provided in the draft ERCP, ECCC suggests that a hazard identification and risk assessment analysis similar to that as outlined above is carried out to identify a list of emergency scenarios that might be reasonably expected to occur on-site and off-site.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 3 Roles and Responsibilities** – Although the role of Response Commander is identified in the draft ERCP, ECCC suggest that additional details are provided that describes the overall Incident Management System (i.e. Incident Command System) used to direct, control, and coordinate response and recovery operations.

  A chart showing the incident command organization structure could also be included in the plan, if applicable.

  ECCC also suggests that the ERCP should identify and describe the roles and responsibilities of any outside response organizations/contractors and other agencies who have specific responsibility under the plan.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 5 Public Relations** – Although the document outlines who will manage communication for the facility, ECCC suggests that this section of the plan provide a description of the emergency notification system (i.e. alarms, lights, signs, instructions, messages, etc.) that will be utilized (both internally and externally) to warn, alert or notify facility personnel, management, first responders, regulatory authorities, industrial neighbours, the potentially affected public, and other external stakeholders as needed in the event of an emergency. ECCC also suggest this section of the plan provide a description of the measures to be taken by the facility to notify members of the public who may be adversely affected by any emergency that may result in impacts beyond the facility boundaries.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7 Response Procedures** – Although the Draft ECRP outlines several response procedures, ECCC suggests that the procedure list could be expanded to cover additional aspects. Examples of emergency response procedures, and/or SOPs (as adapted from the CSA Z767 Process Safety Standard), include, but are not limited to the following:
  a) Emergency plan activation and deactivation procedures;
  b) Release trajectory prediction and monitoring (include tracking updates);

c) Location and inventory of the required response equipment;
d) Procedures to establish safety perimeters and site controls;
e) External emergency notification procedures;
f) Evacuation procedures and emergency escape route details including assembly instructions and locations of assembly points (e.g., muster stations);
g) Procedures to account for all personnel after an emergency evacuation has been initiated;
h) Fire suppression;
i) Spill control and containment procedures;
j) Clean up and recovery procedures;
k) Procedures to put facility into a safe state, e.g., emergency shutdown;
l) Procedures to take a facility/process from an idle, at-rest state (i.e. due to emergency shutdown, temporary hibernation) to normal operation due to the fact that start-up and shutdown periods may involve many non-routine procedures, and these periods can result in unexpected and/or unusual situations.
m) Identification of other credible threats to process and storage systems;
n) Identification of any mutual aid agreements activation procedures;
o) Procedure for identifying and accounting for personnel engaged in response activities;
p) Procedures to be followed by personnel who remain to operate critical plant systems before they evacuate;
q) Procedures on the means for identification of organization personnel at the incident boundary so that they could become part of the response effort;
r) Procedures for the identification and granting access to first aiders, medical personnel, medical equipment, and medicines required to deal with the identified hazardous scenarios; and
s) Procedures for site access during and after the emergency.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7.1 Evacuation** – Although the Draft ERCP outlines the steps for evacuation procedures it is unclear if there are any emergency scenarios (especially for the surrounding areas outside the facility boundary) that may require sheltering-in-place instead of evacuation. ECCC suggests that the ERCP include a description of the elements to be considered as part of a shelter-in-place plan (if applicable).

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7.1.5 All Clear Signal** – Although the Draft ERCP outlines the all-clear notification for on-site personal, the plan does not provide any information on the all-clear notification process that would be provided to the public in the event an emergency impacts beyond the property boundary. ECCC suggests that the ERCP include a description of the procedures for those sheltered-in-place to exit sheltered areas or evacuees to return once the “all clear” command has been issued. This would include the notification process for the surrounding area in the event an emergency results in impacts beyond the property boundary.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7.3 Explosion** – Although the Draft ERCP indicates a list of actions that will be carried out following the assessment of the situation (Section 7.3.1), it is unclear who will carry out all the tasks listed. ECCC suggests that the ERCP should clearly identify and describe the roles and responsibilities of the person(s) required to carry out these tasks and also identify if any tasks are to be delegated to any outside response organizations/contractors and other agencies.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7.4.4 Area Evacuation** – It is unclear what the term "assembly area" refers to. ECCC suggests that the ERCP provide a clearer definition of "assembly area" and whether it only applies to displaced on-site workers/contractors or if it applies to any displaced general public/adjacent commercial facilities as well.

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 7.4.5 Specific Spills** – The Draft ERCP indicates that for chemical spills the following should take place, "Pour liquid decontaminant/neutralizing solution liberally over the remaining spill area and spread evenly to ensure contact. Let stand for 10-15 minutes at 25 degrees Celsius or longer at lower temperatures. Then wash down with water". It is unclear what liquid decontaminant or neutralizing solution is being referenced here. Is there any recovery of the contaminated material? Why would it be washed down with water? ECCC suggests that substance specific spill response SOPs should be developed with more detail regarding response and restoration methodology, and the type of decontaminant or neutralized agent that will be used (based on the released substance).

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 11 Reporting** – The Draft ERCP indicates, "If requested, Envirosoil will provide NSE with a report detailing the following information regarding spills/releases". Please note that in the event of a release there are duties to report under both the *Fisheries Act* and the *Canadian Environmental Protection Act*, 1999 (CEPA, 1999) that may apply. The *Release and Environmental Emergency Notification Regulations*, and the *Deposit Out of the Normal Course of Events Notification Regulations* ("Notification Regulations"), apply to verbal notification requirements under CEPA, 1999 and the *Fisheries Act*, respectively. ECCC recommends that the Notification Regulations are reviewed and that any applicable federal reporting requirements are incorporated into this section. Information on the Notification Regulations can be found at https://www.canada.ca/en/environment-

climate-change/services/environmental-emergencies-program/notification-agreements-regulations.html

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 12.1 Training** – The Draft ERCP indicates “Provide details of proposed training including”. It is unclear what information is being presented in this section – will the training section details be developed at a later date? ECCC suggests including additional detail in the ERCP that outlines a list of the training that will be provided to the personnel at the facility who will respond in the event that an environmental emergency occurs. ECCC also suggest that the ERCP could describe training requirements in terms of type, amount and frequency for key personnel depending on their roles/responsibilities under the emergency plan; procedures for reviewing and updating the training curriculum; and identify any training to be offered to external agencies that may be involved in the response such as Fire, Police, Emergency Health Services (EHS), or local municipal Emergency Management Organization (EMO) staff (if applicable).

- **Appendix H Emergency Response and Contingency Plan (ERCP; DRAFT) - Section 12.2 Exercises** – The Draft ERCP indicates “Training exercises including response drills for the waste oil recycling and water treatment facility will be conducted in accordance with Envirosoil’s ISO 14000 Environmental Management procedure”. It is unclear from this statement what the exercise program consists of given the section references another document that was not included in the review. ECCC suggests that additional detail is provided in the ERCP that describes the emergency exercise program including information on the identifying the number, type (i.e. drill, tabletop, functional, full scale deployment), and frequency of simulation exercises to be carried out including a description of the mechanism to document and implement lessons learned from emergency response exercises.

I trust the above comments will be of assistance. Please feel free to contact me at maryam.fazeli@canada.ca if you have any questions or concerns.

Yours truly,

Maryam Fazeli
Environmental Assessment
Environmental Protection Operations Directorate – Atlantic

cc: S. Zwicker
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Environment and Climate Change Canada
Environnement et Changement climatique Canada

2021

GUIDELINES FOR WILDLIFE RESPONSE PLANS

Canada

Cat. No.: xxx
ISBN: xxx

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Aussi disponible en français

EXECUTIVE SUMMARY

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) is responsible for the management and conservation of Wildlife under its jurisdiction. The *Guidelines for Wildlife Response Plans* outline the rationale, objectives, and process for developing, implementing and evaluating the efficacy of Wildlife response planning for Pollution and Non-Pollution Incidents. This document supports the standardization of the planning process according to ECCC-CWS's recommendations. The purpose of this document is to guide governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing Wildlife Response Plans that consider all aspects of planning throughout the full life cycle of an incident with regards to Wildlife specific to ECCC-CWS's mandate.

TABLE OF CONTENTS

LIST OF ACRONYMS

CWA	*Canada Wildlife Act, 1985*
CWS	Canadian Wildlife Service
ECCC	Environment and Climate Change Canada
ECCC-CWS	Environment and Climate Change Canada's Canadian Wildlife Service
ICP	Incident Command Post
ICS	Incident Command System
IPIECA	International Petroleum Industry Environmental Conservation Association
MBCA	*Migratory Birds Convention Act, 1994*
MBR	*Migratory Birds Regulations*
MBSR	*Migratory Bird Sanctuary Regulations*
NWA	National Wildlife Area
RP	Responsible Party
SARA	*Species at Risk Act, 2002*
WRP	Wildlife Response Plan
WRO	Wildlife Response Organization

DEFINITIONS

Chain of Custody: A written record for a legal sample documenting the continuity by tracing the possession of the sample from the point of collection through introduction into evidence.

CWS Co-ordinator: A person who leads and implements regional Wildlife Emergency preparedness and response on behalf of ECCC-CWS and represents ECCC-CWS's policies and interests when liaising and integrating with other federal and provincial/territorial government departments, Indigenous governments and organizations, and stakeholders involved in the response during Wildlife Emergencies. CWS Co-ordinators may also fulfill some of the on-site roles of responder.

CWS Responder: Emergency response personnel that provide on-site support on behalf of ECCC-CWS, as directed by the CWS Co-ordinator, during Wildlife Emergencies.

Environmental Emergency: Any uncontrolled or unexpected incident involving the release (or the likelihood thereof) of a polluting substance into the environment that results or may result in an immediate or long-term harmful effect on the environment, or constitutes or may constitute a danger to human life or health. It may be caused by an industrial activity, natural emergency or by a wilful act.

Field Stabilization Site: Facility that provides initial triage, care and/or euthanasia as well as short-term holding (sometimes overnight) for Wildlife prior to transport to an Oiled Wildlife Rehabilitation Centre. It is not meant for washing oiled Wildlife and not designed for long-term care.

Incident Command: Responsible for overall management of the incident and consists of the Incident Commander, either single or unified command, and any assigned supporting staff.

Incident Commander: The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Lead Agency: The governmental authority that regulates or has legislative authority over the responsible parties' response and is responsible for overseeing the appropriateness of the response.

Migratory Bird: As defined in the *Migratory Birds Convention Act, 1994*, a Migratory Bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird of species listed under Article 1 of the Convention (Government of Canada 2017).

National Environmental Emergencies Centre (NEEC): Environment and Climate Change Canada's 24/7 focal point for pollution-related emergencies, providing technical/scientific advice, assistance and coordination to the Lead Agency, as well as management of an incident when required.

National Wildlife Area: A protected area created under the *Canada Wildlife Act* that contains nationally significant habitats for plants and animals and that is managed for the purposes of wildlife conservation, research and interpretation.

Non-Pollution Incident: An uncontrolled or unexpected Wildlife injury or mortality event other than a Pollution Incident.

Oiled Wildlife Rehabilitation Centre: Facility used for the triage, stabilization, cleaning, pre-release conditioning and/or euthanasia of oiled Wildlife. The centre may be a permanent purpose-built facility, an existing Wildlife rehabilitation centre, a mobile facility, or a temporary facility established during an incident.

Pollution Incident: The release or deposit of a substance that is harmful to Wildlife into an area or waters that are frequented by Wildlife or into a place from which the harmful substance may enter an area or waters frequented by Wildlife.

Resource Agency: Any department or agency, other than the Lead Agency, that has jurisdiction or interest in the response, which provides support to the Lead Agency.

Response Organization: Any qualified person or organization that has been certified and designated by the Minister of Transport to carry out emergency response activities (as per the revised *Canada Shipping Act* (2001)). In Canada, there are four Response Organizations as follows: Atlantic Emergency Response Team, Eastern Canada Response Corporation Ltd., Western Canada Marine Response Corporation, and Point Tupper Marine Services Ltd.

Responsible Party: Any person or organization who might be responsible for the source or cause of an environmental emergency and/or a Wildlife Emergency.

SARA-listed Species: A species listed on the List of Wildlife Species at Risk set out in Schedule 1 of the *Species at Risk Act* (SARA).

Species at Risk: As defined in the *Species at Risk Act* (S.C. 2002, c.29), means an Extirpated, Endangered or Threatened species, or a species of Special Concern.

Unified Command: An application of the Incident Command System, used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish a common set of objectives and strategies and a single Incident Action Plan.

Wildlife: In this document, "Wildlife" is used to refer to the terms Migratory Birds as defined under the *Migratory Birds Convention Act,* and listed Species at Risk as those terms are defined under the *Species at Risk Act* for species falling within the jurisdiction of the Minister of Environment and Climate Change (with the exception of individuals of SARA-listed Species that are located on lands administered by Parks Canada). This term also refers

to all wild species occurring in the National Wildlife Areas set out on Schedule I of the *Wildlife Area Regulations* (C.R.C., c. 1609).

Wildlife Emergency: A Pollution or Non-Pollution Incident that results or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat.

Wildlife Response Organization: Organizations that provide expertise, capabilities and trained personnel to undertake one or several aspects of response, including planning, implementation and reporting of activities related to Wildlife Emergencies. Wildlife Response Organizations (or representatives thereof) are authorized under applicable federal, provincial, and/or territorial legislation to capture, transport, clean, rehabilitate, euthanize, and release Wildlife.

Wildlife Response Plan: A document that outlines the initial and ongoing Wildlife-related strategies that are needed to support any Wildlife response objectives that may occur at the onset of a Pollution or Non-Pollution Incident.

1.0 INTRODUCTION

Environmental protection legislation in Canada at the federal, provincial or territorial level contains provisions to have approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may include additional conditions upon approval to develop and implement an environmental protection plan. All contingency plans/environmental protection plans for which a threat to Wildlife is identified may have specific sections dedicated to Wildlife response in order to be in compliance with applicable federal, provincial, or territorial legislation.

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) oversees and/or leads Wildlife Emergency response activities in association with Environment and Climate Change Canada (ECCC)'s responsibilities under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations (*Migratory Birds Regulations* (MBR) and *Migratory Bird Sanctuary Regulations* (MBSR)), the *Species at Risk Act, 2002* (SARA), the *Canada Wildlife Act, 1985* (CWA), and *Wildlife Area Regulations*. Through these pieces of legislation, ECCC-CWS is responsible for the management and conservation of all Migratory Birds and Species at Risk under its jurisdiction (hereafter "Wildlife") and how they are managed during a Pollution or Non-Pollution Incident. In the case of Migratory Birds, including SARA-listed Migratory Bird species, this document applies to wherever they are found in Canada. For other SARA-listed Species, this document applies to individuals that are located on federal lands in the provinces, on lands under the authority of the Minister of Environment and Climate Change in the territories, or in the exclusive economic zone or on the continental shelf of Canada (with the exception of individuals of SARA-listed Species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada) (see also Section 2.2 for additional details). For greater clarity, this document does not apply to any wildlife species, including aquatic species (which include fish, marine mammals, marine turtles, and marine plants, as defined in Sections 2 and 47 of the *Fisheries Act*), located on any lands or in any waters administered by Parks Canada or under the jurisdiction of Fisheries and Oceans Canada. The CWA and *Wildlife Area Regulations* broaden the responsibility of ECCC-CWS to include habitats and all wild species within designated National Wildlife Areas (NWAs).

1.1. SCOPE

Wildlife Emergencies, in the context of this document, include Pollution or Non-Pollution Incidents that result or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat. Pollution Incidents with potential harm to Wildlife are prohibited under the MBCA and SARA. Non-Pollution Incidents are uncontrolled or unexpected Wildlife injury or mortality events other than a Pollution Incident, which may include things such as disease outbreaks, mass strandings, or other unexplained Wildlife deaths. The degree to which any Pollution or Non-Pollution Incident may be deemed a Wildlife Emergency is dependent on a number of factors such as the scope and severity of the incident (e.g. numbers of animals or area of habitat impacted), the likelihood of an incident expanding, potential for impacts to Species at Risk, and potential link

to human health, among other factors. The appropriate level of response expected to incidents should be reasonable and commensurate with the risks. ECCC-CWS is responsible for informing various aspects of response to Wildlife Emergencies, including the development and implementation of Wildlife response strategies and activities, as outlined in the *National Policy on Wildlife Emergency Response* (ECCC-CWS 2021).

During an incident, Responsible Parties (RPs) must demonstrate their ability to safely, efficiently, and effectively respond in a manner that incorporates measures designed to avoid or minimize harm to Wildlife, while managing the public's understanding of response decisions and activities. In the absence of an RP during an incident (e.g. mystery spill), or for planned operations with a potential to impact Wildlife (e.g., oil removal from wreckages), the Lead Agency is deemed responsible for implementing Wildlife response appropriate to that incident.

Wildlife Response Plans (WRPs) are documents that formalize the guidance and strategy for responding to incidents with potential to impact Wildlife. A WRP should include the following elements:

- The objectives of implementing a WRP with respect to managing or preventing harm to Wildlife and its habitat during a Pollution or Non-Pollution Incident
- A description of the incident management structure for Wildlife response and how it is integrated into an incident-specific response command system (e.g., an Incident Command Post (ICP))
- Background information on responsibilities of the RP as well as regulatory requirements, permits, and authorizations to engage in Wildlife response activities
- Information on Wildlife and its habitat known or potentially impacted by an incident
- A description of Wildlife response procedures to be implemented immediately following an incident (e.g., deterrence and dispersal, surveillance)
- A description of the operational structure and implementation of ongoing Wildlife response efforts throughout all phases of an incident
- Procedures for information management and communication, including to key stakeholders (e.g., local communities, hunters)
- Health and safety, security, and training requirements for personnel, equipment, and facilities required to support Wildlife response activities

The purpose of this document is to guide federal, provincial/territorial and Indigenous governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing a WRP that considers all aspects of planning throughout the full lifecycle of an incident. This document outlines the attributes that are necessary for effective implementation of Wildlife Emergency response. Proponents should keep in mind that the guidance provided within this document is developed by ECCC-CWS for species' protection within their mandate. As such, proponents developing comprehensive WRPs should also consult with other federal and provincial/territorial agencies which are responsible for other wildlife (e.g., mammals, reptiles, amphibians, fish and some bird species not under the jurisdiction of the MBCA).

2.0 REGULATORY REQUIREMENTS

2.1 APPLICABLE LEGISLATION

ECCC-CWS is responsible for ensuring that all Wildlife response activities are coordinated, enacted, and carried out in compliance with applicable federal law. Federal legislation applicable to Wildlife response includes:

- ***Migratory Birds Convention Act* (MBCA):** Section 5 of the MBCA prohibits the deposit of harmful substances into waters or areas frequented by Migratory Birds, unless authorized under the *Canada Shipping Act, or* the substance is of a type and quantity, and the deposit is made under conditions, authorized under an Act of Parliament other than the *Canada Shipping Act, 2001* or authorized for scientific purposes by the Minister of Environment and Climate Change. Section 6 of the *Migratory Birds Regulations* (MBR) made under the MBCA prohibits the disturbance, destruction, taking of a nest, egg, nest shelter, eider duck shelter or duck box of a Migratory Bird, or anyone from having in his possession a live Migratory Bird, or a carcass, skin, nest or egg of a Migratory Bird. The MBR regulate the hunting of Migratory Birds and other circumstances under which the killing, capturing of and harming of Migratory Birds may be authorized. The *Migratory Bird Sanctuary Regulations* (MBSR) further regulate activities related to Migratory Birds and their habitats within designated Migratory Bird Sanctuaries. Permits may be issued to authorize the permit holder to undertake activities that are otherwise prohibited (Government of Canada 2017).

- ***Species at Risk Act* (SARA):** SARA permits are required for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals. For the purpose of SARA, an "*activity affecting*" means any activity prohibited under the Act or its regulations. Section 73 of SARA authorizes the issuance of permits for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals, and sets out conditions that must be met before a competent minister can issue a permit. SARA prohibitions apply to any species listed on Schedule 1 as Threatened, Endangered or Extirpated, but do not apply to species listed as Special Concern.

- ***Canada Wildlife Act* (CWA):** The CWA allows for the establishment of National Wildlife Areas (NWAs), which protect wildlife habitat in Canada. The *Wildlife Area Regulations* identify all NWAs and prohibit certain activities from occurring within NWAs, but Section 3.4 of the *Wildlife Area Regulations* provides exemptions for the prohibited activities within the NWAs in the event of an emergency response effort (e.g., ensuring public safety and national security). The Scott Islands marine NWA has its own regulations, *Scott Islands Protected Marine Area Regulations*, which also provide exemptions for the prohibited activities in the event of an emergency response effort.

Further to these Wildlife specific pieces of legislation, other environmental protection legislation in Canada at the federal, provincial or territorial level contain additional provisions which require approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may require the development and implementation of an environmental protection plan, conditional upon approval.

Where contingency plans/environmental protection plans identify a threat to Wildlife, ECCC-CWS considers a WRP to fulfill some of these requirements if contingency and emergency response planning efforts adequately address the identified Wildlife issues.

ECCC-CWS recommends that strategic WRPs be developed prior to incidents for activities or areas where the potential for, or associated risk of a Wildlife Emergency is high (see Section 3.2 for more details). These strategic plans may be standalone plans or components (or annex) to overarching response plans (e.g., operators'

facilities response plans). Incident-specific WRPs are routinely developed as part of the ICP to standardize and document Wildlife response activities during an incident (Section 3.2). Both approaches are in keeping with international standards for Wildlife response planning (International Petroleum Industry Environmental Conservation Association (IPIECA) 2014).

2.2 PERMITS AND AUTHORIZATIONS

As part of Wildlife Emergency response, Wildlife Response Organizations (WROs) are often responsible for undertaking response activities involving direct interaction with Wildlife including the capture, collection, transport, and care/rehabilitation, release, and/or euthanasia of impacted Wildlife. Some WROs operating in Canada may retain annual permits that allow certain levels of immediate response, assuming permits are renewed and standards are maintained. Qualifications of these organizations to perform certain activities are assessed during the permit application process. Otherwise, a WRO will work with ECCC-CWS to obtain incident-specific permits for aspects of Wildlife Emergency response requiring authorizations. Other qualified individuals, working for or contracted by WROs, Response Organizations, the RP, or government agencies, may also apply for permits, as required. Permit and authorization requirements are summarized in Table 1.

ECCC-CWS recognizes deterrence and dispersal as a beneficial practice during Wildlife Emergencies. If proponents plan to use deterrence and dispersal tactics during a Wildlife Emergency, this should be described in a WRP (Section 4.5.5), and ECCC-CWS should be consulted to provide guidance on effective tactics for species, seasons, and habitats.

For most of the activities listed in Table 1, activities affecting SARA-listed Migratory Birds may be permitted through the issuance of SARA compliant MBCA-permit (Scientific Permit or Banding Permit). It is important to note that a SARA permit cannot be issued for an activity that would have a prohibited effect on a listed Migratory Bird for which a permit is not available under the MBCA and its regulations. For activities affecting SARA-listed Species, other than a Migratory Bird, permits may be issued under Section 73 of SARA. Specifically, ECCC-CWS SARA permits are required for SARA-listed Species that, a) are located on federal lands in the provinces, b) are located on lands administered by the Minister of Environment and Climate Change in the territories; c) are located in the exclusive economic zone or on the continental shelf of Canada; or d) are the subject of an order of the Governor in Council under SARA, including an order pertaining to the species' critical habitat or habitat that is necessary for the survival or recovery of the species (except for species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada). Table 1 outlines examples of activities that require permits for SARA-listed Species. For additional clarification on the permitting provisions and how to apply for a SARA permit, please consult the *Species at Risk Public Registry Policies and Guidelines* (Government of Canada 2020).

For emergency response activities occurring on Migratory Bird Sanctuaries, permits are required on a site-specific basis (Table 1). Some types of activities that require authorization on Migratory Bird Sanctuaries include carrying firearms and other weapons, and possession/handling of any animal, carcass, skin, nest, egg or part of

those things. These activities may be authorized by permits issued under the MBSR.

With respect to NWAs, a permit is not required to carry out emergency relief activities, as per Section 3.4 of the *Wildlife Area Regulations*. With respect to the Scott Islands marine NWA, a permit is not required to carry out emergency relief activities, as per Section 3 of the *Scott Islands Protected Marine Area Regulations*.

Table 1. Wildlife-related Permits and Authorization Requirements that may be issued by ECCC-CWS[1] during a Wildlife Emergency.

Wildlife	Permit Type	Examples of Activities that Require Permits or Authorization	Permit Holders
Migratory Birds (including SARA-listed Species)	Scientific (for collection)	• Possession • Transportation • Collection/capture • Treatment/rehabilitation/care • Euthanasia	Individuals of WROs are generally permitted for most activities. Subcontractors or independent contractors may be permitted for specific activities through one or several permits.
	Scientific (for capture and banding)	• Capturing • Banding • Using auxiliary markers (e.g., color bands and GPS transmitters) • Collection of biological samples	
	SARA Section 73/74 permit	• Destruction of protected critical habitat • Damage or destruction of any critical habitat that could result in harming individuals of a SARA-listed Migratory Bird • Damage or destruction of residences[2] of a SARA-listed Migratory Bird	SARA permits are issued on site and situation-specific basis and must be discussed early in response activities, as appropriate.
Any SARA-listed Species other than Migratory Birds (on any federal land including NWAs, and any land affected by an order or regulation made under SARA)	SARA Section 73 permit	• Collection, taking, possession • Transportation/relocation • capture/marking • Treatment/rehabilitation/care • Euthanasia • Harassing, including deterrence and dispersal • Exclusion barriers / trenches • Damage or destruction of critical habitat • Damage or destruction of residences[2] • Any activity specifically prohibited by a Section 80 emergency order, or by a regulation made under SARA	SARA permits are issued on a site and situation-specific basis and must be discussed early in response activities, as appropriate.
Migratory Bird Sanctuaries	Scientific (Collection)	• Operations occurring on Migratory Bird Sanctuaries[3]	Migratory Bird Sanctuary[3] permits are issued on a site-specific basis and will be developed early in response activities.

Note:

[1] The permitting process and the types of activities requiring permits is subject to change periodically as regulations are updated. Individuals/organizations should seek up to date advice on permitting from ECCC-CWS permit officers.

[2] For the purpose of SARA, "residence" means a dwelling-place, such as a den, nest or other similar area or place, that is occupied or habitually occupied by one or more individuals during all or part of their life cycles, including breeding, rearing, staging, wintering, feeding or hibernating.

[3] Permits issued under the MBSR.

3.0 ELEMENTS OF WILDLIFE RESPONSE PLANNING

3.1 WILDLIFE RESPONSE WITHIN THE INCIDENT COMMAND SYSTEM

Any activities with potential to result in a Wildlife Emergency may warrant immediate implementation of response actions. Guidance on Wildlife response concerns and actions may be provided through the Environmental Emergencies Science Table, which is chaired by ECCC's National Environmental Emergencies Centre (NEEC). Increasingly, within industries or the Government of Canada, emergency incidents are managed and structured using the Incident Command System (ICS) approach, including the establishment of an ICP for major incidents. It is therefore recommended to stakeholders to use ICS for emergency response. Wildlife experts, such as ECCC-CWS, may be situated in the Environmental Unit of the Planning Section within an ICP, a role which may be titled Wildlife Technical Specialist. The Environmental Unit would develop and refine response plans as well as incident-specific tactics. Depending on the scale of the incident and scope of potential or actual impacts to Wildlife, ECCC-CWS may assist in establishing a Wildlife Branch which is typically situated within the Operations Section of the ICP (IPIECA 2014; Figure 1). An Environmental Unit Liaison position may also be staffed in the Wildlife Branch (Figure 1) to facilitate the dissemination of planning and operational information between the Environmental Unit and the Wildlife Branch. WRPs may also be developed and used for Wildlife Emergencies that are not managed with an ICP or a Wildlife Branch.

The WRP should identify, schematically, the structure and function of the Wildlife Branch and its integration into the Operations Section of the ICP, as well as how it liaises with other ICP sections (e.g., Planning). The WRP should anticipate structuring and scaling the Wildlife Branch according to how the incident is expected to proceed.

It is essential to identify and implement Wildlife response activities within the first 24, 48, and 72 hours of an incident. These response activities are formalized within a WRP to structure and guide response activities. The RP is responsible for the development of WRPs, to address all of the procedures and strategies required to mount an effective Wildlife response. During an incident, ECCC-CWS will provide advice to support the Wildlife response consistent with the components outlined in Section 4. However, the RP typically leads the development of a WRP and may contract the WRO to develop it on their behalf to ensure the WRP is operationally feasible. While ECCC-CWS does not have the authority to assign, recognize, or approve specific WRPs, ECCC-CWS may provide advice to the Lead Agency, the RP, and WROs regarding the direction and content of a WRP, based on available science and expertise. A WRP does not necessarily equate with statutes and regulations; rather, developing a WRP identifies actions that support compliance with the MBCA, MBR, MBSR, SARA, and the CWA. A WRP receives formal approvals within an ICP through sign-off by the Incident Command and RP.

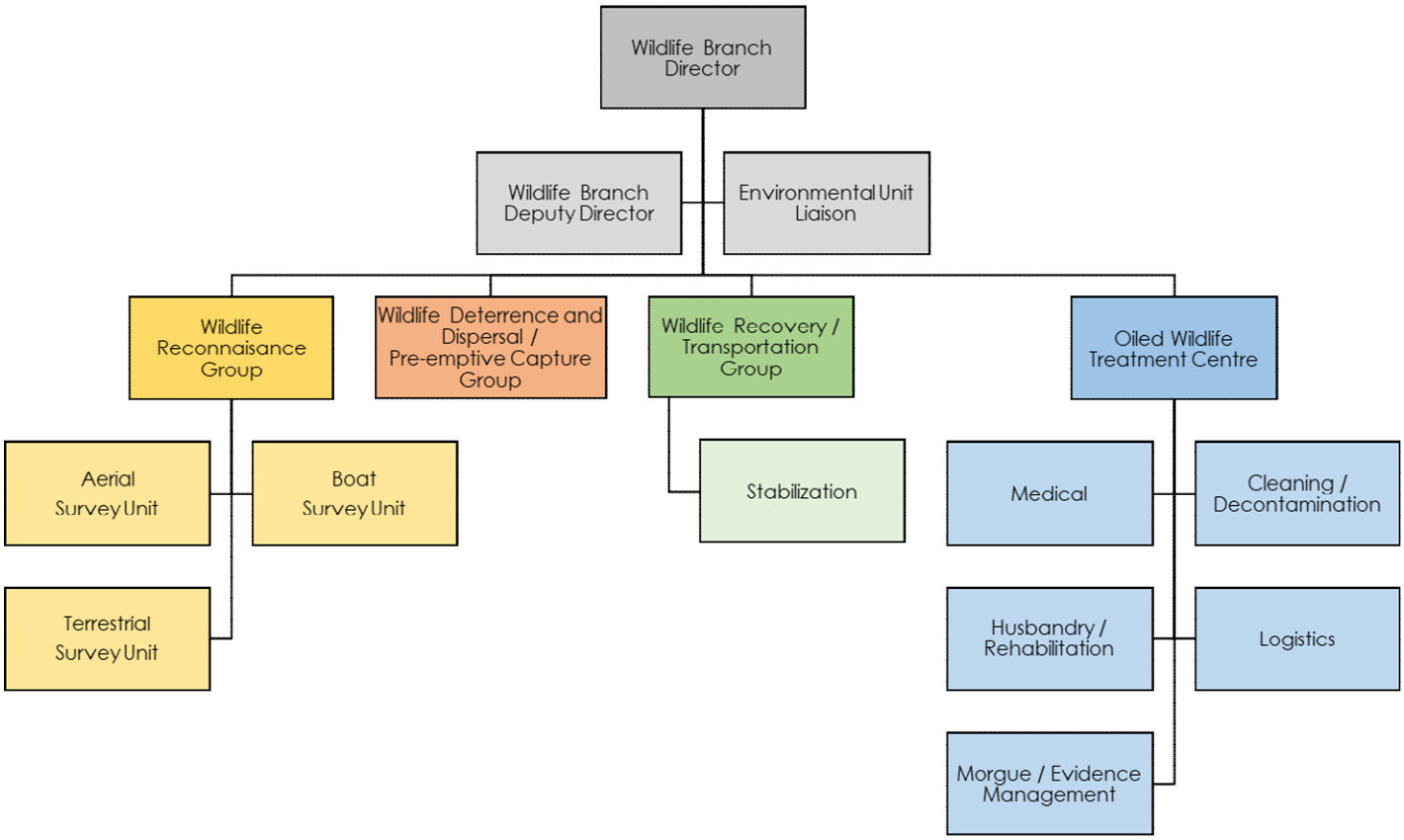

Figure 1. Example of a scalable Wildlife Branch within an ICS setting (adapted from IPIECA 2014).

3.2 TYPES OF WILDLIFE RESPONSE PLANS

There are two main types of WRPs, strategic response plans and incident-specific response plans (described below). ECCC-CWS may support the development of various WRPs, including providing technical expertise, permit support, and incident-specific guidance. However, WRP approvals are the responsibility of the RP and the Incident Command (or Unified Command).

3.2.1 Strategic Response Plans

Strategic response plans are often created for specific activities, where there is a recognized risk of a Wildlife Emergency, or for designated areas or specific locations which may warrant special planning considerations (e.g. protected areas, geographic response areas). Strategic WRPs describe the likely activities to be enacted during a response, but may lack incident-specific actions or tactical plans which may only be developed once the parameters of the incident are known or tested. Thus strategic WRPs are refined and adapted throughout the incident based on incident-specific considerations (Hebert and Schlieps 2018).

Activity-specific Plans: Accidents or malfunctions that may occur at certain types of facilities or infrastructure (e.g., oil-handling facilities, offshore petroleum platforms, liquid natural gas marine terminals), projects (e.g., exploratory drilling), or routine activities (e.g., transport of oil by rail or vessel) have an associated increased risk

for Wildlife Emergencies. However, given the static nature of these sites, the characteristics of a Pollution or Non-Pollution Incident and the procedures for mounting a response can be anticipated to a certain degree. Industries or other stakeholders determine whether it is appropriate to develop strategic WRPs to structure a response that aligns with internal policies and procedures (e.g., industry best practices, contract with WROs), and incorporates site-specific considerations for implementing effective response actions (e.g., pre-determined Wildlife rehabilitation areas, standardized methods for Wildlife surveillance). As with other types of plans, activity-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Activity-specific WRPs should be reviewed and revised on a regular basis to accommodate changes to infrastructure, activities, and operational procedures, and to reflect current guidance on Wildlife response planning. In cases where activity-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

An example of an activity-specific WRP is one that is developed as part of planned vessel salvage or oil recovery activities, where there is potential for impacts to Wildlife. In the case of a planned salvage, the initial draft of the WRP should be developed and approved in advance of initiating salvage activities. As with other incidents, the WRP will evolve over the course of the salvage to address specific response conditions.

Area-specific Plans: Wildlife Emergencies can also occur in land tenures or aquatic areas of significant biological importance, with specific management objectives, and/or where there is otherwise concerted interest in having a response plan in place (e.g., protected areas, geographic response areas). As with activity-specific plans, the procedures for mounting a response to a Pollution or Non-Pollution Incident may be anticipated and planned for to a certain degree. Managers of these areas may determine it is appropriate to develop strategic WRPs to structure a response that aligns with local or regional management objectives. Stakeholders' input that incorporates site-specific considerations for implementing effective response actions should be considered. Area-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Managers of these areas need to identify zones of higher sensitivity that are to be protected and those of lower sensitivity to allow an efficient response (access points for machinery, ICP, response personnel, etc.). WRPs should be reviewed and revised on a regular basis. In cases where area-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

3.2.2 Incident-specific Response Plans

The most common type of WRP is typically one that is developed in the early phases of a Wildlife Emergency as part of the ICS and is specific to the incident (IPIECA 2014). Incident-specific WRP, sometimes referred to as Wildlife Management Plans, take into account the actual circumstances of a specific incident, particularly factors related to the scope of the incident (e.g., quantity, location and dispersion of pollution), environmental considerations (e.g., weather), and seasonal considerations (e.g., Wildlife abundance and distribution). A comprehensive strategic WRP may fulfil most of the information needs for an incident-specific plan, but might require further details on implementation given the available resources, weather, and time of year.

For incidents where an RP has been identified, the RP has the first responsibility for initiating effective countermeasures to a Wildlife Emergency and has financial responsibility for damage and cleanup costs incurred during an incident. Upon the establishment of an ICP, the RP and Incident Command will outline planned Wildlife response activities. ECCC-CWS will contribute to the development of an incident-specific WRP by participation in the Wildlife Branch (or Environmental Unit) of the ICP, or by reviewing plans and providing expert advice to individuals working within the ICP. Here, ECCC-CWS may provide guidance on the scope of a WRP and direct the RP, or its contracted response personnel, towards resources that support its development. In particular, ECCC-CWS will inform on any Wildlife response activities that require authorization (i.e., permits), or technical expertise. ECCC-CWS will review and make recommendations on a WRP and subsequent iterations, but the Incident Command ultimately approves the plan. For incidents where an RP has not been identified, ECCC-CWS may contribute to the development and implementation of a WRP.

3.2.3 Plan Development

It is important to recognize that Wildlife Emergency response and WRP development is an iterative process that will evolve as an incident unfolds. A WRP should be structured and implemented in a way that it is adaptable and scalable over the course of an incident, and may accommodate needs for post-incident monitoring.

The Wildlife Branch will determine the appropriate level of response based on specific needs of the incident. The need for greater or fewer resources, equipment, facilities, and response personnel will be based on incident-specific factors including:

- the present and future geographic extent of the incident
- the species, numbers of individuals, and types of habitats present in the geographic extent
- the known or potential risk for injury or mortality
- the timeframe for which incident response actions are implemented

Plans that are developed prior to an incident may also consider tiered response planning to appropriately manage various degrees or types of Wildlife Emergencies. *Wildlife Response Preparedness* (IPIECA 2014) describes tiered response planning in more detail.

3.3 HABITAT CONSIDERATIONS FOR RESPONSE PLANNING

The various habitats occupied by Wildlife require different considerations with regards to response planning. For emergency response involving pollutants such as oil, the key variable in a response plan is the presence of bodies of water that may act as a carrier for contaminants discharged into the environment, causing contaminants to spread over large areas where Wildlife may become affected. In Canada, habitats occupied by Wildlife requiring similar response approaches during an emergency response involving contaminants can be grouped into the following three main landscape categories: a) marine and open fresh water, b) aquatic, and c) terrestrial.

3.3.1 Marine and Open Fresh Water

Pollution Incidents that occur in the marine environment or large freshwater bodies of open water tend to affect Wildlife that spend a high proportion of their time on the water, such as alcids and waterfowl. The effect on Wildlife is influenced by the location of the incident, persistence and toxicity of the contaminants, and duration of the incident. In seasons and areas of high concentrations of vulnerable Wildlife, the number of impacted individuals may reach the thousands, even when a relatively low volume of contaminant is discharged. Affected Wildlife may eventually come ashore either alive or dead, requiring systematic search and collection effort on accessible shorelines. Contaminants discharged offshore may eventually travel inshore and reach the coastline, affecting other Wildlife communities associated with aquatic habitats (see Section 3.3.2). A Wildlife response in the marine and open fresh water landscape focuses on preventing Wildlife from utilizing the affected area, recovering affected individuals if they come to shore, and assessing the impact of the incident on Wildlife (Table 2).

3.3.2 Aquatic Habitats

For the purpose of this document, aquatic habitats consist of any land saturated with water long enough to take on the characteristic of an ecosystem and promote aquatic processes, such as salt marshes, wetlands, fens, lagoons, and bogs, but also include small ponds, creeks, rivers, tidal flats, marshes, and reed beds, or any combination of such categories. Unlike the other landscapes, aquatic habitats are vulnerable to activities that occur both on land and in the marine environment. During a response to a Pollution Incident, aquatic habitats are priority areas for protection as they can trap large quantities of contaminant, are difficult to clean, and can take years or decades to recover due to the retention of contaminants in these environments. Because of the large variety of aquatic habitats and biotypes that they accommodate, removing contaminants from the environment and operationalizing a Wildlife response may be complex. Rivers will carry and spread pollutants over potentially large distances, and shorelines may be inaccessible. Wildlife diversity may be high and include a mix of aquatic (waterfowl, shorebirds, inland waterbirds) and terrestrial (landbirds) Migratory Bird species and Species at Risk from a variety of groups, including mammals, birds, amphibians, reptiles, plants, and fish. Additional survey effort and resources may be required for reconnaissance and surveillance surveys as well as collecting affected individuals. Small lakes and ponds may be attractive for large concentrations of Migratory Birds during migration, molting, and staging periods and may require extended resources to exclude Wildlife from the area. In addition to deterrence activities, a Wildlife response in aquatic habitats may also focus on prioritizing protection and containment strategies to minimize the spread of contaminants to key habitats, denying Wildlife access to impacted habitats, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovery of affected individuals, and assessing the effect of the incident on Wildlife (Table 2).

3.3.3 Terrestrial Habitats

Pollution discharged into a terrestrial landscape where a body of water is absent will be limited in spread and affect a small area in relation to the released volume. Pollution Incidents in a terrestrial landscape are usually limited to a point source (e.g., truck, rail, pipeline, oil storage facility), however, the species and types of incident interactions among terrestrial Wildlife may be diverse, as there is potential for impacts to birds,

mammals, reptiles, and amphibians. A Wildlife response strategy in a terrestrial landscape may focus on excluding Wildlife from the affected area, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovering affected individuals, and assessing the impact of the incident on Wildlife.

Table 2. Key activities/strategies for Wildlife response based on major landscape types. This table is meant as a guide to highlight some potential key differences in approaches, but should not be considered as a checklist for all incidents. Refer to text for details.

Response Strategy/Activity	Landscape Categories		
	Marine/ Open fresh water	Aquatic	Terrestrial
Reconnaissance and surveillance surveys	X	X	X
Wildlife deterrence	X	X	X
Wildlife exclusion		X	X
Prioritize habitats for protection	X	X	X
Pre-emptive capture of Wildlife		X	X
Recovery of affected individuals	X	X	X
Assessing impacts to Wildlife	X	X	X

3.4 DETECTING SIGNS OF IMPACTED AVIAN SPECIES

In planning for Wildlife Emergency and preparation of a WRP, it can be important to consider target species and how detectable contaminated (or injured) Wildlife may be. The ability to detect contaminated Wildlife will help in planning several of the actions to be taken during a response, notably Initial Wildlife Impact Assessment (Section 4.5.2), reconnaissance and surveillance surveys (Sections 4.5.3 and 4.5.4), and Wildlife capture (Section 4.5.7). Detecting contaminated Wildlife is best done by experienced observers, such as WRO, but understanding of contaminated Wildlife detection can benefit all aspects of response planning and implementation. Here we provide guidance for detecting signs of oiling in avian species, though the principles outlined are generally applicable to birds affected by other contaminants.

Under normal conditions, typical bird behaviour will vary by the species, the habitats they occupy, as well as time of year and weather conditions. Generally, birds that spend a great deal of time on the surface of the water are typically seen resting on the water (e.g., loons, grebes, scoters, alcids, and cormorants). Piscivorous species (e.g., loons, grebes, alcids), will normally dive and surface repeatedly over time. Some species, like gulls, will move between resting on the water to being flight bound to using land to feed or rest. Species that are common in shore environments, like shorebirds, dabbling ducks, and cormorants are typically quite obvious on rocks or beaches, and would be expected to be quite mobile/active.

Birds that have come into contact with oil may have obvious oiling indications, including coating, discoloured feathers, or feathers having a wet or ragged appearance (i.e., disruption of feather structure). Heavily oiled birds or individuals oiled below the waterline may also appear as though they are sitting low on the water

(when compared with normal species posture), struggling to maintain buoyancy. Oiled birds have increased potential to lose buoyancy and thermoregulatory properties of their feathers. Accordingly, it is common to see oiled birds focused intently on preening themselves in order to maintain buoyancy and reduce heat loss; this may be most apparent while birds are on the water. Diving or dabbling species may appear to be foraging less than expected (although this should be assessed by experienced observers). Birds may also exhibit changes in flushing behaviour, being less inclined to fly when disturbed. Birds might also congregate near or on shore, or strand and rest on structures (e.g., vessels, buildings, platforms); this includes species that would not normally be expected to use these habitats or those that have contacted oil in the intertidal environment. In nearshore or shoreline environments, birds may also use shallow waters to reduce risk of drowning or take advantage of coastal vegetation to camouflage or reduce risk of predation while they try to preen or recover. Observations of behavioral changes in birds are sometimes the key indicators of oil impacts.

Detecting birds contaminated with oil is particularly difficult for aquatic birds with dark plumage that remain on the water and far from shore. Under these circumstances, it may be appropriate to determine a probable rate of contamination using appropriate indicator species. Ideally, indicator species are common throughout the incident area, share similar life history attributes, are sensitive to oiling, and signs of oiling are readily observable. The contamination percentage determined for indicator species only provides an estimation of the contamination percentage for the other species in the incident area. This type of assessment is likely to underestimate the actual contamination rate of the most vulnerable aquatic species, such as sea ducks and alcids, and overestimate the contamination of the more coastal species, such as geese and dabbling ducks (Lehoux and Bordage 1999). Additional details on how to assess rates of oiling for indicator species is provided in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

4.0 COMPONENTS OF A WILDLIFE RESPONSE PLAN

A WRP is a plan that describes the objectives and methods for undertaking Wildlife Emergency response, specific to an area and Pollution or Non-Pollution Incident(s). The aim of a WRP is to avoid or minimize injury or harm to Wildlife during Pollution and Non-Pollution Incidents.

The following section outlines attributes that should be considered within a WRP (IPIECA 2014; Hebert and Schlieps 2018). An annotated WRP template is provided as an example in Appendix A, to be adapted and scaled based on the nature of individual Wildlife Emergencies. A checklist of activities that should be completed within the first 24, 48, and 72 hours of an incident involving Wildlife is provided in Appendix B.

4.1 INTRODUCTION

The Introduction section of the WRP provides the basis and rationale for how a Wildlife response will be handled. The Introduction will provide a general description of the types of issues that will be addressed by the

WRP. Where appropriate, the Introduction will describe how this WRP interfaces with various aspects of an ICP, including other response plans that WRP activities may interact with.

4.2 NOTIFICATION PROCEDURES

The Notification Procedures section outlines the agencies, organizations, and other technical specialists that will be notified during incidents involving Wildlife response. Where appropriate, this section will describe how notifications operate within the incident-specific ICS structure, as well as any intra- and interdepartmental communication requirements.

4.3 REGULATORY REQUIREMENTS

The Regulatory Requirements section provides a brief description of the applicable Wildlife legislation, where it applies, and whether supporting permits or authorizations are required to support a Wildlife response. In most cases, incidents involving Wildlife will need to consider the MBCA, the SARA, and possibly the CWA (see Section 2), as well as other provincial or territorial legislation. Additional permits and authorizations may also be required outside the regulatory authority of ECCC-CWS.

4.3.1 Permits and Authorizations

For any Wildlife Emergency involving the development of a WRP, the plan will identify any WROs or contracted subject-matter experts that will be engaged to support Wildlife response activities. Authorized organizations or individuals must have the training and resources necessary to meet Wildlife response requirements. Where permits or authorizations are identified, this section will highlight:

a) what the authorization is for
b) the issuing agency
c) activities that are authorized
d) who holds authorization to conduct those activities
e) if a technical specialist or qualified professional is required to supervise or participate in the authorized activity (e.g., supervision or guidance of bird deterrence activities by ECCC-CWS or a WRO supervision of bird deterrence activities)
f) reporting requirements, if any, for these authorizations

With respect to strategic WRPs prepared in advance for specific activities or areas, this section will also identify permits which are already in place and relevant information on renewal and reporting cycles.

4.4 RESOURCES-AT-RISK

The WRP will outline potential Wildlife and habitat resources-at-risk from the incident's current and reasonably foreseeable impacts. The resources-at-risk section of the WRP will describe:

- the geographic extent for which resources are being identified

- Migratory Bird sensitivities
- Species at Risk sensitivities
- important habitats for consideration and protection:
    - critical habitat
    - protected areas
    - colonial nesting areas
    - general nesting areas
    - seasonal stopover, molting, or staging areas
    - key areas (e.g., Important Bird Areas, Ecologically and Biologically Significant Areas)
    - other important habitat features such as estuaries

In addition to these general factors, the characterization of resources-at-risk should consider area- and species-specific factors such as seasonal presence, abundance, life stage, and habitat associations. Where available, incident-specific observations should be referenced in the description of resources-at-risk to characterize current conditions. Resources-at-risk should also consider details on mitigations related to habitats including priority sites, protection measures, clean-up restrictions, and information relevant to Net Environmental Benefits Assessment (NEBA) or Spill Impact Mitigation Assessment (SIMA) (e.g., IPIECA 2016, 2018).

4.5 WILDLIFE MANAGEMENT AND RESPONSE

This section will describe the nature of Wildlife management and response activities that are, or will be undertaken as part of the incident. The nature and scale of a WRP will depend on the incident, and the known or potential impacts to Wildlife.

For the early phases of an incident, the WRP should include, at minimum, a description of the initial approaches for Wildlife impact assessment (e.g., reconnaissance and monitoring activities). This section of the WRP will be revised as an incident evolves. Where appropriate, aspects of Wildlife management and response may warrant standalone plans that could be appended, and referenced in this section (e.g., detailed plans for Wildlife rehabilitation).

4.5.1 Operational Objectives

This section briefly describes the primary objectives for the activities that will be implemented during the operational period(s) this plan is expected to apply to until its next iteration. Objectives will consider the ethical considerations in context with situational, technical, and financial feasibility of implementation (IPIECA 2014). Objectives will change based on Wildlife concerns as well as personnel and equipment resource availability. These objectives form the basis for the nature and scope of activities described in this section of the WRP.

4.5.2 Initial Wildlife Impact Assessment (0 to 24 Hours)

In order to effectively plan for and direct Wildlife response efforts, an Initial Wildlife Impact Assessment needs to be conducted as early in the incident response as possible, to determine:

- existing information on Wildlife and habitats
- current/initial estimates of Wildlife impacts
- projection of potential impacts to Wildlife
- initial Wildlife response recommendations
- initial habitat protection recommendations
- initial resource, personnel, equipment, and facility requirements

As with all phases of a response, the Initial Wildlife Impact Assessment must be completed in consideration of the health and safety of response personnel and adhere to all incident-specific health and safety requirements (see Section 4.7).

4.5.3 Reconnaissance Surveys (24 to 48 Hours)

Reconnaissance surveys should be conducted in a timely manner on a large geographic scale to assess the outer limits of the incident. These surveys serve to obtain current information on impacted habitats, areas of special concern (e.g., colonial nesting areas) and the abundance and distribution of Wildlife within the general area of the incident, recognizing that Wildlife movements may extend beyond the geographic limits of the incident area. Initial reconnaissance surveys should take place as early in the response as possible to determine current conditions and inform potential response priorities and strategies. In all cases, reconnaissance should extend, at minimum, to the expected geographic limits of the incident area, recognizing those boundaries may change as the incident progresses. Reconnaissance surveys may be conducted on a recurring basis to inform response activities (e.g., deterrence and dispersal, Wildlife capture), or if the situation of the incident changes (e.g., following a storm). Reconnaissance surveys help identify the most suitable approaches for the surveillance or monitoring phase of the response. Reconnaissance may occur from land, boat, or air. Reconnaissance surveys are not systematic and the goal is not to precisely assess Wildlife densities but rather to conduct informal surveys to rapidly assess the distribution of impacted, or potentially impacted, Wildlife and habitats for a prompt response.

Primary objectives of reconnaissance surveys are to:

- determine the geographic scale of the incident
- identify Wildlife and habitats that have already been impacted
- estimate relative abundance and distribution of Wildlife with potential to be impacted
- evaluate key habitats of importance to Wildlife with potential to be impacted
- inform development of appropriate response strategies
- inform mitigation activities to minimize further damage to Wildlife
- inform suitability of various survey methods (e.g., shore, boat, or aerial surveys) for subsequent surveillance or monitoring for the duration of the incident
- inform Incident Command on the status of known or potential impact on Wildlife

If impacts to Wildlife or their habitats are known or anticipated, an approach for systematically surveying and monitoring Wildlife should be developed and articulated in the WRP (see Section 4.5.4). Standardized protocols

have been developed for conducting systematic Migratory Bird surveys during an emergency response in Canada and are summarized in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a). The following stages of a Wildlife response (Sections 4.5.5 to 4.5.10) should be developed and implemented by trained and qualified personnel under the supervision of the Wildlife Branch Director in the Wildlife Branch and/or Wildlife Technical Specialist(s) in the Environmental Unit, depending on the structure of the response (see also Section 3.1).

4.5.4 Surveillance (Monitoring) Surveys (48 to 72 Hours and Onwards)

If impacts to Wildlife or their habitats are known or anticipated, Wildlife Branch will develop a systematic surveillance (monitoring) survey program with an appropriate temporal and geographic scope. If surveillance is required, the RP will secure qualified personnel to develop and execute the program and who will report to Wildlife Branch Director and/or Wildlife Technical Specialist(s). The methods and general approach(es) may be described in strategic WRPs and ECCC-CWS can advise on survey design and implementation for incident-specific WRPs, consistent with the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

Primary objectives of surveillance surveys are to:

- monitor and refine the identification of Wildlife and habitats in the impacted area
- monitor and identify areas where Wildlife would be potentially at risk from further impacts
- monitor and refine estimates of abundance and distribution of Wildlife in the impacted area
- monitor and estimate Wildlife densities for damage assessment
- monitor and estimate number of dead and moribund Wildlife affected by incident
- identify areas where affected Wildlife can be collected
- inform other response activities such as habitat protection and Wildlife deterrence and dispersal
- inform Incident Command

Implemented throughout the response in accordance with the plan, data collected during surveillance provides critical response information and can also be used to document damage assessment following the incident.

4.5.5 Deterrence and Dispersal

For some incidents, deterrence and dispersal can be an effective early means to deter Wildlife from moving into or near the incident area and coming into contact with contaminants. Use of these techniques can also be helpful in excluding Wildlife from impacted areas throughout the response phase. Deterrent devices used to disperse Wildlife include both visual and auditory techniques and range in their effectiveness depending on the species, number of individuals, time of year, and habitat where the incident occurs.

If deterrence or dispersal is required or recommended, the RP will retain a qualified and, if applicable, authorized WRO to develop and execute a Wildlife deterrence and dispersal program. In the absence of an RP, the Lead Agency may develop and execute a Wildlife deterrence and dispersal program. Guidance to

conduct activities related to deterrence and dispersal are outlined in Lehoux and Bordage (2000), with revisions and updates in development by ECCC-CWS. Other guidance to consider in the development of deterrence and dispersal tactics for WRP include Gorenzel and Salmon (2008) and IPIECA (2017). Deterrence will be conducted only by appropriately trained personnel, and under direct guidance and supervision (as required) from the Wildlife Branch Director and/or Wildlife Technical Specialist(s). A WRP may also outline protocols for Wildlife Technical Specialists in the field to monitor and document the use and effectiveness of deterrence and dispersal techniques so that updates may be made to subsequent WRPs. ECCC-CWS may provide guidance on deterrence and dispersal strategies and may also supervise deterrence and dispersal techniques for habitats or species that are particularly sensitive to these types of response measures (e.g., in proximity to breeding colonies). Strategic WRPs may outline a set of applicable techniques for a particular industry or facility, whereas an incident-specific WRP may then specify actions to be put in place given the species observed and environmental conditions at the time (e.g., weather).

Deterrence activities should be determined on a species-specific and location-specific basis that considers the following factors:

- What is the location and/or the extent of the spill
- Where are alternative species-appropriate habitats that birds can be dispersed to
- What species are present or likely to be at risk
- What is the life history status of the birds present (e.g., roosting, staging, breeding)
- What qualified personnel and equipment is available with experience and knowledge for deterrent use and Wildlife dispersal
- What are the environmental conditions
- Can the deterrence and dispersal plan be enacted in a safe manner for response personnel and Wildlife

4.5.6 Exclusion, Pre-emptive Capture, and Relocation

WRPs often implement measures designed to pre-emptively limit the potential for Wildlife to become impacted during Pollution Incidents. Often, marine, aquatic and terrestrial Wildlife can be excluded from areas that are known or have potential to become impacted through a combination of mechanical and physical techniques designed to dissuade habitat use (e.g., visual or acoustical deterrents, fence or net installation, physical habitat modification). Pre-emptive Wildlife capture and relocation similarly seeks to collect Wildlife before they are impacted during a Wildlife Emergency. Planning for Wildlife collection requires considerations for capture, transport, holding, and release strategies. If pre-emptively captured Wildlife need to be contained for a period of time, a WRO authorized to carry out these activities must be identified to provide appropriate species-specific housing, nutritional support, and medical care (if necessary) for a potentially extended period. Guidance and protocols on pre-emptive capture and care for Wildlife during a Pollution Incident are described in the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b). Where appropriate, the WRP should describe plans for Wildlife collection and relocation activities.

4.5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

This section of the WRP will be broken down into detailed phases, each of which are described briefly in Table 3. Planning for these activities may evolve over the course of the incident to include details on the number of monitoring and field staging facilities, capture procedures, rehabilitation facilities, as well as coordination of rehabilitation personnel.

The RP should retain a qualified and authorized WRO to develop and implement these phases of Wildlife response. These programs will adhere to the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b), *Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife* (ECCC-CWS 2021c), as well as an area-specific or incident-specific Health and Safety Plan. Not all phases will be applicable or readily implemented during a response, but all may be considered as options when developing a strategic WRP, and later refined in an incident-specific WRP.

Table 3. Phases of Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

Phase	Objectives
Pre-emptive Capture	• The capture of Wildlife that is at risk of being impacted • Transport of Wildlife to a holding facility
Capture	• The capture of impacted Wildlife • Transport of Wildlife to Field Stabilization Site or Oiled Wildlife Rehabilitation Centre
Field Stabilization	• Physical evaluation • Removal of gross contaminants • Thermoregulatory support • Fluid therapy and nutritional support • Address life threatening conditions • Euthanasia evaluations based on established criteria and best practices
Transportation	• Transport of contaminated animals from field or Field Stabilization Site to an Oiled Wildlife Rehabilitation Centre
Processing	• Evidence collection • Birds given individual, temporary band • Feather/fur sample • Photograph • Individual medical record
Intake	• Medical examination, triage, and treatment plan development • Critical care concerns addressed • Euthanasia evaluations based on established criteria and best practices
Triage	• Ongoing euthanasia and treatment plan evaluation based on medical health status
Euthanasia	• Euthanize Wildlife that are assessed by the WRO as not being good candidates for rehabilitation or survival
Stabilization	• Fluid, nutritional and medical stabilization of impacted animals • 48–72 hours period • Prepare animals for cleaning process
Cleaning	• Removal of all contaminants from an impacted animal by washing • Removal of the cleaning agent by rinsing • Drying cleaned and rinsed animal
Conditioning	• Restoring waterproofing and physical condition
Release	• Federal banding of individual animals • Consider additional tracking devices on some birds to monitor post-release • Release of cleaned, waterproof animals into a clean environment
Post-release	• Determining the effectiveness of rehabilitation of Wildlife impacted during a

Phase	Objectives
Monitoring	Pollution Incident • Monitoring the clean Wildlife's condition and activities • Following short-term and long-term survival and breeding status following rehabilitation

4.5.8 Wildlife Carcass Collection Procedures

Dead Wildlife should be removed from the environment to avoid attracting scavengers to the site and secondary contamination of Wildlife. The responsibility for the collection and documentation of dead Wildlife is primarily the responsibility of the Wildlife Branch and is completed under the supervision of authorized organizations (e.g., Wildlife Enforcement Directorate) and personnel with appropriate permits. Protocols for Wildlife collection, storage and documentation will be developed. Wildlife recovery personnel will retrieve dead Wildlife as part of daily activities. Dead Wildlife observed by the public can be reported to a 24-hour hotline (see Section 4.6.1). Members of the public must not pick up dead Wildlife but rather report them to the hotline. The Wildlife Branch will work with the Information Officer to develop appropriate messaging.

Carcass collection information will be used to:

- refine the geographic scale of the incident
- determine the cause of death if the source is unknown
- minimize damage and exposure to unaffected Wildlife by removing affected Wildlife from the environment
- minimize potential for harm or exposure by the public who participate in hunting activities or are supporting aspects of the response
- support appropriate response strategies for the treatment of affected Wildlife
- obtain a minimum number of casualties for damage assessment purposes
- obtain specimens/samples for legal enforcement activities or reporting requirements
- inform Incident Command

These procedures will also outline requirements necessary for proper chain of custody and storage of specimens. Chain of custody, and other record-keeping forms, will be attached as appendices to the WRP.

For additional guidance on collecting dead Wildlife during incidents, see the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

4.5.9 Waste Management

Plans for decontamination and disposal of waste materials will be developed. Waste and secondary pollution should be minimized at each step of the Wildlife response. During the various phases of Wildlife cleaning (holding pen, carcass wrapping), waste will be created. Washing Wildlife will cause waste water (e.g., oil with detergent), which will need to be managed (through existing Waste Management Plans or by establishing additional plans as needed). Medical waste (e.g., syringes and gloves) should be considered. The response

plan will identify the legislation and the authorities responsible for waste management.

4.5.10 Demobilization

Regardless of the scale of a Wildlife Emergency, the WRP will describe any processes or considerations for demobilizing Wildlife response activities. As appropriate, demobilization will be scaled in accordance with the size of Wildlife response (e.g., decreased intake of contaminated Wildlife) and must be approved by the Incident Command.

This section of the plan will discuss, as applicable:

- processes for demobilizing equipment, facilities, and personnel
- processes for ongoing involvement in the ICP or post-response impact assessment and monitoring
- processes for chain of custody of data to support enforcement decisions
- processes by which the RP can continue to receive advice and support from ECCC-CWS

4.6 INFORMATION MANAGEMENT AND REPORTING

This section of a WRP should describe how information collected throughout the operational periods of the WRP would be managed, organized, vetted, and reported on. It should include:

- the type of data being collected (e.g., inventory, photos, videos, GIS)
- the personnel that will collect, organize, and vet the data
- the process for maintaining data records during and after the incident
- the process for integrating Wildlife data and activities into an incident information system (often referred to as the Common Operating Picture) within an ICP
- who data will be reported to, including the type and frequency of reports (e.g., daily email tabular summaries to the Environmental Unit Leader)
- how information is disseminated to agencies responsible for overseeing response

4.6.1 Wildlife Reporting From the Public (Wildlife Hotline)

Within the initial phases of an ICP being established where there are potential impacts to Wildlife, ECCC-CWS should ensure that reports of impacted Wildlife are directed to the Environmental Unit by way of a 24-hour hotline (or other reporting mechanism created for an incident). The contact information and instructions to the public for the 24-hour hotline should be outlined in the WRP. This may include the use of already existing environmental emergencies reporting systems, or the development of new hotlines as required for the scale of the incident. The Wildlife hotline may also serve as a platform to relay incident-specific safety information to the public (e.g., avoiding direct contact with contaminated Wildlife).

4.6.2 Media Relations

Media statements help to inform the public and raise awareness regarding Wildlife concerns and treatment, as well as public safety. The WRP should identify how Wildlife response activities will be reported to the public

through media statements, and who within the Environmental Unit or Wildlife Branch are responsible for informing them. Generally, Wildlife Branch Response Director and the incident's Information Officer will jointly develop these statements, with relevant input from Wildlife Technical Specialist(s) and/or Environmental Unit Lead. Where appropriate, public statements involving Wildlife will also be vetted and approved by the ECCC-CWS technical specialists, Media Relations, and the Regional Director.

4.6.3 Permits Reporting

Certain permits which may be issued prior to or during an incident may also have reporting requirements. Most ECCC-CWS issued permits require reporting of activities within 30 days of the permit expiry.

4.7 HEALTH AND SAFETY

Responder safety is of paramount importance when initiating Wildlife response activities. Activities recommended and implemented as part of a WRP will adhere to the incident-specific health and safety plan and be identified in consultation with the Incident Safety Officer. A brief overview of health and safety considerations and requirements will be described in the WRP, with specific mention of Wildlife responder personal protective equipment, zoonoses, and site safety and security (including areas off limits to Wildlife responders). This section will evolve over the course of the incident.

4.7.1 Personal Protective Equipment

For Wildlife management and response activities proposed in a WRP, responders will have appropriate training and equipment for safely operating in shoreline, marine, or aerial environments (depending on incident location and response activities) and for contaminated Wildlife handling within a rehabilitation setting. Responders will have appropriate equipment and clothing to operate for extended periods and that protect against environmental exposure or incident-specific conditions. Basic personal protective equipment recommended for Wildlife management and monitoring activities includes:

- eye protection (e.g., sunglasses, goggles, safety glasses, or face shield)
- oil-resistant rain gear or oil protective clothing (e.g., coated Tyvek, Saranex, etc.)
- water and oil resistant hand protection (e.g., neoprene or nitrile rubber)
- waterproof and oil resistant non-skid boots; steel-toes may be required under the incident-specific health and safety plan
- hearing protection (muff or ear plug type)
- personal flotation device when working on, near, or over water
- air monitoring device when appropriate
- specific gear appropriate for work where personnel are or may be submersed in water (wet suits, dry suits, survival gear)
- species-specific capture and protective gear (welding gloves, steel toed boots etc.)

The above list should not be considered comprehensive or applicable to all incidents. Additional incident-

specific and specialized equipment may be required for other aspects of Wildlife response and will be developed in consultation with WROs and the Safety Officer.

4.7.2 Zoonoses

Zoonoses are infectious diseases that may be transmitted between animals and humans under natural conditions. Personnel handling or coming into contact with Wildlife are at risk of zoonotic disease exposure. Veterinarians, technicians, response personnel, Wildlife handlers, and other animal care personnel who come into direct or indirect contact with Wildlife or any body fluids are at risk of contact with disease agents that may have zoonotic potential. Organisms that may cause or transmit zoonotic diseases include many classifications from viruses, fungi, and bacteria to internal and external parasites. The WRP will describe biosecurity practices that will be employed in all aspects of Wildlife response to reduce risk of disease transmission.

4.7.3 Biosecurity

Biosecurity is a set of preventative measures that reduce the risk of transmission of infectious diseases, pests, and invasive species. Where there is potential for response measures (both overall incident response and Wildlife-specific response) to contribute to issues involving biosecurity, the WRP will outline a suite of measures to control for these risks.

4.8 PERSONNEL REQUIREMENTS

There are many personnel that could be involved in various aspects of WRP implementation. Certain roles, responsibilities, or authorized activities require various types of training or technical expertise.

Where applicable, the WRP will specify which activities individuals with specific training or expertise can complete. This may include outlining training standards and/or experience that may be required for specific industries, areas, or facilities. Industries and Response Organizations should consult with regional ECCC-CWS staff for guidance on relevant standards.

4.9 FACILITY AND EQUIPMENT REQUIREMENTS

As part of planning and implementing Wildlife response measures outlined in a WRP, specific equipment and facility requirements may need to be developed. The level of detail of these requirements will vary by the scale of the incident and may be more appropriately described in documents appended to the WRP. Components of equipment and facility considerations may include:

- the type and amount of equipment required
- means of transportation to support Wildlife response elements
- requirements for utilities, waste management, and security
- the nature of equipment or facility requirements (e.g., temporary, mobile, permanent)
- sources of supplies if known

Additional information to support equipment and facility planning is outlined in the *Guidelines for Establishing*

and Operating Treatment Facilities for Oiled Wildlife (ECCC-CWS 2021c).

5 EVALUATING WILDLIFE RESPONSE

5.1 EVALUATION AND REVIEW

WRPs should be implemented and evaluated for their effectiveness within a context of adaptive management, where the results are used to refine future iterations (IPIECA 2014, Hebert and Schlieps 2018). Following a Wildlife Emergency, WRP developers and implementers should debrief on strengths and weaknesses of the plan, lessons learned, and gaps or areas for improvement (particularly for strategically developed activity- or area-based WRPs). Evaluation of the WRP should consider a) ease of implementation, b) efficiency of implementation, c) areas of practice that were or were not included, and d) whether the WRP supported the desired response outcome(s), business and legal requirements. ECCC-CWS may be consulted in this review and assist with recommendations for refinement.

5.2 EMERGENCY EXERCISES

Emergency exercises are important for testing the effectiveness of WRPs, identifying potential gaps, and ensuring activity-, area- or incident-specific considerations are planned for in advance of an actual incident occurring (IPIECA 2014). Exercises also allow for government and industry partners to work together and familiarize themselves with the personnel and resources available to support Wildlife response activities. Exercises can also be an excellent means to provide training, or to test certain response strategies in a controlled setting.

Emergency exercises can take place in several formats: notifications, tabletop, field drills, and participation in the Environmental Unit or Wildlife Branch of an ICP. Each exercise will be planned with specific Wildlife response focused objectives in mind, and may center on testing particular aspects of the WRP. WRPs should be updated and revised to incorporate identified gaps and lessons learned into the plans.

6 CUSTODIAN

The custodian for the *Guidelines for Wildlife Response Plans* and any amendments thereto is the:
Director General, Regional Operations Directorate
ECCC-CWS
ECCC

The approval of future updates is vested to the Director General, Regional Operations Directorate, ECCC-CWS.

7 ACKNOWLEDGEMENTS

This publication represents the collective efforts of many members of the ECCC-CWS National Wildlife Emergency Response Working Group (François Bolduc, Daniel Bordage, Andrew Boyne, Brigitte Collins, Jean-François Dufour, Kevin Fort, Carina Gjerdrum, Jeanette Goulet, Jack Hughes, Nancy Hughes, Lesley Howes, Vicky Johnston, Raphael Lavoie, Jim Leafloor, Erika Lok, Craig Machtans, Kim Mawhinney, Ruth Milkereit, Dave Moore, Patrick O'Hara, Mia Pelletier, Lisa Pirie, Jennifer Provencher, Greg Robertson, Myra Robertson, Rob Ronconi, Pierre Ryan, Saul Schneider, Chris Sharp, Eric Shear, Graham Thomas, Mike Watmough, Becky Whittam, Sabina Wilhelm, Megan Willie, and Sydney Worthman) and the ECCC-CWS Permits Working Group. Additional review and comments were provided by Tri-State Bird Rescue and Research (Ryan Wheeler), and Focus Wildlife (Jenny Schlieps, Charlie Hebert). This document is a product of ECCC.

8 LITERATURE CITED

ECCC-CWS. 2021. National Policy on Wildlife Emergency Response. Canada. iii + 16 pages.

ECCC-CWS. 2021a. Guidance and Protocols for Wildlife Surveys for Emergency Response. Canada. v + 54 pages.

ECCC-CWS. 2021b. Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife. Canada. iii + 47 pages.

ECCC-CWS. 2021c. Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife. Canada. iii + 43 pages.

Gorenzel, W.P. and T.P. Salmon (2008) Bird Hazing Manual: techniques and strategies for dispersing birds from spill sites. University of California, Agricultural and Natural Resources, Publication 21638. Accessed: https://anrcatalog.ucanr.edu/pdf/21638.pdf

Government of Canada. 2017. Birds protected in Canada under the MBCA. Retrieved from: https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html.

Government of Canada. 2020. Species at Risk Public Registry Policies and guidelines. Retrieved from: https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/policies-guidelines.html.

Hebert, C. and Schlieps, J. 2018. Focus Wildlife, Wildlife Response Planning: Standards for Industry Preparedness. 41st AMOP Conference, Victoria, BC.

IPIECA. 2014. Wildlife Response Preparedness. Retrieved from: http://www.ipieca.org/resources/good-practice/wildlife-response-preparedness/.

IPIECA. 2016. Response strategy development using net environmental benefit analysis (NEBA). Retrieved from: http://www.ipieca.org/resources/good-practice/response-strategy-development-using-net-environmental-benefit-analysis-neba/.

IPIECA. 2017. Key principles for the protection, care and rehabilitation of oiled wildlife. London, UK. 64 pp. Retrieved from: https://www.ipieca.org/resources/awareness-briefing/key-principles-for-the-protection-care-and-rehabilitation-of-oiled-wildlife/

IPIECA. 2018. Guidelines on implementing spill impact mitigation assessment (SIMA). Retrieved from: http://www.ipieca.org/resources/awareness-briefing/guidelines-on-implementing-spill-impact-mitigation-assessment-sima/.

Lehoux, D., and D. Bordage. 1999. Bilan des activités réalisées sur la faune ailée suite au déversement d'hydrocarbures survenu à Havre Saint-Pierre en mars 1999. Canadian Wildlife Service, Environment Canada. 29 pp.

Lehoux, D. and D. Bordage. 2000. Deterrent techniques and bird dispersal approach for oil spills. Canadian Wildlife Service, Environment Canada. 80 pp.

APPENDIX A: EXAMPLE TEMPLATE OF A WILDLIFE RESPONSE PLAN

APPENDIX B: EXAMPLE CHECKLIST OF WILDLIFE EMERGENCY ACTIVITIES

Table B.1. Example Checklist of Activities to Undertake within the initial 24, 48, and 72 hours of a Wildlife Emergency (adapted from Hebert and Schlieps 2018)

Timeline	Responsibility	Action
0-24 Hours	Incident Command/ Unified Command	• Ensure appropriate notifications to relevant government departments and branches • Activate an authorized WRO
	Environmental Unit	• Compile existing information on Wildlife • Complete a Resources-at-risk form (i.e., ICS 232) • Initiate Initial Wildlife Impact Assessment • Initiate deterrence and dispersal strategy
24-48 Hours	Incident Command/ Unified Command	• Establish a Wildlife Branch under the Operations Section of the ICP • Designate a Wildlife Branch Director
	Environmental Unit and/or Wildlife Branch	• Mobilize the WRO • Continue Initial Wildlife Impact Assessment • Conduct Reconnaissance Survey • Refine deterrence and dispersal strategy • Develop Wildlife Branch organization chart • Establish a Wildlife hotline • Initiate incident-specific WRP • Initiate requests for resources (personnel, supplies, facilities, equipment) • Identify Wildlife response health and safety requirements • Ensure ongoing notifications and updates to relevant government department contacts • Identify subject matter experts that might support the ICP
48-72 Hours	Wildlife Branch and/or WRO	• Coordinate with the WRO to develop or modify an existing WRP, and a process for WRP implementation • Develop plan for ongoing monitoring • Conduct surveillance and monitoring surveys • Determine locations for field stabilization • Establish field staging areas • Refine incident-specific WRP • Develop internal and external communications with the Information Officer and departmental communications personnel • Ensure ongoing notifications and updates to departmental contacts

NOVA SCOTIA

Environment and Climate Change

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Date:	May 8, 2021
To:	Rachel Bower, Nova Scotia Environment & Climate Change
Cc:	Manager, Water Resources Management Unit
From:	Surface Water Quality Specialist, Water Resources Management Unit
Subject:	Waste Oil Recycling and Water Treatment Facility Project

Scope of Review:

As Surface Water Quality Specialist with the Nova Scotia Environment and Climate Change (NSECC) Sustainability and Applied Science Division, the following Waste Oil Recycling and Water Treatment Facility Project Environmental Assessment (EA) review focuses on surface water quality and the following additional subjects: general surface and groundwater resources, and fish and fish habitat and their management.

The following review considers whether the environmental concerns associated with the above subjects and the proposed mitigation measures have been adequately addressed in the EA Registration Document (EARD). The recommendations provided below are meant to supplement the actions outlined in the EARD.

While general comments on fish and fish habitat, wetlands, surface water quantity, and groundwater quality and quantity may be included below, applicable technical specialists should be consulted for specific review and comment.

Reviewed Documents
The following documents formed the basis for this review:

1. Dillon Consulting. 2021. *Environmental Assessment Registry Document, Waste Oil Recycling and Water Treatment Facility, Dartmouth, Nova Scotia*. Envirosoil Ltd.

Comments:
General to the Project

- Envirosoil Ltd. Is proposing to construct and operate a waste oil recycling and water treatment facility with up to 1.1 million litres of storage capacity and associated building infrastructure at an industrial zoned property in Dartmouth, Nova Scotia, adjacent to Halifax Harbour.
- The proposed facility will be located entirely within property owned and operated by General

Liquids Canada (GLC), which is owned by the same parent company of Envirosoil Limited – Municipal Group of Companies.

- The facility will use excess heating capacity from GLC's existing liquid asphalt storage facility to move oil and water throughout its facility (see below for details on this heating system)
- The total outdoor storage capacity is approximately 540,000 litres.
- The total indoor storage capacity is approximately 478,000 litres.
- All tanks are proposed to be heated using a closed-loop hot oil system using a mineral-oil based fluid, Paratherm NF, with an estimated volume of 42,000 litres. There is no discussion within the EA Registration Document on managing upset conditions (e.g., heating system shutdown).
- The facility is proposed to be used for at least 25 years following construction, with no plans for decommissioning or reclamation submitted.

Water Resources

- Valued Environmental Components (VECs) for the site are summarized and discussed by the proponent in Table 4 Project VEC Scoping, page 51 of the EARD. Surface water is determined by the proponent to be a VEC for the proposed activity at this location.
- There are no mapped watercourses located within the Project area based on NS topographic database mapping. Existing mapping indicates that the surface water runoff from the site generated from precipitation are directed to Halifax Harbour.
- A soil berm is described to be constructed around the site to provide additional containment for potential releases (Sections 5, 9, and 10). This berm is not represented anywhere within the EARD's site drawings (Appendix A). No details are provided in the EA Registration Document with respect to design or design criteria with respect to berm sizing, locations, soil type, soil stabilization and associated drainage management. Providing conceptual design criteria would assist with assessing whether the capturing and management of surface water runoff is technically feasible for the Project area and the effectiveness of the mitigation measure in managing an unintentional release event and/or surface water runoff storm event.
- The following Project design drawing details surface water management infrastructure features:
    - Appendix A, Drawing GTS-1645, Sheet 3 indicates sumps and a floor trench to be installed to capture liquids. There are no details provided on how collected liquids will be managed and disposed of / discharged in the EARD.
- The EARD identifies surface water drainage control features including a French drain system and newly installed First Defence-type system. The location and elements of this system are not represented within the site drawings (Appendix A).
- In section 9.2, the EARD identifies a surface water drainage system at the east boundary of the property, located along the eastern extent of the property between the subject site and the neighbouring property owned by Cherubini's Metal Works.
- Appendix B (Legal Survey Plan) indicates that there is a 150; PVC culvert that discharges into Halifax Harbour. No details are provided, in the text or drawings, on the stormwater management planning indicating the connection of this culvert to the perimeter berm, French drain, or other described elements of the site's surface water drainage system. The connection of these surface drainage system elements should be confirmed, documented, and described. If the site's surface drainage system permits surface water drainage to Halifax Harbour, then the EARD has incorrectly assessed that marine surface water is not a VEC, and the proponent should provide further details, assessment of potential impacts, mitigation and residual impact assessment information to the Department.
- The proposed surface water management system is described in text (Section 5) as diverting surface runoff to an oil water separator. Drawings provided in Appendix A do not show the relative location or connection of the surface water drainage system to this unit. The EARD also does not provide sufficient information on anticipated precipitation volumes and site grading

such that it can be confirmed that one unit will function to manage flows for the entire site.

- Overfill protection proposed for truck loading rack, which has a single loading bay along with emergency shut-off switches to prevent contaminant discharges into surrounding waters and soils.
- Facility staff are proposed to be trained in spill response via internal and external resources via a third party and have developed a draft contingency and emergency response plan (Appendix H).
- The storm water management system is proposed to include "a valve that will isolate flow from the storm system during loading and unloading activities." (Section 9.2.2.1). The statement is unclear as to whether the entire stormwater system will be isolated prior to discharging the valve, or if a portion of the storm water system has an isolation valve. The section indicates that the spill would be adequately cleaned up prior to opening the valve. The EA Registration Document does not indicate whether the valve will be automatic or manually operated, and if a management plan developed to determine when it is appropriate to open the valve and release collected surface water. The EARD provides no details on how site clean up will be conducted and what criteria will be used to identify water may be permitted to flow again in the system.
- Liquid chemicals to be used or stored at the site are described in the document as waste oil, untreated waste water, lube oil, Paratherm heat transfer mineral oil, demulsifying agent (composed of alkyl benzenesulfonic acid, methyl alcohol, and sulfuric acid) and petroleum hydrocarbons (vehicle use). These chemicals could pose environmental hazards if accidentally discharged from storage / containment apparatus. The volume for untreated oils, recycled oils, untreated waste water, waste oil undergoing treatment, and Paratherm (totalling approximately 950,000 L)
- No discussion is provided related to local existing topography at the site with respect to surface water drainage.
- The proposed surface water management system indicates that the Site is to be appropriately graded to manage surface water runoff with flows diverted to an oil water separator, which includes use of perimeter soil berms. No details are provided on whether it is technically feasible to grade the property to manage all surface water runoff and discharge to the oil water separator. No details are provided with respect to the design storm event (e.g., 10-year return period) the surface water management system will be designed to manage prior overflow/spillway discharge.
- All treated wastewater is proposed to be discharged to the municipal wastewater infrastructure. The EARD does not identify if the local wastewater utility (Halifax Water) policy permits it to accept the proposed waste stream, or if industrial waste streams must meet any specified conditions.
- The proposed facility's ability to satisfactorily treat incoming waste oil is contingent upon incoming materials meeting the wastewater treatment system design parameters (Table 1, page 24). The EARD alludes to this requirement in section 5.3, Operations and Maintenance, under the first two of seven activities: Pre-delivery product analysis review, and Field level sampling and analysis. The EARD does not state that the proponent will reject proposed material shipments if the product analysis or field sampling/analysis reveals the presence of untreatable contaminants, or contaminants that cannot be adequately treated through the existing basic and advanced treatment steps and associated modules and process optimization.
- The draft Contingency and Emergency Response Plan does not address the possibility that the facility accidentally accepts materials bearing contaminants that it cannot treat
- The wastewater treatment process includes basic treatment, including one or more of 11 pieces of equipment, and advanced treatment, including one or more of five additional pieces of equipment. The process description does not provide any details on the methodology by which the facility (staff or process equipment, such as Programmable Logic Controllers) determines the appropriate selection of modular equipment, the order of their deployment, or whether

advanced treatment is required

- The EARD does not identify wastewater treatment performance requirements – that is, maximum acceptable concentrations for the parameters that it is designed to treat. By extension, the proposal does not identify means by which it will test treated water to determine if it meets these performance requirements – and if so, on what basis (continuously (in-flow samples), regularly (discrete samples), or on a more intermittent basis (e.g., audits).
- The application does not indicate if tanks, pipes, equipment, etc., undergoes periodic cleaning and, if so, where wastewater will be directed, how it will be managed, and where it will be discharged.
- The waste oil treatment process includes an optional step, demulsification. This step involves the addition of a demulsification agent to facilitate the separation of oil and water. One of two possible demulsification agents, "EZ-DMULSE", is characterized in Appendix M with hazardous ingredients of alkyl benzenesulfonic acid, methyl alcohol, and sulfuric acid. These materials are not listed in the Table 1, the "preliminary wastewater treatment design parameters".

Recommendations

Planning/Design Issues of Significant Importance
None Identified

Operational Issues / Other Permitting Processes

Insufficient information is provided to asses the impact of the proposed undertaking on surface water quantity and management. Therefore, the following recommendations are made:

- Completed site plans delineating and fully characterizing the described containment berm, oil water separator, and all stormwater management infrastructure should be provided to NSE for review and acceptance in advance of construction.
- Completed details of surface water (stormwater) management infrastructure and shall be designed by a qualified professional and provided to NSE.
- Provide confirmation that site outfall of surface water runoff management system, is to existing infrastructure, including ability of the existing infrastructure / ditches receive site runoff, agreement with infrastructure owner for use, and that the ultimate outlet is the Halifax Harbour.
- An erosion and sediment control plan should be developed by a qualified professional and submitted to NSECC review and approval prior to the start of construction and operation activities.
- Surface water management and mitigations shall be considered during future decommissioning. These considerations and plans shall be included in the proponent's plans submitted to NSE at the time of closure.
- New surface water management infrastructure (e.g., catchbasins, swales, oil water separators, berms) and existing infrastructure enhancements should be design by a qualified professional to reduce sediment and hydrocarbon loading from the Site. Spill containment areas that receive surface water runoff should be included as part of the submitted design package and their storage capacities considering surface water runoff and tank storage volumes in the case of a spill event. This infrastructure should include clean water diversions (e.g., berms) to direct non-site impacted surface water runoff away from the Project area. The proposed use of an isolation valve to prevent the system from discharging during loading and unloading activities should be included along with operation details. Pre- and post-development surface water runoff rates

should be considered in the design with the objective of a zero increase in peak discharge from the project development area. Outlet infrastructure should consider potential scour impacts to the receiving water environment. Final infrastructure design criteria, storm event sizing, operation and maintenance guide and effluent discharge concentration requirements should be developed and submitted to NSECC staff for review and approval prior to the start of Site construction.

- A surface water quality monitoring program should be developed to monitor discharge from the surface water management system and any appropriate sumps, spill containment areas, etc. collecting liquids at the Site. The contaminants of concern to be monitored should include appropriate hydrocarbon compounds and groups associated with asphalt cement, fuels, lubricants and heat transfer fluids that are proposed to be used at the Project site. The plan should include water quality monitoring requirements if a leak or spill should occur into the surface water management system to determine if the system can be opened and discharged allowed. This plan should be submitted to NSECC staff or review and approval prior to the start of construction of the proposed facility.
- The surface water runoff management system outfall receiving environment should be confirmed to be Halifax Harbour.
- The proposed facility operations are dependent upon excess heating oil system capacity to move fluids throughout its system of storage tanks, pipes, and treatment processes, but does not confirm that this “excess” capacity is guaranteed. Should the facility need to supplement the existing heating oil system capacity due to the elimination or reduction of the current excess capacity, then it should consult NSECC to determine the need for amending or additional authorizations.
- Successful facility operations are also dependent upon the successful integration and operation of a network of associated mechanical, electrical, and computational equipment – pumps, hoses, valves, floats, alarms, radar systems, and a programmable logic controller, to name a few. The design, calibration, installation, commissioning, and regular maintenance of this system should be performed solely by qualified personnel, and using parts certified by appropriate standards organizations.
- The proponent should develop and submit a list of minimum wastewater treatment performance requirements to municipal (wastewater utility), provincial, and federal regulators to ensure their satisfaction that wastewater discharged from the proposed facility will not endanger utility infrastructure, utility system performance, or receiving environments of utility wastewater treatment facilities (e.g., Halifax Harbour).

Native Council of Nova Scotia

The Self-Governing Authority for Mi'kmaq/Aboriginal Peoples residing Off-Reserve in Nova Scotia throughout traditional Mi'kmaq Territory

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Rural & Native Housing Group

Aboriginal Peoples Training & Employment Commission (APTEC)

Netukulimkewe'l Commission

Wenjikwom Housing Commission

Social Assistance Recipient Support for Employment & Training (SARSET)

Micmac Language Program

Native Social Counselling Agency

Child Help Initiative Program (CHIP)

E'pit Nuji Ilmuet Program (Prenatal)

Reaching Home Indigenous Program

Parenting Journey Program

Youth Outreach Program

Mi'Kma'ki Environments Resource Developments Secretariat (MERDS)

Aboriginal Connections in Trades & Apprenticeship (ACITA)

May 8, 2021

Vice President
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RE: Registration Document, Waste Oil Recycling and Water Treatment Facility Project, Dartmouth, Nova Scotia

The Native Council of Nova Scotia was organized in 1974 and represents the interests, needs, and rights of Off-Reserve Status and Non-Status Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples continuing on our Traditional Ancestral Homelands throughout Nova Scotia as Heirs to Treaty Rights, Beneficiaries of Aboriginal Rights, with Interests to Other Rights, including Land Claim Rights.

The Native Council of Nova Scotia (NCNS) Community of Off-Reserve Status and Non-Status Indians/Mi'kmaq/Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact, or affect the sustainable natural life ecosystems or natural eco-scapes formed as hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near-shore, mid-shore and off-shore waters, to list a few, with their multitude of in-situ biodiversity.

Our NCNS Community has continued to access and use natural life within those ecosystems and eco-scapes where the equitable sharing of benefits arising from projects and undertakings serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, with respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in the part of the Mi'kma'ki now known as Nova Scotia

Preliminary interviews with off-reserve members that reside in the Dartmouth and Guysborough Area have consolidated into three major concerns regarding the project at the present time. These concerns include: odour which is expected to be produced and dispersed by the facility, the proximity of both wastewater and "waste oil" to Halifax Harbour, and the lack of communication with off-reserve Status and Non-Status Section 91(24) Aboriginals Peoples.

Upon review of the Registration Document, we find that the information regarding the intensity and dispersion of odour produced by the facility to be deficient. There is a notable lack of a given measurement regarding the intensity of odour the facility will produce, and that current mitigation measures will fail to capture. Only a brusque statement within the Registration Document exists that states "no off-site odour impacts are anticipated as a result of this project." With the "activated carbon filters" intended to be used as the final mitigation measure to detain odour only being 90% effective, in addition to the exceedingly close proximity to residential area, including: a dog park, pizza shop, and residential housing all within 150m of the proposed facility; we find the proclamation that there will be no impacts produced by odour to be farfetched and in need of reassessment.

The proximity of the 6 proposed 90,000L exterior storage tanks, meant to contain "waste oil," relative to the Halifax Harbour is of particular concern to our community. Within the registration document, the proponent fails to define the physical attributes, or type of "waste oil" that is intended to be recycled. Due to this lack of differentiation or definition, it is impossible to quantify the potential effects, or area of effect, in the event of chemical spill of any kind. With the current information given, there is no method by which to predict how the "waste oil" will interact with ground water, or the severity of a spill if the "waste oil" enters Halifax Harbour through surface-ground water interaction, or by any other vector.

More alarming than the lack of definition regarding "waste oil" meant to be processed by the facility, is the lack of any meaningful emergency spill management plan for any chemical that will be held on site. This lapse of any pre-existing spill management plan is only highlighted by the proponent's convoluted, disorganized, and mislabelled appendices that claim to hold such plans, but in reality, do not. Referenced in section 5.9 of the Registration Document, it is stated that:

> A Draft project-specific Emergency Response and Contingency Plan (ERCP) for unplanned events has been prepared, and is presented in Appendix I. This will include spill management and response procedures to prevent and respond to spills. (p. 38)

The ERCP, which is actually held in Appendix H, then states:

> If a spill occurs, the Facility Manager or Designate (Response Commander) shall assist at the incident scene and take whatever steps deemed necessary to contain the spill. Consult the Safety Data Sheet (SDS) if necessary (Appendix D). (s. 7.4.1)

Punctuated by another mislabelled appendix, the SDS's are actually held in Appendices C and M.

The only SDS's that are given in Appendices C & M are for heating oil and the acids required to process "waste oil," and for water treatment. Though the SDS's for these *selected* chemicals are provided, we find the information and instructions held within too deficient to serve as meaningful spill management plans. The sparse information provided by these documents instruct that "in case of transportation emergency or product spill, contact: In Canada – Canadian Transport Emergency Centre" within 24 hours of a spill. In the case of an acid spill, the SDS's provide instruction on "leak and spill procedures" exclusively on land. The lack of any meaningful pre-existing spill management plan dissuades the facility and its staff from being prepared for a potential spill of any kind. The proposed facility is situated that at any time, once operational, to contain a maximum of 540,000L of "waste oil." We find it a severe oversight on the part of the proponent that no substantial spill management plan is in place for any chemical that is to be held on site, and that there is the unconditional absence of plan for a "waste oil" spill.

We would like to assert that as heirs to treaty rights and beneficiaries of Aboriginal rights, there is indeed an obligation to consult with the Native Council of Nova Scotia and our communities, just as there is an obligation to consult with the Indian Act Bands. While the Office of Aboriginal Affairs continues to neglect its obligations to the NCNS, we would like to draw your attention to the Proponents' Guide: The Role of Proponents in Crown Consultation with the Mi'kmaq of Nova Scotia, produced by the Office of Aboriginal Affairs (2012). Within this guidance document, it is clearly outlined that an essential first step in a proponent's engagement process with the Mi'kmaq of Nova Scotia should be to "contact the Native Council of Nova Scotia." We hope that future dealings with Envirosoil Limited and Dillon Consulting, that your organizations will go above and beyond the superficial recommendations of the Office of Aboriginal Affairs and include the NCNS where these sorts of consultations are necessary.

Going Forward To
A Better Future

Director of Intergovernmental Affairs Habitat Impact Assessment Manger

Cc: Chief and President, NCNS
Commissioner, Netukulimkewe'l Commission
Board of Director, Dartmouth Area

References cited:

Office of Aboriginal Affairs, 2012: Proponents' Guide: The Role of Proponents in Crown Consultation with the Mi'kmaq of Nova Scotia; Office of Aboriginal Affairs, 3 p.