

## Comment Index

### Temporary Material Staging Facility

Publication Date: March 20, 2024

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| 1      | Maritime Aboriginal Aquatic Resources Secretariate | February 29, 2024 |

## Human Health Considerations in Impact Assessment

Health Canada (HC) provides the following generic considerations for evaluating human health impacts in environmental/impact assessment (EA/IA). Please note that this is not an exhaustive list of human health concerns that may result from projects, and that issues will vary based on project specifics. Please also note that HC does not approve or issue licenses, permits, or authorizations in relation to the IA. HC's role in Impact Assessment is founded in statutory obligations under the Canadian Impact Assessment Act, and its knowledge and expertise can be called upon by reviewing bodies (e.g., Impact Assessment Agency of Canada, review panels, Indigenous groups and/or other jurisdictions). In the absence of such a request from one of the above noted groups, HC is unable to carry out a comprehensive review of the project. However, HC is able to accommodate specific requests for human health advice and guidance related to provincial environmental assessments within a reasonable timeframe.

HC currently possesses expertise in the following areas related to human health: air quality, recreational and drinking water quality, traditional foods (country foods), noise, and methodological expertise in conducting human health risk assessment. Based on Health Canada's "Guidance for Evaluating Human Health Impacts in Environmental Assessment", please consider the following information on these topics to assist in your review.

|  | Consideration   | Reference Document  |
|--|---|---|
| <b>Receptor Location(s)</b>  |   |   |
| Please ensure the registration document clearly identifies the locations of all receptors that may be impacted by the proposed project, including any receptors located along the transportation route, if applicable. | <ul style="list-style-type: none"> <li>It is important to clearly describe the location and distance from the proposed site(s) to all potential human receptors (permanent, seasonal or temporary), taking into consideration the different types of land uses (e.g. residential, recreational, industrial, etc.), and identifying all vulnerable populations (e.g. in schools, hospitals, retirement or assisted living communities). Note that the types of residents and visitors in a particular area will depend on land use, and may include members of the general public and/or members of specific population subgroups (Indigenous peoples, campers, hunters, etc.)</li> <li>If there is the potential that project-related activities could affect human receptors, impacts to human health should be considered.</li> </ul> | <p><i>Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.</i></p> <p><a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf</a></p> |

| <b>Atmospheric Environment</b>  |  |  |
|---|--|--|
| <p>Project impacts to the atmospheric environment include changes to air quality and noise, and can occur in both the construction, operation and decommissioning phases of the project. Project impacts to air quality are commonly caused by emissions from equipment or vehicles as well as by dust. Noise impacts are commonly caused by equipment as well as by activities such as blasting.</p> | <ul style="list-style-type: none"> <li>• If there are receptors that could be affected by project-related activities, impacts to the atmospheric environment should be considered. Changes to the atmospheric environment that may impact human health include: <ul style="list-style-type: none"> <li>○ impacts to air quality (dust or fumes including PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub>, PAHs)</li> <li>○ increased noise from construction or operations</li> </ul> </li> </ul> | <p><i>Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario</i><br/> <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf</a></p>                                    |
|   | <ul style="list-style-type: none"> <li>• If there are receptors who could be impacted by project-related noise, it may be necessary to inform receptors prior to loud activities, such as blasting.</li> </ul>   | <p><i>Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.</i><br/> <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf</a></p>                             |
|   | <ul style="list-style-type: none"> <li>• If there is the potential for impacts to human receptors from noise and/or air quality changes from the project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.</li> </ul>  |  |
| <b>Recreational and Drinking Water Quality</b>  |  |  |
| <p>The proponent should consider whether any nearby waterbodies are used for recreational (i.e. swimming, boating, or fishing) or drinking water purposes, as well as whether there are any drinking water wells in the area potentially impacted by the project. Nearby drinking and/or recreational water quality may be impacted by</p>  | <ul style="list-style-type: none"> <li>• If there is the potential for impacts to drinking and/or recreational water quality from the project site, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.</li> </ul>  | <p><i>Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.</i><br/> <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf</a></p> |

|  |   |  |
|--|---|--|
| <p>accidents or malfunctions, such as a fuel spill; by dust and increased sediment runoff; and by other chemical discharges to the environment. Additionally, wells in the area potentially impacted by the project may be impacted by activities such as blasting.</p>  | <ul style="list-style-type: none"> <li>• The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact drinking and/or recreational water quality. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all recreational and drinking water users in the impacted area as well as all relevant authorities.</li> <li>• In some cases, for projects that are likely to have an impact on drinking and/or recreational water quality, the proponent should consider conducting water monitoring prior to the start of the project (to establish a baseline). Monitoring would continue throughout the construction, operation and decommissioning phases of the project (as applicable) to monitor for any changes in water quality or quantity.</li> </ul> |  |
| <b>Country Foods</b>   |   |  |
| <p>If there are plants or animals present in the area potentially impacted by the project that are consumed by humans, there may be potential for impacts to country foods. The proponent should consider all country foods that are hunted, harvested or fished from the area potentially impacted by the project. Impacts to country foods may occur from the release of contaminants into soil or water (including from an accident or spill) or from deposition of air borne contaminants.</p> | <ul style="list-style-type: none"> <li>• If there is the potential for impacts to country foods from the proposed project, the proponent should consider establishing mitigation measures. If complaints are received additional mitigation measures may be required.</li> <li>• The proponent should consider preparing a response plan in the event of an accident or malfunction with the potential to impact country foods. Response plans should include a spill response kit, adequate spill response training, and a communication plan to notify all potential consumers of country foods in the impacted area as well as all relevant authorities.</li> </ul>  | <p><i>Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.</i><br/> <a href="https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf">https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf</a></p> |

For more information on HC's guidelines for evaluating human health impacts in environmental assessments, please see:

*Health Canada. 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: **Noise**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario*

[https://publications.gc.ca/collections/collection\\_2024/sc-hc/H129-54-3-2023-eng.pdf](https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-3-2023-eng.pdf)

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a noise environmental assessment are completed.

*Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Air Quality**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.*

[https://publications.gc.ca/collections/collection\\_2024/sc-hc/H129-54-1-2023-eng.pdf](https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-1-2023-eng.pdf)

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of an air quality environmental assessment are completed.

*Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Drinking and Recreational Water Quality**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.*

[https://publications.gc.ca/collections/collection\\_2024/sc-hc/H129-54-2-2023-eng.pdf](https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-2-2023-eng.pdf)

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a water quality environmental assessment are completed.

*Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Country Foods**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.*

[https://publications.gc.ca/collections/collection\\_2024/sc-hc/H129-54-5-2023-eng.pdf](https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-5-2023-eng.pdf)

Appendix A of this guidance document provides a checklist that may be beneficial in verifying that the main components of a country foods environmental assessment are completed.

*Health Canada. 2023. Guidance for Evaluating Human Health Effects in Impact Assessment: **Human Health Risk Assessment**. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.*

[https://publications.gc.ca/collections/collection\\_2024/sc-hc/H129-54-6-2023-eng.pdf](https://publications.gc.ca/collections/collection_2024/sc-hc/H129-54-6-2023-eng.pdf)

Appendix B of this guidance document provides a checklist that may be beneficial in verifying that the main components of a human health risk assessment are completed.

## Agriculture

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Date: February 20, 2024

To: Jeremy Higgins, Environmental Assessment Officer

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

Subject: Temporary Material Staging Facility  
Dartmouth, Halifax County, Nova Scotia

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

No agricultural impacts are anticipated given that:

- The land within the proposed project area is made up of commercial and residential zones.
- There is no agricultural activity or land suitable for agricultural activities within 5 km of the proposed project area.

**From:** [Flanagan, Jason \(TC/TC\)](#)  
**To:** [Higgins, Jeremy W](#)  
**Cc:** [Ginn, Melissa](#); [Poirier, Sylvie \(TC/TC\)](#); [Macisaac, Lisa](#); [Tyler Boutilier](#); [Lane, Stuart](#)  
**Subject:** Updated TC response: \*\*For Review\*\* 24-EA-024 Temporary Material Staging Facility - EA  
**Date:** March 1, 2024 8:51:25 AM  
**Attachments:** [image002.jpg](#)  
[image003.jpg](#)  
[image004.png](#)

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**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

Exercice caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

UNCLASSIFIED / NON CLASSIFIÉ

Hi Jeremy,

Please be advised that the Proponent has provided clarification to Transport Canada's Navigation Protection Program (NPP) regarding this proposed project and it has been determined that an approval under the *Canadian Navigable Waters Act* (CNWA) for this project is NOT required.

Thanks again for the chance to review and provide comment.

**J. Jason Flanagan, M.Sc.**

Senior Environmental Advisor  
Environmental Programs and Indigenous Relations  
Transport Canada, Atlantic Region  
[jason.flanagan@tc.gc.ca](mailto:jason.flanagan@tc.gc.ca) | Tel. : 506.227.8257 | TTY: 1.888.675.6863

Conseiller principal en environnement  
Programmes environnementaux et Relations Autochtones  
Transports Canada, Région de l'Atlantique  
[jason.flanagan@tc.gc.ca](mailto:jason.flanagan@tc.gc.ca) | Tél. : 506.227.8257 | ATS: 1.888.675.6863

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**From:** Flanagan, Jason (TC/TC)  
**Sent:** Thursday, February 22, 2024 1:51 PM  
**To:** Higgins, Jeremy W <[Jeremy.Higgins@novascotia.ca](mailto:Jeremy.Higgins@novascotia.ca)>  
**Cc:** Ginn, Melissa <[melissa.ginn@tc.gc.ca](mailto:melissa.ginn@tc.gc.ca)>; Poirier, Sylvie (TC/TC) <[sylvie.poirier@tc.gc.ca](mailto:sylvie.poirier@tc.gc.ca)>  
**Subject:** TC response: \*\*For Review\*\* 24-EA-024 Temporary Material Staging Facility - EA

UNCLASSIFIED / NON CLASSIFIÉ

Hi Jeremy,

A federal colleague of ours kindly advised us of this project currently under review by the Nova Scotia Environment and Climate Change (NS ECC), as we understand it is part of a greater project - the [Halifax Shipyard Land Level Expansion \(CIAR 83755\)](#) project - for which a review under Section 82

of the *Impact Assessment Act* (IAA) was completed by Transport Canada (TC) and other Federal Authorities.

We wanted you to be aware that TC has reviewed the Registration document and has determined that the mobile dock and unloading wharves related to the proposed locations of the material handling facility would require an approval pursuant to the *Canadian Navigable Waters Act*.

The application process can be accessed at the following link:

[External Submission Site for the Navigation Protection Program](#)

(create an account first if needed)

Additional guidance information and links for the NPP regulatory process can be found here:

*Canadian Navigable Waters Act*

<https://www.tc.gc.ca/eng/programs-632.html>

<https://www.tc.gc.ca/eng/canadian-navigable-waters-act.html>

Navigation Protection Program, Transport Canada

<http://www.tc.gc.ca/eng/programs-621.html>

NPP Contact coordinates:

**Navigation Protection Program | Programme de protection de la navigation**

Transport Canada - Atlantic Region / Heritage Court, 6<sup>th</sup> Floor, 95 Foundry Street, Moncton, N.B. E1C 5H7 |

Transports Canada - Région de l'Atlantique / Place Héritage, 6<sup>e</sup> étage - 95 rue Foundry, Moncton, N.-B. E1C 5H7

Tel | Tél. : 506-851-3113 / Fax | Téléc. : 506-851-7542

**Email / Courriel** : [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca)

tc\_eng\_rednewer



We are scheduled to speak to the Proponent this afternoon regarding the former project and will advise them of these requirements, however we would encourage you to also share this information with them for greater certainty. Also, for your awareness, there is likely no requirements under Section 82 of the IAA for this current proposed project.

Lastly, we generally get requests of this nature from NS ECC; however, we never received this project for review as far as we can tell. Regardless of what may have happened, all future requests for which you may seek TC specialist advice can be sent to our General Inbox at: ATL One Window / Guichet unique ATL [OneWindow-Guichetunique@tc.gc.ca](mailto:OneWindow-Guichetunique@tc.gc.ca)



**From:** [Higgins, Jeremy W](#)  
**To:** [Fitzpatrick, Allison](#)  
**Subject:** FW: Environmental Assessment comments for Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County, Nova Scotia  
**Date:** March 4, 2024 2:23:23 PM  
**Attachments:** [image001.png](#)  
[image003.png](#)  
[image004.png](#)

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**From:** Lewis, Beth J <[Beth.Lewis@novascotia.ca](mailto:Beth.Lewis@novascotia.ca)>  
**Sent:** Friday, March 1, 2024 2:36 PM  
**To:** Higgins, Jeremy W <[Jeremy.Higgins@novascotia.ca](mailto:Jeremy.Higgins@novascotia.ca)>; Tutty, Bridget R <[Bridget.Tutty@novascotia.ca](mailto:Bridget.Tutty@novascotia.ca)>  
**Cc:** Hernould, Alexandra S <[Alexandra.Hernould@novascotia.ca](mailto:Alexandra.Hernould@novascotia.ca)>  
**Subject:** RE: Environmental Assessment comments for Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County, Nova Scotia

Hi Jeremy,

Please note that CCTH has re-looked the comments we submitted to you on February 27 and has since revised them.

Upon further review, CCTH has no comments on this EA at this time. Please disregard the comments that were provided previously.

Thank you,  
Beth

Beth Lewis (she/her)  
Director, Special Places Protection  
Nova Scotia Department of Communities, Culture, Tourism, & Heritage  
Phone: (902) 229-5673



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**From:** Hernould, Alexandra S <[Alexandra.Hernould@novascotia.ca](mailto:Alexandra.Hernould@novascotia.ca)>  
**Sent:** Tuesday, February 27, 2024 3:30 PM  
**To:** Higgins, Jeremy W <[Jeremy.Higgins@novascotia.ca](mailto:Jeremy.Higgins@novascotia.ca)>  
**Cc:** Lewis, Beth J <[Beth.Lewis@novascotia.ca](mailto:Beth.Lewis@novascotia.ca)>; Cormier, John <[John.Cormier@novascotia.ca](mailto:John.Cormier@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Fedak, Tim <[Tim.Fedak@novascotia.ca](mailto:Tim.Fedak@novascotia.ca)>

**Subject:** Environmental Assessment comments for Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County, Nova Scotia

Hello Jeremy,

The Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County, Nova Scotia project's Environmental Assessment (EA) registration documents have been reviewed by staff at the Department of Communities, Culture, Tourism & Heritage (CCTH). Attached, you will find their comments.

The following individuals conducted the review:

Archaeology:

John Cormier, Coordinator, Special Places Protection

Dr. Katie Cottreau-Robins, Senior Curator, Archaeology

Dr. Tim Fedak, Curator, Geology, will not be commenting on this environmental assessment.

Yours very truly,

**Alex Hernould** (*she/her*)

Assistant Coordinator, Special Places Program

**Communities, Culture, Tourism, & Heritage**

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1747 Summer St., 2<sup>nd</sup> Floor

Halifax, Nova Scotia B3H 3A6

**P:** 902-220-8176

**E:** [Alexandra.Hernould@novascotia.ca](mailto:Alexandra.Hernould@novascotia.ca)

Date: February 27, 2024

To: Mark McInnis, Environmental Assessment Officer

From: Elizabeth Kennedy, Director, Water Branch, Sustainability and Applied Sciences Division

Subject: **Irving Shipbuilding Inc. Temporary Material Staging Facility, Halifax County, Nova Scotia**

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**Scope of review:**

This review focuses on the following mandates: surface water quality and wastewater management.

**List of Documents Reviewed:**

Environmental Assessment Registration Document (EARD) Submission

**Details of Technical Review:**

The EARD indicates that the dredge material removed from the bottom of Halifax Harbour will be saturated with water and that it will need to be dewatered prior to offsite disposal. Water released from the dredge material, called “elutriate water”, was characterized to identify any contaminants of potential concern. Several contaminants were found in elutriate water upon Day 0, and four contaminants exceeding applicable water quality guidelines remained in the elutriate water from both upper and lower sediment layers on Day 10 following runoff.

The results of acute toxicity testing performed on the elutriate water reportedly indicated that the elutriate was not acutely toxic.

Neither the acute toxicity results nor the laboratory certificates were provided to the Department for review, and it is recommended that they be submitted to confirm the reported results.

Elutriate water and stormwater will be discharged to the Halifax Harbour. Water samples were taken from the harbour to characterize the receiving environment, and to establish whether local ambient water quality or guideline concentrations should form the basis for compliance criteria. Only one sample was taken from waters adjacent to each prospective facility, on September 14, 2023, which cannot appropriately represent the average or range of water quality conditions in the Harbour. To better represent the receiving environment, additional water samples should be collected from the same sampling stations to supplement existing data and used to confirm or form the basis for revised compliance criteria.

The EARD, Water Discharge Criteria section describes a methodology whereby the discharge water will be tested at a 50 to 1 dilution and compared to regulatory guidelines (CWQG Aquatic Life Marine and NS Tier I EQS Marine Surface Water limits). This is unusual and incorrect practice.

Furthermore, it is proposed that treatment will only be required if discharge water, when diluted 50 times, exceeds the above-noted protection of aquatic life guideline values. This suggests that the proponent expects that treatment will be accomplished through dilution within a mixing zone. This is important because CCME guidance (Canada-wide Strategy for the Management of Municipal Wastewater Effluent, Technical Supplement 2 – Environmental Risk Management: Framework and Guidance) note that mixing zones are not intended to replace adequate water quality treatment, because dilution is not treatment.

To resolve the above, compliance limits and a requirement for regular sampling for substances of potential concern be calculated for use in any industrial approval that may be issued for this activity. These limits should be calculated in consideration of CCME guidance materials commonly used as reference material for calculating site-specific discharge limits. NSECC can provide guidance on requirements during the industrial approval stage. Specific considerations include:

- toxic, persistent and bioaccumulative substances are not permitted dilution within a mixing zone
- available dilution must consider background levels of substances already present in the receiving water
- for substances where background exceeds protection of aquatic life values, no dilution is permitted
- sampling and laboratory testing of discharge must include regular acute toxicity testing. The discharge is not permitted to be acutely toxic.

The EARD considered accidents, malfunctions, and unplanned events – but only two scenarios were addressed: the malfunction of heavy equipment, and the failure of sediment containment measures. Sediment containment measures could be strengthened by incorporating regular manual inspections for all reasonably foreseeable failure types (e.g., slumping and seepage), and through the development of a contingency plan to address unplanned events.

The EARD did not identify or consider the risk of material spillage and the associated risk of contaminant release from elutriate water into the harbour through material transfer. The proponent indicated that dredged materials will be loaded via heavy machinery from barges into the Halifax Harbour and placed into the material staging area (MSA). This material is expected to be very wet and the EARD implies that a full 10 days may be required to adequately dewater the sediment prior to its removal for final disposal.

Construction drawings presented for the two lots on which the facility may be built indicate that heavy equipment will be positioned on unloading wharves and will transfer dredge spoils from the barge/scow to large trucks positioned landward of the wharves. The EARD does not identify any risk of material loss, through spillage or otherwise, during any stage of material transfer (e.g., from barge to crane to truck to MSA). Given

the documented presence of contaminants in elutriate water it is important to ensure that contaminants are not released into Halifax Harbour. To mitigate against these risks, the proponent should develop and implement an approved erosion and sedimentation control plan, inclusive of routine TSS monitoring when appropriate.

The EARD indicated that the proponents intend to take steps to prevent against fuel leaks and spills. These plans may be enhanced by ensuring that related activities occur at a minimum of 30 metres from the shoreline so that releases will not enter the harbour:

- Fuel storage, refueling, and/or lubrication of equipment;
- Washing of machinery or equipment; and
- Storage of equipment, excavated/stockpiled materials, and potential contaminants.

### **Key Considerations:**

As limited information was provided to address potential impacts to surface water resources, the following considerations are offered to further mitigate against risks of impacts to these resources.

All laboratory certificates for water quality analysis and acute toxicity testing should be submitted to the Department for its review.

Additional water samples should be collected from the same sampling stations to supplement existing data and used to confirm the validity of compliance criteria already proposed, or to form the basis for revised compliance criteria.

Site-specific discharge limits should be calculated in consideration of an available mixing zone (in accordance with CCME and NSECC guidance). Undiluted elutriate water should be compared directly to these site-specific limits. (i.e., those proposed in the EARD or any others that may later be applied by the Department through an Industrial Approval).

Acute toxicity testing of undiluted elutriate water should be included as a regular component of compliance monitoring within an industrial approval which may be issued for the site.

If undiluted elutriate water does not meet calculated site-specific discharge limits or fails acute toxicity testing, treatment will be needed. Such treatment may be provided through temporary on-site facilities or at provincially licensed (off-site) wastewater treatment facilities. Note that elutriate water which may be partially diluted due to rainfall may be considered undiluted in this context.

To strengthen sediment containment measures already proposed, regular manual inspections for all reasonably foreseeable failure types (e.g., slumping and seepage) should be conducted, along with a contingency plan to satisfactorily address unplanned events.

To mitigate against the risk of contaminant release to the harbour through material transfer operations, the proponent should develop and implement an approved erosion and sedimentation control plan, inclusive of routine TSS monitoring when appropriate.

To ensure that potential contaminants are not released to the harbour, the following activities should occur at a minimum of 30 metres from the shoreline:

- Fuel storage, refueling, and/or lubrication of equipment;
- Washing of machinery or equipment; and
- Storage of equipment, excavated/stockpiled materials, and potential contaminants.

Date: February 27, 2024

To: Mark McInnis, Environmental Assessment Officer

From: Environmental Health Consultant EH&FS

Subject: **Irving Shipbuilding-Temporary Material Staging Facility, Halifax, Nova Scotia**

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**Scope of review:**

This review focuses on the following mandate: Environmental Health

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**List of Documents Reviewed:**

IRIVING SHIPBUILDING INC.- Environmental Assessment (EA) Registration -  
Temporary Material Staging Facility (TMSF)

**Details of Technical Review:**

The documents identify a number of potential contaminants which could have impact upon the assessment of Environmental Health effects. Most specifically, Section 2.8 highlights: “The potential air contaminant emissions of concern include primarily particulate matter (PM, including its common size fractions PM10 and PM2.5) from fugitive sources (e.g., material handling and storage), as well as combustion gas emissions such as carbon monoxide (CO), nitrogen oxides (NOX), and sulphur dioxide (SO2) from the combustion of fossil fuel by site equipment. There is also the potential for a low-level “mud flat” odour to be released from the sediments as they are first exposed to the atmosphere.”

Further in the documents under Sections 3.2.1 and 3.2.2.1, several volatile organic compounds and heavy metal contaminants are identified in both sediment and elutriate samples.

Although the actual site of the TMSF is industrial, there are commercial properties, including food service establishments within 150m of the site, and residential properties within 300m of the site.

The EA documents do not include any assessment of potential health impacts to these surrounding areas, failing to evaluate the potential for windblown dust, odor concerns, and tracking of potentially impacted materials from the site into these surrounding communities via heavy trucking. The EA documents also do not propose any mitigation measures to address the above, all of which can lead to, or pose potential health-based concern.

**Key Considerations: (provide in non-technical language)**

Potential impacts around air exposure pathways are of particular concern. Noting most specifically the potential migration of particulate matter, volatile organic compounds, and heavy metals from the site through general operation, heavy winds, or transportation of materials from the site, and their subsequent offsite Environmental Health impacts.

The documents do not contain sufficient evaluation or information of the above noted potential off-site Environmental Health exposure pathways, nor indication of potentially required mitigation measures to address them where deemed necessary.

These concerns should be considered in the design of the TMSF , or by instituting control measures and plans specific to the control of odorous compounds, dust migration through drying of onsite product, and mitigations of the potential tracking of materials from the site via heavy trucking and wheel tracking.



Date: February 28, 2024

To: Jeremy Higgens, Environmental Assessment Officer

From: Climate Change Division – Nancy Rondeaux

Subject: **Irving Shipbuilding Inc. Temporary Material Staging Facility, Halifax County, Nova Scotia**

---

**Scope of review:**

This review focuses on the following mandate: Climate Change Adaptation and Mitigation

**List of Documents Reviewed:**

Environmental Assessment Registration Document

**Details of Technical Review:**

Adaptation:

- *5.1.1 Climate Change and Extreme Weather* mentions that extreme precipitation events will be considered when developing mitigation measures, for example by sizing the water containment area and pump to handle a 25-year, 24-hour rainfall event. As the atmosphere has warmed, Intensity-Duration-Frequency (IDF) curves based on historical observations alone may not be adequate for infrastructure design.
- *5.2.1 Potential Effects* notes that the increased frequency and magnitude of extreme storms may impact the Project. However, the potential for coastal flooding at the site is not listed in the potential effects. There may be a risk of flooding at this low-lying site due to a sufficiently strong storm surge occurring at high tide.

Mitigation:

- The proponent mentions that emissions of combustion gases which would include Greenhouse gases, related to mobile equipment may occur during the construction of the containment cells during construction and during the placement of materials at the TMSF.
- The proponent asserts that emissions are not substantive given this is a temporary facility and therefore assessment is not carried forward. The proponent therefore does not propose mitigation actions to reduce the emission of combustion gases.

**Key Considerations: (provide in non-technical language)**

Adaptation:

- For designing stormwater infrastructure, we suggest considering using a climate change-adjusted IDF curve to help account for how intense precipitation events have already changed, rather than one based solely on historical observations. Environment and Climate Change Canada has made climate change-adjusted IDF curves available through the national climate data portal, ClimateData.ca. Using

the climate change-adjusted IDF curve for Halifax for the present period (2011-2040) would be suggested in order to appropriately account for the current hazard associated with high intensity rainfall.

- We suggest considering whether the potential for coastal flooding at the Project site presents a risk and consider appropriate flood mitigation measures.

Mitigation:

- Although the assessment that the quantity of combustion emissions expected is negligible is acceptable, it is recommended that the proponent proposes best mitigation practices for the use of mobile and construction equipment that help to keep greenhouse gases emissions minimal (e.g., minimizing idling, regular maintenance).



Ecosystem Management  
1 Challenger Drive  
PO Box 1006, P500  
Dartmouth, NS B2Y 4A2

February 29, 2024

*Our file    Notre référence*

24-HMAR-00024

Jeremy Higgins  
Environmental Assessment Officer  
Nova Scotia Environment and Climate Change  
1903 Barrington Street, Suite 2085  
Halifax, NS B3J 2P8

**Subject: Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax Regional Municipality – Environmental Assessment Registration Document**

Dear Mr. Higgins:

It is our understanding that on January 30, 2024, Irving Shipbuilding Inc. registered the Temporary Material Staging Facility Project, in Halifax Regional Municipality for environmental assessment, in accordance with Part IV of the *Environment Act*. The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received a request from Nova Scotia Environment and Climate Change on January 24, 2024 to provide comment on the Environmental Assessment Registration Document (EARD) for the aforementioned project. Based on our review of the EARD, please consider the following comments:

**Section 1.2.2 – Federal Legislation**

- Works, undertakings and activities that have potential to impact fish and fish habitat require review under the Federal *Fisheries Act*. Submit a Request for Review form to DFO to have this part of the project reviewed. Information can be found at this link:
  - <https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-004-eng.html>

**Section 2.3 Description of Project Components**

- Figure 3 and 4 – Clearly locate and describe all physical infrastructure that will be located below the OHWM.

**Section 3.4.1.2 Significance Threshold**

- Suggest deleting the bullets and revising to:
  - the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*;

- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.

#### **Section 3.4.2.2 Marine Fish and Fish Habitat**

- Second paragraph – Note that water at the site is still considered water frequented by fish.

#### **Section 5.2.2 Mitigation**

- To avoid and mitigate the potential for prohibited effects to fish and fish habitat, the Program recommends implementing the measures found on the following website:  
<https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>

The EARD has been reviewed to determine whether the proponent's proposal is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

Should the proponent's plans change or if they have omitted any information in their proposal, further review by the Program may be required. It remains the proponent's responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also the proponent's *Duty to Notify* DFO if they have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppe/contact-eng.html>). It remains the proponent's responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to their proposal.

If you or the proponent have any questions with the content of this letter, please contact Lisa MacIsaac at our Dartmouth office at 902-943-6401 or by email at [lisa.macisaac@dfo-mpo.gc.ca](mailto:lisa.macisaac@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Lisa MacIsaac  
A/ Senior Regulatory Review Biologist  
Fish and Fish Habitat Protection Program, Maritimes Region

Date: February 29, 2024

To: Jeremy W. Higgins, Environmental Assessment Officer

From: Nova Scotia Office of L'nu Affairs – Consultation Division; **Reviewed by Beata Dera, Director of Consultation**

Subject: **Temporary Material Staging Facility, Halifax County, Nova Scotia**

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**Scope of review:**

The following review considers whether the information provided will assist the Province in assessing the potential of the proposed Project to adversely impact established and/or asserted Mi'kmaw Aboriginal and/or Treaty rights.

**List of Documents Reviewed:**

Environmental Assessment Registration Document (EARD)

**Details of Technical Review:**

**6.1 Engagement Activities**

This section states that direct written communications were issued to First Nations communities that engaged with Irving Shipbuilding Inc. during the Federal process for the Land Level Expansion project. Communities were notified that a provincial EA could be filed in relation to the same project pertaining to temporary staging of dredged material on provincial land.

**Key Considerations:**

OLA acknowledges that Crown consultation with the Mi'kmaq of Nova Scotia was not required for the proposed Project.

OLA acknowledges the Proponent's previous engagement efforts with the Mi'kmaw of Nova Scotia for the Land Level Expansion project through the federal assessment process. OLA has no further comments at this time.

Date: February 29, 2024

To: Jeremy Higgins, Environmental Assessment Officer

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

Subject: **Irving Shipbuilding Temporary Material Staging Facility**

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**Scope of review:**

This review focuses on the following mandate: Surface water quality, air quality, & contingency planning

**List of Documents Reviewed:**

Temporary Material Staging Facility Project EA Registration Document

**Details of Technical Review:**

The location of the site is within a flood range vulnerable to extreme weather events especially to storm surge. The report does not give enough details which demonstrate that berms can support this kind of event and avoid a sudden release of dredge and/or elutriate into marine environment. Berm designs which demonstrate adequate resiliency to storm surges will need to be further reviewed by the Department during the operational approval application.

The information mentions the site will be constructed for a 1:25, 24-hour rainfall event (131 mm of rain over 24 hrs). The use of a 1:25 year rainfall event will be further reviewed by the Department during the operational approval application. Contingency planning may be required for larger rainfall events.

A contingency plan which follows the Nova Scotia Contingency Planning Guidelines is required for this type of facility.

It is unclear if there will be an ongoing sampling of the dredge material to ensure the parameters of concern are not changing / elutriate quality remains consistent. Clarity may be required by Department during the operational approval application.

The registration document mentions potential for dust and odours from the operation but does not consider them substantive. Please note that the Department may require measures be taken to address excessive dust and/or odours and will be considered during the operational approval application.

Please note that all dredge materials leaving the site must go to a site holding the appropriate approvals to accept this material.

The sampling plan intends to dilute the elutriate by a ratio of 50:1 prior to sampling against the CWQG (Canadian Water Quality Guidelines). Undiluted samples are required and corresponding limits for undiluted effluent must be determined. Further, parameters which are considered either Persistent and/or Bioaccumulative, as well as inherently toxic (PBiT) must meet CWQG guidelines, or a Departmental accepted alternative guideline, at the discharge point (undiluted).

If the project is recommended to proceed, Approval(s) pursuant to Part V of the Environment Act will be required prior to the commencement of construction and operation. Approval(s) are required in accordance with the Activities Designation Regulations under the following sections:

- 10(1) (c) a facility for the handling of soils containing a chemical or petroleum product which is located in a place other than where the soil originated or became contaminated;
- Further, the application lists details of potential treatment on site which may trigger under 21(2) The treatment or processing of wastewater and wastewater sludges is designated as an activity.

An application for approval under Part V of the Act, must include site plans and stamped engineered drawings intended for construction detailing the containment features and environmental controls. Financial Securities and insurance are also required as part of the submission for this activity. Further, the EA registration document mentions the potential "installation of temporary treatment skid". Specification of the treatment skid must be submitted to the Department during the operational approval application.

**Key Considerations: (provide in non-technical language)**

Further information is needed to demonstrate that the facility is designed adequately for potential storm tidal surge and heavy rain events. This would be anticipated to occur during the operational approval application.

An industrial operational approval will be required for this activity. The industrial operational approval application will require:

- A contingency plan
- Stamped engineered drawing intended for construction.
- Financial security and insurance
- Acceptable effluent limits and sampling plan

The industrial operational approval may also require that actions be taken to mitigate any dust or excessing odour issues.

**DATE:** February 29, 2024  
**TO:** Jeremy Higgins, Environmental Assessment Officer  
**FROM:** Christina Lovitt, Provincial Director of Planning  
**SUBJECT: IRVING SHIPBUILDING TEMPORARY MATERIALS STAGING FACILITY**

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**Scope of review:**

This review focuses on the following mandates: Statements of Provincial Interest and engagement with municipalities.

**Document(s) Reviewed:**

Registration Document

**Details of Technical Review:**

- The Irving facility is located on federal land and does not involve municipal zoning or municipal land use permit requirements.
- The proponent has posted a Public Notification of the Registration of the undertaking of the project and the requirement for Environmental Assessment. Contact information was included.

*Statements of Provincial Interest:*

- Drinking Water: No impact
- Agricultural Land: No impact
- Flood Risk: No impact
- Infrastructure: No impact
- Housing: No impact

**Key Considerations** (*provide in non-technical language*):

There is no outstanding information and/or conditions. All components considered under DMAH's areas of mandate have been adequately addressed.



Date: February 29, 2024

To: Jeremy Higgins, Environmental Assessment Officer

From: Department of Natural Resources and Renewables

Subject: **Irving Shipbuilding Inc – Temporary Material Staging Facility, Halifax County, Nova Scotia**

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**Scope of review:**

This review focuses on the following mandate: authorities and approvals required from land services; biodiversity; species at risk status and recovery; wildlife species; habitat management and conservation; geoscience; health and safety; mineral exploration; mineral development; abandoned mines openings; provincial parks; protected beaches; and subsurface energy.

**List of Documents Reviewed:**

**Land Services Branch:**

- Temporary Material Staging Facility Project EA Registration Document

**Forestry and Wildlife Branch; Wildlife Division:**

- EA registration documents and appendices, NSECC guidelines for review and Generic EA mitigation for wastewater treatment, desktop GIS review

**Details of Technical Review:**

**Land Services Branch:**

- The staging facility is not on Crown lands (under the administration and control of Natural Resources and Renewables), so no approvals/permits/ would be required.
- If the project scope changes to include Crown lands the Applicant will be required to apply to use or access the Crown lands.

**Forestry and Wildlife Branch; Wildlife Division:**

Human-wildlife Conflict:

- Osprey are commonly attracted to, and nest on poles associated with utility infrastructure (e.g. power, telephone, satellite, etc) where they occur near water, resulting in a need for mitigation. Such conflicts can be prevented if considered at the design and construction stage.

- The facility may experience nuisance wildlife issues with small mammals, raccoons, white-tailed deer, starlings, pigeons, or other species. Site security, cleanliness, waste management and other best practices can be effective in preventing many issues.
- Wildlife attracted to other artificial features, including open water sources, lighting, effluent, aggregate surfaces, piles, or slopes may involve species at risk (e.g. bats, common nighthawk) or other SOCI. Implementing a lighting schedule, monitoring the relative water characteristics between the effluent and the environment (e.g. temperature, velocity, organics), exclusion fencing around hazardous features, and other best practices can minimize interactions.

**Key Considerations: (provide in non-technical language)**

**Forestry and Wildlife Branch; Wildlife Division:**

Wildlife and Wildlife Habitat were not considered in the EARD as a Valued Component for which mitigation measures were provided to reduce environmental effects.

Wildlife conflicts can be reduced or eliminated through the development of the following:

- Personnel awareness and education of best practices to avoid human-wildlife conflict, and awareness of which species and interactions require reporting to project managers or environmental staff;
- Personnel awareness to consult NSDNRR to develop preventative measures prior to development where necessary (e.g., for Osprey, bats, etc), and mitigations to minimize conflict if human-wildlife conflicts arise during operation, decommissioning and remediation.

**Geoscience and Mines Branch:**

No comments.

**Regional Services Branch; Parks and Outreach Division:**

No comments.

**Subsurface Energy Development Branch:**

No Comments.

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Date: 28 February 2024

To: Jeremy Higgins, Environmental Assessment Officer

From: Department of Public Works, Environmental Services – Brent MacDonald, P.Eng.,  
Manager. *Brent MacDonald*

Subject: Irving Ship Building Inc – Temporary Material Staging Facility, Halifax County

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**Scope of review:**

This review focuses on the following mandate: Traffic Engineering and Road Safety

**List of Documents Reviewed:**

*Irving Ship Building Inc – Temporary Material Staging Facility*

**Details of Technical Review:**

The Proponent is proposing a marine operation, with the vast amount of work (dredging sediment collection and water containment) being completed on the Dartmouth Waterfront with this area being accessed from the harbour and materials mainly being shipped via barges.

- There are references to disposal of debris (including anticipated dredging volumes), but no corresponding truck volumes and transportation of water to approved site locations (when acceptable levels of concentrations are exceeded and cannot be released back into the harbour). The anticipated disposal route is Highway 111, but no additional details are provided other than disposal will be to an approved facility. Additionally, Section 3.1 states that “the scope of assessment also excludes the transportation of dewatered dredge sediments or possible collection water to their disposal location,” the proponent should provide more information about the disposal.
- In addition to the onsite workforce, it is anticipated that upwards of 20 truck drivers will be reporting to the site per day collecting dewatered dredge material and sorted C&D debris for off-site disposal. The proponent must confirm the truck size/type, route map and the location of the C&D site.
- If truck size and weights are large, or truck volumes are very frequent, this may result in impacts to provincial infrastructure (Highway 111 or any provincially owned roads beyond that which lead to the designated disposal locations). Any additional assessments, while they may not necessarily be required (i.e. potential needs for Special Moves, Working Withing Highway Right-of-Way, Spring Weight Restrictions, Route Assessment, etc.) can only be conclusively made once these additional details are provided.

- The EA states that the Temporary Material Staging Facility will be in place from the beginning of 2024 to the end of 2026. During this time, it is anticipated to be in active use for 8 to 12 months. During periods of inactivity, the facility will be cleared of dredged materials and debris and the facility will be temporarily closed as per Section 2.4.3. During operation, project activities may occur 24 hours a day, 7 days a week. Atlantic Street is Municipal as well as Pleasant Street, Halifax Regional Municipality must confirm if they can allow traffic on their road and intersection (it is not spring exempt). Afternoon traffic can be heavy here. The proponent should confirm if they intend on creating a road to bypass the municipal streets to access Highway 111 directly.

**Key Considerations:**

1. The proponent must provide additional information about the project's impact on provincial infrastructure such as: truck type/size and weight expected to be used in disposal, a route map and the name and location of the approved disposal site(s).
2. Provide sufficient information on disposal operations to determine if additional approvals are required (Special Moves, Working Withing Highway Right-of-Way, Spring Weight Restrictions, Route Assessment, etc.).
3. This project does not provide any environmental benefits to NSDPW.



## Fisheries and Aquaculture

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Date: February 29, 2024  
To: Jeremy Higgins, Environmental Assessment Officer  
From: Lesley O'Brien-Latham, Executive Director, Policy and Strategic Advisory Services  
Subject: Temporary Material Staging Facility, Halifax County

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### Scope of review:

The scope of this review follows the Department of Fisheries and Aquaculture's legislated mandate to develop, promote and support fishing, aquaculture, seafood processing and sportfishing in Nova Scotia.

### List of Documents Reviewed:

Temporary Material Staging Facility Project EA Registration Document

### Details of Technical Review:

Residual effects from the project's operations are expected to be reasonable as they are in line with the common types of activities that normally take place in the harbour.

Risks to commercial fishing or the supply of commercial valuable species are expected to be minimal as no licensed lobster harvesters' fish within the identified project area.

Potential adverse impacts on the aquaculture and rockweed harvesting industries are expected to be minimal, provided that monitoring and mitigation measures identified by the proponent are effectively implemented.

The proponent should be made aware of the [Fisheries and Coastal Resources Act](#), Provincial [Aquaculture License and Lease Regulations](#), Provincial [Aquaculture Management Regulations](#), and the [Nova Scotia Rock Weed Harvesting Regulations](#). In addition, the proponent should be directed to the [Site Mapping Tool - Government of Nova Scotia, Canada](#) for information on aquaculture operations within the area.

**Key Considerations: (provide in non-technical language)**

- There are a total of 2 rockweed leases and 3 aquaculture sites within 25km of the proposed project. Of these, 2 are marine shellfish sites, and 1 are land-based aquaculture facilities.
- The Department does not anticipate risks to commercial fishing or marine activities within the Department's mandate.
- The Department does not anticipate any risks to Nova Scotia's sportfishery.

Date: February 27, 2024

To: Jeremy Higgins, Environmental Assessment Officer

From: Air Quality Unit

Subject: **Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County**

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**Scope of review:**

This review focuses on the following mandate: Air Quality

**List of Documents Reviewed:**

Irving Shipbuilding Inc EA Registration Document

**Details of Technical Review:**

Irving Shipbuilding Inc is proposing to install a temporary material staging facility (TMSF) on provincial land on the Dartmouth waterfront (Woodside). The facility is required to manage material produced through proposed dredging activities. The dredging activity is part of a land levelling project to increase the capacity of the Halifax Shipyard to enable the fabrication, launching, and maintenance of the next class of CSC vessels that are being developed under the National Shipbuilding Strategy.

Approximately 330,000m<sup>3</sup> of sediments will be removed as part of this project. The sediments would be stockpiled at the TMSF to allow for some dewatering prior to being transported offsite to a landfill facility.

The proposed TMSF consists of two adjacent areas on the Dartmouth waterfront, the larger of which is adjacent to the Woodside Ferry Terminal. There are commercial properties within 150m of the site, including food outlets, and residential properties approximately 300m from the site. Within 1km of the site, there is a retirement home, Dartmouth General Hospital, and the Aviation Institute and the Ivany Campus of the Nova Scotia Community College.

The EA Registration Document (EARD) does not include an assessment of the potential impacts of air quality and odour from the proposed facility. However, the proposed operation has the potential to cause impacts from odour and windblown dust beyond the site boundary. Marine sediments are inherently odorous due to the anoxic decay of organic material, which can include industrial waste and sewage, that results in emissions of reduced sulphur gases. These gases are easily detected by humans at low concentrations. Should sediments be permitted to dry out, there is the potential for dust to be eroded by the wind and blown offsite.

The proponent has not indicated they will take a preemptive/proactive approach to odour and dust management as they have not provided any proposed mitigation methods for odour or windblown dust other than stating that:

*Minor emissions of particulate matter (particularly dust) and potentially some mudflat-like odour may occur until the sediment has been transported offsite, but those emissions would decrease as the surface of the sediment layer is exposed to wind (Irving Shipbuilding Inc EARD, 2024).*

The transfer of sediments from the harbour to the TMSF, the exposure of sediments to the atmosphere in the TMSF, and the transfer of sediments from the TMSF to trucks are all procedures that can result in the release of odorous compounds to the atmosphere.

**Key Considerations: (provide in non-technical language)**

The Air Quality Unit notes the following key considerations:

- It is unclear how the TMSF will be designed to limit the release of odorous compounds and prevent sediments drying out.
- It is unclear how truck loading operations will be planned to minimize any spillage on the surrounding surfaces (e.g. in the absence of proposed mitigation methods, such as wheel wash systems, loads being covered while in transport, etc.).
- It is unclear how odour and dust will be managed & mitigated (i.e. in the absence of odour & dust management plans with clear chains of responsibility for actions, including timely complaint resolution).



Date: February 27, 2024

To: Jeremy Higgins, Environmental Assessment Officer

From: Air Quality Unit

Subject: **Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County**

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**Scope of review:**

This review focuses on the following mandate: Noise

**List of Documents Reviewed:**

Irving Shipbuilding Inc EA Registration Document

**Details of Technical Review:**

Irving Shipbuilding Inc is proposing to install a temporary material staging facility (TMSF) on provincial land on the Dartmouth waterfront (Woodside). The facility is required to manage material produced through proposed dredging activities. The dredging activity is part of a land levelling project to increase the capacity of the Halifax Shipyard to enable the fabrication, launching, and maintenance of the next class of CSC vessels that are being developed under the National Shipbuilding Strategy.

Approximately 330,000m<sup>3</sup> of sediments will be removed as part of this project. The sediments would be stockpiled at the TMSF to allow for some dewatering prior to being transported offsite to a landfill facility.

The proposed TMSF consists of two adjacent areas on the Dartmouth waterfront, the larger of which is adjacent to the Woodside Ferry Terminal. There are commercial properties within 150m of the site, including food outlets, and residential properties approximately 300m from the site. Within 1km of the site, there is a retirement home, Dartmouth General Hospital, and the Aviation Institute and the Ivany Campus of the Nova Scotia Community College.

The EA Registration Document does not include an assessment of the potential impacts of noise from the proposed facility. The proponent indicates that project activities may occur 24 hours a day, 7 days a week, therefore there is the potential for noise from the proposed facility to impact neighboring residential and sensitive receptors.

The proponent has not provided any proposed mitigation methods for noise impacts other than stating that:

*The Project may interact with the socioeconomic environment through the release of noise and emissions from mobile equipment that will be used for constructing the TMSF and for the placement and transportation of the materials. Though unlikely due*

*to the distance between the Project-related activities and the nearest residential receptors (approximately 300 m), these interactions nonetheless have a limited potential to affect adjacent receptors. These interactions are not considered to be substantive, and the effects are anticipated to be similar to those of other industrial activities that currently occur within the area and therefore are not carried forward for further assessment (Irving Shipbuilding Inc EARD, 2024).*

When complaints be received by the Department, approval holders may be required to demonstrate compliance with the Guidelines for Environmental Noise Measurement and Assessment (GENMA) (2023) as amended from time to time. The permissible sound levels (PSLs) in GENMA (2023) refer to the cumulative noise impact experienced at receptor locations and vary by time of day and geographic location.

**Key Considerations: (provide in non-technical language)**

The Air Quality Unite notes the following key considerations:

- It is unclear how noise will be managed & mitigated (i.e. in the absence of a noise management plan with a clear chain of responsibility for actions, including timely complaint resolution).

**From:** [Wade, Suzanne \(ECCC\)](#)  
**To:** [Higgins, Jeremy W](#)  
**Cc:** [Wade, Suzanne \(ECCC\)](#); [Hingston, Michael \(il, lui | he, him\) \(ECCC\)](#); [Bartlett, Zachary \(il, le, lui | he, him, his\) \(ECCC\)](#); [Kydd, Lillianne \(ECCC\)](#); [Macisaac, Lisa \(she, her / elle, la\) \(DFO/MPO\)](#)  
**Subject:** FW: EA Registration -Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County (EAS# 24-NS-004)  
**Date:** March 4, 2024 10:43:48 AM  
**Attachments:** [image001.png](#)

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Hi Jeremy,

Environment and Climate Change Canada (ECCC) has reviewed the EIA Registration for a Temporary Material Staging Facility (TMSF) located at the Halifax Shipyard in Halifax, NS.

Proposed project activities include receiving dredged materials at the TMSF, where the material will be screened, sorted, and then stockpiled within the bermed management area to allow for dewatering, prior to final transport and disposal via truck to a provincially licensed waste facility. The proposed activities include dewatering dredged contaminated sediments at the Temporary Materials Staging Facility.

In Section 1.1.1, the Proponent states: *“Water that collects in the TMSF will be collected in a sump and pumped as required into a small water containment area for eventual discharge into the Halifax Harbour provided water quality monitoring results are within the acceptable parameters. If the water is identified as not meeting the discharge water quality objectives, it will be transferred to a provincially licensed wastewater treatment facility for further treatment, or a temporary onsite treatment skid will be installed.”*

In Section 2.4.2.1, the Proponent states that water will be tested as follows: *“Samples of the discharge water will be collected weekly along with harbour background samples. The discharge water will be diluted with background harbour water at a ratio of 50:1 to create a mixed sample that is representative of the conditions at the edge of the mixing zone. Both the mixed and background water will be submitted to a laboratory for testing. The compliance limit will be the CWQG Aquatic Life Marine (Long Term) and NS Tier I EQS Marine Surface Water limits (regulatory guidelines), except in instances where background levels are above these regulatory guidelines, in which case the compliance limit will become the background. If the mixed water quality exceeds the compliance limit, the water will immediately be re-tested. If the water results continue to show exceedances, the water will either be transported to a provincially licensed wastewater treatment facility, or a temporary treatment skid will be installed to treat the water prior to discharging to the harbour.”*

**ECCC offers the following comments:**

- More details on the planned water quality monitoring are necessary to assess potential impacts on the marine environment. Weekly sampling of the discharged water is not sufficient to prevent the release of deleterious substances to the marine environment.

Laboratory testing of a non-diluted water sample is required to accurately assess the water quality of the discharge water. Additional details are required on the parameters to be sampled. Based on the information provided in the registration document, it is unclear if confirmatory sampling is to take place prior to discharge to the marine environment. Clarification on proposed water discharge methodology is required to ensure water is not discharged prior to confirming appropriate thresholds are met.

- The triggers for requiring water treatment of the elutriate are unclear. The proponent notes re-testing will take place following a water sample exceeding the compliance limit. Clarification is required on the number of failed tests that would trigger water treatment on-site and/or off-site. Additional information is also requested on the proposed water treatment methods.
- The Proponent proposes to set compliance limits for water discharge to background levels in the Halifax Harbour when these background concentrations are observed to be greater than regulatory guidelines. Little information is provided on sampling locations, sample size, sampling frequency, sampling timing and location in relation to dredging activities, or parameters examined to establish these background levels. Establishing background conditions requires a more robust sampling program. The proposed practice of comparing discharge levels to background water quality conditions in the Halifax Harbour risks underestimating the impacts of discharged water on the receiving environment, remobilizing contaminants found in dredged sediments and potentially impacting fish and fish habitat.
- The Proponent should note all discharges from the site are subject to the federal *Fisheries Act*. Section 36(3) of the *Fisheries Act* prohibits the deposit of a deleterious substance of any type into 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 any such water. Every person is subject to the general prohibition, and it is every person's responsibility to avoid the deposit of deleterious substances to such waters or to such a 'place'. For further information, please consult "*Frequently asked questions: Fisheries Act pollution prevention provisions*": <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/fisheries-act-registry/frequently-asked-questions.html>

In Section 3.2.2.3, the Proponent states: "*Using a 50:1 mixing ratio, the maximum concentrations tested in the elutriate water samples, and recent samples taken from the Halifax Harbour, the expected water quality at the fringe of the mixing zone was estimated (Appendix B, Table 2). The results indicate that discharge water is below or analytically equivalent to the CWQG Aquatic Life Marine (Long Term) and NS Tier I EQS Marine Surface Water limits regulatory guidelines.*"

**ECCC Comment:**

The Proponent has applied a mixing zone in considering the impacts of the discharged water on the marine environment. Based on the Proponent's model, exceedances have been predicted at the edge of this mixing zone for certain contaminants. The Proponent has concluded exceedances for contaminants such as arsenic, copper, and benzo(a)pyrene are analytically equivalent when within 25% of background levels. The Proponent is requested to provide rationale to support this conclusion.

If you have any questions, please direct any further correspondence to ECCC's environmental assessment window for coordination at: [FCR\\_Tracker@ec.gc.ca](mailto:FCR_Tracker@ec.gc.ca).

Suzanne Wade

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**From:** Higgins, Jeremy W <[Jeremy.Higgins@novascotia.ca](mailto:Jeremy.Higgins@novascotia.ca)>

**Sent:** Wednesday, January 24, 2024 7:40 AM

**To:** Higgins, Jeremy W <[Jeremy.Higgins@novascotia.ca](mailto:Jeremy.Higgins@novascotia.ca)>

**Subject:** FW: EA Registration -Irving Shipbuilding Inc - Temporary Material Staging Facility, Halifax County - comments due Feb 29 2024

You don't often get email from [jeremy.higgins@novascotia.ca](mailto:jeremy.higgins@novascotia.ca). [Learn why this is important](#)

Date: February 28, 2024

To: Jeremy Higgins, Environmental Assessment Officer

From: Staff within Sustainability & Applied Science (Resource Management Unit), Nova Scotia Environment & Climate Change

Subject: EA Registration -Irving Shipbuilding Inc - Temporary Material Staging Facility

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**Scope of review:**

This review focuses on the following mandate: Sustainability & Applied Science - Resource Management Unit (including Hazardous Substances, Solid Waste Management, Contaminated Sites, Material Storage/Handling/Disposal)

**List of Documents Reviewed:**

Irving Shipbuilding Inc., Environmental Assessment (EA) Registration Temporary Material Staging Facility (TMSF) Woodside, Dartmouth, Nova Scotia, dated January 2024.

**Details of Technical Review:**

The following reviewer comments have been developed by technical staff within Sustainability & Applied Science (Resource Management Unit), Nova Scotia Environment & Climate Change:

- There is no mention in the EA registration document related to establishing baseline conditions (or post operation conditions) of the land-based portion of the site. Given the industrial nature of the location, site conditions would typically be assessed prior to project commencement to establish baseline conditions.
- There is no mention that processed dredge material would be sampled after it is dewatered to confirm that it meets the acceptance criteria of the chosen disposal/treatment facility.

As noted in EA Registration Document Appendix D Sediment Characterization Memo prepared by Dillion Consulting Limited, "*sampling method employed (drilling using spilt spoons) applies a bias to the grainsize of the collected sediments as the finer grained sediments tend to flow out from the collected materials.*" And "*The suitability for disposal of the sediments should be confirmed prior to their removal from the site.*"

Also, it is unclear why the proponent did not test for chlorinated solvents/ degreasers when the material is being taken from an area with a history of marine workshops.

- Separated Construction and Demolition (C&D) debris should be characterized to confirm that it meets the acceptance criteria of the chosen disposal/treatment facility.

C&D debris is noted as being present within the dredge material and will be separated prior to disposal (Section 1.0, page 1). This process is described as the screening of large debris that will be separately stockpiled within the MSA prior to shipment to a provincially licensed waste management facility. It is presumable that the C&D debris will be in the form of brick/concrete/asphalt, along with wood wastes (dimensional lumber/tree branches and trunks). Dimensional lumber is likely creosote or pressure treated and therefore subject to ban on its disposal at C&D debris disposal facilities, whereby warranting disposal at a second-generation landfill. Other forms of C&D debris can still be received at a C&D debris management facility.

- It is unclear if the geomembrane liner system will be monitored during operation to ensure integrity is maintained or how, during decommissioning, granular material beneath the liner, requiring transport off-site, will be characterized to confirm that it meets receiving site requirements (i.e. complies with soil re-location/re-use principals).

The EA Registration document states “*Geosynthetic liner (geomembrane) will be installed in the Material Staging Area and Water Containment Area to render them impermeable. The liner will be installed between layers of sand to protect it from damage. An upper layer of rock will be installed to provide a working surface for heavy equipment.*”

Decommissioning of the TMSF (section 2.4.3.2, page 14) notes that construction materials above the membrane liner that come into contact with the sediments and C&D debris would be shipped to an approved waste management facility, while the granular material beneath the liner would be reused off site. The material beneath the liner may be impacted by leachate from the sediments due to the liner being damaged by loaders and other equipment used within the TMSF.

- Fate of processed dredge material and C&D debris material for disposal at soil treatment facility or second-generation landfill has not been clarified in the context of project logistics and viability (i.e. financial, timeline, capacity of receiving facilities, etc.).

The dredging project would excavate ~ 330,000 m<sup>3</sup> of sediments that would be dewatered and then disposed at an approved land-based disposal facility (section 1.0, page 1). The discussion on sediment quality (section 3.2.1, page 21) identifies two possible disposal options as shipment to a soil treatment facility or a second-generation landfill. Though impacted soils are used as second-generation landfills as cover material, it is unclear if the following considerations have been incorporated into the proposed project:

- All seven landfills in NS dispose of ~ 400,000 tonnes of MSW per annum. Depending upon the sediment density, the sediment tonnage being

generated could exceed  $\frac{3}{4}$  of the MSW tonnage managed in the province annually (excavation, screening, and dewatering of the sediments is forecast to take 8-12 months).

- Due to the short timeframe that the sediments will be stockpiled in the containment cell, the presence of salts in the sediments could pose a potential risk to the biological function of the leachate treatment process.

Within the EA Registration Document, there does not seem to be a set timeframe or quantity that would render this facility as “temporary”, as the name of the project would imply.

- It is unclear if a project-specific analytical mixing zone model approach is appropriate to prevent undue environmental impacts on the marine environment or is acceptable to Department of Fisheries and Oceans (DFO), the regulatory authority for the receiving environment.

Water Discharge Criteria (Section 2.4.2.1, page 13) states “*To confirm there are no significant adverse effects on the local marine environment, the discharge water will be tested at a 50:1 dilution and compared to the CWQG Aquatic Life Marine (Long Term) and NS Tier I EQS Marine Surface Water limits (regulatory guidelines).*”

**Key Considerations: (provide in non-technical language)**

The Resource Management Unit notes the following key considerations:

- Project site baseline conditions have not been established.
- It is unclear how material for disposal (processed dredge material and C&D debris) will be categorized to confirm it meets acceptance criteria of chosen disposal/treatment facility.
- It is unclear how granular material beneath the liner, requiring transport off-site, will be characterized to confirm that it meets receiving site requirements (i.e. complies with soil re-location/re-use principals).
- Project logistics and viability considerations (timelines, capacity of receiving facilities, etc.) around sending large quantities of processed dredge material and C&D debris material for disposal at soil treatment facilities or second-generation landfills with limited capacities have not been included.
- Chlorinated solvents/ degreasers were not tested for even though the waste material will be taken from an area with a history of marine workshops.
- The timeframe for which the temporary facility will be operational has not been included.
- It is unclear whether the water discharge criteria project-specific analytical mixing zone model approach is appropriate to prevent undue environmental impacts on the marine environment and is acceptable within the regulatory framework of DFO.



# Maritime Aboriginal Peoples Council



The Maritime Regional Aboriginal Leaders  
Intergovernmental Council of Aboriginal Peoples  
Continuing to Reside on Traditional Ancestral Homelands

## Forums

- Leaders Congress
- MAPC Commissions/Projects
- MAARS Secretariate
- IKANAWTIKET SARA
- MAPC Administration

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February 29<sup>th</sup>, 2024

## Irving Shipbuilding

P.O. Box 9110, 3099 Barrington Street  
Halifax, Nova Scotia, B3K 5M7

### RE: Temporary Material Staging Facility Project

On behalf of the Native Council of Nova Scotia (NCNS), the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) is providing comments to the Environmental Assessment Branch of the Nova Scotia Department of Environment and Climate Change regarding the Environmental Assessment Registration Document (EARD) for the Temporary Material Staging Facility Project being undertaken by Irving Shipbuilding Inc.

At this time, MAARS and NCNS do not have any commentary to provide related to this proposed undertaking; however, we would like to be kept apprised to any developments or changes to the project.

We assert that the Off-Reserve Aboriginal Communities, as Section 91(24) Indians, are undeniably heirs to Treaty Rights and beneficiaries of Aboriginal Rights as substantiated by Canada's own Supreme Court jurisprudence. As such, there is absolutely an obligation to consult with the Off-Reserve Community through their elected representative body of the NCNS. The Crown's duty to consult with all Indians extends beyond that only with Indian Act Bands, or as through the truncated Terms of Reference for a Mi'kmaq Nova Scotia Canada Consultation Process.

For contextual purposes, 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 to reside 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 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 with their multitude of in-situ biodiversity. Our NCNS Community has continued to access and use the 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.

We appreciate the opportunity to engage with Irving Shipbuilding Inc. to discuss the Temporary Material Staging Facility Project. Now that we have made this important connection, we look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and non-Status, Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia.

Advancing Aboriginal Fisheries and Oceans Entities  
Best Practices, Management, and Decision-making

Habitat Impact Advisor, MAARS

Executive Director, MAARS & MAPC Projects

CC: Chief & President, Native Council of Nova Scotia