Registration document
Environmental Impact Assessment

Processing plants reopening
Shippagan, N.-B.

MSC project n° 22-38
February 2023

Document prepared for:

EMS Engineering Ltd.

PREFACE

EMS Engineering Ltd. wishes to reopen a fish processing plant and a shell waste processing plant that have been operated in the past. Facilities reopening will contribute to the commercial fisheries sector growth and create a positive impact on the local economy. To do so, it is foreseen that two (2) wells will be reused and both buildings will be improved to meet current Canadian Food Inspection Agency (CFIA) requirement for export to USA and Europe.

Reopening of the existing F.N. fisheries facility and existing Marine Extract facility include the reuse of two « waterworks with a capacity greater than fifty cubic meters (50 m^3) of water daily ». In the pass, these two industrial water wells have been operated to a capacity up to 350 gallons per minute (approximately 2291 m^3 of water daily) without undergoing an Environmental Impact Assessment (EIA) registration and review, which is not allowed nowadays. To comply with current regulatory requirements, the project must therefore be registered with the EIA Branch for review under the *EIA Regulation - Clean Environment Act* and is subject to a water supply source assessment (WSSA) that conforms to the most recent guidelines elaborated by the New Brunswick Department of Environment and Local Government (DELG).

MSC Multi-Service Consultants Inc. was retained by EMS Engineering Ltd. to prepare the EIA registration document that includes details of the proposed project, its potential environmental impacts, and how significant impacts may be addressed. This registration document is submitted in order to begin the regulatory review process and eventually conduct a WSSA to evaluate the water supply sustainability, to assess the water quality, and to evaluate potential impacts to existing water users. The WSSA will be done concurrently with the EIA review process by Craig HydroGeoLogic Inc. as soon as possible after the approval to proceed is given by the EIA Project Manager.

After an assessment of the existing environment features, potential environmental impacts, and proposed mitigation measures, the project is unlikely to have a significant environmental impact. MSC Multi-Service Consultants certifies that all of the information herein is true and accurate to the best of their knowledge and information sources available at the time of preparing the document. This EIA has been prepared for the sole benefit of EMS Engineering Ltd. Any use that a third party makes of this report, or any reliance or decisions made based on it, is the responsibility of such third parties. MSC Multi-Service Consultants takes no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

TABLE OF CONTENTS

PREFACE ..... **I**
LIST OF TABLES ..... **IV**
LIST OF FIGURES ..... **IV**
LIST OF ACRONYMS AND ABBREVIATIONS ..... **V**
1.0 THE PROPONENT **1**
1.1 Name of proponent 1
1.2 Principal proponent contact 1
1.3 Principal Contact Person for purposes of EIA 1
1.4 Property Ownership 1
2.0 PROJECT DESCRIPTION **2**
2.1 Project name 2
2.2 Project overview 2
2.3 Purpose, rationale or need for the undertaking 2
2.4 Project location 2
2.5 Siting considerations 4
2.6 Physical components and dimensions of the project 4
2.6.1 F.N. Fisheries facility *4*
2.6.2 Marine Extract facility *5*
2.7 Construction details 5
2.8 Operation details 6
2.8.1 F.N. Fisheries facility *6*
2.8.2 Marine Extract facility *6*
2.9 Maintenance details 7
2.10 Future modifications, extensions or abandonment 7
2.11 Documents related to the undertaking 7
3.0 DESCRIPTION OF THE EXISTING ENVIRONMENT **8**
3.1 Existing and historic land uses 8
3.2 Topography 9
3.3 Air quality 9
3.4 Wildlife and wildlife habitat 10
3.5 Migratory birds 10
3.6 Species at risk 10
3.6.1 Rare species – flora *13*
3.6.2 Rare species– fauna *13*
3.6.3 Location sensitive species *23*
3.7 Groundwater 23
3.8 Surface water 24
3.8.1 Flood risk *24*
3.8.2 Existing wetlands and watercourses *24*

3.9 Valued spaces and locations 25
3.9.1 Archaeological and heritage resources 25
3.9.2 Environmentally significant areas 26
3.9.3 Managed areas 26
3.9.4 Important bird areas 27
3.9.5 Protected natural areas 27
3.9.6 Ramsar sites 27
3.10 Aboriginal or treaty rights of the Aboriginal peoples 28
3.11 Lifestyle and quality of life 28
4.0 IDENTIFICATION OF ENVIRONMENTAL IMPACTS 29
4.1 Air quality 29
4.2 Migratory birds and species at risk 29
4.3 Groundwater 30
4.4 Surface water 30
4.5 Valued spaces and locations 31
4.6 Aboriginal or treaty rights of the Aboriginal peoples 31
4.7 Lifestyle and quality of life 31
4.8 Accidental events 32
4.9 Matrix synthesis 32
5.0 SUMMARY OF PROPOSED MITIGATION 33
5.1 Migratory birds and species at risk 33
5.2 Groundwater 33
5.3 Surface water 34
5.4 Aboriginal or treaty rights of the Aboriginal peoples 34
5.5 Accidental events 35
6.0 PUBLIC AND FIRST NATIONS INVOLVEMENT 37
7.0 APPROVAL OF THE PROJECT 38
8.0 FUNDING 38
9.0 SIGNATURE 38
10.0 REFERENCES 39

APPENDIX A – DOCUMENTS RELATED TO THE UNDERTAKING

APPENDIX B – AERIAL PHOTOGRAPHS

APPENDIX C – AC CDC REPORT

APPENDIX D – WSSA INITIAL APPLICATION

LIST OF TABLES

Table 1. Definition of terms or abbreviations used by species at risk protection organizations. 11

Table 2. Rare species of flora identified by AC CDC 13

Table 3. Rare species of fauna identified by the AC CDC 14

Table 4. Matrix synthesis of anticipated impacts 32

LIST OF FIGURES

Figure 1. Site location 3

Figure 2. Recent aerial view of the properties 5

Figure 3. Recent aerial view of the area 8

Figure 4. Topographic map (source: The Atlas of Canada) 9

Figure 5. Wind rose (source: Windy) 9

Figure 6. Flood Hazard Map (source: GeoNB) 24

Figure 7. Existing wetlands and watercourses map (source: GeoNB) 24

Figure 8. IBA within a 5km radius from the study site 27

LIST OF ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used in the present text:

ACCDC	Atlantic Canada Conservation Data Centre
CFIA	Canadian Food Inspection Agency
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DELG	New Brunswick Department of Environment and Local Government
EIA	Environmental Impact Assessment
ESA	Environmentally significant areas
IBBA	Important Bird and Biodiversity Areas
MBCA	Migratory Birds Convention Act
NBSARA	New Brunswick Species at Risk Act
SARA	Canada Species at Risk Act
TRC	Technical Review Committee
WSSA	Water Supply Source Assessment

1.0 THE PROPONENT

1.1 NAME OF PROPONENT

EMS Engineering Ltd. is the proponent of the project.

1.2 PRINCIPAL PROPONENT CONTACT

Mr. Eric Smith, President of EMS Engineering Ltd.

1.3 PRINCIPAL CONTACT PERSON FOR PURPOSES OF EIA

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1.4 PROPERTY OWNERSHIP

Property PID 20371266 is owned by F.N. Fisheries Ltd. and property PID 20552352 is owned by Marine Extract Ltd. Mr. Eric Smith is the owner of F.N. Fisheries Ltd and is authorize to represent Marine Extract Ltd. The proponent has obtained consent from Marine Extract Ltd. owner to proceed with the submission of the EIA registration document for review. Written consent was individually provided to the EIA Branch upon project registration.

2.0 PROJECT DESCRIPTION

2.1 PROJECT NAME

Processing plants reopening

2.2 PROJECT OVERVIEW

The proponent wishes to reopen a fish processing plant and a shell waste processing plant that have been operated in the past. The project includes the reuse of two (2) industrial water wells that had been run to a capacity up to 350 gallons per minute (approximately 2291 m^3 of water daily) without undergoing an EIA registration and review, which is not allowed nowadays.

2.3 PURPOSE, RATIONALE OR NEED FOR THE UNDERTAKING

The commercial fisheries sector is a vital component of the social and economic fabric of the province, particularly in many rural coastal communities. Reopening of the fish processing plant and shell waste processing plant is needed to contribute to the sector growth and create a positive impact on the local economy. Therefore, the project purpose is to bring the facilities into compliance with current regulations, which include going through the EIA review process, and improve both buildings to meet current CFIA requirement.

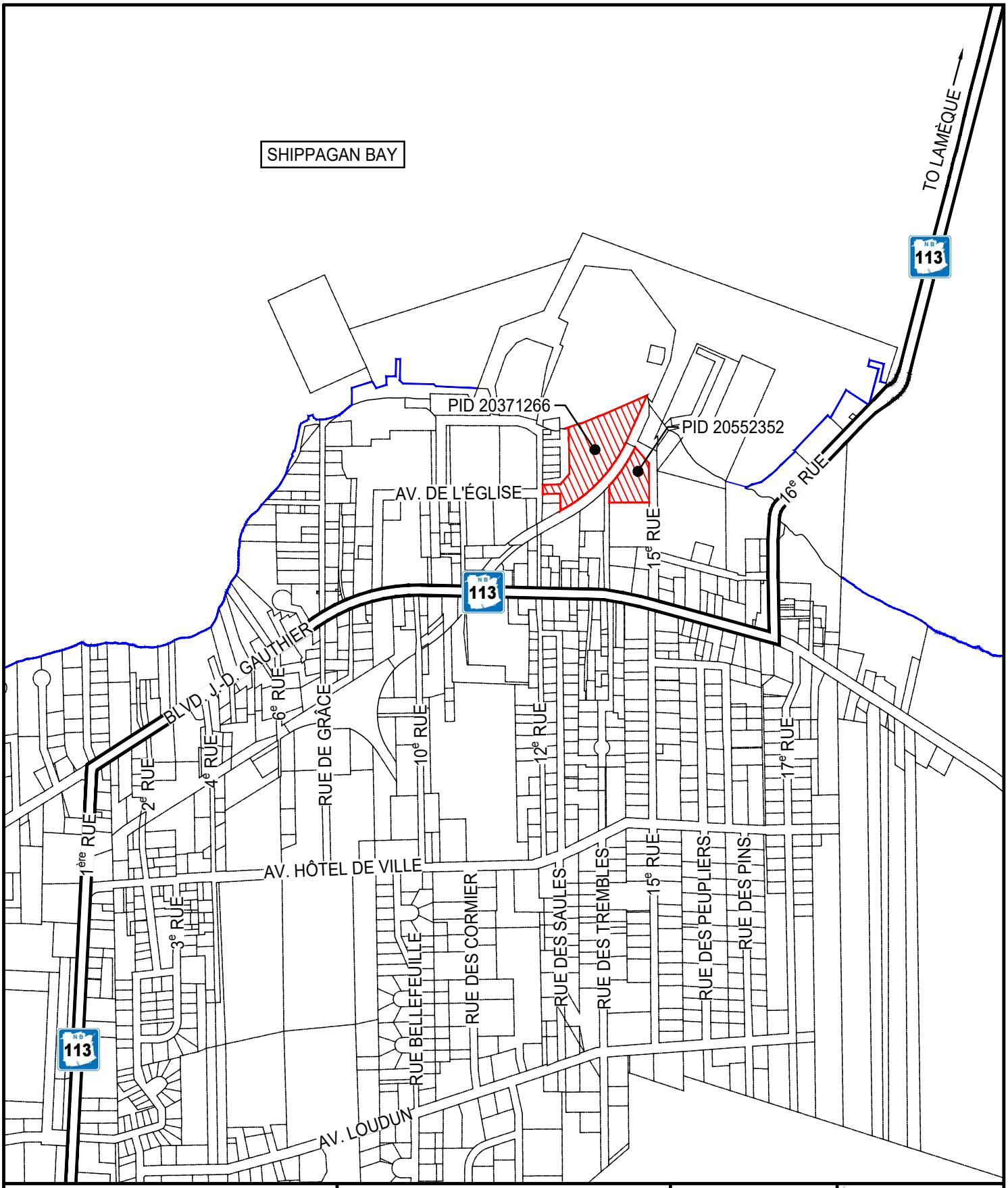
The consequences/results of not implementing the undertaking are the following:

- Loss of job creation benefits;
- Loss of local economy stimulation opportunity;
- Loss of growth opportunity in a vital sector for the province.

2.4 PROJECT LOCATION

The project is planned on parcels 20371266 and 20552352 if all required permits, licences and approvals are obtained following their own review process. The properties of 1.85ha and 0.46ha respectively are surrounded by the harbor parking lot to the north, a dry dock storage for commercial fishing boats to the east, unoccupied properties owned by International Seafood and Bait and Irving Oil Ltd. to the south and residencies to the west. A map indicating the location of the properties relative to well-known existing features is shown on Figure 1.

Parcel identification number (PID): 20371266 and 20552352
Street address: 99, 15e rue and 103, 15^e rue
Community name: Town of Shippagan
Parish: Shippagan
County: Gloucester
Latitude/Longitude: 47.74518080, -64.70475719 (estimated midpoint of the properties)



TITRE DU PLAN: SITE LOCATION (DRAWING TITLE)	EXPERT-CONSEIL: MSC CONSULTANTS (CONSULTANT)	NO. DE PROJET: 22-38 (PROJECT NUMBER)	ÉCHELLE: 1 : 10 000 (SCALE)
PROJET: EIA - FISH PROCESSING PLANTS REOPENING (PROJECT)		DESSINÉ PAR: A. DUGUAY (DRAWN BY)	VÉRIFIÉ PAR: M. BASQUE (CHECKED BY)
		DATE: JAN. 31, 2023 (DATE)	NO. DU PLAN: FIGURE 1 (DRAWING NUMBER)

2.5 SITING CONSIDERATIONS

F.N. fisheries facility and Marine Extract facility have been operated at their current location in the past under different name and ownership. The objective is to reopen both facilities at the same location and reuse existing installations. For that reason, no other alternative locations were considered during the site selection process.

The proposed location has the following favourable elements:

- The properties and facilities are owned by the proponent and are next to a harbour;
- The existing buildings have already been used in the past for seafood processing;
- Both facilities are connected to the New Brunswick power grid;
- Both facilities have an existing well and wastewater treatment system;
- The town of Shippagan is favourable to the facilities reopening; and
- The appropriate zoning is in place for the intended use.

Following the WSSA, the following additional considerations will also be examined:

- The ability of the wells to supply the water requirements for the intended use;
- The potential impacts to existing groundwater users in the area;
- The water quality;
- The sustainability of the water supply aquifer; and
- The risk to aggravate any existing or create new water supply problems.

2.6 PHYSICAL COMPONENTS AND DIMENSIONS OF THE PROJECT

2.6.1 F.N. FISHERIES FACILITY

The F.N. Fisheries facility would be reopened at its existing location on PID 20371266. The property has an area of 18 500 m^2 and is occupied by a main building of approximately 5 500 m^2. There are two (2) other significant buildings, one of 1 500 m^2 and one of 1 000 m^2. A few other small buildings of 200 m^2 or less are also located on the property. The rest of the land is covered by asphalt surface and grass. Figure 2 at the end of this section presents the most recent aerial view of the property.

The intend is to reopened the facility using existing components, which include the buildings, the wastewater treatment system, the well and the fuel oil storage tank. The wastewater treatment system consists of all discharge being filtered through two (2) external wire wedge screens 25 mesh then a three (3) secondary 25 mesh screens in a secondary filtering systems while the well has a diameter of 6 inches and is approximately 120 feet deep. However, in order to reopened the facility using existing components, all required permits/licences/approvals will be obtained, the main building should be improved and process equipment should be upgraded to meet current CFIA requirement for export to USA and Europe.

2.6.2 MARINE EXTRACT FACILITY

The Marine Extract facility would be reopened at its existing location on PID 20552352. The property has an area of 4 640 m^2 and is occupied by a building of approximately 3 800 m^2. The rest of the land is covered by asphalt surface and grass. Figure 2 below presents the most recent aerial view of the property.

The intend is to reopened the facility using existing components, which include the building, the wastewater treatment system, the well and the fuel oil storage tank. The wastewater treatment system consists of all discharge being filtered through an external wire wedge screens 25 mesh then two (2) secondary settling tanks and then a bio digester with a sludge tanker taking waste to peat composting facilities while the well has a diameter of 8 inches and is 120 feet deep. However, in order to reopened the facility using existing components, all required permits/licences/approvals must be obtained, the building should be improved and process equipment should be upgraded to meet current CFIA requirement for export to USA and Europe.

Figure 2. Recent aerial view of the properties

2.7 CONSTRUCTION DETAILS

The project will not include the construction or installation of any new infrastructure, roads, utilities or buildings on the properties. The improvements required to meet current meet current requirements, i.e. building renovations and process equipment upgrade, will be completed inside the buildings and will not involve ground disturbance by excavation on the properties.

2.8 OPERATION DETAILS

2.8.1 F.N. FISHERIES FACILITY

The F.N. Fisheries facility would mainly process lobster and snow crab, whose landing have been consistent over the past 30 years and sustainable. The focus would be more on secondary processing and securing additional shell fish by products from other local fish plants as well. Besides primary fish processing food grade flavoring products would be made from protein recovered and food grade material for chitin/chitosan products.

During operation, a maximum of 200 igpm (approximately 1310 m^3 of water daily) will be required for processing and plant cleanup chemical. This amount of water is required as a result of the facility significant production. Following their use, wastewater generated by the activities will be filtered through the existing wastewater treatment system and be discharge into the Shippagan Harbor. In terms of energy requirement to operate, the monthly electrical power consumption is estimated to 10 000$-20 000$ while the fuel oil consumption for heating and processing is estimated to 30 000 gallons.

Storage locations for the different processing stages can be resumed as follow: raw materials will be stored in tubs and bulk bags in receiving areas, intermediate products will be stored in tubs, finished products will be stored in plastic lined cardboard boxes and bulk bags while waste materials will be stored in plastic tubs and stainless-steel tanker trailers. Operation of the facility is expected to be by seasonal batch processing over a three (3) months period and require 200-400 employees. Working shifts are foreseen to be 1 shift, 10 hours per day, 6 days per week. Other then employee vehicle traffic, six (6) trucks are estimated to arrive and leave the site daily.

2.8.2 MARINE EXTRACT FACILITY

The Marine Extract facility would mainly process shell fish waste, mainly lobster and snow crab, whose landing have been consistent over the past 30 years and sustainable. The focus would be more on specialty chitosan and food grade chitin and chitosan, producing finished products for world markets based on patents and product development previously developed by its partners and investors.

During operation, a maximum of 200 igpm (approximately 1310 m^3 of water daily) will be required for processing and plant cleanup chemical. This amount of water is required as a result of the facility significant production. Following their use, wastewater generated by the activities will be filtered through the existing wastewater treatment system and be discharge into the Shippagan Harbor. In terms of energy requirement to operate, the monthly electrical power consumption is estimated to 10 000$-20 000$ while the fuel oil consumption for heating and processing is estimated to 15 000 gallons.

Storage locations for the different processing stages can be resumed as follow: raw materials will be stored in tubs and bulk bags in receiving areas, intermediate products will be stored in tubs, finished products will be stored in plastic lined cardboard boxes and bulk bags while waste materials will be stored in plastic tubs and stainless-steel tanker trailers. Operation of the facility is expected to be by batch processing year-around and require 15-25 employees. Working shifts are foreseen to be 3 shifts, 8 hours per day, 7 days per week. Other then employee vehicle traffic, three (3) trucks are estimated to arrive and leave the site daily.

2.9 MAINTENANCE DETAILS

The maintenance for both processing plant will include mowing the lawn, snow removal, buildings repairs and renovations (if required), and any other general maintenance activities for buildings. It will also include mechanical maintenance and repairs of the processing equipment at the season end, when needed to repair a breakage or as suggested by the equipment suppliers. Maintenance activities will be carried out by an employee, by a technician or by contract as required.

2.10 FUTURE MODIFICATIONS, EXTENSIONS OR ABANDONMENT

For the moment, the proponent did not plan to make any future modifications, enlargements or abandonment on the subject properties other than what is described in this document.

2.11 DOCUMENTS RELATED TO THE UNDERTAKING

A copy of documents in relation to the undertaking or the location where it will take place can be found in Appendix A. The documents provided are the following:

- Phase II & III ESA, Marine Extract Ltd., Pêcheries FN Fisheries Ltee/Ltd. and Eastpre Feeds Ltd. March 2020 report prepared by ACER Environmental Services (2015) Ltd.
- Correspondence previously received from the Town of Shippagan supporting the reopening of Pêcheries F.N. Fisheries Ltd. and Marine Extract Ltd. April 2021
- Report on FN Fisheries and Marine Extract Wells Suitability for Human Consumption Food Processing. September 2022 report prepared by Craig Hydrogeologic Inc.

3.0 DESCRIPTION OF THE EXISTING ENVIRONMENT

This section includes a description of all features that are either found at the proposed project site or are likely to be affected.

3.1 EXISTING AND HISTORIC LAND USES

In order to determine the historical land uses of the subject properties and adjacent lands, aerial photographs from 1963, 1974, 1985, 2002, 2012 and 2020 (see Appendix B) were obtained through the Department of Natural Resources and Energy Development. These photos show that the subject property and adjacent lands were used for residential, institutional, commercial and fishing industry related activities. It is also possible to observe on the aerial photograph of 1963 that the sector development has started and that the harbor sector is smaller. The comparison of the aerial photographs also shows that the study area has not undergone any major change since 1985. Figure 3 shows a recent aerial view of the subject property and adjacent properties.

Figure 3. Recent aerial view of the area

A search in the Land Gazette has confirmed that both properties are identified as a petroleum storage site and a former or currently impacted site. A petroleum storage site is a parcel of land that has, or had, a petroleum storage system situated on it, with an aggregate storage capacity of 2,000 liters or more. An impacted site is a property or collection of properties where the concentration of specified chemicals in air, soil or groundwater exceed levels considered acceptable by the DELG. In this case, the properties are impacted by a release of petroleum hydrocarbon from a petroleum storage system that was operated by Irving Oil Ltd. in the past on PIDs 20371894 and 20321311. The contamination starter prior to 1953 and was discovered in 1989 during a spill inspection by a DELG inspector. Up to date, no acceptable remedial action plan has been implemented to bring soils and groundwater back to potable water standards.

3.2 TOPOGRAPHY

The subject properties are located in the Town of Shippagan coastal zone and are adjacent to the Shippagan small craft harbour sector. The Shippagan Harbor is present approximately 15 meters from NID 20371266 and 90 meters from NID 20552352. The Figure 4 shows a topographic map of the properties and surrounding area. The topography of the sector is generally flat and causes a slow surface drainage. No significant slope has been identified nearby.

Figure 4. Topographic map (source: The Atlas of Canada)

The properties are predominantly covered by asphalt surfaces and buildings, which are impervious surfaces. It is therefor anticipated that surface water will flow towards the Shippagan Harbor to the northeast by overland flow or by storm drainage systems.

3.3 AIR QUALITY

There are no air quality monitoring stations in the area of Shippagan. The closest station is located in Bathurst, approximately 70km to the southwest. Based on the air quality monitoring results provided by the DELG for 2021, overall air quality in New Brunswick is good relative to provincial standards. No exceedance was recorded for any of the parameters monitored at the Bathurst station, which are ground level ozone, nitrogen dioxide and fine particulate matter.

There are no major industrial sources of emissions located near the subject properties and the community is considered rural with a low population density. However, fine particulate emissions during windy and dry days may be generated by peat harvesting operations nearby. The nearest peat bog is located approximately 3km northeast of the project area. The mains sources of atmospheric emissions come from home activities, vehicles, ATV, snowmobile and boat traffic. According to the wind rose diagram generated for the area, prevailing winds generally blows from the west and sometimes from the south (see Figure 5).

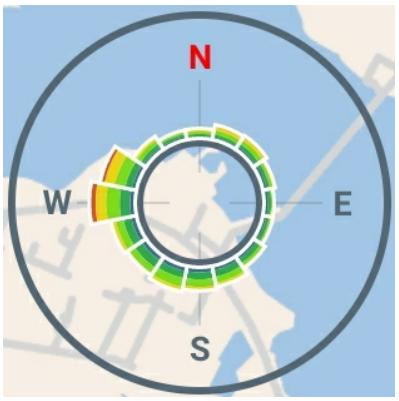


Figure 5. Wind rose (source: Windy)

It can therefore be concluded that the air quality is good based on the lack of major emission sources and the low population density. Moreover, because the subject properties are not located in a major urban centers, they are not exposed to many of the air quality issues associated with big cities (such as smog from heavy traffic).

3.4 WILDLIFE AND WILDLIFE HABITAT

The subject properties consist of cleared spaces with minimal vegetation (lawn) and are predominantly occupied by asphalt surfaces and buildings, which do not provide an adequate wildlife habitat. Moreover, the location is adjacent to the Shippagan small craft harbour sector and a provincial collector highway crossing downtown Shippagan. Adjacent properties have also minimal vegetation and are mainly occupied by businesses, residencies and institutions.

No sign of wildlife was encountered during visits in the sector. The project is therefore not anticipated to have an impact on wildlife and wildlife habitat.

3.5 MIGRATORY BIRDS

The proponent recognizes the importance of migratory birds and that "migratory birds" as defined in Article 1 of the Convention are protected under the *Migratory Birds Convention Act* (MBCA). The MBCA is an international legislation that provides migratory birds in Canada and the United States with protection from indiscriminate harvesting and destruction. In Canada, this law is administered by Environment and Climate Change Canada.

This law prohibits the disturbance, destruction, taking or possession of a migratory bird, migratory bird nest, egg, or nest shelter and the purchase, sale, exchange or gift of a migratory bird or its nest or make it the subject of a commercial transaction. In addition, the MBCA stipulates that 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. Also, no person or vessel shall deposit a substance or permit 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, if the substance, in combination with one or more substances, results in a substance that is harmful to migratory birds.

3.6 SPECIES AT RISK

The Species at Risk Act (SARA) is one part of a three-part Government of Canada strategy for the protection of wildlife species at risk. The objective of the Act is to prevent Canadian indigenous species, subspecies, and distinct populations from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, and encourage the management of other species to prevent them from becoming at risk. It applies to all federal lands in Canada; all wildlife species listed as being at risk; and their critical habitat. New Brunswick also adopted a SARA, which complements the federal law to effectively manage and protect species that are in danger of disappearing in the province.

In order to determine if species at risk are present near the subject property, a request to the Atlantic Canada Conservation Data Centre (AC CDC) was submitted to obtain a report containing detailed observation data for all species of conservation concern and a list of location sensitive species of conservation concern known within 5 km of the subject property. The COSEWIC, SARA and NBSARA conservation status as well as the sub-national rank for all species identified are also provided. A copy of the report obtained can be found in Appendix C. Table 1 defines the terms or abbreviations used by these species at risk protection organizations.

Table 1. Definition of terms or abbreviations used by species at risk protection organizations.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) definitions Source : https://www.cosewic.ca/index.php/en-ca/	
Extinct	A wildlife species that no longer exists.
Extirpated	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.
Endangered	A wildlife species facing imminent extirpation or extinction.
Threatened	A wildlife species that is likely to become an endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
Special Concern	A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.
Not At risk	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.
Canada Species at Risk Act (SARA) and New Brunswick Species at Risk Act (NBSARA) definitions	
Extirpated	A wildlife species that no longer exists in the wild in Canada (or in the province), but exists elsewhere in the wild.
Endangered	A wildlife species that is facing imminent extirpation or extinction.
Threatened	A wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.
Special concern	A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
Sub-national (« S-Rank ») definitions Source : http://accdc.com/en/rank-definitions.html	
Sub-national element rank definitions	
SX	**Presumed Extirpated -** Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH	**Possibly Extirpated -** Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
S1	**Critically Imperiled -** Critically imperiled in the province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.
S2	**Imperiled -** Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.
S3	**Vulnerable -** Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	**Apparently Secure -** Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5	**Secure -** Common, widespread, and abundant in the province.
SNR	**Unranked -** Provincial conservation status not yet assessed.
SU	**Unrankable -** Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA	**Not Applicable -** A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S#	**Range Rank -** A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4)
Breeding status qualifiers definitions	
N	**Nonbreeding** - Conservation status refers to the non-breeding population of the species in the province.
B	**Breeding** - Conservation status refers to the breeding population of the species in the province.
M	**Migrant** - Migrant species occurring regularly on migration at particular staging areas or concentration spots where the species might warrant conservation attention. Conservation status refers to the aggregating transient population of the species in the province.
?	**Inexact or Uncertain** - Denotes inexact or uncertain numeric rank. (The ? qualifies the character immediately preceding it in the S-rank.)

3.6.1 RARE SPECIES – FLORA

Four (4) rare species of flora have been identified by the AC CDC as occurring within a 5km radius from the midpoint of the subject properties. Table 3 below presents the species identified, its conservation status as determined by various species at risk protection organisations, the number of observations recorded and the distance in kilometers from the midpoint of the subject properties to the closest observation.

Table 2. Rare species of flora identified by AC CDC

Scientific name	Common name	COSEWIC Status	SARA Status	NBSARA Status	Prov. Rarity Rank	# recs	Distance from site (km)
Vascular plant							
Hudsonia tomentosa	Woolly Beach-heath				S3	6	3.8 ± 0.0
Comandra umbellata	Bastard's Toadflax				S3	1	4.6 ± 0.0
Liparis loeselii	Loesel's Twayblade				S3S4	2	4.1 ± 3.0
Calamagrostis stricta	Slim-stemmed Teed Grass				S3S4	1	4.6 ± 5.0

Woolly Beach-heath (*Hudsonia tomentosa*)

Woolly Beach-heath is a species of flowering plant in the rockrose family. This shrub grows in sandy habitat such as pine barrens and dunes. It may be a coastal species, but since it is less tolerant of sea spray than other coastal plants, it is generally found on arid backdunes and not at the water's edge.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on Woolly Beach-heath.

Bastard's Toadflax (*Comandra umbellata*)

Bastard's Toadflax is a species of herbaceous perennial plant in the sandalwood family. This plant can be locally abundant at some high quality sites. Habitats include black soil prairies, sand prairies, hill prairies, rocky open woodlands, thinly wooded ridges, sandy savannas, and barren areas with scrubby vegetation.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on Bastard's Toadflax.

3.6.2 RARE SPECIES– FAUNA

Sixty-three (63) rare species of fauna have been identified by the AC CDC as occurring within a 5km radius from the midpoint of the subject properties. Table 3 below presents the species identified, its conservation status as determined by various species at risk protection organisations, the number of observations recorded and the distance in kilometers from the midpoint of the subject properties to the closest observation.

Table 3. Rare species of fauna identified by the AC CDC

Scientific name	Common name	COSEWIC Status	SARA Status	N.-B. Legal Prot.	Prov. Rarity Rank	# recs	Distance from site (km)
Vertebrate species							
Charadrius melodus melodus	Piping Plover melodus subspecies	Endangered	Endangered	Endangered	S1B	44	2.1 ± 0.0
Asio flammeus	Short-eared Owl	Threatened	Special Concern	Special Concern	S1S2B	2	0.2 ± 0.0
Riparia riparia	Bank Swallow	Threatened	Threatened		S2B	13	0.3 ± 0.0
Tringa flavipes	Lesser Yellowlegs	Threatened			S3M	18	1.1 ± 0.0
Limosa haemastica	Hudsonian Godwit	Threatened			S3M	1	3.6 ± 1.0
Histrionicus Histrionicus - pop.1	Harlequin Duck Eastern pupulation	Special Concern	Special Concern	Endangered	S1B, S1S2N S2M	2	4.2 ± 0.0
Hirundo rustica	Barn Swallow	Special Concern	Threatened	Threatened	S2B	2	2.3 ± 0.0
Bucephala islandica	Barrow's Goldeneye	Special Concern	Special Concern	Special Concern	S2S3N, S3M	1	4.3 ± 0.0
Contopus virens	Eastern Wood-pewee	Special Concern	Special Concern	Special Concern	S3B	2	2.6 ± 0.0
Dolichonyx oryzivorus	Bobolink	Special Concern	Threatened	Threatened	S3B	25	1.1 ± 0.0
Globicephala melas	Long-finned Pilot Whale	Not at Risk			S2S3	1	3.9 ± 0.0
Sterna Hirundo	Common Tern	Not at Risk			S3B, SUM	18	0.5 ± 0.0
Calidris canutuf rufa	Red Knot ruf subspec. Tierra del Fuego/ Patagonia winter. pop.	E, SC	Endangered	Endangered	S2M	4	0.2 ± 0.0
Tringa melanoleuca	Greater Yellowlegs				S1?B, S4S5M	32	0.2 ± 0.0
Phalaropus tricolor	Wilson's Phalarope				S1B	1	1.4 ± 1.0
Leucophaeus articilla	Laughing Gull				S1B	1	3.8 ± 0.0
Aythya marila	Greater Scaup				S1B, S2N, S4M	2	1.4 ± 1.0
Oxyura jamaicensis	Ruddy Duck				S1B, S2S3M	1	1.4 ± 1.0
Eremophila alpestris	Horned Lark				S1B, S4N, S5M	7	1.0 ± 1.0
Branta bernicla	Brant				S1N, S2S3M	10	1.6 ± 0.0
Calidris alba	Sanderling				S1N, S3S4M	14	2.6 ± 0.0
Nycticorax nycticorax	Black-crowned Night-heron				S1S2B	104	0.2 ± 0.0
Melanitta americana	American Scoter				S1S2B, S3M	8	0.9 ± 0.0
Petrochelidon pyrrhonota	Cliff Swallow				S2B	7	0.5 ± 0.0
Mimus polyglottos	Northern Mockingbird				S2B	1	4.5 ±7.0
Mareca strepera	Gadwall				S2B,S3M	3	3.0 ± 0.0
Tringa solitaria	Solitary Sandpiper				S2B, S4S5M	1	1.5 ± 0.0
Phalacrocorax carbo	Great Cormorant				S2N	1	4.5 ± 0.0
Melanitta perspicillata	Surf Scoter				S2N, S4M	7	0.7 ± 0.0
Melanitta deglandi	White-winged Scoter				S2N, S4M	1	4.9 ± 10.0

Toxostoma rufum	Brown Trasher				S2S3B	1	4.5 ±7.0
Somateria mollissima	Common Eider				S2S3B, S2S3N, S4M	24	3.8 ± 0.0
Larus delawarensis	Ring-billed Gull				S2S3B, S4N S5M	34	0.2 ± 0.0
Pluvialis dominica	American Golden-Plover				S2S3M	2	2.6 ± 0.0
Larus marinus	Great Black-backed Gull				S3	23	0.5 ± 0.0
Spatula clypeata	Northern Shoveler				S3B	7	1.4 ± 1.0
Charadrius vociferus	Killdeer				S3B	34	0.2 ± 0.0
Tringa semipalmata	Willet				S3B	4	0.5 ± 0.0
Passerina cyanea	Indigo Bunting				S3B	1	3.9 ± 0.0
Molothrus ater	Brown-headed Cowbird				S3B	1	4.5 ± 0.0
Setophaga tigrina	Cape May Warbler				S3B, S4S5M	5	1.1 ± 0.0
Mergus serrator	Red-breasted Merganser				S3B, S4S5N S5M	9	1.7 ± 0.0
Anas acuta	Northern Pintail				S3B, S5M	18	1.1 ± 0.0
Numenius phaeopus hudsonicus	Whimbrel				S3M	3	4.5 ± 0.0
Arenaria interpres	Ruddy Turnstone				S3M	20	0.2 ± 0.0
Calidris pusilla	Semipalmated Sandpiper				S3M	25	0.2 ± 0.0
Calidris melanotos	Pectoral Sandpiper				S3M	2	3.3 ± 0.0
Limnodromus griseus	Short-billed Dowitcher				S3M	4	3.7 ± 0.0
Calidris maritima	Purple Sandpiper				S3M	1	4.5 ± 0.0
Poecile hudsonicus	Boreal Chickadee				S3S4	1	4.7 ± 0.0
Actitis macularius	Spotted Sandpiper				S3S4B, S4M	14	2.6 ± 0.0
Melospiza lincolnii	Lincoln's Sparrow				S3S4B, S4M	9	1.8 ± 0.0
Gallinago delicata	Wilson's Snipe				S3S4B, S5M	7	3.7 ± 0.0
Setophaga striata	Blackpoll Warbler				S3S4B, S5M	12	0.5 ± 0.0
Pluvialis squatarola	Black-bellied Plover				S3S4M	17	1.7 ± 0.0
Morus bassanus	Northern Gannet				SHB	7	4.1 ± 0.0
Invertebrate species							
Danaus plexippus	Monarch	Endangered	Special Concern	Special Concern	S2S3?B	1	0.2 ± 2.0
Bombus terricola	Yellow-banded Bumble Bee	Special Concern	Special Concern			1	4.1 ± 0.0
Coccinella transversoguttata richardsoni	Transverse Lady Beetle	Special Concern				1	0.3 ± 1.0
Carabus maeander	Meander Ground Beetle					1	0.3 ± 1.0
Papilio brevicauda bretonensis	Short-tailed Swallowtail					8	0.2 ± 5.0
Tharsalea dospassosi	Maritime Copper					2	3.0 ± 1.0
Plebejus idas empetri	Crownberry Blue					6	0.2 ± 5.0

Piping Plover melodus subspecies (*Charadrius melodus melodus*)

The Piping Plover is a small shorebird that is found only in North America. In New Brunswick, the piping plover chooses a gravel-sand beach on which to nest and feed. The species nest just above the reach of high water and waves. Its nest is consisting of a few scratch marks in small depressions in the sand. This nest is invariably located among pebbles, pieces of driftwood and other debris from the beach, which aid in hiding it.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Piping Plover.

Short-eared Owl (*Asio flammeus*)

The Short-eared Owl is a medium-sized owl and has the broadest global distribution of any owl. The species favours open habitats throughout the year, including grasslands, tundra, and wetlands. Breeding typically occurs in open landscapes at least 50-100 ha in area, and nests are preferentially located on the ground near clumps of taller vegetation that provide concealment. In winter, Short-eared Owls roost in conifers adjacent to open areas used for hunting or on the ground in the shelter of tall grasses or forbs. It breeds across Canada, regularly in the subarctic tundra and prairies, and more sparsely elsewhere.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Short-eared Owl.

Bank swallow (*Riparia riparia)*

The Bank swallow is a small insectivorous songbird. The species breeds in a wide variety of natural and artificial sites with vertical banks, including riverbanks, lake and ocean bluffs, aggregate pits, road cuts, and stock piles of soil. Sand-silt substrates are preferred for excavating nest burrows. Breeding sites are often situated near open terrestrial habitat used for aerial foraging (i.e. grasslands, meadows, pastures, and agricultural cropland).

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Bank swallow.

Lesser Yellowlegs (*Tringa flavipes*)

The Lesser Yellowlegs is a small, slender shorebird, who breeds primarily in the boreal forest of Canada and Alaska, including all provinces and territories except the Maritimes. Lesser Yellowlegs nests on dry ground near peatlands, marshes, ponds, and other wetlands in the boreal forest and taiga. In winter and during migration, the species frequents coastal salt marshes, estuaries and ponds, as well as lakes, other freshwater wetlands, and anthropogenic wetlands.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Lesser Yellowlegs.

Bobolink (*Dolichonyx oryzivorus*)

The Bobolink is a medium-sized passerine. The Bobolink originally nested in the tall-grass prairie of the mid-western U.S. and south central Canada. Since the conversion of the prairie to cropland and the clearing of the eastern forests, the Bobolink has nested in forage crops. The Bobolink also occurs in various grassland habitats including wet prairie, graminoid peatlands and abandoned fields dominated by tall grasses, remnants of uncultivated virgin prairie (tall-grass prairie), no-till cropland, small-grain fields, restored surface mining sites and irrigated fields in arid regions

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Bobolink.

Common Tern (*Sterna hirundo*)

The Common Tern is a seabird relatively widespread throughout its large range. The species breeds on low-lying inshore islands, sandpits and beaches. It also nests inland along slow-flowing rivers, and by lakes in open country. The Common Tern breeds in huge colonies, but also as isolated pairs. The colonies are established in both coastal and inland areas, but more usually on sandy beaches, vegetated inter-dune areas, islands in estuaries or near lakes and rivers.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Common Tern.

Greater Yellowlegs (*Tringa melanoleuca*)

The Greater Yellowlegs is a large shorebird. The species breeds in open marshy areas with scattered trees, in subarctic tundra and often on fairly flat grounds. After the breeding season, it frequents both freshwater and brackish wetlands, ponds with emergent vegetation, flooded areas, mangroves, salt-marshes, muddy coasts and intertidal flats. During winter, it is mainly found on lagoons and intertidal flats.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Greater Yellowlegs.

Horned Lark (*Eremophila alpestris*)

The Horned Lark is the only lark that is native to North America. The species has a global distribution, but in Canada, it occupies a variety of treeless environments, from seaside barrens to mountain peaks, arctic tundra to prairie pastures. The Horned Lark nests on the ground, usually in sparsely vegetated areas with grasses, but also in prairies, coastal dunes, sandy beaches, grasslands, estuaries, agricultural fields, wetlands and airports. The female alone builds the nest in excavated cavity or natural depression on the ground.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Horned Lark.

Brant (*Branta bernicla*)

Brant are Arctic-nesting geese. This species breeds in Arctic tundra, farther north than any other species of geese, and usually near coasts, in lagoons and on islands. The Brant Goose winters in bays, estuaries, coastal sandy shores and mudflats. It is very rare in freshwater areas. They nest in the tundra and often close to the water. The nest is a shallow depression in the ground, lined with fine materials such as grass, moss and down.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Brant.

Sanderling (*Calidris alba*)

Sanderling is a medium-sized bird with relatively thick, heavy and short bill. This species breeds in stony tundra with scant vegetation, sparse growth of willow and saxifrage, and well-drained ridges. They need a good access to the shores for the young birds. Outside the breeding season, Sanderling frequents open sandy beaches and sandy outer areas of estuaries, rocky or muddy shores. During migrations, they can be found sometimes at inland waters

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Sanderling.

Black-crowned Night-Heron (*Nycticorax nycticorax*)

The Black-crowned Night Heron is a stocky heron that forages on a variety of organisms (e.g., fish, invertebrates, amphibians, small mammals) at dawn and dusk as well as overnight. The species frequents varied types of wet areas with fresh, brackish or salt water with aquatic vegetation, also the forested shores of shallow streams, lagoons, pools, ponds, lakes, marshes and mangroves. While migrating, it occurs along marine coasts and dry land. This species nests in tall trees, bushes, reedbeds and cliff ledges. The nest is made with sticks, rushes and reeds, and other plant matter found in the area.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Black-crowned Night-Heron.

American Scoter (*Melanitta americana*)

The American Scoter is a large sea duck. There are two populations of Black Scoters in Canada: the Atlantic population and the Pacific population. The Atlantic population breeds in Newfoundland and Labrador, northern Quebec, the Hudson Bay lowlands of Ontario, and the coast of Manitoba. The nest is a shallow depression usually lined with plant material and down. It is built by the female on a hummock or ridge on tundra protected by grasses or low scrub, or hidden in a rock crevice. The species winters in bays and estuarine areas, and along exposed coastlines.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the American Scoter.

Cliff Swallow (Petrochelidon pyrrhonota)

The Cliff Swallow is a swallow that breeds in North America and winters in South America. The species frequents open and semi-open areas, farmland, cliffs, usually near water such as rivers and lakes. It feeds mostly in open areas such as meadows, marshes and grasslands, but it roosts in wetland vegetation. The nesting site is usually a vertical surface such as cliff, bridge or building, protected from above by overhang or ledge. The mud nests adhere best to rough rock or cement, or weathered board.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Cliff Swallow.

Surf Scoter (*Melanitta perspicillata*)

The Surf Scoter is a large sea duck native to North America. Two populations of Surf Scoters are recognized in North America: the Western population winters along the Pacific coast, whereas the Eastern population winters along the Atlantic coast. The Eastern population breeds in the eastern Northwest Territories, in the Hudson Bay lowlands (in Manitoba and Ontario), and throughout central Quebec and Labrador. During winter, it mostly frequents the coastal waters and can be seen in shallow waters in bays, estuaries and river mouths.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Surf Scoter.

Common Eider (*Somateria mollissima*)

The Common Eider is the largest duck in the northern hemisphere. The species spends its entire life cycle in marine environments: it nests in large colonies, mostly on marine islands, and forms large aggregations in inshore coastal regions outside of the breeding season. This species may also be found inland, in tundra, pools and streams. During the winter, the Common Eider is common in bays, along shallow seacoasts or river mouths. It rarely leaves the water, even in winter.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Common Eider.

Ring-billed Gull (*Larus delawarensis*)

The Ring-billed Gull occurs both in coastal regions and inland areas. It breeds on low islands in freshwater lakes, and in wet meadows. Outside breeding season, it can be seen along coasts, piers, dumps, harbors and estuaries. The species is common around cities, docks and farm fields, and often roosts on lakes and reservoirs. The nest is on the ground, often beside a rock or vegetation, within 1m from the neighbour. It is usually near water among sparse vegetation.

Based on the habitat requirements of this species, the number of observations recorded and the closest observation at 200 m from the properties, the project could impact the Ring-billed Gull.

Great Black-backed Gull (*Larus marinus*)

The Great Black-backed Gull is the largest gull in the world, and it is rather a coastal species. This species frequents open sea, estuaries, rocky and sandy coasts. It may be found inland in large waters or in fields. The Great Black-backed Gull breeds along coastlines and islands of Atlantic Canada, and north to Labrador and Baffin Island, and prefers vegetated nesting-sites. The nest is scraped into the ground in sandy, grassy or rocky soil. It is close to rock or vegetation's shelter.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Great Black-backed Gull.

Northern Shoveler (*Spatula clypeata*)

The Northern Shoveler is a common and widespread duck. This species breeds in temperate regions where it frequents freshwater marshes and lakes with emergent vegetation, prairies and tundra near shallow water. In Canada, the core breeding range of the Northern Shoveler is the Prairie Pothole and Parkland Region of Saskatchewan, Alberta, and Manitoba. On migration and during winter, it can be seen on open lakes, fresh marshes, estuaries and coastal lagoons, shallow waters with muddy margins and even stagnant and polluted waters.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Northern Shoveler.

Killdeer *(Charadrius vociferus*)

The killdeer is a large plover found in the Americas. It frequents open fields with short vegetation, and not necessarily close to the water, and it is seen in open cultivated areas. This species breeds in sparsely vegetated savannas, in grassy areas such as meadows and pastures, golf courses, bare gravel or roadside ditches, mainly in lowlands. During the migrations, the Killdeer can occur in estuaries and other wetland habitats, along rivers, beaches, mudflats and wet grasslands. This bird can be common near habitations, and some birds may nest on the flat, gravelled roofs.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Killdeer.

Red-breasted Merganser (*Mergus serrator*)

The Red-breasted Merganser is a diving duck who needs to run on the water to take off. The species occurs on deep fresh waters such as lakes or small rivers where it can breed, and often in wooded areas, but not always. It nests on the ground near water. It can use sometimes crevices in rocky coasts or islets if available. The Red-breasted Merganser spends the winter at sea, in estuaries, bays or brackish lagoons.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Red-breasted Merganser.

Northern Pintail (*Anas acuta*)

The Northern Pintail is a duck with a wide geographic distribution. This species is found across Canada, with its core breeding range located in the Prairie Pothole Region of western Canada. It breeds in open country with dense vegetal cover and shallow, seasonal wetlands including freshwater marshes, small lakes and rivers. The nest is a shallow depression on the ground, hidden among the vegetation and sometimes far from water. During winter, it can be found on coastal lagoons with brackish or saltwater. It also occurs in farmland and rice fields where it can breed.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Northern Pintail.

Ruddy Turnstone (*Arenaria interpres*)

The Ruddy Turnstone is a shorebird closely associated to the water. This species frequents the stony coastal plains, the tundra and marshy areas in lowlands. The nest is in dry, open tundra, both in flat areas and slopes, but always near water such as ponds, lakes and streams. During migrations, it can be seen inland where it frequents the short-grass salt-marshes. But it favours the stony shores, rocks, breakwaters, sandy beaches with seaweed, sheltered inlets, estuaries, exposed reefs, mudflats and lake shores.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Ruddy Turnstone.

Semipalmated Sandpiper (*Calidris pusilla*)

The Semipalmated Sandpiper a very small shorebird. This species breeds in coastal tundra of the subarctic and Low Arctic. It nests in the wet and grassy tundra, often near pools and lakes. It also may nest in tidal areas, and sandy beaches. We also find it in lake and pool's mudflats. They are long distance migrants and winter in coastal South America, with some going to the southern United States and the Caribbean.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Semipalmated Sandpiper.

Monarch (*Danaus plexippus*)

The Monarch is a migratory butterfly. This species requires different habitats depending on their life stage. Monarch caterpillars feed exclusively on milkweed plants and the breeding habitat is confined to places where milkweeds grow. These plants grow predominantly in open and periodically disturbed habitats such as roadsides, fields, wetlands, prairies, and open forests. Adult Monarchs feed at milkweed flowers but require other wildflowers for nectar, especially when milkweeds are not in bloom.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Monarch.

Yellow-banded Bumble Bee (*Bombus terricola*)

The Yellow-banded Bumble Bee is a medium-sized bumble bee. This species occurs in a diverse range of habitats, including mixed woodlands, farmlands, urban areas, montane meadows, prairie grasslands and boreal habitats. It has been recorded foraging on flowers for pollen and nectar from a variety of plant genera. Like many bumble bees, it usually nests underground in pre-existing cavities such as abandoned rodent burrows and rotten logs.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Yellow-banded Bumble Bee.

Transverse lady beetle (*Coccinella transversoguttata richardsoni*)

Transverse Lady Beetles are small, round beetles that are native to North America and are a wide-ranging species occurring from coast to coast across Canada and the United States. Transverse Lady Beetles are habitat generalists, primarily feeding on aphids and occurring across a wide range of habitats. This lady beetle inhabits agricultural areas, suburban gardens, parks, coniferous forests, deciduous forests, prairie grasslands, meadows, riparian areas and other natural areas.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Transverse Lady Beetles.

Short-tailed Swallowtail (*Papilio brevicauda bretonensis*)

The Short-tailed Swallowtail is a North American butterfly in the family *Papilionidae.* Subspecies *bretonensis* occurs in coastal areas and is known from New Brunswick and Nova Scotia. This butterfly primarily breeds on Scotch Lovage (*Ligusticum scoticum*) and is often found very near the ocean where its larval stage food sources grow. The Short-tailed Swallowtail is a very strong flier so windy locations are not an issue. It flies on coastal marshes, dunes and headlands where the host plant, Scotch Lovage, grows.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Short-tailed Swallowtail.

Crowberry Blue (*Plebejus idas empetri*)

The Crowberry Blue is a subspecies of the Northern Blue that is endemic to coastal areas of the Maritime provinces, Maine, and likely the Gaspe Peninsula in Quebec. It can be locally abundant in coastal headlands and bogs where its host plant, Black Crowberry (*Empetrum nigrum*) occurs. It often flies in the fog and rain in coastal areas where sunny weather can be infrequent.

Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Crowberry Blue.

3.6.3 LOCATION SENSITIVE SPECIES

The New Brunswick Department of Natural Resources considers ten (10) species as "location-sensitive", namely the Eastern Painted Turtle (*chrysemys picta picta*), the Snapping Turtle (*chelydra serpentina*), the Wood Turtle (*glyptemys insculpta*), the Bald Eagle (*haliaeetus leucocephalus*), the Cobblestone Tiger Beetle (*Cicindela marginipennis*), the Maritime Ringlet (*Coenonympha nipisiquit*), the Peregrine Falcon - anatum/tundrius pop. (*Falco peregrinus pop. 1*), the Little Brown Myotis (*Myotis lucifugus*), the Long-eared Myotis (*Myotis septentrionalis*) and the Eastern Pipistrelle (*Perimyotis subflavus*). Following the assessment by the AC CDC, the Bald Eagle and the Peregrine Falcon - anatum/tundrius pop. are indicated as know within the project site.

The Bald Eagle is a distinctive bird of prey ranked as a regionally endangered species under the NBSARA. However, it is not ranked as an endangered species under the SARA. The Bald Eagle uses sticks and plant material to build its nest in the top of a tall tree (often a large white pine). The species can be found throughout the province, but is more common in the southwestern region near open water. Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Bald Eagle.

The Peregrine Falcon is a bird of prey ranked as a special concern species under the SARA and a endangered species under the NBSARA. In New Brunswick, this falcon most often constructs its nest on a cliff. Occasionally, a nest can also be found on an office tower or bridge, but this usually occurs in large cities. The species experienced dramatic declines in the 1960s due to the use of DDT and other pesticides. Based on the habitat requirements of this species, the project is not expected to have an adverse impact on the Bald Eagle.

3.7 GROUNDWATER

The drinking water supply in the subject properties area is obtained from the municipal water system. However, each facility has their own potable water supply well due to the amount of water required to operate a processing plant doing large production. Currently, both wells can not be use for their intended purposes due to the petroleum hydrocarbon contamination existing in the groundwater and local aquifer. Soils and groundwater affected by the contamination have to be cleaned up to potable water standards in order to reuse the wells for food processing activities. More information related to the wells and groundwater can be found in the water supply source initial application form included in Appendix D.

A consultation of GeoNB maps has confirmed that the subject properties are not located within a wellfield protected area as described in the provincial Wellfield Protection Program or within a protected watershed as described in the provincial Watershed Protection Program.

3.8 SURFACE WATER

3.8.1 FLOOD RISK

Flood risk for communities along New Brunswick's watercourses is increasing from year to year, and from one decade to another, due to climate changes. Climate changes are responsible for sea level rise as well as the increase in the frequency and intensity of extreme weather conditions. A consultation of the New Brunswick Flood Hazard Map available on GeoNB confirmed that there is a flood risk for the subject properties sector. Figure 6 shows a present-day flooding event that has a 5% chance (1 in 20-year return period flood event) of being reached in any given year. This scenario is also the projected extent of the high tide in the year 2100.

Figure 6. Flood Hazard Map (source: GeoNB)

3.8.2 EXISTING WETLANDS AND WATERCOURSES

A consultation of the DELG online "WAWA Reference Map" confirmed that there is no wetland within 30m of the subject properties as shown on Figure 4. A field survey for wetlands was not completed prior to submit this document, since the properties are predominantly covered by asphalt surfaces and buildings.

Figure 7. Existing wetlands and watercourses map (source: GeoNB)

The closest watercourse, the Shippagan Harbor, is located approximately 15 meters east from NID 20371266 and 90 meters northeast from NID 20552352. The Shippagan Harbor waters flows southeast into the Gulf of St Lawrence via the Shippagan Gully.

3.9 VALUED SPACES AND LOCATIONS

3.9.1 ARCHAEOLOGICAL AND HERITAGE RESOURCES

An information request to the Archaeology and Heritage Branch of the Department of Tourism, Heritage and Culture confirmed that there are no registered archaeological sites within 200 metres of the properties. However, the properties are assessed as having elevated archaeological potential as they extend within 80 metres of the banks or shores of a current or former body of water and onto an active or former floodplain (as determined by most recent and detailed surficial geology maps or data showing alluvial deposits).

Also, discoveries could be unplanned or spontaneous since the province has been the home of countless generations and many have left tangible reminders of their presence. The archaeological items that can be discovered include the remains of human skeleton, projectile points (arrowheads), pottery or structures. Under the New Brunswick *Heritage Conservation Act*, all archaeological objects found anywhere in New Brunswick after August 19, 2010 must be reported as soon as possible to Provincial Archaeological Services authorities. It is to be noted that the property in and right of possession to, an archaeological object, palaeontological object or burial object discovered in the Province is and vests in the Crown

In addition, an advanced search in the Canadian Register of Historic Places identified twelve (12) recognized historic places within a 5km radius of the study area. Three (3) of them are located approximately 200 m from the subject properties and are as follow;

Saint John's United Church

St. John’s United Church is a Gothic Revival religious building dating from 1903, except for the entrance, which was added in 1950. The description comprises the building, its lot, and the cemetery adjacent to the church.

Entreprises Shippagan

Entreprises Shippagan comprises a store along with its outbuildings and land. This commercial and apartment building was constructed in the early 1900’s. The site is closely linked with the history of the shipping trade in the region. It was first developed in the early 1840’s by Mr. William Taylor, who operated a general store and a fish market there. Its heritage value also lies in its architectural significance. The main building is a very fine example of the boomtown style of the time.

Café Royal

Constructed in 1946-1947, Café Royal is a vernacular two-storey commercial building with a brick front façade. The heritage value of Café Royal lies in its historical significance relating to the commercial growth of the Town of Shippagan

3.9.2 ENVIRONMENTALLY SIGNIFICANT AREAS

The ecological significance of an area is determined by the diversity and quality of the ecosystems, communities and species that are present. This can include elements that are rare, at-risk, representative or important for ecosystem functions. The AC CDC identified four (4) environmentally significant areas (ESA) within a 5km radius of the subject properties.

ESA #185 - Chiasson Office Beach

This area is located southeast of Chiasson Office and consists of a sandy beach with a series of older dunes. The beach is a nesting site for Piping Plover (2 pair in 1993; 1 pair in 1994). In some years no pairs nest, but there has generally been one pair over several years prior to 2005

ESA #190 - Le Goulet Cattail Marsh/Ecole La Vague

This site runs along the shore adjacent to Le Goulet (between Shippagan Beach and Baie de Petit Pokemouche) and consists of a coastal brackish marsh that supports a high diversity of bird life, very close to human settlement. This area is noted to be used by Piping Plovers and is thought to be used for feeding as the habitat is not ideal for nesting.

ESA #197 - Pointe-Sauvage Marsh

This site is located adjacent to the Le Goulet Harbour and is characterized as a 100% high marsh with numerous shallow pannes and low primary productivity (Class II salt marsh). There is an interesting elevated bog west of the main road where the Northern Blue butterfly occurs. The area around the wharf is used by roosting gulls, cormorants and some shorebirds, while the marsh on the lagoon side is used by several species of ducks, migratory shorebirds and herons.

ESA #201 - Shippagan Sewage Lagoon

This site is located at the east end of the town of Shippagan and has become a haven for breeding and staging ducks, attracting larger numbers and greater varieties of birds every year.

3.9.3 MANAGED AREAS

Natural areas of land under distinct protective or potentially protective management are referred to as Managed Areas. A Managed Area is usually under some formal or legal level of protection for wildlife within their boundaries. The AC CDC identified one (1) managed area within a 5km radius from the subject properties.

Ducks Unlimited Canada - Conservation Lands

This managed area can be identified as property PID 20194361 and is owned by Ducks Unlimited Canada. Ducks Unlimited occasionally acquires land in key areas with the intent of long-term ownership and to address specific waterfowl conservation needs. More commonly, Ducks Unlimited acquires land to restore and/or enhance wetlands and other significant habitat and convey to a conservation partner as the permanent landowner.

3.9.4 IMPORTANT BIRD AREAS

A search in the Canada's Important Bird and Biodiversity Areas (IBA) online map confirmed that there is no IBA within a 5km radius of the study area as shown in red on Figure 5.

Figure 8. IBA within a 5km radius from the study site

3.9.5 PROTECTED NATURAL AREAS

Protected Natural Areas are sanctuaries that allow nature to exist with minimal human interference. These areas are legally protected under the *Protected Natural Areas Act*. There are two classes of Protected Natural Areas where different restrictions apply. The majority of the new Protected Natural Areas were designated as Class II sites, thus allowing low-impact recreational activities. The more restrictive Class I designation is reserved for sites that host plant or wildlife species that are deemed too sensitive to sustain disturbance.

A consultation of the protected natural areas map available on GeoNB confirmed that there is no Protected Natural Areas within a 5km radius of the subject properties.

3.9.6 RAMSAR SITES

Ramsar Sites are wetlands of international importance recognized as being of significant value not only for the country or the countries in which they are located, but for humanity as a whole. No sites were identified by the AC CDC within a 5km radius of the subject properties.

3.10 ABORIGINAL OR TREATY RIGHTS OF THE ABORIGINAL PEOPLES

Aboriginal rights refer to practices, traditions and customs that distinguish the unique culture of each First Nation and were practiced prior to European contact. These are rights that some Aboriginal peoples of Canada hold as a result of their ancestors' longstanding use and occupancy of the land. The rights of certain peoples to hunt, trap and fish on ancestral lands are examples of Aboriginal rights. Aboriginal rights vary from group to group depending on the customs, practices and traditions that have formed part of their distinctive cultures. Treaty rights are rights set out in either a historic or modern treaty agreement. Aboriginal or treaty rights are both protected under Section 35 of the *Constitution Act, 1982*.

The subject properties are located within the Mi'kmaq traditional territory, Mi'gma'gi, more specifically in the seventh district, Gespe'gewa'gi (Kespek) which includes what is now known as the Gaspé Peninsula, parts of mainland Québec and Maine, and northeastern New Brunswick. The closest populated First Nation reserve to the subject property is the Esgenoôpetitj First Nation, approximately 65km to the southwest, which had a population of 1,223 in 2021.

The proponent recognizes the importance of Aboriginal or treaty rights and commits to ensure that Aboriginal peoples are sufficiently consulted on matters that may affect any Aboriginal or treaty rights.

3.11 LIFESTYLE AND QUALITY OF LIFE

The project is located in Shippagan, a small Town to the northeast of New Brunswick. According to the 2021 Statistics Canada census data, the population of Shippagan is 2672. The main categories of employment are trades, seafood, sales and services, peat moss and healthcare. Traffic is sometimes congested on the provincial collector highway crossing downtown Shippagan since it is the main road leading to Lamèque Island and Miscou Island, and has only two lanes with no center lane for turning.

The quality of life is considered representative of a rural community since there is no major commercial or industrial industries. Community noise levels is consistent with conditions expected to be present in a rural area, which include noise coming from minor traffic, lawnmowers, neighbors, etc.

4.0 IDENTIFICATION OF ENVIRONMENTAL IMPACTS

This section purpose is to identify anticipated impacts on environmental features described in the previous section. To do so, impacts during pumping test, construction, operation and maintenance will be assessed on the following environmental features:

- Air quality
- Migratory birds and species at risk
- Groundwater
- Surface water
- Valued spaces and locations
- Aboriginal or treaty rights of the Aboriginal peoples
- Lifestyle and quality of life

Impacts that may results from accidental events will also be assessed since there is a potential risk of accidents, malfunctions or unplanned events to occur for any project.

4.1 AIR QUALITY

The project is not anticipated to have a major impact on air quality during its construction, operation or maintenance stages since the activities are not foreseen to emit particulate, dust or chemical loadings. For a processing plant, odor is often the most significant impact on air quality. However, it is not expected to be a problem since the materials, products and wastes will be stored, all working and storage areas will be keep clean and waste products will be immediately removed from the production line. Moreover, the project is not anticipated to result in the emission of contaminants into the atmosphere that would result in an exceedance of local, regional or national objectives or standards.

Due to the very low risk of impact on air quality, no mitigations measures will be established.

4.2 MIGRATORY BIRDS AND SPECIES AT RISK

The project is not anticipated to have a significant impact on migratory birds and species at risk during its construction, operation or maintenance stages since most activities are foreseen to take place inside the buildings and the sector is already heavily impacted by human presence. In addition, the project is not anticipated to result in the deposit of a deleterious substance harmful to migratory birds or species at risk.

However, the activities related to the facilities operations will generate waste that might attract to the properties migratory birds or species at risk in the search for food. Species can also occasionally establish in unusual habitats, which would create a potential to come into unexpected contact with a migratory bird or species at risk. The risk of impact on migratory birds and species at risk must therefore be considered and mitigation measures must be determined.

4.3 GROUNDWATER

The anticipated impact on groundwater are as follows:

Impacts related to pumping test

Conducting a constant rate pumping test for seventy-two (72) hours could adversely affect the quality or quantity of the supply aquifer. The risk of impact on groundwater during the pumping test must therefore be considered and mitigation measures must be determined.

Impacts related to construction

The project is not anticipated to have an impact on groundwater during its construction stage since observation and production wells are existing.

Impacts related to operation

The operation of a water supply source with a capacity greater than fifty cubic metres ($50m^3$) of water daily could adversely affect the water supply sustainability as well as the quality or quantity of water wells surrounding the subject properties. The risk of impact on groundwater during the operation must therefore be considered and mitigation measures must be determined.

Impacts related to maintenance

Well maintenance, if needed, could include disinfection, parts replacement or structural integrity. These activities could create a contamination risk to the water supply aquifer if they are not carried out properly. The risk of impact on groundwater during the maintenance must therefore be considered and mitigation measures must be determined.

4.4 SURFACE WATER

The anticipated impact on surface water are as follows:

Impacts related to pumping test

Water released during pumping test could adversely affect the surface water since there is an hydrocarbon contamination of the groundwater sourced by these wells and bedrock aquifer around them. The risk of impact on surface water during the pumping test must therefore be considered and mitigation measures must be determined.

Impacts related to construction

The project is not anticipated to have an impact on surface water during its construction stage since no excavation is required. Excavation activities could have caused a sediment migration in the Shippagan Harbor. Moreover, the project will not result in the net loss of wetland functions or the net loss of provincially significant or regulated wetland due to the wetland absence on the properties.

Impacts related to operation

The project is not anticipated to have an impact on surface water during its operation stage since the activities will be conducted inside the buildings. Discharge of treated wastewater into the Shippagan Harbor will not emit effluent in excess of relevant provincial or federal legislation, policies, guidelines or standards. In addition, conditions specified on the wastewater systems *Approval to Operate* from DELG's Authorizations Branch will be followed at all time.

Impacts related to maintenance

The project is not anticipated to have an impact on surface water during its maintenance stage since minimal activities with no ground disturbance are anticipated.

4.5 VALUED SPACES AND LOCATIONS

The project is not anticipated to have an impact on valued spaces and locations since no excavation is required during its construction, operation or maintenance stages. In addition, all activities will be limited within the boundaries of the properties.

4.6 ABORIGINAL OR TREATY RIGHTS OF THE ABORIGINAL PEOPLES

The project is not anticipated to have an impact on the right to hunt, trap, fish, gather and follow Aboriginal customs, practices and traditions or any other Aboriginal or treaty rights of the Aboriginal peoples during its construction, operation or maintenance stages.

However, since the project is located within the Mi'kmaq traditional territory, mitigations measures are still required to ensure their rights are protected, and to provide the next seven generations with healthy lands, waters and resources in order to maintain their culture and way of life. Also, Mi'gmaq of New Brunswick are self-determining peoples and have the right to be fully involved in decisions that affect lands and waters in the province.

4.7 LIFESTYLE AND QUALITY OF LIFE

The project is not anticipated to have a significant impact on the community lifestyle and quality of life during its construction, operation or maintenance stages. Noise, employee vehicle traffic and transport of raw materials and finished product during the operation stage are common impact related to most industry sectors and foreseen for the project. However, the community is already familiar with an increase of activities in the harbor sector during fishing season. The facilities have also operated at their current location for an extended period in the past and are not anticipated to create vibration.

Due to the very low risk of impact on lifestyle and quality of life, no mitigations measures will be established.

4.8 ACCIDENTAL EVENTS

The project requires the storage and use of significant quantities of fuel oil for heating and processing activities. The use of fuel oil creates a risk of petroleum contamination, fire and explosion. Operation activities will also involve the storage and use of cleaning chemicals and processing chemicals which could represent a physical, health or environmental danger if not manipulate properly. Electrical fire in the buildings is an other accidental event that have a reasonable probability of occurring and could result in adverse environmental effects. The risk of impact related to accidental events must therefore be considered and mitigation measures determined.

4.9 MATRIX SYNTHESIS

Table 4 summarizes in the form of a matrix synthesis the extent of anticipated impacts on existing environmental features. To assess the extent of anticipated impacts, a scale ranging from 1 to 5 was defined as follows:

1 = very high risk of impact on the environmental feature
2 = high risk of impact on the environmental feature
3 = moderate risk of impact on the environmental feature
4 = low risk of impact on environmental feature
5 = very low or no risk of impact on the environmental feature

Table 4. Matrix synthesis of anticipated impacts

	Pumping test	Construction	Operation	Maintenance	Accidental events
Air quality	5	5	5	5	4
Wildlife and wildlife habitat	5	5	5	5	5
Migratory birds and species at risk	3	4	4	4	3
Groundwater	3	5	3	4	2
Surface water	3	5	5	5	2
Valued spaces and locations	5	5	5	5	5
Aboriginal or treaty rights of the Aboriginal peoples	5	5	5	5	5
Lifestyle and quality of life	5	5	5	5	5

5.0 SUMMARY OF PROPOSED MITIGATION

This section purpose is to describe mitigation measures that will be implemented in order to reduce or eliminate environmental impacts identified in the previous section. To do so, mitigation measures will be established for the following:

- Migratory birds and species at risk;
- Groundwater;
- Surface water;
- Aboriginal or treaty rights of the Aboriginal peoples; and
- Accidental events.

5.1 MIGRATORY BIRDS AND SPECIES AT RISK

The proposed mitigation measures to reduce impacts on migratory birds and species at risk are as follows:

- The Canada and New Brunswick *Species at Risk Act* and the *Migratory Bird Convention Act* will be followed at all times;
- Food waste will be stored in closed containers while solid waste materials will be stored in plastic tubs and stainless-steel tanker trailers to avoid attracting migratory birds and species at risk near the properties;
- If a migratory birds or species at risk nest, nest shelter or den is discovered on the properties, no attempt to willfully or knowingly destroy, disturb or interfere will be made;
- In case of an unexpected contact with migratory birds or species at risk, no attempt to kill, pursue, capture, harm or harass will be made in any manner whatsoever; and
- In the unlikely event a substance that could be harmful to migratory birds is release in the environment during project activities, the DELG will be contacted regarding appropriate procedures to address the issue.

5.2 GROUNDWATER

The proposed mitigation measures to reduce impacts on groundwater are as follows:

- Pumping test effects on the water supply aquifer will be monitored from an observation well to assess the risk on groundwater;
- Hydrogeological assessment and yield testing will be completed under the direct supervision of a qualified hydrogeologist registered with the Association of Professional Engineers and Geoscientists of New Brunswick;
- The WSSA will evaluate the sustainability of the water supply, assess the water quality, and evaluate potential impacts to existing water users;

- The maximum pumping rate established following the WSSA review and conditions as specified on the wells *Approval to Operate* from DELG's Authorizations Branch will be followed at all times in order to ensure the water supply sustainability and reduce the risk on neighbouring water users;
- If there is a complaint that the pumping test or wells operation has had a negative impact on neighbouring water users, the proponent will investigate the complaint and mitigate the situation if required. This may include, but is not be limited to, providing bottled water for a temporary impact, or deepening a well or drilling a new well for any permanently impacted water supplies; and
- Wells maintenance, if required, will be carried out by a qualified professional in order to protect the water supply from contamination.

5.3 SURFACE WATER

The proposed mitigation measures to reduce impacts on surface water are as follows:

- Before proceeding with any pumping tests, both wells will be sampled and analyzed in order to determine the current concentrations of petroleum hydrocarbons (PHC) parameters in groundwater. If concentrations exceed the Atlantic Risk-Based Corrective Action - Ecological Tier I Environmental Quality Standards for Surface Water, no pumping test will be carry out;
- In the case results are acceptable, both wells will be pumped at the target rate for four (4) hours followed by samples and analyzes in order to determine if the petroleum hydrocarbon contamination is being pulled in from adjacent properties; and
- Pumping tests will only be performed if concentrations of petroleum hydrocarbons (PHC) parameters do not exceed the Atlantic Risk-Based Corrective Action - Ecological Tier I Environmental Quality Standards for Surface Water.

5.4 ABORIGINAL OR TREATY RIGHTS OF THE ABORIGINAL PEOPLES

The proposed mitigation measures to reduce impacts on Aboriginal or treaty rights of the Aboriginal peoples are as follows:

- A Mi'gmaq Rights Impact Assessment will be started as soon as possible. To do so, a detailed project description will be provided to Mi'gmawe'l Tplu'taqnn Incorporated for review in order to determined if any project activities could have an adverse impact on the Mi'gmaq Aboriginal and Treaty rights;
- Project activities will only begin once Mi'gmaq consent has been granted;
- Consultation will be carried out with an open mind, transparency and integrity throughout the entire process;

- The proponent is commits to listen and respond to Aboriginal peoples concerns and requests for technical information on potential project impacts;
- In order to limit impacts on environmental features, the proponent will adhere to all obligations, commitments, monitoring and mitigation measures presented in this document, as well as all those identified in subsequent correspondence during the registration review by the DELG;
- In the event of any impact on Aboriginal and Treaty rights, options to avoid, minimize or mitigate adverse impacts identified by the Aboriginal Peoples will be assessed and prioritized;
- Negotiations with Aboriginal peoples, if required, will be carried out in good faith; and
- If required, an appropriate accommodation that compensates for potential adverse impacts to Aboriginal or Treaty rights that cannot be fully avoided or mitigated will be determined in collaboration with Aboriginal peoples.

5.5 ACCIDENTAL EVENTS

The proposed mitigation measures to reduce the risk of accidental events are as follows:

- All aboveground storage tanks will be conformed to the most recent version of the National Fire Code of Canada in force;
- Valid licences will be obtained each year under the *Petroleum Product Storage and Handling Regulation - Clean Environment Ac*t;
- A rigorous inspection will be carried out yearly on all storage tanks;
- A weekly inspection by the boiler operator will be made on all aboveground storage tanks to check visually for damage or leaks;
- Fuel oil level in storage tanks will be continuously monitor in order to detect any abnormal loss of product;
- Inspection by fuel company will be made 2-3 times per day during filling;
- Smoking will be prohibited within 10 meters of the fuel oil storage tanks;
- Onsite fueling of equipment, vehicle and/or machinery must be performed more than 30 meters from a watercourse or water well;
- All necessary precautionary measures will be taken to avoid the spillage, displacement or loss of products during their handling or transfer in order to avoid contamination of soil, surface water, or groundwater;
- An emergency spills kit ready to be used containing absorbent pads and booms for petroleum spills must be available at each facility. The kit shall be maintained. Bags of peat moss or sawdust must also be available, to help absorb larger spills;
- In the accidental event of a spill, the spilled product will be controlled and rapidly contained, if safe to do so. Contaminated soil will then be removed for disposal at a proper disposal facility and replaced with clean backfill material with the same characteristics;

- Any spill, regardless of quantity, will be reported by contacting the DELG during business hours or the National Environmental Emergencies Center after hours;
- Compliance to health and safety protection procedures in accordance with applicable Provincial and Federal Acts and Regulations will be encouraged;
- Provide workers with personal protective equipment required to perform safely tasks that are likely to cause injury;
- Use and handling of hazardous product will only be permitted by employees who have received appropriate education, instruction and training as per the *Workplace Hazardous Materials Information System Regulation – Occupational Health and Safety Act*;
- Hazardous product will be used, stored and handled as per the *Workplace Hazardous Materials Information System Regulation – Occupational Health and Safety Act*;
- A fire safety plan will be developed to provide employees or building occupants with instructions on how to leave the building (or respond as appropriate) in the event of a fire;
- Daily cleanup of the plant will be made to remove chemical leftover;
- All fire fighting equipment will be inspected yearly to ensure they can be used reliably and effectively in an emergency; and
- In case of an accidental fire, the emergency services will be contacted immediately to fight the fire.

6.0 PUBLIC AND FIRST NATIONS INVOLVEMENT

Public and First Nations involvement activities will be carried out in accordance with the requirements of Appendix C of the "Guide to EIA in New Brunswick (2018)". The public and First Nations involvement activities included in the process will therefore be the following:

1. Elected officials (i.e., the MLA and mayor), local service districts, community groups, environmental groups, and other key stakeholder groups (companies, agencies, interest groups etc.) and First Nations will be contacted directly as appropriate, enabling them to become familiar with the proposal and ask questions and/or raise concerns.

2. A direct written notification letter about the undertaking and its location will be provided to potentially affected First Nations, area residents, and landowners and individuals. The notification must include the following:

   - A brief description of the proposed undertaking;
   - Information on how to view the Registration Document;
   - A description of proposed location;
   - The status of the Provincial approvals process;
   - A statement indicating that people can ask questions or raise concerns with the proponent regarding the environmental impacts;
   - Proponent and/or consultant contact information;
   - The date by which comments must be received.

3. The EIA Branch will place notice of the registration and a copy of the registration document on its internet-based "projects under review" registry and will make the registration document (and any subsequent submissions in response to issues raised by the TRC) available for review at 20 McGloin Street, Fredericton (New Brunswick).

4. Copies of the project registration document (and any subsequent submissions in response to issues raised by the TRC) will be made available to any interested member of the public, stakeholder, or First Nation. A copy of the document and any subsequent revision will be deposited at the appropriate DELG regional office, where it will be available for review.

5. A report documenting public involvement activities and a report documenting First Nation involvement activities will be submitted separately to the DELG for review and approval. These reports will be available for review by the public and First Nations at any moment under request.

7.0 APPROVAL OF THE PROJECT

The following permits, licenses, approvals, and other forms of authorization are anticipated to be needed for this project, but are not necessarily limited to:

First Nation

- Determination Review regarding potential impacts on Mi'gmaq or Treaty Rights coordinated by Mi'gmawe'l Tplu'taqnn Inc.

Local:

- Approval from the Town of Shippagan

Provincial:

- Determination Review regarding potential impacts on the environment under the *Environmental Impact Assessment Regulation - Clean Environment Act*, DELG;
- Approvals to Operate the wastewater systems and the water supply wells under the *Water Quality Regulation - Clean Environment Act*, DELG;
- Valid licenses to store and handle petroleum product under the *Petroleum Product Storage and Handling Regulation - Clean Environment Act*, DELG;
- Seafood Processing Licences and Certificates under the *Seafood Processing Act*, Department of Agriculture, Aquaculture and Fisheries.

Federal:

- Safe Food for Canadians licences, CFIA.

8.0 FUNDING

No applications for a grant or loan of capital funds from any government agency have been or will be submitted for this project. Funding for the project will be fully assumed by facility owners.

9.0 SIGNATURE

Eric Smith, President
EMS Engineering Ltd.

2/24/23
Date

10.0 REFERENCES

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