

SECTION 4.0

REGULATORY ENVIRONMENT



**GOLDBORO
LNG**

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4.0 REGULATORY ENVIRONMENT

There are a number of federal and provincial laws and municipal by-laws which are applicable to the Project. These are summarized in Table 4.1-1 at the end of this section. The most significant ones are discussed below. In addition, there are a number of guidelines, codes, and/or industry standards relevant to the Project that will be used by Pieridae in the design, construction, and operation of the Project. The most significant of these are also included with Table 4.1-1 and briefly addressed in the text below.

4.1 Federal

4.1.1 *Canadian Environmental Assessment Act (CEAA)*

The most notable piece of federal legislation related to the proposed Project is the *Canadian Environmental Assessment Act* (CEAA), which regulates the federal environmental assessment process. As noted earlier, the Project is proposed for the same location as the LNG component of the Keltic Project (later referred to as MapleLNG) and is very similar in nature. MapleLNG obtained provincial and federal EA approvals (2007 and 2008 respectively) and was also issued a Permit to Construct by the Nova Scotia Utilities and Review Board (NSUARB). Given these Project similarities, and in recognition of the previous Project approvals, the Canadian Environmental Assessment Agency (the Agency) reviewed the requirements for a federal environmental assessment pursuant to the new CEAA. To facilitate that review and assist in the Agency's decision making, Pieridae submitted a comprehensive comparative description of the two projects in November 2012 (AMEC, 2013a). This document followed the federal guide to preparing a project description (the Agency, 2012), and compared the two projects with an emphasis on the EA requirements established by the Agency (2012). The Agency reviewed the document and in an e-mail dated December 20, 2012, the Agency informed Pieridae that it determined that the Project does not require a federal EA pursuant to section 128 (1) (c) of CEAA.

4.1.2 *Fisheries Act*

Section 35 of the *Fisheries Act*, R.S.C. 1985, c. F-14 prohibits any person from carrying on any work or undertaking that results in the harmful alteration, disruption or destruction (HADD) of fish habitat, except in accordance with an authorization issued under section 35(2) of the Act. In accordance with section 32 of the *Fisheries Act*, a federal DFO authorization will also be required should the construction phase involve blasting activities which have the potential to destroy marine or freshwater fish. Consequently, construction of on-shore and in-water components of the Project may require authorizations under section 32 and section 35(2) respectively.

Table 4.1-1 Preliminary List of Relevant Legislative and Regulatory Requirements

Act or Regulation	Requirement	Permit Required Yes - ● / No - ○	Schedule
FEDERAL			
<i>Navigable Waters Protection Act (NWPA)*</i>	Approval of Minister of DFO to construct “work” in navigable waters.	●	Prior to Construction
<i>Fisheries Act and Regulation</i>	Approval required for a HADD of fish habitat, specifically the marine construction components.	●	Prior to Construction
	Fish passage must be maintained. Needs to be considered for pipeline and road crossings.	○	
	Prohibits destroying fish by any means other than fishing. Most relevant if blasting is required in or near waters containing fish or fish habitat.	○	
	Prohibits deposit of deleterious substance in waters frequented by fish.	○	
CEAA (2012)	As per section 13 (d) of the new “Regulations Designating Physical Activities” an LNG facility requires an EA pursuant to CEAA 2012) – Goldboro LNG has been exempt due to similarity with CEAA approved Keltic Project.	○	
NBCC	National Building Code applied by municipality.	●	Prior to Construction
<i>Species at Risk Act (SARA)</i>	Provides protection to listed species and their habitat.	○	
<i>Petroleum Refinery Effluent Regulation</i>	Sets minimum standards for effluent quality from “petroleum refinery” as therein defined.	○	
<i>CEPA and Regulation</i>	Regulates the manufacturing and handling of “toxic substance.”	○	
<i>Environmental Emergency Regulation</i>	Requires notification to EC that Proponent has control of a scheduled substance. Also requires an environmental emergency plan for the facility that stores or uses the substance.	○	
<i>Canada Marine Act</i>	Regulation of marine transportation.	○	
<i>Transportation of Dangerous Goods Act and Regulation</i>	Documenting handling and placard requirements for transport of dangerous goods.	○	
<i>Pilotage Act - Atlantic Pilotage Authority Non-Compulsory Area Reg.</i>	Establishes pilotage authorities and requirements outside areas where pilots are compulsory.	○	
<i>Canada Shipping Act (including Ballast Water Control and Management Regulations)</i>	Detailed code for all aspects of shipping in Canada.	○	
<i>Canada Transportation Act</i>	Applies to transportation matters under federal jurisdiction.	○	
<i>Migratory Birds Convention Act (MBCA) and Regulations</i>	Enacts international treaty for protection of migratory birds.	○	
	Prohibits harm to any migratory bird, its nest, eggs, and/or young.	○	
<i>Marine Transportation Security Act</i>	Regulatory measures for marine and port security.	○	

Act or Regulation	Requirement	Permit Required Yes - ● / No - ○	Schedule
<i>Canada Wildlife Act and Regulations</i>	The Act allows for the creation, management and protection of wildlife areas for wildlife research activities, or for conservation or interpretation of wildlife. The Wildlife Area Regulations prohibits all activities that could be harmful to species and to their habitat, unless a permit is issued indicating the permitted activity.	○	
PROVINCIAL			
<i>Environment Act and Regulations</i>	Prohibits designated activities without holding appropriate approvals.	○	
Environmental Assessment Regulation	Project cannot proceed without Minister's approval under this Regulation.		
	Storage facility for liquid or gaseous substances including hydrocarbons with total capacity greater than 5000 m ³ requires approval.	●	Prior to Construction
Activities Designation Regulations	The installation of certain culverts, a bridge, or other watercourse alteration requires approval.	●	Prior to Construction
	The construction of a wharf requires approval.	●	Prior to Construction
	The construction or operation of a site with a chemical storage tank in excess of 2000 litres (L) or 2000 kilograms (kg) requires approval.	●	Prior to Construction
	The construction or operation of a natural gas processing facility requires approval.	●	Prior to Construction
	The construction or operation of a plant in which hot water, steam, or thermal electric power is produced with a total rated thermal input of 25 MW or more requires an approval.	●	Prior to Construction
	The treatment or processing of wastewater or wastewater sludge requires approval.	●	Prior to Construction
	Watercourse alteration/diversion.	●	Prior to Construction
	Wetland alteration/removal.	●	Prior to Construction
	The construction of a causeway requires approval.	●	Prior to Construction
Water withdrawal permit.	●	Prior to Construction	
Air Quality Regulation	Establishes maximum permissible ground level concentrations of contaminants.	○	
Petroleum Management Regulation	Storage tank systems must be registered.	●	Prior to Operation
Dangerous Goods Management Regulation	Written approval required to store waste dangerous goods.	●	Prior to Operation
Water and Wastewater Facility Regulation	Creates classification system for wastewater treatment system and operation certification requirements.	●	Prior to Operation
Energy Resources Conservation Act – Gas Plant Facility Regulation	Requires a Permit to Construct and licence to operate to be obtained from the NSUARB.	●	Prior to Construction
<i>Pipeline Act – Pipeline Regulation</i>	Requires permit or licence to construct or operate a pipeline. Establishes standards for design and construction.	●	Prior to Construction

Act or Regulation	Requirement	Permit Required Yes - ● / No - ○	Schedule
<i>Nova Scotia Endangered Species Act (NSESA)</i>	Prohibits harm to or interference with an endangered or threatened species or the destruction, disturbance or interference with the specific dwelling place or area occupied or habitually occupied by one or more individuals or populations of an endangered or threatened species, including the nest, nest shelter, hibernaculum or den of an endangered or threatened species.	●	Prior to Construction
<i>Nova Scotia Wildlife Act (NSWA) and Regulations</i>	Prohibits persons to take, hunt or kill or attempt to take, hunt or kill or possess any eagle, osprey, falcon, hawk, owl or any wildlife declared by regulation to be protected wildlife pursuant to this Act.	●	Prior to Construction
	Prohibits a person to destroy, take, possess, buy or sell any egg of a bird or turtle or disturb the nest of a bird or turtle.	○	
<i>Special Places Protection Act</i>	A Heritage Research Permit must be obtained prior to conducting Archaeological Resources Impact Assessment (ARIA).	●	Prior to Construction
<i>Beaches Act</i>	Construction activities including trenching and infilling below the ordinary high water mark require permission (permit) from Nova Scotia Department of Natural Resources (NSDNR).	●	Prior to Construction
<i>Crown Lands Act and Regulations</i>	Governs the use and activities on lands owned by the province. Through the Act the province can make crown lands available for the Project through the use of easements, conveyances, leases, or licenses.	●	Prior to Construction
<i>Forests Act – Forest Protection Regulation</i>	Requires fire suppression equipment as per the regulation when operating within 305 m of the woods.	○	
<i>Dangerous Goods Transportation Act and Regulations</i>	Regulates safe transport of dangerous goods.	○	
<i>Labour Standards Code</i>	Sets labour standards.	○	
<i>Crown Lands Act</i>	Manages Crown lands in NS.	○	
<i>Occupational Health and Safety Act and Regulations</i>	Protects the workplace health and safety of employees in NS.	○	

Note:

*this Act is about to be replaced by the *Navigation Protection Act*.

It is of note that the *Fisheries Act* is in the process of being revised and will no longer make reference to HADD, thereby changing the requirements for authorizations. In consultation with DFO in January 2013, Pieridae was informed that DFO is beginning to utilize the new/revised Act, and that during this transition period the Project will be subject to both the old and new regulations. As the new legislation is being implemented, its application to the Project will need to be determined. The requirements for an authorization under the Act therefore will be addressed upon Pieridae's formal submission of an application to DFO.

4.1.3 Navigable Waters Protection Act (NWPA)

The construction of the marine terminal facility will trigger the requirement for an approval under section 5(1) of the NWPA. Watercourse crossings for road construction, if applicable, may also require approval under section 5(1) of the NWPA and will be addressed in separate permit application(s). The NWPA is about to be replaced by the *Navigation Protection Act* which will limit the requirements for assessments and authorizations required by developments at or in navigable waters. In consultation with TC Marine Safety in January 2013, Pieridae was informed that the NWPA is still in force and applicable to the Project. As such, approvals under the Act are required, and the approval process was initiated in May 2013 via the submission of a completed approval application form with detailed engineering drawings for all relevant Project components.

4.1.4 Species at Risk Act (SARA)

Pieridae must consider the potential impacts of Project activities SAR and their habitats potentially occurring on or near the Project site. The goal of the SARA is to protect endangered or threatened organisms and their habitats. It also manages species which are not yet threatened, but whose existence or habitat is in jeopardy. SARA designates an independent body of wildlife experts, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), to assess the conservation status of species potentially at risk. COSEWIC reports are used by the Minister of the Environment when determining whether to list a species under Schedule 1 of SARA. This list is referred to as the federal List of Wildlife SAR. Species on this list may be listed as special concern, threatened, endangered, extirpated, or extinct. Under SARA, DFO is responsible for aquatic habitat and SAR, while EC is responsible for all other SAR, with the exception of those within national parks and protected areas.

4.1.5 Technical Review Process of Marine Terminal Systems in Trans-Shipments Sites

TERMPOL is a voluntary review process of marine terminal systems for trans-shipment sites which is initiated by Pieridae. The purpose of this review process is to have all relevant government agencies conduct a coordinated and comprehensive review of a proposed project. TERMPOL is intended to objectively appraise operational ship safety, route safety, management, and environmental concerns associated with the location, construction, and operation of a marine terminal. The review is coordinated by TC and DFO in conjunction with requirements of the *Canada Shipping Act*. Provisions of the review are not mandatory but criteria are used by TC to determine the need for making or revising specific regulations or for implementing special precautionary measures. It is envisaged that Pieridae will ask TC to initiate and coordinate a TERMPOL review in order to ensure that safety and environmental

concerns of all relevant regulatory agencies are identified and addressed as the Project design evolves.

4.2 Provincial

Typically, the NS government utilizes a “One Window” approach for reviewing, permitting and monitoring projects in the province. This approach is intended to formalize how government departments (including federal authorities) involved with Project development activities act collectively to streamline the review process for both government and industry.

4.2.1 Environmental Assessment (EA) Regulations

The Nova Scotia Environmental Assessment Regulations determine whether or not a given project must undergo environmental assessment. Schedule “A” of these regulations distinguishes between Class I and Class II Undertakings. Class I undertakings are usually small projects which may or may not cause significant environmental impacts or be of sufficient concern to the public, while Class II undertakings are typically larger in scale and are considered to have the potential to cause significant environmental impacts and concern to the public. The Environment Minister will decide if further information and/or public hearings are required.

Proponents of Class II undertakings must submit a registration document prior to the effects assessment. Following the submission of the registration document, which entails a detailed project description, these projects require an environmental assessment report and formal public review which may include hearings. The NSE has determined that the Project is a Class II undertaking, due to the proposed 180 MW power plant. In response to that decision, Pieridae submitted a registration document in February 2013 and prepared this EA Report.

4.2.2 Gas Plant Facility Regulations

A Permit to Construct and a License to Operate from the NSUARB will be required pursuant to the Gas Plant Facility Regulations passed under the *Energy Resources Conservation Act*. These regulations set out terms and conditions of construction and operation. Pieridae will apply for a Permit to Construct after all required federal and provincial environmental approvals are obtained and will follow the NSDE Code of Practice for LNG Facilities dated July 2005.

The Regulations incorporate by reference CSA Z276-11, which is the current version (2011) of the CSA Liquefied Natural Gas standard. This Code of Practice provides requirements and guidance for the design, construction, operation and abandonment of land-based LNG plants and the associated jetty and marine terminal. It is intended to supplement both the requirements in the Gas Plant Facility Regulations and CSA Z276-11. A central purpose in the application of the Code of Practice is the protection of the public through the appropriate design, construction, operation, and abandonment of LNG facilities (NSDE, 2005).

4.2.3 Activities Designation Regulations

As part of the site development, a series of approvals will be required pursuant to Part V of the NSEA and the associated Activities Designation Regulations. These approvals will be sought following the approval of the provincial environmental assessment.

The Activities Designation Regulations cover several areas relevant to this Project, such as watercourse alterations /diversions, wetland alterations, surface water withdrawal, and construction and maintenance of wharves and causeways. The Regulations also cover the Industrial Approval, which defines specific operational conditions and limitations, including dust, noise, surface water and groundwater discharge criteria and monitoring plans. An Industrial Approval application is made by the proponent once EA approval will have been received. A summary of the wide range of provincial legislation and permits that may be applicable are identified in Table 4.1-1 above.

4.3 Municipal

Pieridae has been in close contact with the MODG and has provided the municipal Council will regular updates on the Project. Key municipal regulatory instruments are the zoning bylaws as well as the requirements for a building permit. Building permits will be obtained prior to the start of the construction phase.

4.4 Guidelines, Policies, and Codes

In addition the regulatory framework addressed above and summarized in Table 4.1-1 there are numerous federal and provincial guidelines, policies and codes applicable to Project development and environmental management / mitigation. The most important and directly relevant guidelines, policies and codes are summarized in Table 4.1-2. As the Project unfolds, in particular during the FEED process and the application of subsequent permits and approvals, further guidance documents will be identified and applied in Project design and implementation.

Table 4.1-2 Key Guidelines, Policies and Codes

Level of Government	Guidelines, Policies And Codes
Federal	Canadian Council of Ministers of the Environment (CCME) Quality Guidelines (CCME, 1999).
	CCME Strategic Directions for Water (CCME, 2009).
	CCME Canadian Environmental Quality Guidelines, Water: Aquatic Life (Freshwater and Marine) (CCME, 1999).
	CCME Canadian Environmental Quality Guidelines, Sediment Quality Guidelines (SQGs) for Protection of Aquatic Life (CCME, 2001).
	CCME Canadian Environmental Quality Guidelines, Soil: Commercial/Industrial Sites (CCME, 1999).
	Environmental Code of Practice for Aboveground and Underground Storage Tank Systems containing Petroleum and Allied Petroleum Products (CCME, 2003).
	National Fire Code of Canada.
	Useful Information for Environmental Assessments (Health Canada, 2010).
	Guidelines to Avoid Disturbance to Seabird and Waterbird Colonies in Canada (EC, 2013a).

Level of Government	Guidelines, Policies And Codes
	Avoidance Guidelines (EC, 2013a). Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (DFO, 1998). NFPA 59A "Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)" (NFPA, 2013). CSA Z276-11 "Liquefied Natural Gas (LNG) – Production, Storage, and Handling" (CSA, 2011).
Provincial	Atlantic Risk-Based Corrective Action (RBCA) Version 3.0 For Petroleum Impacted Sites in Atlantic Canada User Guidance (RBCA, 2012). Construction & Demolition Debris Disposal Site Guidelines (Nova Scotia Department of Environment and Labour (NSEL), 1997a). Guidelines for Disposal of Contaminated Materials in Landfills (NSEL, 1997b). Guideline for Environmental Noise Measurement and Assessment (NSEL, 2005). Guidelines for the Management of Contaminated Sites in NS (NSE, 2013c). Nova Scotia Climate Change Action Plan (NSE Guidelines) (NSE, 2009a). Guide to Considering Climate Change in Environmental Assessment (NSE, 2011a). Guide to Consider Climate Change in Project Development in NS (NSE, 2011b). Guide to Addressing Wildlife Species and Habitat in an EA registration document (NSE, 2009b). Nova Scotia Wetland Conservation Policy (NSE, 2011c). From Strategy to Action, An Action Plan for the Path We Share, A Natural Resources Strategy for NS (NSDNR, 2011a). The Path We Share, A Natural Resources Strategy for NS 2011-2020 (NSDNR, 2011b). Water for Life: Nova Scotia's Water Resource Management Strategy (NSE, 2010a). Sulphide Bearing Materials Disposal Regulations and the Guidelines for Development on Slates in Nova Scotia; (NSE and EC 1991). NS Standard Specifications. Highway Construction and Maintenance (NSTIR, 2011). Sediment and Erosion Control Handbook (NSE, 1988). Watercourse Alteration Protection; Erosion Protection; Wharves; Pipe Culverts; Arch or Open Bottom Box Culverts (NSE, 2013b). Generic Environmental Protection Plan for Construction of 100 Series Highways (NSTIR, 2007).

4.5 Anticipated Schedule for Required Regulatory Approvals

Table 4.1-1 includes information on the schedule for obtaining the approvals and permits. Most of them will be required prior to construction. Typically, detailed construction and/or operational information is required as part of the application documents. That information will be developed as part of the FEED phase. Where sufficient detail is already or becomes available before or during the FEED process, approval applications will be submitted as the information becomes available.