

STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

NEW BRUNSWICK POWER
CORPORATION
Calais
Washington County
MILLTOWN GENERATING STATION
DECOMMISSIONING AND DAM
REMOVAL #L029184-3D-A-N
(APPROVAL)

MAINE WATERWAY DEVELOPMENT AND CONSERVATION ACT

FINDING OF FACTS AND ORDER NEW PERMIT AND CERTIFICATION

Pursuant to the provisions of the *Water Classification Program*, 38 M.R.S. §§ 464–470, the *Maine Waterway Development and Conservation Act*, 38 M.R.S. §§ 630–637, and the *Administrative Rules For Hydropower Projects*, 06-096 C.M.R. 450 (Rule Chapter 450), the Department of Environmental Protection (Department) has considered the application of NEW BRUNSWICK POWER CORPORATION (NB Power) with its supportive data, agency review, public review, and other related materials in the administrative record, and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

On April 2, 2021, NB Power (the Applicant) submitted to the Department a Maine Waterway Development and Conservation Act (MWDCA) application for the decommissioning and removal of portions of the Milltown Generating Station (Milltown Station) that lie within the boundaries of the United States (US) (Project). That application was accepted for processing on April 15, 2021. The Department has reviewed the application and attended meetings related to the Project and finds the following facts.

2. REGULATORY HISTORY

A. Federal Energy Regulatory Commission License

The Milltown Station is located in New Brunswick, Canada. and is not subject to licensing by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act. As a result of no prior federal licensing, no state water quality certification (WQC) has been issued for operation of the facility.

B. Application

On April 2, 2021, NB Power submitted an application to the Department to remove portions of the Milltown Station structures that lie within the State of Maine. NB Power intends to decommission and remove all of the

L-029184-3D-A-N 2 of 29

components of the Milltown Station, however, the Department's jurisdiction is limited to the portion of the site within Maine's borders. Within the US border, NB Power proposes to remove and dispose of portions of Powerhouse C, remove and dispose of a series of spillways including a gated spillway, a rollway spillway with flashboards, a concrete spillway with stoplogs, and remove and dispose of a downstream fishway. NB Power further proposes to restore Salmon Falls in a manner that supports volitional passage for anadromous fish.

3. DESCRIPTION OF EXISTING PROJECT AND OPERATION

NB Power owns and operates a 2.8 megawatt (MW) hydroelectric power generating station in St. Stephen, New Brunswick that spans the St. Croix River between the US and Canada. At the peak of its operations, the Milltown Station generated 4 MW of electricity. Currently only four (of a historic total of seven) turbine-generator units remain. The station is operated as a run-of-river facility. The Milltown Station is located 1.3 river miles above head-of-tide, approximately 16 river miles from the mouth of the St. Croix River in Calais, Washington County, Maine and in St. Stephen, Charlotte County, New Brunswick, Canada, adjacent to the former site of the historic St. Croix Cotton Mill in Canada. The mill operated from the early 1880s to 1957. In 1958, NB Power purchased the facility for the purpose of hydroelectric generation. The Milltown dam is built upon a naturally occurring waterfall called Salmon Falls.

The US portion of the Milltown Station is located within the city limits of Calais, Maine in a suburban area that abuts an active train track, residential areas, industrial properties, and the US Route 1 highway corridor. The Milltown Station impoundment extends approximately 1,640 feet upstream to a series of islands in the St. Croix River. The Station tailrace joins with the St. Croix River nearly immediately downstream of the Milltown dam. The extent of the proposed Project for this MWDCA application is defined as approximately 1,640 feet upstream of the dam to approximately 1,640 feet downstream of the dam and encompasses any anticipated Project impact.

Station facilities located in Maine include the gated spillway and gate house, rollway spillway with flashboards, concrete spillway with stop logs, a portion of Powerhouse C, half of the station impoundment, and a downstream fishway. Powerhouse C is a masonry brick superstructure with modified bitumen roof and is both the newest powerhouse structure and is located closest to the US shore of the St. Croix River. Powerhouse C contains three 0.776 MW turbine-generators, all of which are operational. Approximately 1/3 of Powerhouse C is located in US waters. The stoplog spillway consists of a 121-foot-long by 33-foot-high concrete spillway with six sluice gates, and is located adjacent to Powerhouse C. The spillway, at elevation 53.0 feet, is constructed of concrete poured over bedrock, while the stop logs are made of creosote-treated wood. Stop logs are manually removed as necessary using a crane or boom truck to provide additional spill if the gated spillway is unable to spill the required water during high flow periods or for maintenance or impoundment drawdown. A rollway with flashboards is located between the stop logs spillway and gated spillway. The rollway is used to

L-029184-3D-A-N 3 of 29

increase retention capacity in the impoundment and maintain suitable water elevations during operations. This structure is approximately 88.5 feet long and 16 feet wide with a sill at elevation 43.0 feet. The concrete rollway is topped with 2-foot-high flashboards. A 59-foot-long by 33-foot-high gated spillway, with a concrete deck at elevation 54.0 feet, is closest to the US shore and is the main structure for spilling water. The gated spillway is constructed of concrete poured over the existing bedrock that likely formed the naturally occurring Salmon Falls. This spillway has a wooden gatehouse and five timber gates with screw stem lifts. The gates are mechanically controlled from the main control room and can be opened manually from the gate house. A 24-foot-long by 2-foot-wide wooden sluice structure located to the left of the gated spillway forms a downstream fishway and provides egress for fish from the Milltown Station impoundment; the downstream fishway sluice discharges to a concrete holding pond with a gated exit.

4. SUMMARY OF PROJECT PROPOSAL

NB Power proposes to decommission and remove the Milltown Station and associated spillways, stoplogs, downstream fishways, and all other man-made impediments to water flow associated with the station, including those structures located in Maine, in order to provide volitional fish passage to allow access for native sea-run fish species to access an additional 10 miles of the St. Croix River and associated tributary habitats.

The proposed action consists of removing all Milltown Station infrastructure and legacy structures that exist within US borders, placing fill in the cavity created by removal of powerhouse C and its tailrace to create a defined low flow channel with a broad, high-flow overbank area, and to selectively remove bedrock as necessary to enhance fish passage through the restored reach of the river.

NB Power proposes to remove all the existing man-made structures, work that will lower the present-day impoundment (normal elevation of 45.0 feet) to approximate elevations of 26.5 feet to 30 feet in areas immediately upstream of the Station and elevations of approximately 37.5 feet to 40.5 feet at the upstream end of the (current) impoundment.

5. DETAILED PROJECT ACTIVITIES/SCHEDULE

As set forth in its application, NB Power proposes the following sequence of decommissioning and dam removal activities. In consideration of working across an international border, the work will be sequenced in three phases: 1) Canadian site work, 2) US site work, and 3) adaptive management. This MWDCA permit is limited to work proposed in the US and, because that portion of the work will take place in the second phase, some logistical elements associated with the Canadian work precedes work on the US side of the border. Because in-river work may impact waters of the US, construction sequencing and scheduling is inclusive of both the Canadian site work phase and the US site work phase.

L-029184-3D-A-N 4 of 29

A. Site Mobilization

The initial Canadian site preparation is expected to begin in June 2022 and US Site Works Phase is scheduled to start in October 2022. The US Portion of Powerhouse C will be deenergized in mid-July 2022 and abatement activities will commence, including a chemical sweep, biological sweep to remove any nests, universal waste removal, asbestos abatement, lead paint abatement, and equipment draining, cleaning and removal, prior to superstructure and substructure removal. It is expected that partial building demolition will be required to allow for removal of turbine-generator equipment located inside the powerhouse. All hazardous materials will be surveyed and assessed and a hazardous materials inventory developed. All hazardous materials will be transported safely off-site and disposed at approved facilities in accordance with local requirements and environmental regulations.

The first step in the US Site Works Phase will be to demark laydown areas. All laydown areas will be covered with a 1-foot-thick gravel pad to protect potential underlying archaeological artifacts associated with the historical use of Salmon Falls. A silt fence will be installed around the laydown and access areas as appropriate. Active work areas will be fenced with temporary construction fencing for safety and security. All US materials will be disposed in the US.

B. Water Control

Following closure of the upstream fish passage facility in mid-July 2022, the impoundment will be drawn down at a rate of approximately 1 foot per hour over the course of 24 hours. Temporary in-water access and water control structures will be constructed from the Canadian side of the border starting in mid-July 2022. A temporary combination earthen and braced cofferdam will be constructed on the upstream side of Powerhouse C (as well as powerhouses A and B) to allow access to the upstream side of the powerhouse C and legacy dam structures. The cofferdam constructed upstream of the powerhouses will direct flow to the gated spillway and the rollway spillway during the Canadian Site Works Phase. Once the removal of the powerhouses and stream restoration is complete, this cofferdam will be removed. A cofferdam on the upstream side of the gated spillway and rollway spillway will be constructed to allow the removal of those structures in the dry. River flows will be directed to the restored channel on the Canadian side.

C. Demolition

The gated spillway and rollway spillway are concrete structures poured on top of bedrock. These structures will be removed down to the existing bedrock elevation. Some bedrock may be removed during this phase of the Project in order to meet design contours.

L-029184-3D-A-N 5 of 29

D. Riverbed Restoration

As part of the Canadian Site Works phase, a low flow channel will be created in the tailrace area downstream of the powerhouses. During higher flows, flow will be spread out across the channel. The US Site Works phase involves the placement of permanent fill and the removal of bedrock in the river to achieve the design contours necessary to provide fish passage in the restored channel.

E. Stabilization and Closeout

Upon completion of the site work and riverbed restoration, the cofferdams and access ramps will be removed. The legacy concrete abutment and timber cribbing will be left in place. Removal of these structures could undermine the adjacent railbed. All disturbed areas will be graded to match existing hard surfaces and provide positive drainage. The disturbed areas will be loamed and hydroseeded with a local seed mix. Additional seeding of disturbed lands is scheduled to take place in the spring of 2023.

DEPARTMENT ANALYSIS

6. FINANCIAL CAPABILITY AND TECHNICAL ABILITY

A. Financial Capability

The total estimated cost of this Project is \$4,530,000. The Applicant estimates that design and engineering will cost \$990,000, Project Permitting and Approvals will cost \$122,000 and construction will cost \$2,430,000. A corporate search of The Maine Department of the Secretary of State, Bureau of Corporations, Elections and Commissions (MSSBCEC) indicated that NB Power, is a legally existing company in good standing under the laws of the State of Maine. NB Power is a Provincial Crown Corporation, which has a history of owning and operating a consistent renewable power portfolio. The Applicant submitted with their application to the Department a completed and accepted State of Maine Application for Authority to do Business. Additionally, the Applicant indicates that funds for this Project have been budgeted and approved as part of NB Power's 2021, 2022 and 2023 capital budget. NB Power, owner of the Milltown Station, has the financial ability to perform the decommissioning and removal of structures within the US at the Milltown Station.

B. <u>Technical Ability</u>

At the time of application submission, the contractor was not identified. Through correspondence, NB Power indicated that contractor bids were only considered from Maine and New Brunswick based contractors with a history of work at hydropower facilities that possesses the requisite technical ability to carry out proposed construction activities at the Milltown Station. Permitting and

L-029184-3D-A-N 6 of 29

construction management support for the proposed Project was executed by the Applicant and Kleinschmidt Associates. NB Power and its consultant are companies that have proven experience in hydropower-related permitting and have conducted successful MWDCA Projects throughout the State of Maine.

C. <u>Discussion</u>

The Applicant provided sufficient evidence to demonstrate that it and its consultants have the technical ability to design the decommissioning and removal plan and to select a construction firm with the technical ability to execute the removal of structures according to specifications. To satisfy the requirements of 38 M.R.S. § 636(1), the Applicant indicated that it has the financial capability to undertake the proposed Project at the Milltown Station, as well as the cost of complying with the terms and conditions of this order. The Department finds that, based on the information provided, the Applicant has the financial capability and technical ability to undertake the Project.

7. PUBLIC SAFETY

The US work area will be located on the eastern side of the St. Croix River. The proposed staging area, a previously cleared gravel pad, is located at the end of Poorhouse Lane and the staging location will be closed to the public. Poorhouse Lane is a dead-end road and generally has little public traffic. To access the work site from the staging area, heavy equipment, machinery, and personnel will need to cross a railroad track in two locations and, depending on the phase of work, two access points will be needed to enter the work area. The rail line is owned and operated by Woodland Rail, LLC., and will remain active throughout the duration of the decommissioning and removal activities. There are no known recreational access points in this location and currently, the train track system and existing fencing limit public access to the impoundment and the river downstream of the Milltown Station. The Applicant will take a number of steps to protect public safety prior to and during construction, including: (1) a notice of dam removal activities has been published in a local newspaper; (2) fencing will be erected to block public access to the active work areas; (3) flaggers will be on site during construction to direct pedestrian and traffic movement on Poorhouse Lane; (4) NB Power will proactively work with the rail company regarding train schedules and access timing and the contractor will ensure all equipment and vehicles are a safe distance from the tracks; and (5) during Project phases that require multiple rail crossings daily, NB Power will have a flagger on site to manage rail traffic. The proposed work is not expected to have any adverse impacts on public safety or recreation.

Based on the materials submitted, the Applicant has demonstrated and the Department finds that the Applicant has made adequate provisions to protect public safety during access road work.

L-029184-3D-A-N 7 of 29

8. PUBLIC BENEFITS

A. <u>Employment</u>

The Applicant plans to use Maine or New Brunswick based subcontractors and source materials for construction activities from local companies to the extent possible. NB Power employed Kleinschmidt, a Maine based company, to assist with Project proposals and planning. Workers from the Project will benefit the local economy of Calais through general purchases of food, gas and other miscellaneous items.

B. Taxes

NB Power proposes to remove all the existing man-made structures, work that will lower the present-day impoundment (normal elevation of 45.0 feet) to approximate elevations of 26.5 feet and to 30 feet in areas immediately upstream of the Station and elevations of approximately 37.5 feet to 40.5 feet at the upstream end of the (current) impoundment. These elevation changes will be permanent upon completion of the dam removal work. The area upstream of the Project within the US includes the residential Town of Milltown and the City of Calais downstream of the Project. Though impoundment water levels are expected to change as described above, the Department does not anticipate these changes to have a negative impact to property values or property taxes.

C. Other Public Costs and Benefits

There is public benefit to the decommissioning and removal of the Milltown Station in that the fisheries resources of the St. Croix River will be enhanced over time as discussed in Section 15 of this permit. Additionally, removing the Milltown Station will create benefit to the public in the form of enhancing the designated uses of Class C waters including fishing; recreation in and on the water; and habitat for fish and other aquatic life. The Milltown Station has been in operation since the early 1880s. Currently, only four of the seven generating units are operational with the facility generating 2.8 MW. This represents 0.8 percent of NB Power's hydro generation and 0.07 percent of NB Power's total generation capacity. Thus, the removal of this facility will result in negligible loss of power to the grid and electricity needs can be met from other NB Power facilities or power imports. The cost associated with the Milltown Station decommissioning is bundled into all of NB Power costs and has been accounted for in the rate increases projected for 2021, 2022 and 2023 and residential rates will not be impacted in the future. Decommissioning is the least costly option which is why it is the Applicant's proposal. Access and construction for the work within the US will occur on the eastern bank and is not expected to impact recreational access to the river.

L-029184-3D-A-N 8 of 29

D. <u>Discussion</u>

Benefits of dam removal and a more natural free flowing river include enhancements to fisheries resources and enhancements to the designated uses for Maine Class C waters including fishing, recreation in and on the water and habitat for fish and other aquatic life. The Project will have no negative impacts on recreation upstream or downstream of the Milltown Station. Based on its review of the information provided by the Applicant, the Department has determined that dam decommissioning and removal proposed by NB Power will have little or no public costs. The Department finds that the Project will result in small economic benefits to the public including creation of employment opportunities for workers of the State, local economic benefits from general purchases by contracted personnel.

9. TRAFFIC MOVEMENT

A. Construction Traffic

Materials and equipment for the Project will be moved to and from the work site and staging area over state and town roads in Milltown and Calais. The loading and unloading of equipment and construction materials, as well as the removal of demolition waste to off-site locations, will occur by truck. Access to the work site will occur from Poorhouse Lane, a dead-end road in Calais. The proposed staging area, a previously cleared gravel pad, is located at the end of Poorhouse Lane as described in Section 5 of this Permit and Poorhouse Lane connects to Route 1. To access the work site from the staging area, heavy equipment, machinery, and personnel will need to cross a railroad track in two locations and, depending on the phase of work, two access points will be needed to enter the work area. The rail line is owned and operated by Woodland Rail, LLC., and will remain active throughout the duration of the decommissioning and removal activities.

As outlined in Section 11 of this Permit, the Applicant will take a number of steps to safely manage traffic movement: (1) flaggers will be on site during construction to direct pedestrian and traffic movement on Poorhouse Lane; (2) NB Power will proactively work with the rail company regarding train schedules and access timing and the contractor will ensure all equipment and vehicles are a safe distance from the tracks; and (3) during Project phases that require multiple rail crossings daily, NB Power will have a flagger on site to manage rail traffic. Minimal adverse impacts on existing traffic movement are expected from the proposed activity. The Applicant has applied for town permits and will coordinate with the City of Calais as needed regarding traffic and public safety measures prior to dam removal activities.

L-029184-3D-A-N 9 of 29

B. Roads and Bridges

The Applicant's proposal indicates that normal wear and tear may occur to roads or bridges by the construction activities of this Project.

C. Applicant's Proposal

NB Power anticipates minimal increases in traffic and has not proposed to conduct pre- and post-construction roadway condition surveys. Project related traffic is not expected to degrade the pre-construction quality of public roads more than normal wear and tear. The Department does not anticipate any degradation of public roadways. The Applicant proposes to stage materials and equipment from the eastern bank staging area on NB Power property upstream of the gatehouse. The Applicant states that the existing access road, which leads to the rail right-of-way, which will be utilized to reach the two access points, may need to be widened by three feet to provide access for larger construction equipment and vehicles. The Applicant plans to confer with the City of Calais to address traffic and public safety measures and has applied for the necessary town permits.

D. <u>Discussion</u>

The Applicant has proposed sufficient provisions for traffic movement into and out of the Project area, both during and following decommissioning and demolition activities. The proposed staging area is a pre-existing gravel area that will facilitate trucks and other vehicles loading and unloading equipment and materials near the work site, rather than on public roads, allowing traffic to move unimpeded. Additionally, the Applicant has proposed to have flaggers on duty to manage pedestrian, road and rail traffic. The Department finds that, based on the proposed plans, the Applicant has made adequate provisions for traffic movement related to the rail line as well as roadways.

10. MAINE LAND USE PLANNING COMMISSION

No part of the proposed dam removal or fishway construction activities is located within the jurisdiction of the Maine Land Use Planning Commission (LUPC). Therefore, consistency with LUPC zoning is not applicable.

11. ENVIRONMENTAL MITIGATION

A. Review Standard

The MWDCA, at 38 M.R.S. § 636(6), establishes that an applicant must demonstrate that reasonable provisions have been made to realize the environmental benefits of the project, if any, and to mitigate its adverse environmental impacts. The Department's Administrative Regulations for Hydropower Projects (Chapter 450), which implement the MWDCA, define

L-029184-3D-A-N 10 of 29

"mitigation" to include any action taken or not taken in order to avoid, minimize, rectify, reduce, eliminate, or compensate for actual or potential adverse environmental impacts. Such actions include minimizing a potential impact by controlling the timing of an activity.¹

B. Applicant's Proposal

The Applicant proposes to decommission and remove the dam and associated structures at Milltown station within the US and indicates that the removal of the dam will enhance habitat for fish and other aquatic life as well as recreational opportunities on the St. Croix River. The Applicant proposes to reduce and mitigate the environmental impacts associated with the Project by taking various actions related to the natural environment and water quality as discussed in Sections 4 and 5 of this order.

Environmental impacts associated with the proposed work will primarily be temporary in nature. Potential sedimentation impacts to the resource are related to the establishment of the work area, widening the existing access road by 3-feet as described above, constructing a cofferdam and dewatering the work area to facilitate demolition activities in the dry, and the addition of temporary fill to construct access ramps and wet roads to provide access to the work area. Additional impacts include the movement of equipment and materials, and the removal of structures including concrete and ledge from within the St. Croix River. Many of the proposed actions are below the normal high-water line.

C. Temporary Impacts

The Applicant proposes to conduct removal activities on the Canadian side of the river first. Following removal of the infrastructure from the Canadian site works, NB Power proposes to then construct a cofferdam on the US side of the river and divert flow away from the US site works to the Canadian side of the river. The cofferdam will be constructed on the upstream side of the stoplog spillway and span approximately 98-feet across the river. The proposed cofferdam will be approximately 10-feet-wide at its top and 20-feet-high at the base with a slope of 1:2² and a freeboard of approximately 5-feet. A 1.6-ft-thick aggregate wearing course will be placed on the top of the cofferdam to allow for equipment traffic and approximately 3 feet of riprap armor stone material will be installed on the upstream side to protect the cofferdam from erosion and adverse weather conditions during demolition activities. Approximately 3,917 cubic yards (CY) of temporary earthen cofferdam fill will be placed for construction of the cofferdam. All materials required for the construction of the cofferdam will be imported from off-site sources in the US.

¹ 09-096 C.M.R. Ch. 450, § 3(I).

² Rise over run.

L-029184-3D-A-N 11 of 29

Additional impacts include two temporary ramps descending the shoreline and the establishment of a 3-foot-thick earthen working pad or road on the ledge riverbed along the upstream side of the of the gate spillway, rollaway and stoplog spillway to allow heavy machinery and equipment access for demolition. The access ramps, earthen working pad, and upstream cofferdam will connect to form a u-shape. Approximately 1,020 CY of temporary fill from the earthen working pad and earthen access ramp will enter waters of the US. The Applicant proposes to construct two similar access points in different locations on the eastern bank and conduct the removal work in phases. The temporary ramps will descend the shoreline and connect the already established staging area and rail right-of-way access road to the earthen pad or road and instream work areas. The proposed ramps and earthen pad roads will be removed after all hydro generating equipment has been removed.

Any temporary access road and cofferdam fill placed in the waterway or within the 100-year floodway boundaries of the waterway must consist of clean stone fill or sandbagged clean granular fill free from vegetable matter, lumps or balls of clay and other deleterious substances. That portion passing a No. 200 sieve must not exceed 10% fines, by weight.

All temporary access road and cofferdam fill must be removed following completion of dam removal activities.

D. Permanent Impacts

Permanent construction impacts from the dam removal include the demolition and excavation of spillway concrete and ledge materials and the restoration of the riverbed. Additional soils may be disturbed along the shoreline through the movement of heavy equipment. Further impacts include the removal of excess concrete material and excavated ledge from the work site to the staging area on shore for disposal.

i. Dam Removal

Concrete footings, foundations, and pedestals in the St. Croix River will be removed to bedrock elevation (cut to surface) to match the new riverbed or to elevations that do not impede river flow or volitional fish passage. Demolition and removal will require the use of heavy equipment with specialized demolition attachments, such as grapples, pulverizes, hydraulic hammers, and shears. Experienced equipment operators will remove the structures by progressive demolition of the structural components. The gated spillway, the rollway, the stoplog spillway will necessitate larger demolition equipment including standard and long reach hydraulic excavators equipped with demolition attachments. This equipment is engineered and constructed to enable an extended boom to operate demolition attachments and has tracks that are spaced to increase stability. This equipment is specifically designed with counterweights and

L-029184-3D-A-N 12 of 29

high-pressure hydraulic systems. This extended boom equipment will allow the operator to reach structures with greater control and efficiency in the demolition process. All other infrastructure at the site is identified as support structures that can be decommissioned using smaller mechanical demolition equipment and manual labor. There is potential that blasting could be utilized to remove substructure pieces as required.

Demolition debris, concrete, cinderblock, brick, and ferrous and nonferrous metals will be removed and segregated mechanically. Ferrous and non-ferrous metals (including structural and plate steel and copper) will be processed to mill sizing or other shipment size depending on the salvage contract to achieve maximum asset value. Clean cinderblock, brick, and concrete will be processed to remove rebar and disposed of at appropriate facilities (materials will not be re-used at the site). Aside from spillway debris, other debris remaining in the river from historical activities (e.g., visible logs, old cribwork, detritus, concrete) that may pose an impediment to fish passage will be removed and disposed of at appropriate facilities (materials will not be re-used at the site). The remnants of an historic rock/wooden dam in the impoundment are visible when the impoundment is dewatered for maintenance purposes; this feature will be removed as well. NB Power will ensure that little demolition material falls into the St. Croix River. Should structural materials fall into the river, they will be subsequently removed as safe and practical. The turbidity curtain system will be kept in place and consistently checked throughout construction.

Approximately 3,322 CY of spillway and powerhouse material is expected to be removed from waters of the US during both the US and Canadian Site Works phases. During this demolition timeframe, approximately 1,870 CY of bedrock and legacy dam material removal will occur both upstream and downstream of the present dam structure. Demolition activities are anticipated to take approximately 2 months to complete.

ii. Riverbed Restoration

Riverbed restoration (termed "fish passage improvements" in NB Power's engineering designs) will occur after demolition and removal of the spillways. Restoration efforts on the US side will concentrate mainly in the stoplog spillway footprint and Powerhouse C cavity. Work will include placement of coarse riverbed material and boulders and/or grading of riverbed. Approximately 3,270 CY of clean material will be permanently placed in the waters of the U. S. for riverbed restoration. Placement of this fill will primarily occur during the USSite Works phase, but some of this fill work will occur during the Canadian Site Works phase as riverbed areas residing in US. waters (tailrace area and powerhouse cavities) will also be restored. A turbidity curtain will be located downstream of the riverbed restoration work area. St. Croix River

L-029184-3D-A-N 13 of 29

improvements in the tailrace, powerhouse, and spillway areas will occur in isolated areas away from running water due to the presence of upstream cofferdams and/or closed gates. Riverbed restoration occurring during the Canadian Site Works phase will be sheltered by the still present gated spillway, rollway with flashboards, stoplog spillway, and temporary braced cofferdam. Riverbed restoration occurring during the US Site Works phase will be sheltered by the temporary earthen cofferdam. The applicant proposes to develop an adaptive management plan in consultation with non-governmental organizations (NGO) and the natural resource agencies. The plan may include biological and physical monitoring by either NGOs or contractors with annual reports to the resource agencies.

E. Impacts Associated with dam decommissioning and removal

Shoreline sedimentation may occur through the movement of equipment and construction materials from the laydown areas through the shoreline access areas to the work areas. There is potential risk for concrete or ledge debris material, or disturbed soils to be discharged downstream during several components of the dam removal actions including: (1) the construction of the cofferdam; (2) establishing the shoreline access ramps and the earthen working pad or roads; (3) the removal and excavation of the gatehouse, rollaway and stoplog spillway; (4) the excavation of ledge within the stream channel for the purposes of riverbed restoration; and (5) the movement of equipment and demolition materials into and out of the work area.

i. Erosion and Sedimentation Controls

In order to prevent any sedimentation to the St. Croix River during the proposed work, the Applicant will install erosion and sedimentation controls according to the Department's BMPs around the dam removal staging area on shore and will install controls encompassing the dewatering structure for the dam removal work area.

The staging area will not require any ground disturbance but will be surrounded by a reinforced silt fence. A 500-foot-long access road will be constructed from Poorhouse Land to the river. Silt fence will be placed downgradient of the roadway. The work area, dewatered by the cofferdam, will be encompassed by a turbidity curtain. This will serve to isolate any sedimentation that may occur from excavation or construction from the river. It will also protect the water resource during the transportation and the loading or unloading of construction equipment, materials or excavation debris, as materials are moved to and from the staging area and work area. An area downstream of the gated spillway has been designated for use as a settlement pond or filter pad. Sediment laden water from inside the cofferdam will be pumped to this area and sediment

L-029184-3D-A-N 14 of 29

will be allowed to settle before the water is discharged back to the river. The filter bags must be placed at least 75 feet from the water body and must be protected by a crushed stone pad and surrounded by a sediment barrier (hay bale, sandbag or equivalent barrier) that is set back from the dewatering bag. Water migrating through this system must flow through a vegetated buffer before reaching the water resource. The accumulated sediment will be temporarily contained within the bag or within the sediment barrier on shore and must be removed from the site.

Accumulated sediment or excavation debris material will be transported to, but should not be stored in, the staging area or any other area for a duration exceeding 72 hours. All erosion and sedimentation controls will be installed according to the Maine BMPs. The entire dewatered work area will be surrounded by turbidity curtains to consolidate any siltation, excavation or fill material that may incidentally discharge to the water resource.

Once all work is complete all cofferdams will be removed and transported to the staging areas while turbidity curtains remain in place. The turbidity curtain will be the last of the temporary equipment removed downstream of the work area after all work is complete.

Prior the start of construction, the applicant must conduct a preconstruction meeting to discuss the construction schedule and the erosion and sediment control plan with the appropriate parties. This meeting must be attended by the applicant's representative, Department staff, the design engineer, the contractor, and the third-party inspector. Given the size and nature of the Project site, the applicant must retain the services of a thirdparty inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

F. Impacts Associated with Lowering Impoundment Water Levels

NB Power proposes to remove all the existing man-made structures, work that will lower the present-day impoundment (normal elevation of 45.0 feet) to approximate elevations of 26.5 feet and to 30 feet in areas immediately upstream of the Station and elevations of approximately 37.5 feet to 40.5 feet at the upstream end of the (current) impoundment. These elevation changes will be permanent upon completion of the dam removal work. Permanently lowering the water level may increase the erosion potential of the river bank upstream of the Milltown Station. Some legacy concrete abutments and timber cribbing will remain in place as removal of these structures could undermine the stability of the railroad tracks. NB Power has proposed to monitor erosion in the Project area and plans to address bank erosion issues that may occur post dam removal (see Section 5 of this Permit). During dam removal activities, flow diversion from the work area will be achieved by constructing and earthen cofferdam and dewatering the work area to decommission and demolish dam structures and excavate

L-029184-3D-A-N 15 of 29

materials in the dry. Minimum flows downstream will be maintained by passing these flows to the Canadian side of the river during work within the US.

Based on the applicant's proposal for erosion control, site dewatering, cofferdam construction, and removal of the structures currently in the St. Croix River, the Department finds that the applicant has made reasonable provisions to realize the environmental benefits of the Project, if any, and to mitigate its adverse environmental impacts provided that the filter bags are placed at least 75 feet from the waterbody. The applicant must retain the services of a third-party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

12. SOIL STABILITY

Much of the impoundment area upstream of the dam is underlain by bedrock which is not highly erodible. Upland areas consist of Udorthents soils, or Urban Land Complex which are well drained and contain slopes between 0 to 35%. The applicant proposes to utilize erosion and sedimentation controls during construction and to grade and seed areas upon completion of the Project. Although short-term impacts are anticipated, the Project is expected to improve overall soil stability cons proposal, the Department finds the Project will not significantly harm the soil stability in the Project area.

13. WETLANDS

Because much of the river and the shoreline immediately adjacent to it are ledge outcrops and the upland soils are well drained, there were no freshwater wetlands area within the impoundment. The Department finds the removal of the dam will not result in any harm to either coastal or inland wetlands.

14. NATURAL ENVIRONMENT

Removal of the Milltown Station will restore this reach of river to a more natural state. It will allow volitional fish passage for several anadromous fish species including river herring, American eels and sea lamprey. Atlantic salmon, shortnosed sturgeon, and Atlantic sturgeon historically used the river; however, these species have not been documented in the area in the recent past.

15. FISH RESOURCES

Historically, the St. Croix River was home to as many as 11 sea-run fish species including river herring and blueback herring (collectively river herring), Atlantic salmon, American shad, American eel, sea lamprey, rainbow smelt, Atlantic sturgeon, and shortnosed sturgeon. Currently, river herring, American eel, American shad, brook trout, sea lamprey, white sucker, rainbow smelt, smallmouth bass, pumpkinseed sunfish, fallfish, and several minnow species are present at varying times throughout the year.

L-029184-3D-A-N 16 of 29

Although sturgeon have not been documented in the area, the applicant prepared a Sturgeon Handling Plan should one of these fish be found during the removal of the dam.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the application and stated that the removal of the dam will result in 0.5 kilometers of free-flowing river. As long as construction BMPs are adhered to, minimal impacts to freshwater fisheries are anticipated.

The Maine Department of Marine Resources does not have a management plan for the St. Croix River, but is supportive of the Project as it will improve passage for all sea-run fish.

The timing of construction of the proposed Project minimizes the impact to the migratory fish species that utilize the river. The work in the river will commence following the closing of the fish ladder in mid-July. There may be some short-term impacts to resident fish species as a result of the Project, however, this is expected to be minimal. It is anticipated that upon completion of the Project passage for all species will be improved.

Based on the applicant's proposal, the Department finds the Project will not result in significant harm to fish resources.

16. WILDLIFE RESOURCES

There are several species of freshwater mussels known to occur in the St. Croix watershed, including brook floater mussels which are listed as threatened on State list of endangered species. The applicant conducted a survey of the Project area but did not document any brook floater mussels. The applicant did document other freshwater mussel species. MDIFW reviewed the application and did not have concerns that the Project will result in a Take of a listed species. They did recommend the applicant voluntarily develop and implement a relocation plan to minimize any potential impacts to brook floater mussels. No other wildlife issues were identified. No other wildlife concerns were identified.

Based on the applicant's proposal, the Department finds the Project will not result in significant harm to wildlife resources.

17. HISTORIC AND ARCHAEOLOGICAL RESOURCES

A. Historic Resources

NB Power proposes to continue consultation with MHPC regarding specific archaeological resource protection measures that may be needed during construction work. NB Power submitted an Architectural Reconnaissance Report to the Maine Historic Preservation Commission (MHPC) which identified the historic architectural resources within the area of potential effect (APE). MHPC reviewed the report and stated that the Maine Central Railroad Roundhouse and the Maine Central Railroad mainline/branch line are eligible for listing on the

L-029184-3D-A-N 17 of 29

National Register of Historic Places. MHPC further stated that the Milltown Station and the Milltown Railroad Bridge are not eligible to be listed. MHPC reviewed the potential impacts to the two eligible sites and stated that they do not anticipate any adverse effect as a result of the Project.

B. <u>Archaeological Resources</u>

NB Power has conducted Archeological Surveys of the proposed Project area. As noted above in Section 5, NB Power also proposes to protect any potential archeological sites from disturbance by placing a temporary 1-foot-thick gravel pad in all laydown areas. Additionally, NB Power has consulted with and will continue to consult with the Peskotomuhkati Nation regarding specific archaeological resource protection measures that are necessary during construction. NB Power will also employ an Indigenous Monitor who will be present on site throughout the Project. Barring any COVID-19 related restrictions on international border crossings, the Indigenous Monitor will be present during work on both sides of the border between the US and Canada.

C. Discussion.

Based on the Applicant's proposal, the Department finds that the Project will not result in any significant harm to Historical or Archaeological resources.

18. PUBLIC RIGHTS OF ACCESS AND USE OF SURFACE WATERS

Currently, the area is fenced in and public access is prohibited for safety and security reasons. The public has been informally accessing areas in the upper reaches of the impoundment for fishing as well as downstream of the tailrace for fishing and canoeing. During construction active work areas will be fenced in with temporary fencing. Once construction is complete, the existing fence will be re-established. The lower water levels following the removal of the dam may alter the uses of this section of the river. The changes may include more canoeing and kayaking as the river will be free flowing and no longer an impoundment. Paddlers will be able to paddle from the Woodland Dam in Baileyville to Passamaquoddy Bay unimpeded. The expected increase in fish populations as a result of the improved passage and aquatic connectivity will provide additional fishing opportunities. Based on the applicant's proposal, the Department finds that the Project will result in no change to the public rights of access to and use of the surface waters of the State for navigation, fishing, fowling, recreation and other lawful public uses.

19. FLOOD CONTROL BENEFITS/HAZARDS

38 M.R.S. § 636(7)(E) requires an applicant to demonstrate the advantages of a project, in terms of flood control, are greater than any flood hazards the project may create.

L-029184-3D-A-N 18 of 29

The Milltown Station is operated as a run-of-river facility and does not provide any flood control. The shoreline on the US side of the river is of a steep ledge bank which is has a very limited flooding risk. Removal of the dam will have only localized impacts on flood potential. It is expected that the removal of the dam will reduce the flood potential in the impoundment because the water level will be lowered. No changes in flooding are expected downstream of the dam.

The Department finds the Project will result in flood control benefits which are greater than any potential flood hazards.

20. HYDROELECTRIC ENERGY BENEFITS

38 M.R.S. § 636(7) requires an applicant to demonstrate the advantages of the project are greater than the impacts, including the hydroelectric energy benefits.

The benefits of the Project include increased fish passage for sea-run fish, increased aquatic connectivity, decrease in flooding, and improved water quality.

There may be some short-term impacts associated with the construction of coffer dams and the removal of the structures in the river. There will also be a loss of hydroelectric generation capacity. At its peak the Milltown Station generated 4 MW of electricity, currently it generates 2.8 MW of electricity. The power from the facility represents 0.8 percent of NB Power's hydro generation and 0.7 percent of the total generation capacity of NB Power. The applicant states that the removal of this facility will result in negligible loss of power and the electricity needs can be met from other NB Power facilities.

The Department finds that the environmental benefits of the project outweigh the negligible loss in hydroelectric generation.

21. WATER QUALITY

The MWDCA, 38 M.R.S. § 636(8), requires an applicant to demonstrate the project will not violate applicable water quality standards. The St. Croix River in the area of the project is classified as Class C. The designated uses for Class C waters includes drinking water, after treatment; fishing; agriculture, recreation in and on the water; industrial process water; and cooling water supply. The applicable dissolved oxygen criterion for Class C waters is 6.5 parts per million using a temperature of 22 degrees centigrade or the ambient water temperature, whichever is less for hydropower projects which were in existence on March 16, 2005.

The proposed project involves the removal of the dam and restoration of the stream channel to improve fish passage and aquatic connectivity. The proposed project is likely to have some short-term negative impacts on water quality during the impoundment drawdown and coffer dam construction. The applicant is proposing to utilize erosion

L-029184-3D-A-N 19 of 29

control BMPs, coffer dams so that removal work can be done in the dry, and maintenance of flow during removal to minimize impacts downstream. Once the removal is complete, this section of the river will once again be free flowing and in a more natural state than what currently exists.

The Department finds the project will not violate applicable water quality standards, including the provision of 38 M.R.S. § 464(4)(F).

22. ENVIRONMENTAL/ENERGY BALANCING

38 M.R.S. § 636(7) provides that the Department must approve a project when it finds that the applicant has demonstrated that, among other things, the advantages of the project are greater than the direct and cumulative adverse impacts over the life of the project based upon specified environmental and energy considerations. The Department's Administrative Rules for Hydropower Projects provide that this "balancing" criterion is satisfied if, in the Department's judgment, the applicant has demonstrated that the weight of the advantages of the project is greater than the weight of the direct and cumulative impacts over the life of the project based on the specified environmental and energy considerations. The Department's Administrative Rules for Hydropower Projects further provides that determining whether the advantages of a project are greater than its adverse impacts requires weighing the project's various benefits and harms.³

Based on the evidence in the record, the removal of the Milltown Station, as conditioned by this order, will not result in significant benefit or harm to soil stability, resident fish resources, wildlife resources, historic resources, or archaeological resources.

Based on the evidence in the record, the decommissioning of the Milltown Station and the removal of the Milltown Dam, as conditioned by this order, will result in significant benefit to the natural environment, diadromous fish resources, public recreational access and use, and water quality.

Based on the evidence int the record, the decommissioning of the Milltown Station will result in minor impact in the amount of hydroelectric generation. However, the applicant states that those losses can be made up from its existing hydroelectric projects.

After consideration of the benefits and harms of the project, as discussed above, the Department finds that the advantages of the project are greater than the direct and cumulative adverse impacts over the life of the project. Specifically, the advantages of the decommissioning of the Milltown Station to the restoration of fish passage for diadromous fish, including river herring, American eel, sea lamprey, and others outweigh the adverse impacts of dam removal and the short-term impacts of demolition and construction activities necessary to complete the project as well as the adverse impacts on hydroelectric generation.

³ See 06-096 C.M.R. ch. 450, § 5(G).

L-029184-3D-A-N 20 of 29

BASED on the above Findings of Fact and the evidence contained in the application and supporting documents, and subject to the Conditions listed below, which are appropriate and reasonable to protect and preserve the environment and the public's health, safety and general welfare, the Department makes the following CONCLUSIONS:

- 1. The applicant has the financial capacity and technical ability to undertake the project.
- 2. The applicant has made adequate provision for protection of public safety.
- 3. The project will result in significant benefits to the public.
- 4. The applicant has made adequate provision for traffic movement.
- 5. The proposed activity is not located within the jurisdiction of the Land Use Planning Commission.
- 6. The applicant has made reasonable provisions to realize the environmental benefits and to mitigate the adverse environmental impacts of the project, provided that:
 - a. A final erosion and sedimentation control plan for all (project) activities is prepared and implemented;
 - b. All access road and cofferdam fill material meets established standards and is removed following completion of dam removal activities;
 - c. All demolition debris and other construction spoils are reused, recycled, or otherwise disposed of in accordance with established regulations;
 - d. Appropriate measures are taken to monitor the shoreline following dam removal and to implement bank stabilization measures, as needed;
 - e. Appropriate measures are taken to monitor fish passage following the restoration of the river, development of an adaptive management plan, and to take remedial actions, as needed, to ensure adequate passage through the affected river reach.
- 7. The advantages of the project are greater than the direct and cumulative adverse impacts over the life of the project, provided that the project is undertaken in accordance with the provisions of Conclusion #6 above.
- 8. There is a reasonable assurance that the project will not violate applicable State water quality standards, provided that the project is undertaken in accordance with the provisions of Conclusion #6 above.

THEREFORE, the Department APPROVES the above noted application of the NB POWER to remove the Milltown Station and associated structures, as described above, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

L-029184-3D-A-N 21 of 29

1. STANDARD CONDITIONS OF APPROVAL

The Standard Conditions of Approval for projects under the Maine Waterway Development and Conservation Act, a copy attached.

2. EROSION AND SEDIMENTATION CONTROL PLAN

The applicant must retain the services of a third-party inspector in accordance with the Special Condition for Third Party Inspection Program, which is attached to this Order.

In addition to any specific erosion and sedimentation control measures included in the plan approved by the Department of this condition or otherwise set forth in this Order, the applicant and its agents must take all necessary measures to ensure that their activities do not result in erosion or sedimentation during or following the approved activities, except for any unavoidable sedimentation that occurs as a result of dam removal activities.

3. ACCESS ROAD/COFFERDAM FILL

Any temporary access road and cofferdam fill placed in the waterway or within the 100-year floodway boundaries of the waterway must consist of clean stone fill or sandbagged clean granular fill free from vegetable matter, lumps or balls of clay and other deleterious substances. That portion passing a No. 200 sieve must not exceed 10% fines, by weight.

All temporary access road and cofferdam fill must be removed following completion of dam removal activities.

4. DEMOLITION DEBRIS

All demolition debris and construction spoils must be reused, recycled or otherwise disposed of in accordance with the Maine Solid Waste Management Regulations.

POST-DAM REMOVAL FISH PASSAGE

The applicant must take appropriate measures to monitor fish passage following dam removal, develop an adaptive management plan, and to implement remedial actions in accordance with the adaptive management plan, as needed, to ensure adequate passage through the affected river reach and its tributaries.

6. SEVERABILITY

In the event that any provision, or part thereof, of this permit and/or certification is declared to be unlawful by a reviewing court, the remainder of the permit and/or certification must remain in full force and effect, and must be construed and enforced in all respects as if such unlawful provision, or part thereof, has been omitted, unless otherwise ordered by the court.

L-029184-3D-A-N 22 of 29

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED IN AUGUSTA, MAINE, THIS 17TH DAY OF JUNE, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

For: Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

KO/L0291843DAN/ATS#87441

FILED

June 17th, 2022
State of Maine
Board of Environmental Protection

L-029184-3D-A-N 23 of 29

Maine Waterways Development and Conservation Act Standard Conditions of Approval

- Limits of Approval. This approval is limited to and includes the proposals and plans
 contained in the application and supporting documents submitted and affirmed to by the
 applicant. All variances from the plans and proposals contained in said documents are
 subject to the review and approval of the Board or Commissioner prior to
 implementation.
- 2. Noncompliance. Should the project be found, at any time, not to be in compliance with any of the conditions of this approval, or should the permittee construct or operate this project in any way other than specified in the application or supporting documents, as modified by the conditions of this approval, then the terms of this approval shall be considered to have been violated.
- 3. Compliance with all Applicable Laws. The permittee shall secure and appropriately comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation.
- 4. Inspection and Compliance. Authorized representatives of the Board, Commission or the Attorney General shall be granted access to the premises of the permittee at any reasonable time for the purpose of inspecting the construction or operation of the project and assuring compliance by the permittee with the conditions of this approval.
- 5. Initiation and Completion of Construction. If construction is not commenced within 3 years and completed within 7 years from the date of issuance of this permit, this approval shall lapse, unless a request for an extension of these deadlines has been approved by the Board or Commission.
- 6. Construction Schedule. Prior to construction, the permittee shall submit a final construction schedule for the project to the Commissioner or Director.
- 7. Approval Included in Contract Bids. A copy of this approval must be included in or attached to contract bid specifications for the project.
- 8. Approval Shown to Contractor. Work done by a contractor pursuant to this approval shall not begin before a copy of this approval has been shown to the contractor by the permittee.
- 9. Notification of Project Operation. The permittee shall notify the Commissioner or director of the commencement of commercial operation of the project within 10 days prior to such commencement.
- 10. Assignment or Transfer of Approval. This approval shall expire upon the assignment or transfer of the property covered by this approval unless written consent to transfer this approval is obtained from the board or Commission. To obtain approval of transfer, the permittee shall notify the Board or Commission 30 days prior to assignment or transfer of property which is subject to this approval Pending Board or Commission determination on the application for a transfer or assignment of ownership of this approval, the person(s) to whom such property is assigned or transferred shall abide by all of the terms and conditions of this approval. To obtain the Board's or Commission's approval of

L-029184-3D-A-N 24 of 29

transfer, the proposed assignee or transferee must demonstrate the financial capability and technical ability to (1) comply with all terms and conditions of this approval and (2) satisfy all other applicable statutory criteria. A "transfer" is defined as the sale or lease of property which is the subject of this approval or the sale of 50 percent or more of the stock of or interest in a corporation or a change in a general partner of a partnership which owns the property subject to this approval.

L-029184-3D-A-N 25 of 29

THIRD-PARTY INSPECTION PROGRAM

1.0 THE PURPOSE OF THE THIRD-PARTY INSPECTION

As a condition of this permit, the Maine Department of Environmental Protection (MDEP) requires the permit applicant to retain the services of a third-party inspector to monitor compliance with MDEP permit conditions during construction. The objectives of this condition are as follows:

- 1) to ensure that all construction and stabilization activities comply with the permit conditions and the MDEP-approved drawings and specifications,
- 2) to ensure that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations, and
- 3) to ensure communication between the contractor and MDEP regarding any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan.

This document establishes the inspection program and outlines the responsibilities of the permit applicant, the MDEP, and the inspector.

2.0 SELECTING THE INSPECTOR

At least 30 days prior to starting any construction activity on the site, the applicant will submit the names of at least two inspector candidates to the MDEP. Each candidate must meet the minimum qualifications listed under section 3.0. The candidates may not be employees, partners, or contracted consultants involved with the permitting of the project or otherwise employed by the same company or agency except that the MDEP may accept subcontractors who worked for the project's primary consultant on some aspect of the project such as, but not limited to, completing wetland delineations, identifying significant wildlife habitats, or conducting geotechnical investigations, but who were not directly employed by the applicant, as Third Party inspectors on a case by case basis. The MDEP will have 15 days from receiving the names to select one of the candidates as the inspector or to reject both candidates. If the MDEP rejects both candidates, then the MDEP shall state the particular reasons for the rejections. In this case, the applicant may either dispute the rejection to the Director of the Bureau of Land Resources or start the selection process over by nominating two, new candidates.

3.0 THE INSPECTOR'S QUALIFICATIONS

Each inspector candidate nominated by the applicant shall have the following minimum qualifications:

L-029184-3D-A-N 26 of 29

- 1) a degree in an environmental science or civil engineering, or other demonstrated expertise,
- 2) a practical knowledge of erosion control practices and stormwater hydrology,
- 3) experience in management or supervision on large construction projects,
- 4) the ability to understand and articulate permit conditions to contractors concerning erosion control or stormwater management,
- 5) the ability to clearly document activities being inspected,
- 6) appropriate facilities and, if necessary, support staff to carry out the duties and responsibilities set forth in section 6.0 in a timely manner, and
- 7) no ownership or financial interest in the development other than that created by being retained as the third-party inspector.

4.0 INITIATING THE INSPECTOR'S SERVICES

The applicant will not formally and finally engage for service any inspector under this permit condition prior to MDEP approval or waiver by omission under section 2.0. No clearing, grubbing, grading, filling, stockpiling, or other construction activity will take place on the development site until the applicant retains the MDEP-approved inspector for service.

5.0 TERMINATING THE INSPECTOR'S SERVICES

The applicant will not terminate the services of the MDEP-approved inspector at any time between commencing construction and completing final site stabilization without first getting written approval to do so from the MDEP.

6.0 THE INSPECTOR'S DUTIES AND RESPONSIBILITIES

The inspector's work shall consist of the duties and responsibilities outlined below.

- 1) Prior to construction, the inspector will become thoroughly familiar with the terms and conditions of the state-issued site permit, natural resources protection permit, or both.
- 2) Prior to construction, the inspector will become thoroughly familiar with the proposed construction schedule, including the timing for installing and removing erosion controls, the timing for constructing and stabilizing any basins or ponds, and the deadlines for completing stabilization of disturbed soils.
- 3) Prior to construction, the inspector will become thoroughly familiar with the project plans and specifications, including those for building detention basins, those for installing the erosion control measures to be used on the site, and those for temporarily or permanently stabilizing disturbed soils in a timely manner.

L-029184-3D-A-N 27 of 29

4) During construction, the inspector will monitor the contractor's installation and maintenance of the erosion control measures called for in the state permit(s) and any additional measures the inspector believes are necessary to prevent sediment discharge to off-site properties or natural resources. This direction will be based on the approved erosion control plan, field conditions at the time of construction, and the natural resources potentially impacted by construction activities.

- 5) During construction, the inspector will monitor the contractor's construction of the stormwater system, including the construction and stabilization of ditches, culverts, detention basins, water quality treatment measures, and storm sewers.
- 6) During construction, the inspector will monitor the contractor's installation of any stream or wetland crossings.
- 7) During construction, the inspector will monitor the contractor's final stabilization of the project site.
- 8) During construction, the inspector will keep logs recording any rain storms at the site, the contractor's activities on the site, discussions with the contractor(s), and possible violations of the permit conditions.
- 9) During construction, the inspector will inspect the project site at least once a week and before and after any significant rain event. The inspector will photograph all protected natural resources both before and after construction and will photograph all areas under construction. All photographs will be identified with, at a minimum the date the photo was taken, the location and the name of the individual taking the photograph. *Note: the frequency of these inspections as contained in this condition may be varied to best address particular project needs.*
- 10) During construction, the inspector will prepare and submit weekly (or other frequency) inspection reports to the MDEP.
- 11) During construction, the inspector will notify the designated person at the MDEP immediately of any sediment-laden discharges to a protected natural resource or other significant issues such as the improper construction of a stormwater control structure or the use of construction plans not approved by the MDEP.

7.0 INSPECTION REPORTS

The inspector will submit weekly written reports (or at another designated frequency), including photographs of areas that are under construction, on a form provided by the Department to the designated person at the MDEP. Each report will be due at the MDEP by the Friday (or other designated day) following the inspection week (Monday through Sunday).

L-029184-3D-A-N 28 of 29

The weekly report will summarize construction activities and events on the site for the previous week as outlined below.

- 1) The report will state the name of the development, its permit number(s), and the start and end dates for the inspection week (Monday through Sunday).
- 2) The report will state the date(s) and time(s) when the inspector was on the site making inspections.
- 3) The report will state the date(s) and approximate duration(s) of any rainfall events on the site for the week.
- 4) The report will identify and describe any erosion problems that resulted in sediment leaving the property or sediment being discharged into a wetland, brook, stream, river, lake, or public storm sewer system. The report will describe the contractor's actions to repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.
- 5) The report will list the buildings, roads, parking lots, detention basins, stream crossings or other features open to construction for the week, including those features or areas actively worked and those left unworked (dormant).
- 6) For each area open to construction, the report will list the date of initial soil disturbance for the area.
- 7) For each area open to construction, the report will note which areas were actively worked that week and which were left dormant for the week. For those areas actively worked, the report will briefly state the work performed in the area that week and the progress toward final stabilization of the area e.g. "grubbing in progress," "grubbing complete," "rough grading in progress," "finish grading in progress," "finish grading complete," "area fully stable and temporary erosion controls removed," etc.
- 8) For each area open to construction, the report will list the erosion and sedimentation control measures installed, maintained, or removed during the week.
- 9) For each erosion control measure in-place, the report will note the condition of the measure and any maintenance performed to bring it to standard.

L-029184-3D-A-N 29 of 29

Third Party Inspection Form

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules.

Only Department staff may make that determination.

TO: PM, Maine DEP (@maine.gov)			FROM:				
PROJECT NAME & LOCATION:			DEP#:				
DATE OF INSPECTION:			DATE OF REPORT:				
WEATHER:			CONDITIONS:				
CONTRACTOR:							
CONTACT NAME:			PHONE NUMBER:				
LANDOWNER:			PHONE NUMBER:				
SITE CHARACTERISTICS:			1				
# ACRES OPEN:					# ACRES INACTIVE:		
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:			LOCATION OF INACTIVE LAND:			
OPEN SINCE:	OPEN SINCE			OPEN SINCE:			
PROGRESS OF WORK:							
INSPECTION OF:		Satisfactory		Minor Deviation (corrective action required)		Unsatisfactory (include photos)	
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)							
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)							
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)							
COMMENTS/CORRECTIVE ACTION	NS TAKEN (attac	ch addition	al sheets as 1	necess	sary):		
Photos (must be labeled with date	, photographer	r and loca	tion)				
cc:							
	Original and	all copies	were sent b	oy em	ail only.		