ATTACHMENT 1

PROJECT DESCRIPTION

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OVERVIEW

The Applicant, Bowden Point Properties, proposes to construct a processing facility associated with the nearby quarry operations on Bowden Point in Prospect, Maine (Site). The Site operations will consist of crushing and processing material from the quarry prior to being loaded onto marine vessels.

PURPOSE AND NEED

Bowden Point Properties is planning to construct a rock quarry and a processing facility, off Bowden Point Road in Prospect, Maine. This development will be solely for mineral extraction activities. This Natural Resources Protection Act Tier III Permit Application is for all wetland disturbance within the development area, and all activities within 75' of the Penobscot River, including a new pier used to load materials onto a barge for transport,

ACTIVITY DESCRIPTION

The Applicant proposes to construct a processing facility, and a pier to load vessels in support of proposed quarrying activities. Also included in this permit application is the proposed site access road, and any other shoreline work to assist in the pier installation to a distance 75 feet from the high-water line.

The processing facility will include an 80,000 square foot (SF) building, parking and driveway areas, an access road, a pier on the Penobscot River, and approximately 50 acres of storage and processing areas.

The proposed pier will be T-shaped and will extend approximately 710 feet north onto the Penobscot River off the northern shore of Bowden Point. The pier will include three sections: a drivable trestle that will allow mineral materials to be transported to a platform adjacent to the vessel, a series of cofferdams to secure the vessel, and a telescopic barge loader.

The drivable portion will consist of an initial 40' wide by 180' long rock fill section, to be located on an existing rock fill area which is believed to be a historic dock. The trestle will be 40' wide by 440' long. This portion of the pier will be placed on cofferdams, 50' in diameter. A 14-foot-wide material conveyor belt will also be utilized along the pier's entire length.

The docking section of the pier will consist of a 150-wide loading area, and approximately 650' of 50-foot diameter cofferdams, placed 175' on center, roughly parallel with the shore. Water depth at the end of the pier is approximately 35 feet at low tide while the vessels are anticipated to require 30 feet of draft when loaded.

The telescopic barge loader is 85' long and 14' wide.

The site access road will be gravel and 36' wide, and approximately 4,700' long. Within 75' of the shoreline, the road will be sloped at approximately 7%. Vegetated buffers and soil filters will be utilized along the roadway for stormwater management, as shown in the Site Law permit for this development.

Historic Impacts to the protected natural resource on this property (Penobscot River) consist of previously filled areas on Bowden Point. These areas are made of stone and was likely used as a pier which extend approximately 300' off the northern bank of Bowden Point. It is unknown when this area was constructed but it is likely more than 100 years ago.

In addition to impacts associated with the Pier, impacts to Freshwater Wetlands are proposed for the processing area.

Natural Resource impacts associated with the proposed Salmons project are summarized in Table 1, below, and are shown in NRPA Attachment 5 – Site Plans, on the *Overall Site Plan - Sheet C101.*

Table 1. Natural Resource Impacts – Prospect Quarry

	Calculation (sq ft)	Comments
Direct Impact (Penobscot River)	49,621	Cofferdams, Cofferdam connectors, and fill within mean high-water line
Direct Impact (Wetlands)	14,038	Freshwater Fill (Processing Area)
Temporary Impact	0	None Anticipated
Indirect/Conversion Impact	24,825	Indirect Impacts consist of total pier deck area.
TOTAL PIER IMPACT, MDEP (Penobscot River)	74,446	Direct and Indirect Impacts within mean high-water line of Penobscot River

Under the Maine Natural Resources Protection Act, the project is required to avoid and minimize disturbance to natural resources and to ensure that no unreasonable impact will occur. The proposed project has been designed to avoid and minimize impacts to natural resources to the greatest extent practicable, as described in the following section NRPA Attachment 2 – Alternatives Analysis.

ATTACHMENT 1A

Wetland Delineation Summary

Inter-Tidal Wetland Impact Area

The inter-tidal wetland impact area is located within the lower limits of the Penobscot river estuary prior to discharge into Penobscot Bay. The intertidal wetlands were identified within this area as the area between the high tide elevation and the low tide elevation. Riverbanks are very steep in the project area and no significant tidal marsh areas were noted.

The river would be classified as a high energy channel in the project area and typical upper, mid, and lower intertidal zones were noted. Substratum in the project area consists of boulder beach, mixed coarse and fines as well as ledge. A visual epifauna survey of the project area identified salt marsh grasses and legumes in the upper zone as well as evidence of filamentous green algae and possible cyanobacteria. The mid and lower zones were dominated by brown and red seaweed.

Areas upstream and down stream of the historic rock fill area were also found to include significant areas of mixed coarse and fines beach areas devoid of vegetation.

In-River Impact Area

The in-river impact areas of the project include disturbances to the river bottom sediments. Boring investigations in these areas determined that the bottom sediments consist of deep marine deposits and organic matter. Due to water depts it is not believed that these areas contain significant vegetation.

Freshwater Wetland Impact Area

Freshwater wetlands on the project site were mapped in accordance with the 1987 Federal Manual for mapping wetlands as published by the US Army Corps of Engineers. Wetland classification IS based on the Cowardin classification system.

Identified wetlands are seasonally saturated, palustrine, forested, deciduous and coniferous wetlands (PFO1&4) with portions that are scrub/shrub wetlands (PSS1) that are dominated by red maple, black spruce, gray birch, balsam fir, sensitive fern, interrupted fern, blue joint, sarsaparilla and sphagnum moss. Soils in the wetlands consisted of sandy loams and silt loams with a mottled and depleted substratum and met the ***F3, Depleted Matrix, Hydric Soil Indicator***. Indicators of hydrology in the wetlands were a combination of surface water, saturation and drainage.