

## 9.0 UNUSUAL NATURAL AREAS

### 9.1 Introduction and Efforts

Under the No Adverse Environmental Effect Standard of the Site Location of Development Law (06-096 CMR 375.12), an unusual natural area is defined as “any land or water area, usually only a few acres in size, which is undeveloped and which contains natural features of unusual geological, botanical, zoological, ecological, hydrological, other scientific, educational, scenic, or recreational significance.” In order to identify any unusual natural areas that could be impacted by development of the project, publicly available data sources were reviewed, and state and federal agencies were contacted including the Maine Natural Areas Program (MNAP), Maine Department of Inland Fish and Wildlife (MDIFW), and Maine Department of Marine Resources (MDMR).

In addition to desktop reviews and communications, a series of environmental field surveys were undertaken between May 2018 and March 2019 to identify and evaluate a variety of biological, chemical and physical environmental properties of the Site. These field surveys included vernal pool surveys and wetland delineations, which were conducted from May to August 2018, as well as other surveys. The complete list of surveys consists of:

1. A vernal pool survey
2. Wetland and stream delineations, characterizations and functional assessment
3. A bathymetric survey of intertidal and subtidal areas
4. Under water videos of intertidal and subtidal areas using divers and a towed under water video camera
5. Water quality sampling in Belfast Bay and the Little River outlet
6. Sediment sampling, sieve analysis and laboratory testing in Belfast Bay
7. Wildlife habitat assessment
8. Seismic survey of intertidal and subtidal area subsurface geology
9. High Intensity Soil Survey
10. Timber Inventory
11. Benthos sampling and identification
12. Coastal Wetland Characterization

These field surveys provided opportunities to evaluate the Site for unusual natural areas and included identification and evaluation of the potential presence of rare, threatened and endangered plants, wildlife and rare or exemplary natural communities within the project area and evaluation of potential project impacts.

## 9.2 Findings

Field surveys and information reviewed did not identify any natural areas of unusual geological, botanical, hydrological, scientific, educational, scenic, or recreational significance. Further discussion of findings pertains to wildlife and natural communities.

MNAP identifies 104 different natural community types that collectively cover the state's landscape and assigns each a state rarity rank of S1 (rare) through S5 (common). The on-site surveys identified the following natural communities, within the project site:

1. Coastal Beach (S4): The coastal beach on the project site consists of unvegetated upper beach with coarse sand, gravel and cobble.
2. Saltmarsh (S3): The saltmarsh on the project site is a narrow fringe of high marsh bordering both sides of two freshwater streams (S8 and S9). The marsh is vegetated with saltmeadow cordgrass (*Spartina patens*) and black grass (*Juncus gerardii*).
3. Oak-Pine Forest (S5): The site also includes forested areas of hardwood and pine. Forested tree species include red maple (*Quercus rubra*), American beech (*Fagus grandifolia*), paper birch (*Betula papyrifera*), bigtooth aspen (*Populus grandidentata*), balsam fir (*Abies balsamea*), white pine (*Pinus strobus*) and Northern white cedar (*Thuja occidentalis*).

Based on their state rarity rankings, the three natural communities identified are not considered to have unusual significance to the State of Maine. Wetlands and streams are also present on the Site; however, their composition and size are not considered unusual; a more detailed description of Site wetlands is provided in Section 7. Additionally, no vernal pools were found during the vernal pool surveys in May of 2018 and no sensitive botanical resources were identified within the project area.

A MDIFW review of the project site dated March 11, 2019 (**Appendix 9-A**) and mapping from MNAP (**Appendix 9-B**) confirm the presence of Tidal Waterfowl and Wading Bird Habitat (TWWH), a significant wildlife habitat associated with the portion of the project that borders Belfast Bay. As discussed in Section 7, impacts to the TWWH will be temporarily caused by trench excavation to install the project intake and outfall pipes. The buried pipeline design through the TWWH will result in temporary impacts to approximately 1% of the larger intertidal area that extends roughly from the mouth of the Little River southwards for about  $\frac{3}{4}$  of a mile to Browns Head, a Point on the Northport, ME shoreline, covering over 4 million square feet. TWWH provides feeding habitat for waterfowl and wading bird species, and generally consists of intertidal mudflats, eelgrass and mussel beds where they can forage for aquatic invertebrates. The intertidal area that will be impacted by the project is a mix of cobbly and firm (sandflat) substrates and does not support any mussels, eelgrass, or shellfish beds. Impacts will be further minimized through the implementation of construction best management practices (BMPs).

The MNAP map of habitat resources in Belfast also designates Belfast Reservoir Number One as Inland Waterfowl/Wading Bird Habitat (IWWH), although only Belfast Reservoir Number Two was designated as IWWH in MDIFW's project review. It should be noted that no impacts to the habitat present in Reservoir Number One are expected as a result of the project. As discussed in Section 7, the reservoir is buffered from the project site by a 250-foot shoreland zone of mature trees, to be owned by the City of Belfast and conserved in perpetuity, minimizing disturbance impacts. The project design will also maintain flow in the streams that currently drain from the site into the reservoir, so there will be no change in the hydrology that supports the habitat resources currently present. The proposed project surface water withdrawal will be in accordance with Chapter 587: *In Stream Flows and Lake and Pond*

*Water Levels* and no changes to the existing intake pipe are proposed. Additionally, construction BMPs to avoid erosion and sedimentation will be adhered to and any potential in-water work should be confined to occur between July 15 and October 1, as recommended by MDIFW.

Endangered, Threatened and Special Concern species identified in the MDIFW review as potentially present consisted of all eight of Maine's bat species, including the state endangered little brown bat, and northern long-eared bat as well as the state threatened eastern small-footed bat. Bat species may occur on the project site only during migration or summer seasons. MDIFW recommends coordination with the U.S. Fish and Wildlife Service for the northern long-eared bat (federally threatened) but otherwise does not anticipate significant impacts to any bats species resulting from the project. The project anticipates avoiding impact to bats by cutting trees outside of the migration or breeding season, when bats are not present on-site.

In conclusion, based on adherence to applicable work windows, construction BMPs, and continued consultation, identified significant wildlife habitat and potentially present endangered, threatened or special concern species will not be adversely affected by the development.

**APPENDIX 9-A**

Maine Department of Inland Fisheries and Wildlife Response Letter

**APPENDIX 9-B**

Maine Natural Areas Program Maps