



Section 15

Groundwater

Section 15. Groundwater

15.1 State Standards

Pursuant to the State's Site Law, applicants shall provide:

- Narrative and report;
- Groundwater protection plan;
- Monitoring plan; and
- Monitoring well installation report.

15.2 Narrative and Report

The Project is located within the East Andover, Ellis Pond, Roxbury and Rumford Quadrangle maps. See the attached Significant Sand and Gravel Aquifer map in Exhibit 15-1, which shows the location of the proposed development and the nearby ponds, streams and significantly mapped sand and gravel aquifers.

The nature of the Project will not have any direct effects on the groundwater and will not contribute to groundwater degradation. During construction and operation, the Project will not utilize, discharge, or extract groundwater. Appropriate erosion control measures will be in place to help protect the quality and quantity of groundwater. The Project will not use pesticides; therefore, the Project is not anticipated to adversely impact groundwater quantity or quality.

There are no known public drinking water supply wells within 300 feet of the project components.

During construction, the potential sources of groundwater contamination are associated with the construction equipment. Leaks or spills of fuel, hydraulic fluids and lubricating oils from the equipment are possible sources of groundwater contamination. Spills or leaks are generally minimal and can be effectively managed. See the attached Spill Prevention and Protection Control Plan ("SPCC Plan") in Exhibit 15-2. The contractor will be responsible for storing and handling the materials, addressing any spills and adhering to the SPCC plan.

Once the site is operational, the turbine site will store gear oil and hydraulic oil in the transformers. Supplementary oils and greases required for maintenance will be stored offsite. The SPCC Plan addresses the storage, containment, spill prevention, handling and clean-up of these materials.

Listed below are determining factors which contribute to the preservation of groundwater quality on the subject site.

- There will be no underground oil storage tanks.

- Spare petroleum products, beyond what is normally occurring within the wind turbines, will not be stored on site.
- There will be no storage of pesticides, herbicides, fertilizers, road salt, solvents or acids.
- There are no disposal areas designated for solid waste disposal.
- There are no sand and gravel aquifers found within the vicinity of the site. (See map based on aquifer data from Maine Geological Survey in this section.)
- No wastewater will be generated for this Project during operations.

A combination of the erosion and sedimentation control plan (Section 14), the SPCC Plan (this Section 15), and the stormwater management plan (Section 12) will prevent groundwater degradation and contamination during construction and during operation of the Project.

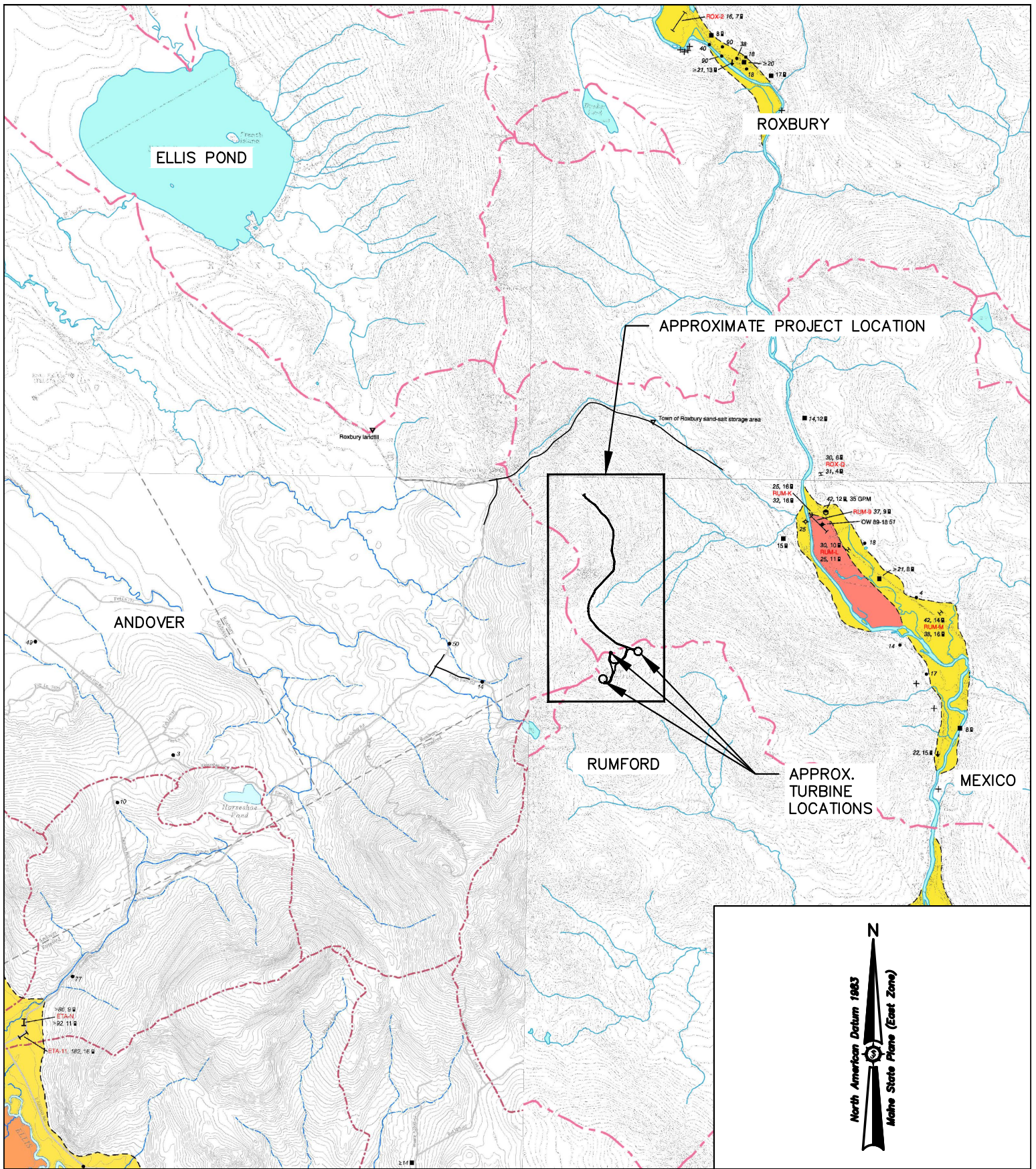
As described in the SPCC Plan, all spills will be reported to the appropriate emergency contacts in accordance with the SPCC Plan and State and Federal requirements.

15.3 Groundwater Protection Plan

A combination of the erosion and sedimentation control plan (Section 14), the SPCC Plan (this Section 15), and the stormwater management plan (Section 12) will prevent groundwater degradation and contamination during construction and during operation of the wind farm.



Exhibit 15-1
Significant Sand and Gravel Aquifer Map




Project No. 381.21.01		WIND FARM DEVELOPMENT TWIN ENERGY, LLC.	
Engineer	ENGINEERING	SURVEYING	
		Project Location	Date
		ROXBURY, ME	06/23/2022
www.sewall.com		Drawn by	Checked by
		RDL	JAO
1 800 648 4202		Drawing Description	Scale: NTS
		SAND AND GRAVEL AQUIFER MAP	

Exhibit 15-2
Spill Prevention and Protection Control Plan
(SPCC plan)

Purpose:

The purpose of this plan is to establish procedures to both mitigate the risk of spills and respond efficiently in the event that a spill does occur.

Fuel, Oil and Lubricant Storage:

During construction, contractors will have cranes, trucks, and other necessary equipment on site to perform the work. Fuel trucks and multiple skid tanks will be used for on-road and off-road diesel fuel. Safety cans of diesel fuel and gasoline will be properly stored in labeled cages. Other lubricants such as oils and grease will be stored in 5-gallon pails in dedicated Conex boxes, which will be spaced throughout the project. The maximum quantities of oil and lubricants in each Conex box will be 25 gallons, and the maximum quantity of waste oil per Conex storage box will be 15 gallons. Waste oil will be removed from site within 5 days of initial accumulation, and contractors will have no long-term storage for hazardous waste onsite.

General Requirements

- Contractors will abide by all relevant local, state, and federal regulations and will follow all Best Management Practices when storing, transporting, and using oil, hazardous materials, and waste.
- Daily inspections of all vehicles and equipment containing petroleum that are in use will be conducted in order to identify leaks or signs of deterioration.
- Contractors will provide and maintain sufficient on-site spill cleanup and containment equipment (i.e. absorbent pads, containment booms, debris containers). Operational vehicles will also carry an oil spill kit that contains the necessary equipment to conduct an initial containment of spills.
- At the completion of the job, contractors will remove all oils, hazardous materials, waste and unused materials, including partially full containers of waste materials, from the work site.

Storage and Handling Requirements

- All petroleum products will be stored in Maine Department of Transportation approved containers or tanks in areas that are not environmentally sensitive. These containers will be stored in cabinets or on a firm working surface.
- Containers will be kept closed unless material is being transferred, and contractors will monitor all transferring operations.
- Storage and handling of flammable and combustible liquids will be in accordance with rules developed under Title 25 M.R.S.A., Section 2441.



- Gasoline and fuel storage tanks with more than a 25-gallon capacity will have a secondary impervious containment constructed that is capable of holding 110 percent of tank capacity.
- Disposal of hazardous waste will comply with all MDEP Hazardous Waste Management rules, and handling and disposal of waste oil will comply with all MDEP Waste Oil Management Rules as well as U.S. Environmental Protection Agency Regulations.

Spill Prevention

Contractors will utilize the proper equipment to keep spills at a minimum, and contractors will follow safety procedures to respond to spills if they do occur. Contractors will have double-walled skid tanks that will be separated and surrounded by jersey barriers. All portable fuel tanks will be properly marked and stored. There will be two 55-gallon spill packs, and each supervisor and crew vehicle will be equipped with 5-gallon spill packs. If a spill does occur, the site supervisor, site safety manager, and the spill clean-up contractor will be contacted. The clean-up contractor will perform appropriate spill remediation and give advice on how to prevent future spills. The spill will also be reported to the Maine DEP within 2 hours. The contact information for the Maine DEP Oil Spill Hotline is 800-482-0777.