

# STATE OF NEW HAMPSHIRE

Inter-Department Communication

NHPUC 17MAY17PM2:38

**DATE:** May 17, 2016  
**AT (OFFICE):** NHPUC

**FROM:** Randy Knepper, Director of Safety and Security, Safety Division *RSK*

**SUBJECT:** Docket No. DE 16-849 NHEC, Mink Island in Gilford NH  
Lake Winnepesaukee Crossing Petition for a License to Construct and  
Maintain 7.2kV Cable beneath State Waters and Lands  
Staff Recommendation

**TO:** Debra Howland, Executive Director  
Tom Frantz, Director, Electric Division  
Robert Wyatt, Assistant Director, Safety Division  
Paul Dexter, Hearings Examiner, Legal Division  
Les Stachow, Assistant Director, Electric Division

Commission Safety Division's review of the above petition consisted of the following elements:

- Petition contents, testimony, project overview and history
- Regulatory Requirements
- Private Property, Property Rights
- Public Interest
- Conclusions
- Recommendations

## **A. Petition Contents, Project Overview and History**

On November 9, 2016, New Hampshire Electric Coop (NHEC) filed a petition, pursuant to RSA 371:17 and RSA 371:20, to construct and maintain electric cable and conduits crossing under the public waters of Lake Winnepesaukee in the Town of Gilford, New Hampshire. According to the petition, the re-constructed electrical cable and conduits are necessary to provide electric service to 18 single private residences located on Mink Island. The crossing will replace a deteriorated cable that supplies Mink Island from Mark Island. The new electric cable will actually tie into an underground vault located on the most westerly side of Mink Island and a pole on the easterly side of Mark Island. See Petition Exhibit A.

In its petition NHEC asserts the electric power cable currently serving Mink Island has deteriorated and needs replacement. The service is currently provided through an existing cable but the neutral is no longer reliable. The petition states that in order to meet the reasonable requirements of service to the public, it is necessary that NHEC re-

construct a distribution line to the shore of and lay cable under Lake Winnepesaukee to Mink Island.

The new facilities will consist of a 7,200 Volt submarine cable, aluminum conductor, size 1/0, Triplex insulation with an insulation thickness of 1.720 inches (manufactured by Okonite). The new underground electric line will begin at existing NHEC Pole #11528/17 located at the property of Richard Melvin to the shore line (re. NHEC Petition, Exhibit A). Specifically, the project plans are as follows:

- NHEC Pole #11528/17 is located at Richard Melvin (re. Gilford Tax Map 245, Lot 8 on Mark Island.
- The cable and Schedule 80 PVC conduit will extend approximately 34 feet from NHEC Pole #11528/17 in a trench approximately 36-40 inches deep to the shore of Lake Winnepesaukee.
- The installation process will extend below the lake bed using shallow trenching and direct burial of the cable and conduit protected with ASTM C39-72 concrete covers to a point where the underwater depth is 6 feet at mean high water, per NHEC construction standard IUSUB.
- At that point the cable will exit the conduit and continue for a distance of approximately 560 feet on the lake floor to a similar conduit leading the cable to the shore line of the Joanna Pike and Greg Dickinson property (Gilford Tax Map 245 Lot 29, on the most westerly side of Mink Island.
- The cable will continue underground to concrete pad #11528/18 (vault) where the line will be connected cable that provides service to 18 residences on Mink Island.
- Total distance from NHEC Pole #11528/17 to vault #11528/18 will be approximately 694 feet. The underwater portion of this cable will span a distance of approximately 560 feet).

NHEC will maintain ownership of the cable and will be responsible for its maintenance.

## **B. Regulatory Requirements**

As defined in RSA 371:17, a license is required to place utility service facilities under or across Lake Winnepesaukee, as is the case with any other New Hampshire public waters of more than 10 acres. Lake Winnepesaukee is listed on the Department of Environmental Services Water Division's official list of Public Waters.

The petition also included copies of the two Wetlands and Non-Site Specific Permits as issued by the NH Department of Environmental Services (DES). Copies of the DES permit were filed with the petition as Exhibit D-1 and D-2 (Gilford Tax Map 245 Lot 8) and Exhibit E-1 and E-2 (Gilford Tax Map 245 Lot 29). These two Wetlands and Non-Site Specific Permits authorize the temporary impacts to onshore and beneath the lake bed to facilitate construction. Copies of the two DES permits were issued October 26, 2016 and will expire on October 26, 2021.

### **C. Private Property, Property Rights**

NHEC will use the existing right of way from an easement for access to the Richard Melvin property as listed in Belknap County Registry of Deeds Book 625 page 423 (re. Petition, Exhibit B). NHEC will also use the existing right of way from an easement for access to the Pike and Dickinson property as listed in Belknap County Registry of Deeds Book 3019 page 190 (re. Petition, Exhibit C). These easements continue to be necessary in order for NHEC to be able to excavate, install and maintain the electric cable and conduit within the agreed upon easement areas. NHEC, and its contractors, will be required to comply with all the terms of the Right of Easements.

### **D. Public Interest**

In its petition NHEC asserts the electric power cable currently serving Mink Island has deteriorated and needs to be replaced. The petition states that in order to meet the reasonable requirements of service to the public, it is necessary that the NHEC approved contractor re-construct a distribution line to the shore of and lay cable under Lake Winnepesaukee from property on Mark Island in Gilford to Mink Island.

When the project is finished, the electric cable and conduit will be buried underground as it extends from the shore of the Richard Melvin property to a depth of 6-feet where the heavily shielded submarine cable will travel along the lake bed to a similarly constructed conduit emerging from the Pike and Dickinson property.

### **E. Conclusions**

The proposed facilities are required to meet the reasonable requirements of NHEC to provide the necessary electric service to 18 residences on Mink Island.

In testimony supporting its petition, NHEC states that the proposed electric cable and conduit facilities will be in compliance with the National Electric Safety Code. Lastly, NHEC affirms that it has successfully used this type of installation, with the submarine, aluminum conductor, size 1/0, Triplex insulated cable and conduits in over 50 similar installations.

### **F. Recommendations**

Staff recommends approval of NHEC's petition for a license to re-construct and maintain cable and conduit beneath public waters (Mark Island to Mink Island, Lake Winnepesaukee) in the Town of Gilford, New Hampshire, with the following conditions:

1. The Commission should require that any future alterations to the proposed electric facilities meet the applicable sections of the National Electric Safety Code in effect at the time of the alteration, and that requests for such alterations be submitted to the Commission for its consideration at least 60 days prior to the start of construction.
2. That conformance to the conditions imposed by the DES Wetlands and Non-Site Specific Permits included in the petition is required.

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**SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED**

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**Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.**

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**FILING INSTRUCTIONS:**

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**
- DEBRA A HOWLAND  
EXECUTIVE DIRECTOR  
NHPUC  
21 S. FRUIT ST, SUITE 10  
CONCORD NH 03301-2429
- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
- c) Serve a written copy on each person on the service list not able to receive electronic mail.**