

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, D.C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 2485-058 – Massachusetts  
Northfield Mountain Pumped Storage Project  
FirstLight Power Resources LLC

April 7, 2015

Gus Bakas, Station Manager  
Northfield Mountain Station  
99 Millers Road  
Northfield, MA 01360

Subject: Pilot Dredge Program

Dear Mr. Bakas:

This letter acknowledges receipt of your notification of a planned small-scale pilot dredge operation at the Northfield Mountain Pumped Storage Project (FERC No. 2485), filed with the Federal Energy Regulatory Commission on February 24, 2015. The program was developed based on results from the 2014 monitoring required by your approved Sediment Management Plan.<sup>1</sup> The plan required a four-year sediment monitoring study (2011-2014) in which sediment dynamics in the project's upper reservoir were assessed in order to develop measures to minimize entrainment of accumulated silt into the project works and Connecticut River during drawdown or dewatering. One of the measures considered is the periodic dredging of the upper reservoir to assess its feasibility as a long-term management tool. This was discussed in your 2014 annual sediment report along with extending sediment data collection efforts in 2015.

Your filing states that the pilot dredging would affect about 4 acres of the upper reservoir near the upper intake channel. Approximately 50,000 cubic yards of material will be removed over a period of 90 days, beginning in mid-April. The depth of the dredge will be limited to approximately three feet during each pass so that the sediment will remain stable. Best Management Practices (BMP's) will be implemented prior to, and during and after the dredging operation to avoid sediment migration from the upper reservoir to the Connecticut River. The dredge material will be pumped up to a Geotube

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<sup>1</sup> Order Approving Revised Sedimentation Plan. 138 FERC ¶ 62,305 (issued March 28, 2012).

dewatering system, with filtered effluent flowing back into the reservoir at a controlled rate.

A designated staging and material storage area will be prepared and located adjacent to the intake channel. A temporary excavated containment area has been installed adjacent to that site for the Geotube system. Equipment operations will be designated along the existing gravel access located parallel to the intake channel. The dredging process, including the arrangement of the Geotubes, will include the addition of a flocculation agent to the effluent along with regulation of discharge designed with the goal of having no noticeable sediment plume at the return location in the upper reservoir. Any additional BMP's such as installation of silt curtains will be deployed as needed. Observations by the contractor and your staff will be recorded in a weekly log, which will include daily events along with any corrective measures implemented. Periodic observations of the intake channel will occur throughout the duration of the project. Finally, the results of the pilot project will be discussed in your December 2015 sediment management report.

We look forward to the results of the pilot dredge program to be filed concurrent with your next sediment management plan report for 2015. If you have any questions regarding this letter, please contact me at (212) 273-5917.

Sincerely,

Joseph Enrico  
Aquatic Resources Branch  
Division of Hydropower Administration  
and Compliance