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December 7, 2018

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Lancelot Lake Dam Improvements
PROJECT MUNICIPALITY : Becket
PROJECT WATERSHED : Westfield
EEA NUMBER : 15931
PROJECT PROPONENT : Sherwood Forrest Lake District
DATE NOTICED IN MONITOR : November 7, 2018

Pursuant to the Massachusetts Environmental Policy Act (MEPA) (M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project consists of repairs to the Lancelot Lake Dam (the Dam) to address structural deficiencies and to bring the dam into compliance with the Department of Conservation and Recreation's (DCR) Office of Dam Safety (ODS) regulations at 301 CMR 10.00. The project includes:

- Drawing down Lancelot Lake to remove woody vegetation on the embankment, replacement of the spillway and diversion of flows around the work area;
- Removing all trees and woody vegetation from the dam crest and within 20 feet (ft) of the dam embankments and abutments;
- Regrading the dam crest to a consistent elevation and constructing a 4-ft wide pedestrian path along the length of the dam;

- Replacing the spillway structure and regrading the adjacent left abutment to match the elevation of the dam crest;
- Constructing a new low-level outlet, including a 12-inch diameter ductile iron siphon that will be placed on the upstream embankment and buried under the crest and downstream embankment, with an outlet through a concrete headwall at the toe of the embankment;
- Creating a discharge channel that directs flow from the low-level outlet to an existing culvert under Sir Galahad Road; and
- Abandoning the existing low-level outlet by filling it with grout.

According to the ODS, the dam is considered a High Hazard Potential dam because failure of the dam would likely cause loss of life and serious damage to property. The dam was inspected in 2014 and determined to be in poor condition. The project will address potential damage to the dam potentially caused by overtopping at low points, seepage through the embankment and tree roots.

Project Site

Lancelot Lake is a 7-acre impoundment located in southern Becket. It is fed by groundwater springs and stormwater runoff and does not have any surface water tributaries. The lake is located within the Sherwood Forest Lake District (SFLD), which was established by the Legislature by Chapter 107 of the Acts of 2010 for the purpose of owning, managing and maintaining the lakes, beaches, dams and streets in the district. The SFLD is funded through a real estate tax assed on properties in the district and from grants and other funding sources. Residents and land owners of Sherwood Forest comprise the membership of the SFLD. The SFLD covers an area of 725 acres and has 5 artificial lakes, including two others with dams. The lakes in the district are used for recreation and provide a water source for fire protection.

Lancelot Lake is surrounded by residences along Sir Galahad Drive to the east, Whistling Arrow Lane to the south, Lancelot Lane to the west and Maid Marion Lane and Fireside Lane to the north. A beach is located along the southeastern shore of the lake. The dam is a 630-ft long embankment that forms the southeastern shoreline of the lake. Its structural height is 14.5 ft and the crest is 15-ft wide. The top of the dam is at elevation 96.35 ft based on an arbitrary local datum established for a survey of the site. The embankment has a slope of 3:1 (horizontal:vertical) on the upstream side and 2.5:1 on the downstream side. The spillway is a concrete structure with sidewalls forming a 3-ft wide opening across which stop logs are placed. Water is discharged through a 20-inch diameter corrugated metal pipe in the headwall of the structure that continues under Sir Galahad Drive and discharges on the east side of the road. A secondary spillway is located at the northern end of the lake and conveys flows across Maid Marion Drive. The non-functioning low-level outlet is located at the midpoint of the embankment and consists of a 12-inch diameter metal corrugated pipe that discharges at the toe of the downstream embankment near a small area of Bordering Vegetated Wetlands (BVW). The gate operating the low-level outlet has been welded closed.

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) (2501180020, effective August 5, 1991), the site is located within the 100-year

floodplain but no Base Flood Elevation (BFE) is provided. The Hydrologic and Hydraulic analysis (H&H) conducted for this project determined that the 100-year flood elevation is 95.6 ft (local datum) which is generally located within the banks of the lake.

Environmental Impacts and Mitigation

The project will impact 493 linear feet (lf) of Bank associated with tree removal, 225 square feet (sf) of BVW, 1.38 acres of Land Under Water (LUW) and 1,500 sf of Bordering Land Subject to Flooding (BLSF). Alteration of LUW is primarily limited to the period during which the lake is drawn down and also includes direct impacts during construction of the spillway.

The purpose of the project is to improve the structural stability of the dam. The project will replicate BVW in situ, and restore Bank and LUW impacted during construction. The path along the crest of the dam will be reconstructed to provide pedestrian access along the dam. Sedimentation and erosion controls will be used during construction to minimize impacts to water quality.

Permitting and Jurisdiction

The project is undergoing MEPA review and requires preparation of an ENF pursuant to 301 CMR 11.03(1)(b)(1) because it requires a State Agency Action and will result in the alteration of ½ acre or more of any other wetlands. The project requires a Superseding Order of Conditions (SOC) from the Massachusetts Department of Environmental Protection (MassDEP). The ODS issued a Chapter 253 Dam Safety Permit on May 22, 2018 that is conditional upon the project's completion of MEPA review.

The project requires a Self-Verification Notification from the Army Corps of Engineers in accordance with the General Permits for Massachusetts.

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction extends to land alteration, wetlands and water quality.

Review of the ENF

The ENF provided a description of existing and proposed conditions, including project plans and photographs of the site. It identified measures to avoid, minimize and mitigate project impacts and reviewed project alternatives. The ENF included a detailed H&H analysis of the project design.

Alternatives Analysis

The ENF included an alternatives analysis that reviewed No Action and Dam Removal options and evaluated alternative construction techniques. The No Action alternative would

leave the dam as it is without any repairs or modifications. This alternative was rejected because it would not address the structural and safety deficiencies of the existing dam. The Dam Removal alternative would involve the partial or complete removal of the dam in order to minimize the potential for its failure in the future. This alternative would eliminate an important water supply for fire protection and result in the loss of the lake's recreational and ecological resources, including fish and bird habitats.

The ENF evaluated the feasibility of minimizing impacts to LUW by installing a 560-ft long cofferdam across the length of the embankment. This structure would provide dry conditions for the replacement of the spillway and low-level outlet without drawing down the lake. According to the ENF, a cofferdam of this length would not be financially feasible and would pose a safety hazard to workers should it fail.

The Preferred Alternative will address safety concerns posed by structural deficiencies observed in the dam. It will remove woody vegetation from the embankment to prevent root damage, but allow continued herbaceous growth to provide habitat. Regrading the left abutment and replacing the spillway will minimize the potential for overtopping of the dam. Construction of a new low-level outlet will provide a means of lowering water levels in an emergency or for dam maintenance. A 40-ft long, 5.8-ft high sand bag cofferdam will be installed around the spillway and the area within the cofferdam will be dewatered to provide suitable working conditions for the spillway replacement. The lake will be drawn down for one month to provide safe working conditions during construction of the project.

Wetlands and Water Quality

The Notice of Intent submitted to the Becket Conservation Commission (BCC) included the replacement of a diversion pipe located north of Maid Marion Lane in addition to the dam repair described in the ENF. The BCC issued an OOC that denied the portion of the project related to the diversion pipe. The Proponent filed an appeal to MassDEP seeking an SOC that would permit the project as originally proposed, but has since removed the diversion pipe replacement from the project design. At the request of MassDEP, the Proponent has developed a more detailed restoration plan for the BVW that will be impacted by the low-level outlet that will include monitoring the area for two growing seasons. Construction-period impacts to wetland resource areas will be minimized by keeping machinery outside of resources areas to the extent practicable during tree removal, excavation and dewatering activities.

Conclusion

The ENF has sufficiently defined the nature and general elements of the project for the purposes of MEPA review and demonstrated that the project's environmental impacts will be avoided, minimized and/or mitigated to the extent practicable. Based on review of the ENF and comments received, and in consultation with State Agencies, I have determined that no further MEPA review is required.

December 7, 2018

Date

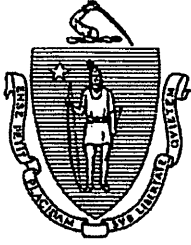


Matthew A. Beaton

Comments Received:

- 11/08/2018 Board of Underwater Archaeological Resources (BUAR)
- 11/27/2018 Massachusetts Department of Environmental Protection (MassDEP)/Western Regional Office (WERO)
- 11/27/2018 Department of Conservation and Recreation (DCR)

MAB/AJS/ajs



The COMMONWEALTH OF MASSACHUSETTS
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November 8, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attention: Alex Strycky, MEPA Unit
100 Cambridge St., Suite 900
Boston, MA 02114

RE: Lancelot Lake Dam Improvements Project, Becket (EEA #15931)

Dear Secretary Beaton,

The staff of the Massachusetts Board of Underwater Archaeological Resources (BUAR) has reviewed the above referenced project's ENF (EEA# 15931) prepared by Tighe & Bond, Inc., on behalf of the Sherwood Forest Lake District. We offer the following comments.

The Board has conducted a preliminary review of its files and secondary literature sources to identify known and potential submerged cultural resources in the proposed project area. No record of any underwater archaeological resources was found. Based on the results of this review and the modern man-made nature of the impoundment (Lancelot Lake), the Board expects that this project is unlikely to impact submerged cultural resources.

However, should heretofore-unknown submerged cultural resources be encountered during the course of the project, the Board expects that the project's sponsor will take steps to limit adverse effects and notify the Board, as well as other appropriate agencies, immediately in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

The Board appreciates the opportunity to provide these comments as part of the review process. Should you have any questions regarding this letter, please do not hesitate to contact me at the address above, by email at victor.mastone@state.ma.us, or by telephone at (617) 626-1141.

Sincerely,

A handwritten signature in black ink, appearing to read "Victor T. Mastone".

Victor T. Mastone
Director

/vtm



November 27, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn: Alex Strysky, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

RE: MEPA File No. 15931, Lancelot Lake Dam Improvements

Dear Secretary Beaton:

The Department of Conservation and Recreation ("DCR" or "the Department") is pleased to submit the following comments in response to the Environmental Notification Form ("ENF") filed on behalf of the Sherwood Forest Lake District (the "Applicant") by Tighe & Bond for the rehabilitation of Lancelot Lake Dam (the "Project"). As described in the ENF, the Project proposes repairs and alterations to an existing dam and requires a Chapter 253 Dam Safety Permit from DCR.

Background

The Office of Dam Safety ("ODS") notes that Lancelot Lake Dam is classified as a "High Hazard Potential" dam in Poor condition. Dams are deemed to be a High Hazard Potential where dam failure will likely cause loss of life and serious damage to home(s), industrial or commercial facilities, important public utilities, main highway(s) or railroad(s).

Project Description

As described in the ENF, the Project includes the following work scope: removal of woody vegetation from within 20 feet of the dam; installation of a new low level outlet; minor regrading of the dam crest and construction of a walking path; and reconstruction of the spillway to increase capacity.

In February 2018, the Applicant submitted a Ch. 253 Dam Safety Permit filing. ODS reviewed the filing and in May 2018 a Ch. 253 permit was issued to the Applicant. Based on review of project information submitted, it appears that implementation of the Project design will result in an improved condition of the dam and is in the interest of public safety.

Thank you for the opportunity to comment on the ENF. Should you have any questions, please do not hesitate to contact David Ouellette at (617) 626-1347 or david.ouellette@mass.gov with any questions, to request additional information or to coordinate with the Office of Dam Safety.

Sincerely,

Leo Roy
Commissioner

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

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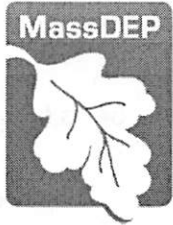


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November 27, 2018

Matthew A. Beaton, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Alex Strysky, EEA No. 15931
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: Lancelot Lake Dam Improvements Project,
Becket

Dear Secretary Beaton,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted for the proposed Lancelot Lake Dam Improvements Project – Becket (EEA# 15931). The applicable MassDEP regulatory and permitting considerations regarding wetlands, waterways, air pollution, solid waste, and waste site cleanup are discussed.

I. Project Description

The overall project is maintenance and improvements to the Lancelot Lake Dam and spillway located in Becket. The project is intended to address deficiencies in the dam, spillway, low level outlet and vegetation management. Lancelot Lake is a 7-acres recreational impoundment build in the 1960s.

The Lancelot Lake Dam is an earthen dam, approximately 630 feet in length, 14.5 feet in height and 5 feet wide on the crest of the dam. The project entails removing woody vegetation and maintenance within 20 feet of the dam, reconstruction of the spillway, installation of a functional low level outlet, improvements to the abutments and crest of the dam. The work will require a temporary 3.5 foot lake drawdown, installation of a coffer dam and will result in permeant loss of 54 square feet of Land Under Water due to an enlarged spillway.

The project is subject to MEPA review and an ENF because it requires a State Agency Action and the structural alteration of an existing dam. The project initially received an Order of Conditions (OOC) from the Becket Conservation Commission which was appealed, resulting in the State Agency Action, requiring MassDEP to review the OOC and issue a Superseding Order of Conditions.

Environmental impacts associated with this project include:

- 493 l.f. of Bank (Temporary),

- 1.38 acres of Land Under Water and Waterways (LUWW) (Temporary), 54 s.f. (Permanent),
- 225 feet Bordering Vegetated Wetland (Temporary), and
- 1,500 s.f. of Bordering Land Subject to Flooding (tree removal, Temporary).

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands

310 CMR 10.00

Air Pollution

310 CMR 7.00

Solid Waste

310 CMR 16.00

Bureau of Waste Site Cleanup

310 CMR 40.000

III. Permit Discussion

Bureau of Water Resources

Wetlands & Waterways

The scope of the project required filing a Notice of Intent (NOI). The Order of Conditions issued by the Becket Conservation Commission was appealed on January 1, 2018. MassDEP has reviewed the original Notice of Intent, has conducted an onsite visit, and has requested additional information regarding the project. The Proponent anticipates a response to the request by November 30.

The Proponent is advised that MassDEP will not issue a permit until the Secretary's Certificate is issued indicating the MEPA process is complete.

The Site appears to contain Bank (Inland), Land Under Water Bodies and Waterways (LUWW), and Bordering Land Subject to Flooding.

Bureau of Air and Waste

Air Quality

Construction and Demolition Activities

The construction and any demolition activity must conform to current Air Pollution Control Regulations. The proponent should implement measures to alleviate dust, noise, and odor nuisance conditions that may occur during the construction and demolition activities. Such measures must comply with the MassDEP's Bureau of Waste Prevention Regulations 310 CMR 7.01, 7.09, and 7.10.

Asbestos

Although there is currently no indication of asbestos on-site, if any portion of the proposed project involves removal or abatement of regulated asbestos-containing material, an asbestos removal notification (AQ04) must be sent to MassDEP using the asbestos notification form ANF 001, at least 10 working days prior to initiating work. The handling and removal of asbestos

from a facility and/or facility component must adhere to the requirements at 310 CMR 7.15. For disposal, the Proponent is referred to 310 CMR 19.061.

Construction Period Air Quality Mitigation Measures

The Proponent has acknowledged compliance with MassDEP Diesel Retrofit Program and use of ultra-low sulfur diesel (ULSD) in all non-road engines.

Solid Waste

The proponent shall properly manage and dispose of all solid waste generated by this proposed project pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban). The BUD regulations at 310 CMR 19.060 establish levels of assessment for four categories of beneficial use. These regulations would be applicable to reuse of any materials generated by this project that would otherwise be considered solid waste.

The project proponent is advised that construction activity at the site must comply with both Solid Waste and Air Quality Control regulations. The appropriate Solid Waste provisions addressing this include M.G.L. Chapter 40, Section 54.

Bureau of Waste Site Cleanup

There are no identified disposal sites governed by the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E, and the Massachusetts Contingency Plan (MCP) (310 CMR 40.0000), within the immediate project site.

If however, soil and/or groundwater contamination is encountered during construction activities, the proponent should retain a Licensed Site Professional (LSP); the MCP details procedures to follow for the parties conducting work. MassDEP staff are available for guidance.

Spills Prevention

A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases. Due to the proximity to waterbodies, the Proponent may consider use of non-petroleum based lubricants in the construction equipment.

IV. Other Comments/Guidance

If you have any questions regarding this comment letter, please do not hesitate to contact Catherine Skiba at (413) 755-2119.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Michael Gorski
Regional Director

cc: MEPA File