

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 3
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**Department of
Environmental
Conservation**

May 28, 2019

Jonathan Lee
Dragon Springs Buddhist, Inc
140 Galley Hill Road
Cuddebackville, NY 12729

Re: Dragon Springs Monastery – 2nd Dam
DEC Application ID: 3-3328-00150/00019, /00020, /00021¹
DEC Dam ID#: 164-5769
Town of Deerpark, Orange County
Notice of Incomplete Application

Dear Mr. Lee:

The Department of Environmental Conservation has reviewed your resubmission, received November 30, 2018, regarding the application for permits pursuant to Article 15, Title 5, Protection of Waters (Dams and Stream Disturbance) and Water Quality Certification pursuant to Section 401 of the Clean Water Act for the proposed 2nd dam and impoundment; this is part of larger project to expand the facility. The application remains incomplete.

Please note that reference is also made below to the Draft Environmental Impact Statement (DEIS) accepted by the Town of Deerpark as State Environmental Quality Review (SEQR) Lead Agency on December 12, 2018. Reference is also made to the previous Notice of Incomplete Application dated June 27, 2016 and the April 10, 2018 Response on Lead Agency and DEC Jurisdiction.

Dams

For the technical comments on the dam design, please see the attached memo from the Warren Shaw, NYSDEC Dam Safety Section to Rebecca Crist, Region 3, Environmental Permits, dated May 2, 2019.

Stream Disturbance, Water Quality Certification

The dam application cover letter from Kaijin Liang states that Michael Nowicki and Lanc & Tully Engineering have been retained to delineate the wetlands under jurisdiction of the Army Corps of Engineers. The location and impact to the wetlands must be

¹ State Pollutant Discharge Elimination System (SPDES) permit application 3-3328-00150/00013 is being processed with these applications, however, no resubmission was received nor is required for the proposed 100,000 gallon per day discharge to surface waters.



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quantified for review of the Water Quality Certification. The DEIS states that 0.6 areas of federal wetland will be disturbed for the dam construction.

It is stated in the DEIS that you intend to “*construct additional wetlands on an offsite parcel of land located at 32 Grove Street in the Town of Deerpark*” as mitigation for disturbances to the federal wetlands. Please note that this work may require an additional, separate Water Quality Certification and possibly a Stream Disturbance permit if there will be any work on the bed or banks of the Neversink River.

The DEIS also states that a total of 18 acres of federal wetland are on the site, however the reference figure, Figure III-5: Existing Wetlands, appears to show only ~4.5 acres in the vicinity of the proposed dam. As there are numerous other areas of work proposed, including the proposed 100,000 gallon per day sanitary treatment plant and discharge, a map showing all wetlands on site, with all proposed work, is required.

Threatened and Endangered Species

The following information was previously requested in the 2016 Notice of Incomplete Application and in 2018 Response on Lead Agency. No information on Threatened or Endangered Species was included in the dam application, but the following discusses the information included in the DEIS.

Species listed by NYS as threatened or endangered are protected under Article 11, Title 5 of the Environmental Conservation Law and a permit is required for the incidental taking of a listed species. Taking includes not only mortality of individuals but also modification of habitat and interference with essential behaviors.

The applications for Protection of Waters permits and the SPDES permit application cannot be deemed complete until DEC is able to make a determination on jurisdiction pursuant to Article 11, Title 5 with regards to all endangered or threatened species and, if a take will occur, a complete application for Incidental Taking is received.

This site contains or is near known occurrences of the following state- and federally-listed species:

Common Name	Scientific Name	NYS Status	US status
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Eagle Protection act
Brook Floater	<i>Alasmidonta varicosa</i>	Threatened	None
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	Endangered	Endangered
Indiana Bat	<i>Myotis sodalis</i>	Endangered	Endangered

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Common Name	Scientific Name	NYS Status	US status
Northern long-eared bat	Myotis septentrionalis	Threatened	Threatened

Bald eagle: There are two known nests in close proximity to the site. Because the distance to the nests from the areas of disturbance associated with the wastewater treatment modification is approximately 0.0~3-1.0 mile, the major concern is extremely loud, intermittent noises.

The DEIS states that “loud construction” will not take place during the bald eagle breeding season. However, it is not clearly stated in the DEIS, or in the Appendix E Habitat Assessment, that the applicable season is January 1st to September 30th. This should be explicitly stated in the DEIS and noted on the site plans.

Although the DEIS discusses limitations on work during the eagle breeding season, there is no discussion or notation of such in the dam application. The need to avoid loud noises during the breeding season from January 1st to September 30th must be noted on the dam plans.

To protect this species long-term, operations of the facility need to avoid loud noises during the breeding season, including a prohibition on any firework displays. In addition, please note that new eagle nests or territories may be established each year and you should check with the Department each year.

Dwarf wedgemussel and brook floater: These aquatic species are found in areas of the Neversink River downstream of and adjacent to the site. Wildlife staff previously reviewed the proposed SPDES discharge and determined that there is no potential impact from the proposed sanitary discharge. Work on the site that remains in compliance with an adequate Stormwater Pollution Prevention Plan (SWPPP) will not have an impact.

The mitigation work mentioned in the DEIS on the parcel at 32 Grove Street is adjacent to the Neversink River. Full project details will be necessary to determine if there is potential for a taking. If a taking cannot be avoided, staff would recommend considering a different mitigation site.

Northern long-eared bat and Indiana bat: These are tree-roosting bats and there is the threat of individual death from cutting of an occupied tree as well as removal of forest habitat essential to roosting and foraging.

The required restriction on tree-cutting for bat species allows tree removal only from October 31st to March 31st. This applies to all tree-removal on this property at any time, unless necessary for protection of life and property.

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Because the areas of tree-removal are greater than 10 acres in size, in addition to conducting tree-clearing during the appropriate work window, an additional impact assessment is needed including:

1. Analysis of % of forested habitat before and after the planned project within 2.5 miles of roost tree location. An area that is at or below 35% forest cover, or one that is caused to go below 35% forest cover by a project, could be considered an adverse impact to the species/roost home range.
2. Analysis of impacts to habitats (potential roosts, hedge rows, forest blocks etc) including temporary or permanent loss, degradation, and/or fragmentation of roosting, foraging, swarming, commuting, or wintering habitat.
3. Analysis of indirect impacts to the species, including temporary or permanent increases in noise, vibration, dust, chemical use, lighting, vehicle use, and general levels of human activity.

State Historic Preservation Act

The following information was previously requested in the 2016 Notice of Incomplete Application:

1. *DEC previously received the March 17, 2015 letter from the State Historic Preservation Office (SHPO) which determined no impact on archaeological and/or historic resources from the Dragon Springs Site Plan Revision. However, it appears that the plans now include new activities, including new proposed work in previously undisturbed areas. Please obtain an updated determination from SHPO.*

A determination of impact from SHPO for the **entire project** is a requirement of complete applications.

If there are any questions, please feel free to contact me at (845) 256-3014 or by email at rebecca.crist@dec.ny.gov.

Respectfully,



Rebecca S. Crist
Deputy Regional Permit Administrator

Ecc: Kaijin Lin, Dragon Springs
Alfred A. Fusco P.E., Fusco Engineering
Town of Deerpark Planning Board
Orange County Department of Health
Philip Perazio, NYS Historic Preservation Office, Project ID 15PR00660
Brian Orzel, US Army Corps of Engineers
Warren Shaw, NYSDEC Dam Safety Section, Albany
Berhanu Gonfa, NYSDEC Division of Water, Region 3

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Brian Drumm, NYSDEC Bureau of Ecosystem Health
Lisa Masi, NYSDEC Bureau of Wildlife, Region 3
Lisa Holst, NYSDEC Bureau of Wildlife, Albany
Lara Quintiliani Olivieri, NYSDEC Office of General Counsel, Region 3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Flood Protection and Dam Safety
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MEMORANDUM

TO: Rebecca Crist, Region 3 – Environmental Permits

FROM: Warren Shaw, Dam Safety 

SUBJECT: **Dragon Springs Dam #2**
New Lake and Dam Construction Project
DEC Application ID#: 3-3328-00150/00019
DEC Dam ID#: 164-5769
Town of Deerpark, Orange County

DATE: May 2, 2019

EC: Berhanu Gonfa, Region 3 - Dam Safety Representative
Alon Dominitz, Dam Safety Section Chief

I have completed my review of the plans and Engineering Design Report (EDR) submitted for review as par of the dam safety permit re-application for the referenced proposed dam project, which included the following material:

1. Response letter, dated November 30, 2018, by Kaijin Liang, NY P.E. license #79716;
2. Plan set titled “Dragon Springs Lake and Dam Project #2”, sheets 1 through 5 dated 3/15/2017, stamped and signed by Kaijin Liang, N.Y.P.E. license #079716, sheets 6 through 10 dated 3/16/2017 stamped and signed by Jay Wu, N.Y.P.E. license #095809, and sheets D-1 & D-2 dated 09/07/2018;
3. Design Report, dated November 28, 2018, developed under the supervision of and signed by Kaijin Liang, NY P.E. license #79716.

Please provide the following comments to the Applicant and the Town. These comments are not intended to be all inclusive or final. A complete review by Dam Safety will be conducted upon a complete permit application submittal to the Department.

General

1. Please note that the proposed covered driving access tunnel has only been reviewed from a dam safety perspective. Other considerations such as



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occupancy, access/egress, lighting, ventilation, structural integrity, etc... should be in compliance with NYS Building Code, as determined by the local code enforcement official.

2. The values for elevations, surface area and volume stores under Section 15 of the revised Supplemental D-1 form should be reviewed and coordinated with values presented in the updated EDR.

Response Letter

3. Response to Comment/Answer 19. There are no details provided in the proposed plans for the work being proposed to Dam #1 under this new configuration for Dam #2. The response includes discussion regarding the new “service spillway” at Dam #1 (20-foot length) and the normal pool in Lake #1 will be the same as Lake #2 at elevation 667.0. Does this 20-foot “opening” in the embankment, that is now considered Dam #1, provide a complete and full depth hydraulic connection between the 2 lakes? (ie. breaching Dam #1?). What is the normal pool elevation of Lake #1 currently? Will the existing dam embankment meet slope stability factors of safety if the normal pool elevation change? Engineer needs to provide further discussion of the work being proposed at Dam #1, provide additional analysis if warranted, and provide sufficient details in the plans.

Design Report

4. Pages 6 and 7, Section 3.2.1. This section discusses that the Auxiliary Spillway (ASW) utilizes a grass/rip rap stone channel after exiting the proposed 3 box culverts under the existing site road, however the plans and Appendix A show the channel as concrete. Please clarify.
5. Page 9, Section 3.2.5. As per the Guidelines for Design of Dams Section 7.0, a low-level outlet conduit or drain is required for emptying or lowering the water in the lake in case of an emergency or for inspection and maintenance of the dam. The Department generally requires the low-level drain to be a permanent feature of the dam. Consideration should be given to adding a low-level inlet drain pipe and valve/gate from the service spillway into the impoundment.
6. Page C-20, Section 3.4. How were the horizontal and vertical seismic coefficients values used in the earthquake model determined?

Drawings

7. Sheet 2. Soil test locations should be shown on the base map with the proposed conditions.

8. Sheet 2. The dimension call-out for the proposed concrete lined channel for the auxiliary spillway (ASW) downstream of the proposed three (3) box culverts under the existing site road is confusing. Also, the Engineering Design Report identifies this channel as a grass/rip rap stone channel (see Comment 5 above). Please coordinate and clarify. A typical section, labeled and dimensioned, through the ASW should be provided on Sheet 4.
9. Sheet 2. What is the size and type of culvert that carries the downstream ASW under the existing on-site road just before tying into the service spillway channel? Please provide details and back-up calculations that the culvert will be able to pass anticipated flows during the SDF.
10. Sheet 2. Additional details as to the proposed work to the spillway of Dam #1 is required to be included as part of the plans (see Comment 4 above).
11. Sheet 4. How were the culverts and downstream channels along both the service spillway and auxiliary downstream channels sized? Do they have the capacity to pass the downstream flows developed by SDF? Please provide appropriate justification as to the sizing of the downstream channels and culverts.
12. Sheet 4. Please provide a section and detail of the “stilling basin” and rip rap protection at the terminus of the SSW/ASW outlet channel.
13. Sheet 4, Spillway Inlet Structure Detail. The dimensioning of the inlet structure on the “Side View” does not seem to correlate to the dimensions of the “Plan View” and “Front View”. Please verify and amend the details as appropriate.
14. Sheet 4, Spillway Inlet Structure Detail (Plan View). The open grid (4”x4”) proposed steel bar trash rack/screen covering the top of the inlet structure is tight and will tend to over-accumulate smaller debris that would normally be able to flush through the outlet pipe and lead to blockage of the inlet and reduction of the overall capacity. With the inlet location into the impoundment, regular cleaning and maintenance may be an issue. The general rule of thumb according to the Association of State Dam Safety Officials (ASDSO) is that the trash rack openings should be sized so that they measure one-half (1/2) the nominal minimum dimension of the outlet conduit. Please confirm the trash rack openings are adequately sized and/or provide additional justification for the current detail.