

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Flood Protection and Dam Safety
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www.dec.ny.gov

Electronic Transmittal Only

January 13, 2022

Honorable David McFadden, Mayor
Village of Tuxedo Park
80 Lorillard Rd., PO Box 31
Tuxedo Park, NY 10987

Re: Tuxedo Lake Dam
DEC Dam ID#: 196-0354 (Class B – Intermediate Hazard)
Village of Tuxedo Park, Orange County

Dear Mayor McFadden:

I conducted a routine visual inspection, along with Mr. Joshua Johnson and Mr. Berhanu Gonfa, of the Tuxedo Lake Dam on October 14, 2021 as part of the Department of Environmental Conservation's (Department) ongoing Dam Safety program. I am writing to you because it is my understanding that you represent the owners of this structure. The left/right nomenclature used in this letter and in the enclosed Visual Observation Report is based on looking downstream from the center of the dam's crest.

Inspection

In general, the inspection revealed that the dam is being maintained in good condition. There is good grass coverage, no visible signs of distress in the embankments or spillways and no apparent signs of seepage. However, it was noted during our inspection, undesirable growth (large brush and woody vegetation) is beginning to take hold in isolated areas of both the upstream and downstream slopes and small brush noted growing up between the rip on the upstream slope. Overall, you should continue to keep the vegetation cut down low to not allow larger brush and woody vegetation to become established as part of the on-going ordinary maintenance of the dam.

Regulations

This dam has a hazard classification of "Class B - Intermediate Hazard." The following table summarizes the current status of compliance for this dam for those sections of the regulations that have specific deadlines for compliance.

Compliance Status Table

<u>Citation</u>	<u>Requirement</u>	<u>Status</u>
673.6	Develop and implement an Inspection & Maintenance (I&M) Plan by August 19, 2010.	We have received an I&M Plan, dated April 2011.
673.7	Develop and submit to the Department an Emergency Action Plan (EAP), and review and update annually thereafter.	The EAP on file is for all three dams, was last revised 2/1/2021. <u>See Note Below</u>
673.8	Submit an Annual Certification (AC) to the Department by January 31 st of each year (covering the previous calendar year).	The AC for calendar year 2020 was received.
673.13	The first Engineering Assessment (EA) of a Class B dam was due no later than August 19, 2015, and a full Engineering Assessment is due every 10 years thereafter.	The Basis of Design Report, dated July 2009, serves as the first EA. The next EA is due no later than 2020.

The full text of the revised 6 NYCRR Part 608 and Part 673, along with technical guidance, templates and forms can be downloaded from the Dam Safety webpage at: <http://www.dec.ny.gov/lands/4991.html>.

EAP Comments

Please include the following corrections to the EAP in your next review and update. Please note any changes to the EAP must be distributed to all emergency personnel.

- Update all NYSDEC Dam Safety contact information as well as on all the Notification Flow Charts to:

Dam Safety Dispatch (24 hour), (518) 486-4326 (486-4DAM)
 Dam Safety (business hours), (518) 402-8185
 Dam Safety (business hours backup), (518) 402-8130

The Basis for Design Report dated July 2009 was considered the initial Engineering Assessment (EA) for this dam. The next full EA was due no later than 2020. Within 30 days of receipt of this letter, please provide a written response/summary of your plan and schedule for completing an updated Engineering Assessment of this dam.

Please keep in mind that any repair or construction activities related to the dam may require permits from Department. Well before beginning work on the dam, please check with the Regional Permit Administrator at the Department's Region 3 – New Paltz office at (845) 256-3054 to see if any permits are required.

If you have any questions regarding the above or the Dam Safety program in general, please contact me at 518-402-8252 or by e-mail at Warren.Shaw@dec.ny.gov.

Sincerely,



Warren Shaw, P.E.
Professional Engineer 1 (Environmental)
Dam Safety Section

ec w/ enc: David McFadden, Mayor, Tuxedo Park, dmcfadden@tuxedopark-ny.gov
Kenneth English, Supervisor, Town of Tuxedo, townsupervisor@tuxedogov.org
Alan Mack, Orange Co. Emerg. Serv, AMack@orangecountygov.com
Dominick Greene, Orange Co. Emerg. Serv, DGreene@orangecountygov.com
Natalie Browne, NYSDEC Region 3 Water
Doug Upright, NYSDEC Region 3 Water
Berhanu Gonfa, P.E., DEC Region 3, Dam Safety Representative

ec w/ enc: Project file
Daybook



Visual Observations

DAM NAME Tuxedo Lake Dam
STATE ID 196-0354 *SECTION* A *HAZARD CODE* B
COUNTY Orange *INSPECTION DATE* 10/14/2021
NEAREST DS CITY/TOWN Tuxedo Park *INSPECTOR(S)* WTS/JWJ/BXG
OWNER'S NAME VILLAGE OF TUXEDO PARK
The Tuxedo Club
DOWNSTREAM HAZARD Intermediate *TOWNSHIP* Village of Tuxedo Park

WATER LEVEL BEHIND DAM at spillway crest

DRAIN OPERATION

DEFICIENCIES

- | | | | | | |
|-------------------------------------|-----------------------|--------------------------|----------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | 1) Seepage | <input type="checkbox"/> | 4) Maintenance | <input type="checkbox"/> | 7) Cracking |
| <input type="checkbox"/> | 2) Slope Stability | <input type="checkbox"/> | 5) Surficial Deterioration | <input type="checkbox"/> | 8) Movement/Misalignment |
| <input checked="" type="checkbox"/> | 3) Undesirable Growth | <input type="checkbox"/> | 6) Voids | <input type="checkbox"/> | 9) Data |

General:

–Accompanied by Natalie Browne and Doug Upright from Region 3 Water during the inspection

Upstream:

- Upstream slope is lined with rip rap wave protection. Rip rap appears in place.
- Minor vegetation and light brush growing up between the stones to the right of the spillway
- Brush and heavier vegetation observed in the center of the dam near the old concrete steps

Dam Crest:

–Crest is grass covered, appears level and well maintained.

Downstream:

- Observed large brush and saplings growing on the downstream slope between the spillway and the tennis courts.
- Rest of downstream slope appears grass covered and well maintained.

Service Spillway:

- Left spillway bay has stop log in place. Mechanism to lift stop log appears to be non-functional.
- Right spillway bay has concrete sill and siphon pipe. Concrete sill elevation same as left spillway bay with board/stop log in place.
- Downstream drop-off and plunge pool appear OK
- Ground surface was wet and observed flow on the right downstream side of outlet. Assume flow from one of the 3 weep pipes on the right downstream side. Could not determine which of the drains were flowing.



Photo 1 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Right end of upstream slope
View looking left from right end of dam



Photo 2 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Left upstream slope
View looking left from service spillway



Photo 3 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Upstream slope
View looking right from left end of dam



Photo 4 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Upstream slope around concrete steps
View looking right from left side



Photo 5 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Dam crest
View looking left from right end of dam



Photo 6 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Downstream slope
View looking left from service spillway



Photo 7 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Left downstream slope
View looking left from service spillway



Photo 8 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Right spillway
View looking left from right side of spillway



Photo 9 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Left spillway
View looking right from left side of spillway



Photo 10 Dam ID# 196-0354 Tuxedo Lake Dam 10/14/2021
Service spillway downstream outlet
View looking upstream to the left from right side of channel