



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Robert R. Scott, Commissioner**

Mr. Gary Carney, Chairman  
Ashuelot pond Dam Village District  
P.O. Box 105  
Washington, NH 03280

August 9, 2022  
**Letter of Deficiency**  
DSP #22-003

RE: Ashuelot Pond Dam #D245005, Significant to High, Washington

Dear Chairman Carney:

The New Hampshire Department of Environmental Services, Dam Bureau (NHDES) is responsible for ensuring the safety of dams in New Hampshire through its dam safety program. In accordance with RSA 482:12 and Env-Wr 302.02, an inspection of the subject dam was conducted on July 12, 2022. Based upon the results of that inspection, NHDES is issuing this Letter of Deficiency (LOD) to advise you that it believes the following deficiencies can be remedied in accordance with the deadlines indicated:

**By October 1, 2022:**

1. Provide plans for the replacement of the gate and repair of the voids in the gate sluiceway for review. We understand that the owner is working with NH Dams, LLC and M&K Commercial Diving. Once the exact scope of work has been established a determination will be made on the need for a dam safety program permitting. The work will also require a permit from the NHDES Wetlands program.
2. Provide documentation (deed, easement, agreement etc.) indicating that the APVD has an access and maintenance rights to access the far (east) spillway for routine maintenance, repairs and reconstruction.
3. Debris or other material was noted in the following outlet structures and should be removed as soon as possible. Such material will obstruct flow, lessen the dam's ability to function efficiently and increase the risk that the dam may be overtopped – which could lead to failure.
  - a. Debris including a large tree stump were observed on the spillway crest (Photos: 9 – 10).
4. Provide copies of the seepage monitoring logs for review.
5. Provide a written plan for implementation of the items in this LOD to NHDES for review and approval.

**By November 15, 2022:**

6. Review and update the existing Operation, Maintenance and Response (OMR) form for the dam. Please submit the revised form to NHDES. The form should include all pertinent dam and contact information, as well as describe the type and frequency of the maintenance and monitoring items that routinely occur at the dam. A blank form may be found at: <https://www.des.nh.gov/water/dam-maintenance-and-management>. Scroll down and select the Dam Permitting and Forms tab and then the Find Permit Applications box.

7. Complete the installation of a new gate and repair of the voids in the gate sluiceway per the plans approved by NHDES.
8. The current Emergency Action Plan (EAP) was last updated and last tested in 2016. Please update, at a minimum, the Notification Flow Chart and distribute the updates. Once the updates have been distributed, the EAP should be tested.
9. Trees, brush or other unwanted vegetation was noted in the following locations. Such vegetation should be removed and kept at least 15 feet from the entire footprint of the dam and all components of the dam to preserve a buffer for inspection, access and maintenance/repair. After clearing occurs, any disturbed areas should be properly regraded and protected with an appropriate ground cover (grass, riprap stone or other treatments) to prevent erosion of or damage to the dam and its components.
  - a. Minor brush on the crest (Photos: 1, 8, 11 & 12);
  - b. Minor brush observed on the upstream stone face/slope (Photos: 1 & 8);
  - c. Brush and trees were observed on the downstream stone face and within 15-ft of the downstream face (Photos: 2 - 5);
  - d. Minor brush within 15-feet of the left and right spillway abutments for the near (West) (Photos: 6 - 8); and
  - e. Brush and trees within 15-feet of the left and right spillway abutments for the far (East) (Photos: 9 - 10)

**By January 1, 2023:**

10. Engage the services of a consultant qualified in dam-related work to complete an engineering evaluation or analysis of, at a minimum, the items noted below and submit a report to NHDES. The report should include all investigation findings and include recommendations and a schedule for reconstruction, as warranted, to make the dam compliant with the current standards for High hazard dams. In order to ensure that the selected consultant meets the requirements of Env-Wr 403.03(a)(1), NHDES recommends that you submit the resume of your proposed engineering consultant for review in accordance with Env-Wr 403.03 (a)(1) prior to contracting services.
  - a. Assess the hydrology of the watershed to determine if the dam is capable of safely passing the runoff from the 2.5 x 100-year storm event with a minimum of one foot of remaining freeboard and without manual operations or otherwise comply with Env-Wr 303.12;
    - i. NHDES approved a model in March 2021 for use in evaluating the dam. This model can be used at the discretion of the approved engineering consultant.
    - ii. Discharge capacity of the far (east) spillway can only be included if the APVD has an access and maintenance easement or similar legal document allowing them access to this spillway.
  - b. Perform a breach analysis to evaluate impacts to downstream infrastructure and development. Breach modeling should consider base flows from sunny day to 100-year conditions. This analysis should be used to provide an inundation map for the Emergency Action Plan (EAP).
  - c. Provide plans for a permanent gate replacement if the 2022 gate work was intended to be temporary.

Note: As part of the most recent inspection, NHDES performed a breach analysis to evaluate the impacts associated with potential dam failure. The results indicate that the dam is more appropriately classified as a High hazard structure and that it has insufficient discharge capacity to pass the required design event for such dams. NHDES will provide related information to you or your engineering consultant upon request.

**By August 1, 2024:**

11. Submit an application for reconstruction or removal of the dam consistent with the findings and recommendations of your engineering consultant and related approvals by NHDES. Permits from the NHDES Dam Safety and/or Wetlands programs will likely be required depending on the proposed scope of work.
12. Submit a fully updated Emergency Action Plan (EAP). Please visit NHDES's Dam Safety, Maintenance and Management webpage and click the Emergency Action Plans tab to access the complete set of administrative rules related to EAPs, as well as to view the current template and other EAP guidance.

**On a continuing basis:**

13. Leakage, seepage, wet areas or standing water was noted in the following areas. All such areas should be monitored periodically with a log of specific observations and a notation of the water level of the lake/pond. It is recommended that you include attention to these areas in your written OMR form so that individual observations may be compared over time to note changes or trigger the need to take remedial action. Should existing conditions worsen notably or new areas develop, or if discharge becomes cloudy/muddy (an indication that soil material may be moving within the dam or its foundation), please contact NHDES immediately.
  - a. Historic leakage/seepage from the gate outlet and right of the gate outlet.
14. Monitor the condition of the concrete in the near (west) spillway, repairing deterioration as needed.
15. Routinely clear debris from the spillways to allow for unrestricted flow.
16. Routine brush and tree removal from the dam, abutments and within 15-ft of the dam and spillways.

Please note that under New Hampshire's state statute RSA 482:89, NHDES may commence proceedings to levy fines of up to \$2,000 per violation per day against a dam owner who does not respond within 45 days of receipt of a written order, directive, or any notice of needed maintenance, repair, or reconstruction issued by NHDES. To avoid proceedings under this provision, you **must respond** to this LOD. If you fail to return this form within 45 days or fail to otherwise respond in writing within 45 days indicating your intent to remedy the identified deficiencies, you will not have the benefit of the compliance deadlines indicated on the form and NHDES will commence a proceeding under RSA 482:89 to seek administrative fines for the identified deficiencies. Please note that responding as required does not preclude NHDES from pursuing other appropriate action for the identified deficiencies, in accordance with NHDES Compliance Assurance Response Policy, available on-line at <https://www.des.nh.gov/rules-and-regulatory/rulemaking-and-enforcement>.

Letter of Deficiency  
Dam #D245005/DSP #22-003  
August 9, 2022  
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We believe the easiest way to respond is to sign and return the attached "Intent to Complete Repairs" form, either agreeing to correct the identified deficiencies by the dates indicated OR by proposing amendments to the listed work items or dates, which you may do by writing directly on the form. NHDES will evaluate and respond to any reasonable requests for proposed amendments in a timely manner. We have enclosed a self-addressed stamped envelope for you to return this form. You may also scan and e-mail the completed form to [damsafety@des.nh.gov](mailto:damsafety@des.nh.gov) or fax it to (603) 271-6120.

Our intent in issuing this LOD is to make you aware of items that require your attention to ensure the continued safe operation of your dam. It is our hope that, through the return of the attached form and correction of the identified deficiencies, you will develop and maintain a commitment to keeping a safe and well-maintained dam. If the condition of the dam or the status of any of the noted deficiencies has changed since the inspection, please note this information on the attached intent form.

If you have any questions or comments regarding this LOD or would like to be present at future inspections, please contact Jim Weber, P.E. at 271-8699 or me at 271-3406 or write to the address for the Water Division listed on the bottom of the cover page.

Sincerely,



Steve N. Doyon, PE  
Chief Dam Safety Engineer  
Dam Safety & Inspection Section

Attachments: Inspection Report, Inspection Photos, Failure Impact Table, Drawing, Copy of 2012 OMR,  
Blank OMR form, DB13  
ec: NHDES Legal Unit  
cc: Town of Washington  
Town of Marlow

Certified # 7017 3040 0000 7493 4513  
SND\JRW\was\s:\WD-Dam\damfiles\D245005\LOD\20220722 D245005 LOD.docx



	<p>of the gate. This void is in the vicinity of historic sinkholes on the dam crest and the historic leakage from the right side of the gate outlet</p> <ul style="list-style-type: none"> <li>○ Sandbags had been placed in front of the gate to try and limit flow under the gate</li> <li>○ Dimensions were measured for use in designing a temporary and/or replacement gate structure and repairing the voids</li> </ul>	M NA
Near Spillway (West)	<ul style="list-style-type: none"> <li>● Minor cracking in the upstream concrete cap (Photos: 6 - 8)</li> <li>● Minor brush within 15-feet of the left and right spillway abutments (Photos: 6 - 8)</li> <li>● Minor leakage through the concrete/stone of the spillway observed about 10 feet from the right end of the spillway</li> </ul>	M M M
Far Spillway (East)	<ul style="list-style-type: none"> <li>● Brush and trees within 15-feet of the left and right spillway abutments (Photos: 9 - 10)</li> <li>● Moderate leakage through the stones of the spillway observed along the spillway length (Photos: 9 - 10)</li> <li>● Debris including a large tree stump were observed on the spillway crest (Photos: 9 - 10)</li> <li>● It is unclear if the dam owner has legal maintenance access to this spillway</li> </ul>	M M M NA
CAR – Poor	<ul style="list-style-type: none"> <li>● Dam is expected to overtop for the both the 100-yr and 2.5 x 100-yr design events</li> <li>● Dam was overtopped in the past in 2005 &amp; 2006 and has come close to overtopping on several occasions in 1959, 1999 &amp; 2008</li> <li>● Gate is inoperable</li> </ul>	H H M

\*Type of Deficiency: H-Hydrologic, M-Maintenance; S-Structural; NA-Not Applicable

#### Downstream Hazard Review:

Feature	Observation
Russel Mill Pond Rd. bridge 0.4 mi	Private bridge – 30 ft by 13 ft
Washington Pond Rd bridge 0.6 mi	Town bridge – 45 ft by 10 ft
96 Marlow Rd trailer 0.9 mi	First floor elevated by wheel to about 2.5 ft
9 Washington Pond Rd – Shed and private bridge 2.4 mi	Private bridge to peninsula under construction
423 Washington Pond Rd house 2.6 mi	Garage door into basement. First floor above basement
405 Washington Pond Rd house 2.6 mi	First floor elevated by 2 steps
403 Washington Pond Rd house 2.7 mi	First floor elevated by 3 steps
381 Washington Pond	First floor equal to road elevation (former Brown camp)

Rd house 2.9 mi	
345 Washington Pond Rd 3.2 mi	First floor elevated by 3 steps
Symondsville Rd bridge	Town bridge – 45 ft by 12 ft
Former Lumber Yard behind 842 NH Route 10	Three vacant commercial buildings behind Post Office

**HYDROLOGY/HYDRAULICS:**

NHDES used the approved hydrology and hydraulic analysis of the dam and its watershed using currently available data submitted by NH Dams, LLC as the basis of this analysis. The 100-yr storm resulted in an inflow of 6,541 cfs routed to 1,934 cfs with 1.1 ft of overtopping, while the 2.5 x 100-yr storm resulted in an inflow of 11,511 cfs routed to 4,555 cfs overtopping the dam by 2.8 ft. These values include the far (east) spillway. If the APVD does not have legal access to the far (east) spillway for maintenance, NHDES will not allow the discharge from this spillway to be included in the available discharge capacity and the resulting overtopping of the dam will increase.

**CLASSIFICATION AND JUSTIFICATION:** Significant- Recommend change to High

NHDES performed a HEC-RAS 2D breach analysis for the downstream reach. During the modeling process, failure of the dam during a 100-yr flood event resulted in flooding greater than 1-foot above the first floor elevation of the residences at 345, 381 and 405 Washington Pond Road. The results of the breach analysis are included in the attached table.

As such, the hazard classification of the dam should be changed from Significant to High.

**EMERGENCY ACTION PLAN:**

The current EAP was last updated and tested in 2016. The inundation map was last updated in 1997. A new breach analysis should be performed and a new EAP should be completed including a new inundation mapping from the breach analysis.

**OPERATIONS, MAINTENANCE & RESPONSE PLAN:**

The Operations Plan on file is dated 2012.

**RECOMMENDATIONS:**

Based on the site inspection and review of the file, it is recommended that an LOD and hazard reclassification letter be issued:

**By October 1, 2022:**

1. Provide plans for the replacement of the gate and repair of the voids in the gate sluiceway for review. We understand that the owner is working with NH Dams, LLC and M&K Commercial Diving. Once the exact scope of work has been established a determination will be made on the need for a dam safety program permitting. The work will also require a permit from the NHDES Wetlands program.

2. Provide documentation (deed, easement, agreement etc.) indicating that the APVD has an access and maintenance rights to access the far (east) spillway for routine maintenance, repairs and reconstruction.
3. Debris or other material was noted in the following outlet structures and should be removed as soon as possible. Such material will obstruct flow, lessen the dam's ability to function efficiently and increase the risk that the dam may be overtopped – which could lead to failure.
  - a. Debris including a large tree stump were observed on the spillway crest (Photos: 9 – 10)
4. Provide copies of the seepage monitoring logs for review.
5. Provide a written plan for implementation of the items in this LOD to NHDES for review and approval.

**By November 15, 2022:**

6. Review and update the existing Operation, Maintenance and Response form for the dam. Please submit the revised form to NHDES. The form should include all pertinent dam and contact information, as well as describe the type and frequency of the maintenance and monitoring items that routinely occur at the dam. A blank form may be found at: <https://www.des.nh.gov/water/dam-maintenance-and-management>. Scroll down and select the Dam Permitting and Forms tab and then the Find Permit Applications box.
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    - i. NHDES approved a model in March 2021 for use in evaluating the dam. This model can be used at the discretion of the approved engineering consultant.
    - ii. Discharge capacity of the far (east) spillway can only be included if the APVD



has an access and maintenance easement or similar legal document allowing them access to this spillway.

- b. Perform a breach analysis to evaluate impacts to downstream infrastructure and development. Breach modeling should consider base flows from sunny day to 100-year conditions. This analysis should be used to provide an inundation map for the Emergency Action Plan (EAP).
- c. Provide plans for a permanent gate replacement if the 2022 gate work was intended to be temporary.

Note: As part of the most recent inspection, NHDES performed a breach analysis to evaluate the impacts associated with potential dam failure. The results indicate that the dam is more appropriately classified as a High hazard structure and that it has insufficient discharge capacity to pass the required design event for such dams. NHDES will provide related information to you or your engineering consultant upon request.

**By August 1, 2024:**

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**On a continuing basis:**

13. Leakage, seepage, wet areas or standing water was noted in the following areas. All such areas should be monitored periodically with a log of specific observations and a notation of the water level of the lake/pond. It is recommended that you include attention to these areas in your written Operation, Maintenance and Response form so that individual observations may be compared over time to note changes or trigger the need to take remedial action. Should existing conditions worsen notably or new areas develop, or if discharge becomes cloudy/muddy (an indication that soil material may be moving within the dam or its foundation), please contact NHDES immediately.
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**D245005 Ashuelot Pond Dam, Washington, Inspected: 07/12/2022**



**1.jpg**



**2.jpg**



**3.jpg**



**4.jpg**



D245005 Ashuelot Pond Dam, Washington, Inspected: 07/12/2022



5.jpg



6.jpg



7.jpg



8.jpg



D245005 Ashuelot Pond Dam, Washington, Inspected: 07/12/2022



9.jpg



10.jpg



11.jpg



12.jpg

Ashuelot Pond Dam (D245005)  
 Dam Failure Flood Depths  
 July 2022

Location	Distance (mi)	Sunny Day Breach		100-year						Impact	Notes
		GS (ft)	FFE (ft)	No Breach		Breach (2X)		Incremental			
				GS (ft)	FFE (ft)	GS (ft)	FFE (ft)	GS (ft)	FFE (ft)		
Russell Mill Pond Rd Bridge	0.4	0	--	0	--	0	--	--	--	--	
Washington Pond Rd Bridge	0.6	0	--	0	--	1.4	--	1.4	--	L	
95 Marlow Rd Trailer	0.9	0	0	0	0	0	0	0	0	--	
9 Washington Pond Rd - Shed & Private Bridge	2.4	0	--	0	--	3.9	--	3.9	--	L	
423 Washington Pond Rd House	2.6	0	0	0	0	3.3	0	3.3	0	S	Basement
405 Washington Pond Rd House	2.6	0	0	0	0	2.8	1.8	2.8	1.8	H	
403 Washington Pond Rd House	2.7	0	0	0	0	2.1	0.6	2.1	0.6	S	
381 Washington Pond Rd House	2.9	1.6	0	2.6	0	6.1	1.2	3.5	1.2	H	Raised Foundation
345 Washington Pond Rd House	3.2	2	0.5	3	1.5	6.4	4.9	3.4	3.4	H	
Symondsville Rd Bridge	4.1	0	--	0	--	2.2	--	2.2	--	--	
Former Lumber Yard behind 842 NH Route 10	4.3	0	0	0	--	0.3	--	0.2	--	--	End of evaluation

\* Breach Parameters: 2.0 HD with 0.25 horizontal side slopes, and a time of failure of 0.25 hrs

\*\* 100 year flooding compared to peak 100 year breach scenario at location and time of peak breach flow

\*\*\* All elevations and depths are based on LiDAR and may require field survey verification



# D245005 Asheulot Pond Dam

Left

All references of left and right are facing in the downstream direction

Right



No Scale



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Robert R. Scott, Commissioner**

Department of Environmental Services  
State Dam Safety Program  
Water Division, Dam Bureau  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

**Intent to Complete Repairs**  
DAM #D245005/DSP #22-003  
DAM Ashuelot Pond Dam

RE: Letter of Deficiency: Issued on August 9, 2022

Dear Dam Safety Program:

In response to the above referenced Letter of Deficiency (LOD), I concur with the New Hampshire Department of Environmental Service's, Dam Bureau (NHDES) recommendations, and specifically agree to complete the following items by the indicated schedule.

**DATE: October 1, 2022**

1. Provide plans for the replacement of the gate and repair of the voids in the gate sluiceway for review. We understand that the owner is working with NH Dams, LLC and M&K Commercial Diving. Once the exact scope of work has been established a determination will be made on the need for a dam safety program permitting. The existing Emergency Action Plan (EAP) The work will also require a permit from NHDES Wetlands program.
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You must sign and return this Intent form either agreeing to comply with the listed items by the dates indicated OR proposing amendments to either the listed work items or compliance dates (please state reasons for proposal and use reverse side if more space is needed). NHDES will evaluate and respond to any reasonable requests for amending the scope of the work items or compliance dates in a timely manner. We have enclosed a self-addressed stamped envelope for you to return this form. You may also scan and e-mail the completed form to [damsafety@des.nh.gov](mailto:damsafety@des.nh.gov) or fax it to (603) 271-6120.

Intent to Complete Repairs  
Dam #D245005/DSP #22-003  
August 9, 2022  
pg. 4

**Please note that meeting the statutory 45-day response deadline is necessary even if the first compliance deadline on the LOD is beyond that date. Failure to return the form or otherwise respond will result in NHDES initiating a proceeding to seek an administrative fine against you.**

Signature of Owner or Authorized Agent: \_\_\_\_\_

\_\_\_\_\_ (print name)

Date: \_\_\_\_\_ ENG-: JRW



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Robert R. Scott, Commissioner**

August 9, 2022

Mr. Gary Carney, Chairman  
Ashuelot Pond Dam Village District  
P.O. Box 105  
Washington, NH 03280

**RE: Reclassification of Ashuelot Pond Dam, D245005, Washington**

Dear Mr. Carney:

The primary purpose of this letter is to notify you that, in accordance with Env-Wr 303.02, the New Hampshire Department of Environmental Services Dam Bureau (NHDES) has reviewed the impacts associated with a failure of the Ashuelot Pond Dam and, consequently, reassigned its hazard classification. For the reasons outlined below, it is the determination of NHDES that the dam's hazard classification should be changed from a "significant hazard" potential to a "high hazard" potential dam.

As a result of the reclassification, the dam will now be subject to meeting the current design and safety standards applicable to its new classification, as well as those changes listed below. A full listing of the requirements may be found in part Env-Wr 303 of the administrative rules relating to dams.

- Per RSA 482:8-a, the Annual Dam Registration Fee will change from \$750 to \$1,500.
- The scheduled safety inspections carried out by NHDES will now occur every two (2) years instead of every four (4) years.
- The Operations, Maintenance and Response (OMR) form should be revised to reflect the revised hazard classification.
- In accordance with Env-Wr 303.11 Discharge Capacity, a high hazard dam must have sufficient capacity to pass the runoff produced by the 250% of the 100-year flood generated by the drainage area upstream of the dam with one foot of freeboard and without manual operations. NHDES's regulations allow dam owners the option of passing the Inflow Design Flood (IDF). This is a storm that generates a lesser runoff rate and may be applied if it is shown that dam failure flows, when combined with this runoff rate, would not contribute to endangering additional public safety or property downstream of the dam. Based on your consultant's hydrologic and hydraulic model, NHDES has determined that the dam cannot pass the 250% of the 100-year storm runoff with more than one foot of freeboard, but rather overtops by about 2.8 feet.
- As required by RSA 482:11-a and in accordance with Env-Wr 500, the owner shall develop a revised Emergency Action Plan (EAP) including a revised inundation map.
- In accordance with Env-Wr 507.01 Notification Test, the owner shall conduct a test of the emergency communication network within one month of approval of the EAP and every two (2) years thereafter.

[www.des.nh.gov](http://www.des.nh.gov)

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**Hazard Classification and Justification:**

As part of its review of the hazard classification for the dam, NHDES utilized your consultant's approved hydrologic and hydraulic (H&H) modeling of the contributing drainage area to evaluate the potential impacts to downstream structures associated with dam failure. The model indicated that failure of the dam during a 100-yr flood event resulted in flooding greater than 1-foot above the first floor elevation of the residences at 345, 381 and 405 Washington Pond Road.

The definition of a high hazard dam, provided in Env-Wr 101.21 of New Hampshire's Dam Safety Rules, includes specific criteria that could qualify a dam as a high hazard dam. In this case NHDES has determined that the dam meets the criteria listed below:

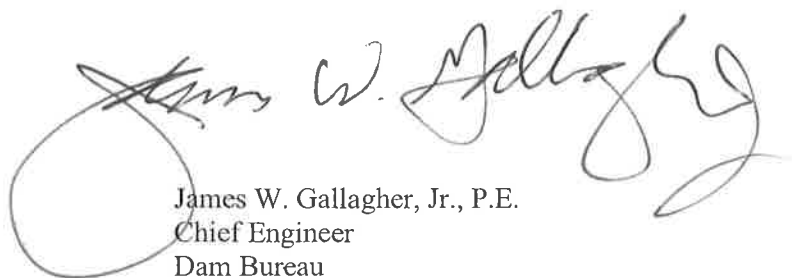
Env-Wr 101.21 "High Hazard Structure" means a dam that has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life as a result of:

*(b) Water levels rising above the first floor elevation of a habitable residential structure or a commercial or industrial structure which is occupied under normal conditions when the rise due to dam failure is greater than one foot:*

Please be advised that if you do not agree with the NHDES's determination to reassign the hazard classification and wish to request reconsideration, the process that must be followed is described in section Env-Wr 303 of the NHDES's administrative rules. Included with this letter are the administrative rules that govern the NHDES's review of and the procedures for appealing hazard classifications.

If you have any questions, or would like to discuss this matter further, please contact James Weber, P.E. at 271-8699 or me at 271-1961.

Sincerely,



James W. Gallagher, Jr., P.E.  
Chief Engineer  
Dam Bureau

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(d) If the department determines that after the proposed breach or modification the structure will still meet the definition of a dam, the department shall approve the breach or modification of the dam provided that:

- (1) The work will be performed in a manner that will not cause property damage or threaten public safety upstream or downstream of the dam;
- (2) The threat posed to life or property after completion of the work is no more than it would have been if the work required by the department pursuant to Env-Wr 302.03 had been completed, if applicable; and
- (3) The requirements of Env-Wr 303.11 relative to discharge capacity will be met as a result of the proposed work.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 302.06 Notification to Public. After receiving approval pursuant to Env-Wr 302.05, the owner shall refrain from undertaking the work until the requirements of RSA 482:13 relative to notice to municipalities and hearing have been met.

Source. #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

### PART Env-Wr 303 REQUIREMENTS FOR EXISTING DAMS

#### Env-Wr 303.01 Annual Registration Fee.

(a) Pursuant to RSA 482:8-a, annual registration fees for dams in the amount specified in RSA 482:8-a shall be payable to the department on January 1 of each calendar year.

(b) The department shall send a written notice, by October 31 of each year, to each owner specifying the amount of the registration fee that shall be due.

(c) The department shall send a second notice to each owner who fails to submit the annual registration fee by January 1. Such notice shall inform the owner that the payment is overdue and that if the owner fails to submit the registration fee within 10 days, the owner shall be subject to the penalties authorized by RSA 482:89.

(d) Notices sent pursuant to (b) and (c), above, shall include whatever information the department has relative to the tax map and lot number of the dam and the volume and page number of the deed to the dam and to the property on which the dam is located, if different. At the time of paying the annual registration fee, the owner shall confirm or, if necessary, provide or correct the information.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-10-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

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### Env-Wr 303.02 Review of Hazard Classification.

(a) The department shall review the classification of a dam in conjunction with any inspection conducted pursuant to Env-Wr 302.02.

(b) If the department determines that a dam no longer meets the criteria of the class to which it had been assigned, the department shall reassign the dam to the proper classification.

(c) Upon reassigning a dam to a different classification, the department shall notify the owner in writing of:

- (1) The new classification; and
- (2) Any new requirements that might apply as a result of the reclassification.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

### Env-Wr 303.03 Appeal of Classification.

(a) If the owner disagrees with the department's decision to reclassify a dam's hazard classification, the owner may request that the department reconsider the decision.

(b) To request reconsideration, the owner shall submit a written request to the department that includes the following:

- (1) The name, mailing address, and daytime telephone number of the owner;
- (2) The dam number assigned by the department, if known, and if not known, the location of the dam by:
  - a. Tax map and lot number of the property on which the dam is located;
  - b. Location of the dam on the applicable USGS Quadrangle map; and
  - c. Name of the stream, river, or other water body on which the dam is located, if applicable;
- (3) The results of a dam breach analysis, including routing of the flow downstream of the dam, completed in accordance with Env-Wr 502; and
- (4) An assessment of all structures potentially impacted by a dam failure, including the depth of flooding at critical structures or groups of structures.

(c) If the department determines that the information requested in (b) is insufficient to grant the requested reconsideration, the department shall:

- (1) Deny the request; or
- (2) If the department believes that a favorable decision might be made if inundation mapping is provided, request the owner to provide inundation mapping completed in accordance with Env-Wr 503.01.

(d) The department shall notify the owner of its decision in writing within 60 days of receiving complete information.

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Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.04 Dam Monitoring.

- (a) The owner of a low hazard, significant hazard, or high hazard dam, or the owner's designee, shall monitor the dam in accordance with this section.
- (b) The dam monitor shall:
- (1) Be trained in the operation of the dam;
  - (2) Be trained to detect and assess conditions that could affect the safety of the dam;
  - (3) Have authority from the owner to operate the structure during emergency situations;
  - (4) For a significant hazard or high hazard dam, be available at the dam within 2 hours at all times; and
  - (5) For a low hazard dam, be available at the dam within 2 hours during periods of heavy precipitation, high water levels, or receipt of notification of other events that could threaten the structural integrity of the dam.
- (c) The owner of a low hazard, significant hazard, or high hazard dam shall provide:
- (1) A communication system between the monitor and the local communities; and
  - (2) The means, materials, and equipment needed to make emergency repairs to the structure.
- (d) The owner of a significant hazard or high hazard dam also shall provide the training and equipment, including alternative power sources, necessary to operate the structure.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.05 Operation and Maintenance Plan.

- (a) The owner of a low hazard, significant hazard, or high hazard dam shall submit a written operation and maintenance plan for approval by the department.
- (b) The operation and maintenance plan shall:
- (1) Describe the seasonal control of impoundment levels;
  - (2) Describe regular maintenance activities; and
  - (3) Identify the name(s) and address(es) of the dam monitor(s) required by Env-Wr 303.04 and any other emergency contacts for operation of the dam that the owner wishes to designate.
- (c) The department shall approve the plan if:
- (1) The information submitted addresses the items specified in (b), above; and

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(2) Compliance with the submitted plan will result in a dam that will be operated safely during all flow conditions and not become a dam in disrepair.

(d) The owner shall update the operation and maintenance plan as necessary and shall submit a written update to the department within 15 days of any changes.

(e) An owner that is required to complete an emergency action plan ("EAP") pursuant to Env-Wr 303.06 may incorporate the operation and maintenance plan as an appendix to the EAP.

(f) The owner shall operate and maintain the dam in accordance with the approved operation and maintenance plan.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4354, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.06 Emergency Action Plan Required.

(a) As required by RSA 482:11-a, the owner shall develop an emergency action plan (EAP) for any dam, the failure of which may threaten life or property.

(b) The owner of a significant hazard or high hazard dam shall develop an EAP in accordance with Env-Wr 500.

(c) The operation and maintenance plan prepared by the owner of a low hazard dam shall constitute the EAP for that dam.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.07 Dam Repair and Reconstruction.

(a) Pursuant to RSA 482:9, the owner shall not initiate, or authorize anyone else to initiate, work on a dam which qualifies as reconstruction without first obtaining a permit from the department pursuant to Env-Wr 400.

(b) The owner may undertake repairs other than those qualifying as reconstruction without prior department approval.

(c) An owner wishing to perform a controlled breach or otherwise modify the dam to lower the impoundment to a safe level shall proceed in accordance with Env-Wr 302.05.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; rpld by #5080, eff 2-22-91

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.08 Transfer of Ownership.

(a) The owner shall provide the information specified in (b), below, to any prospective owner prior to transferring:



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- (1) Title to the dam; or
  - (2) If ownership of the dam is tied to ownership of the property, the property on which the dam is located.
- (b) The owner shall provide the following information:
- (1) The existence of the dam;
  - (2) The dam number assigned by the department; and
  - (3) Any letters or orders issued by the department relative to the condition of the dam.
- (c) Within 30 days of the transfer of ownership of a dam or the property on which a dam is located, the new owner shall inform the department in writing of the transfer of ownership by providing the following information:
- (1) The name of the former owner;
  - (2) The dam number assigned by the department;
  - (3) The name, mailing address, and daytime telephone number of the new owner;
  - (4) The tax map and lot number of the dam; and
  - (5) The volume and page number of the deed which transferred ownership of the dam or the property on which the dam is located.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.09 Emergency Breach.

- (a) An owner may purposefully breach a dam without prior approval from the department only when a threat to public safety or public health exists or significant damage to public or private property is imminent.
- (b) The owner shall notify the department and the local police and fire departments prior to performing an emergency breach, if possible.
- (c) If it is not possible to notify the department and local police and fire departments prior to performing an emergency breach, the owner shall make such notification as soon as reasonably possible, but never more than one hour after the initiation of the emergency breach.
- (d) Within 30 days of performing an emergency breach, the owner shall submit an application to the department:
- (1) To reconstruct the dam in accordance with Env-Wr 400, indicating whether the owner plans to further modify or rebuild the dam; or
  - (2) To remove the dam in accordance with Env-Wr 600.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.10 Other Emergency Measures.

- (a) An owner may take measures which otherwise would require a permit to reconstruct a dam, other than emergency breaches, when it is necessary to do so in order to eliminate or reduce the risk of full or partial dam failure. Emergency repairs shall be limited to temporary stabilization of the site or mitigation of the immediate threat.

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- (b) The owner shall notify the department prior to taking such measures if possible but never more than 24 hours after the initiation of necessary repairs.
- (c) Within 48 hours of completing the emergency repairs, the owner shall submit a written statement to the department that explains the nature of the emergency and what corrective measures were taken.
- (d) Within 30 days of performing the emergency repairs, the owner shall submit an application to the department to reconstruct a dam in accordance with Env-Wr 400.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.11 Discharge Capacity.

- (a) All low hazard, significant hazard, or high hazard dams constructed prior to February 19, 1981 shall pass the flows indicated below with one foot of freeboard and without manual operations:
  - (1) Low hazard dams shall pass a 50-year flood, or at the owner's option, the site specific inflow design flood;
  - (2) Significant hazard dams shall pass the 100-year flood, or at the owner's option, the site specific inflow design flood; and
  - (3) High hazard dam shall pass 250% of the 100-year flood, or at the owner's option, the site specific inflow design flood.

- (b) Dams constructed after February 19, 1981 shall pass the flow required by the administrative rules in place at the time of the dam's construction, in accordance with the classification of the dam at the time of construction.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.12 Meeting Discharge Capacity Requirements.

- (a) If a dam does not have adequate discharge capacity to pass the flood specified in Env-Wr 303.11 with one foot of freeboard, the owner shall submit a plan to the department to address the deficiency.
- (b) The plan submitted pursuant to (a), above, shall:
  - (1) Specify the action to be taken, per (c), below;
  - (2) Specify the proposed timeframe for taking the action; and
  - (3) Include the results of hydrologic analyses completed pursuant to Env-Wr 403.05, assessing the floods and discharge capacity of the structure.
- (c) The plan shall specify which of the following actions the owner intends to pursue:
  - (1) Increase the capacity of the dam to pass the flood with one foot of freeboard and without manual operations;
  - (2) Submit a stability analysis to the department showing that the dam is safe against sliding, overturning, or erosion by overtopping, as applicable, during the specified flood, using the methods outlined in "Engineering Guidelines for Evaluation of Hydropower Projects" published by the Federal Energy Regulatory Commission (FERC), Chapter 3 dated 2002 and Chapter 4 dated 1991, available as noted in Appendix B;
  - (3) Stabilize the dam so that it is safe under the specified flood conditions; or

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- (4) Modify the dam so that the hazard classification is lowered and the dam passes the appropriate flow for the new classification.
- (d) The department shall approve the plan if the department determines that:
  - (1) The proposed action will bring the dam into compliance with Env-Wr 303.11;
  - (2) The work can be done in a way that will not:
    - a. Endanger life or property downstream of the dam; or
    - b. Cause environmental losses that are not reversible environmental losses; and
  - (3) The time frame for the work is reasonable under the circumstances, including the risk posed by the deficiency, the owner's financial resources, and the timing of the work in relation to other uses of the impounded water.
- (e) The department shall notify the owner in writing of its decision. If the plan is not approved, the notice shall specify the reason(s) for the non-approval.
- (f) If work under the plan as approved constitutes reconstruction of the dam, the owner shall submit an application in accordance with Env-Wr 400.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 303.13 Request for Time Extension.

- (a) An owner may request a time extension to comply with any directive of the department issued pursuant to RSA 482:12.
- (b) The request shall be submitted in writing to the department with the following information:
  - (1) The reason(s) why an extension is needed;
  - (2) The current status of the repairs or investigations; and
  - (3) The length of time of extension requested.
- (c) The department shall grant the request for time extension if it determines that:
  - (1) The owner has in good faith pursued the work required by the directive;
  - (2) The owner is unable to complete the work during the time period specified;
  - (3) The current condition of the dam is such that it is not expected to fail under flow conditions anticipated during the extension; and
  - (4) The condition of the dam will not deteriorate so as to pose a threat to public safety under flow conditions anticipated during the extension.
- (d) The department shall notify the owner of the decision on the request in writing. If the department denies the request, the department shall state the reason(s) for the denial.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14