



Site Inspection Form

Dam Name: Oyster River Dam **Dam No.:#** 71.03 **Town:** Durham
Date Inspected: 09/18/07 **Owner:** Durham Public Works

The Following is a listing of findings and, if appropriate, recommendations based upon the evaluation associated with the above referenced dam. The owner or representative should implement the recommendations listed on this form, which are aimed at improving the safety of the dam. This form is intended to make dam owners aware of deficiencies shortly after the inspection has been completed. A more formal compliance notice may be issued after a detailed review of the file, inspection notes and the inspection photos.

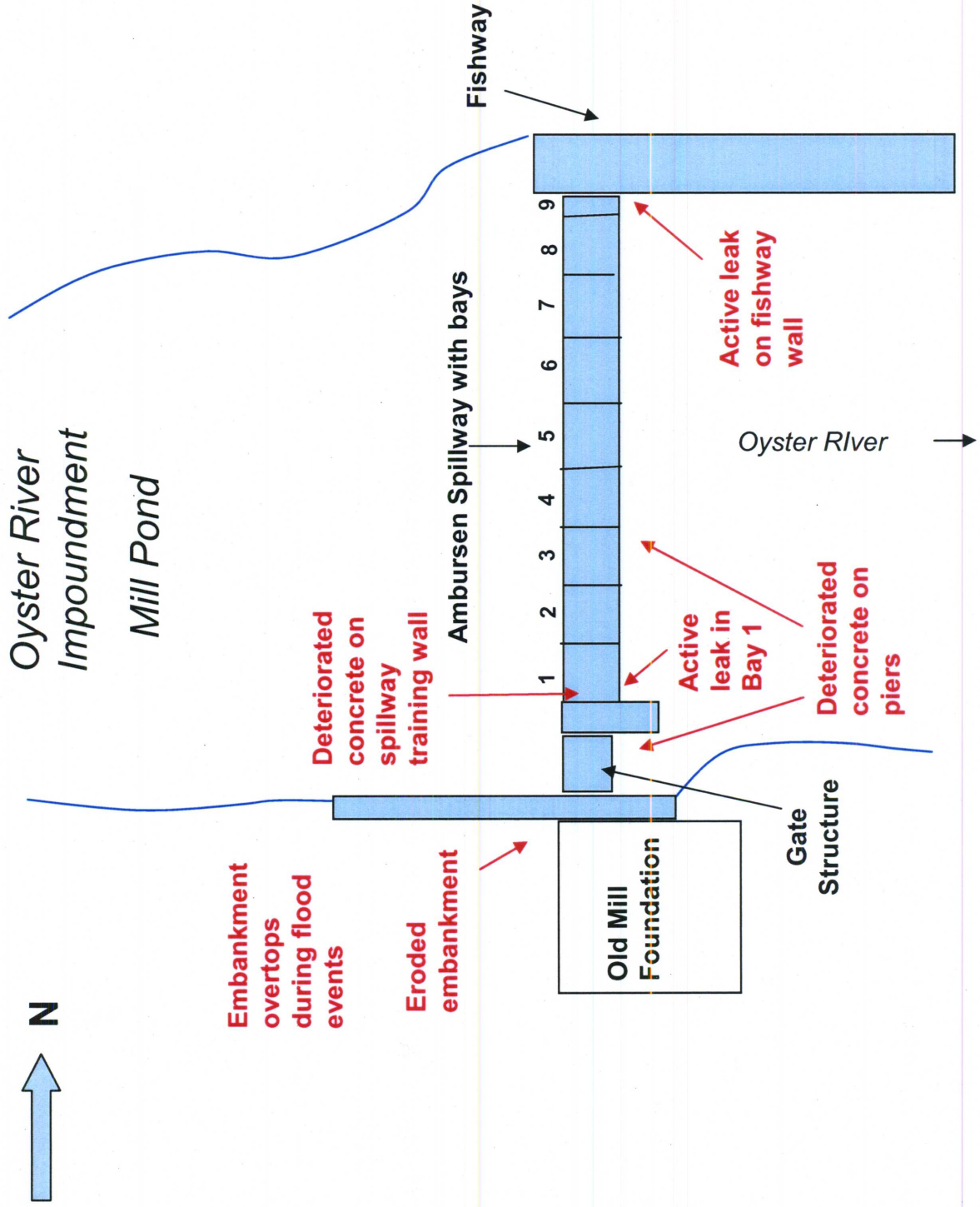
Inspection Findings and Recommendations:

- 1) There was damage to the right abutment from the past two flood events. Soil had settled and eroded from the right earthen embankment adjacent to the concrete/stone training wall. The old mill foundation had suffered extensive damage from the floods. Some repairs have been made by the property owner on the right bank.
- 2) There was an active leak noted from a construction joint on the fishway that forms the left spillway training wall.
- 3) Deteriorated concrete was noted in the following locations (refer to enclosed sketch):
 - On the gate house structure/spillway training wall. An eroded section of the right concrete spillway training wall measured 6" deep.
 - The upper and lower portions of the eight concrete piers supporting the spillway slab. Along the base of the left abutment wall of the gate structure/right spillway training wall. Rebar was also exposed in this area.
 - To the right of the low level gate at the base of the downstream face.
 - On the interior ceiling of bay 6 (counting from right end). Rebar was also exposed.
 - There was concrete cracking in the support wall of Bay 4 & 5 (Refer to attached photo).
- 4) There was active leakage noted in Bay 1 along the ceiling at the spillway slab and spillway training wall junction. Leakage was also noted at the upstream toe of the right spillway training wall inside Bay 1 (refer to photos).
- 5) The dam cannot pass the routed design storm with one foot of freeboard remaining on the dam.
- 6) The emergency action plan needs updating and testing. The last test was completed in 2003 but did not move through the flowchart correctly. (Refer to enclosed for some edits.)

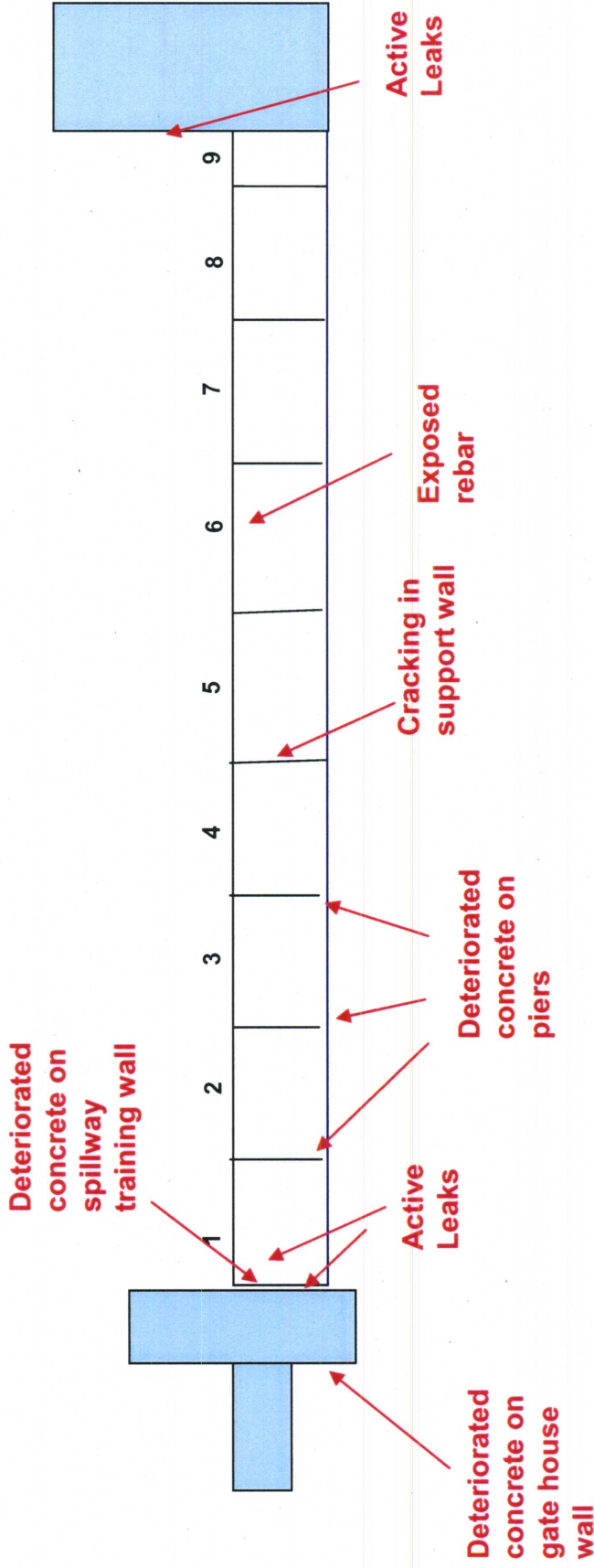
DES Inspector:

Grace Levergood

Oyster River Mill Dam #71.03 Durham, NH



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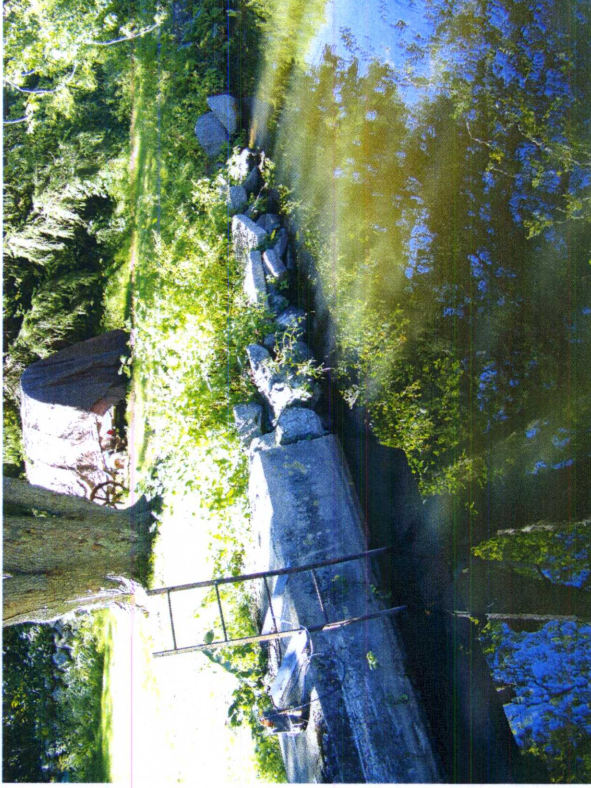


Elevation View Upstream

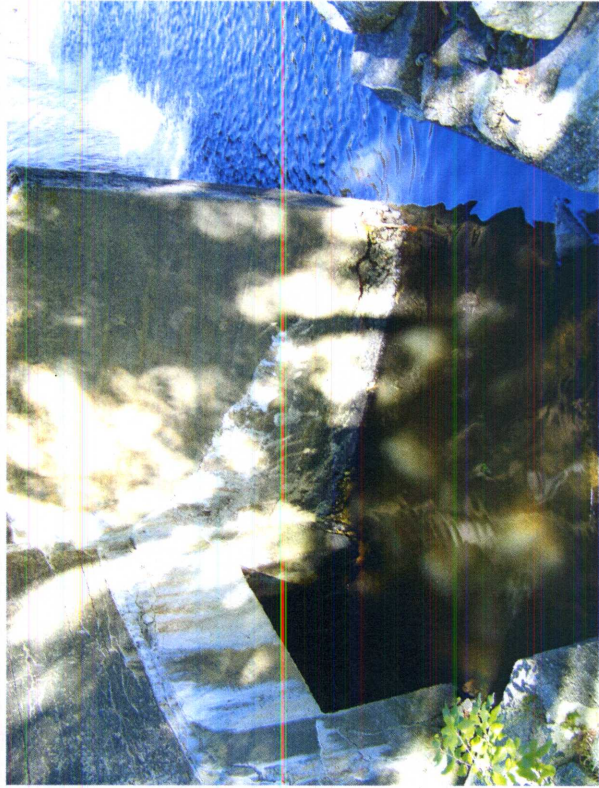
Oyster River Mill Pond Dam #071.03 Durham, NH



Failed mill foundation - stone was added to stabilize area



Area that overtopped during 4/16/07 flood event



Deteriorated concrete at base of pier serving as left gate housing

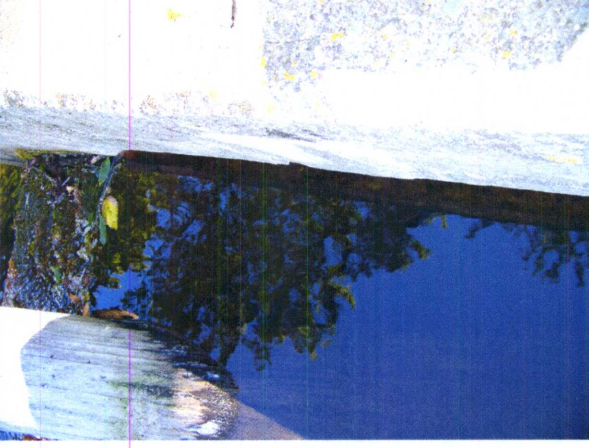


Some settlement of left embankment near fishway

Oyster River Mill Pond Dam #071.03 Durham, NH



Leak in left spillway training wall at fishway



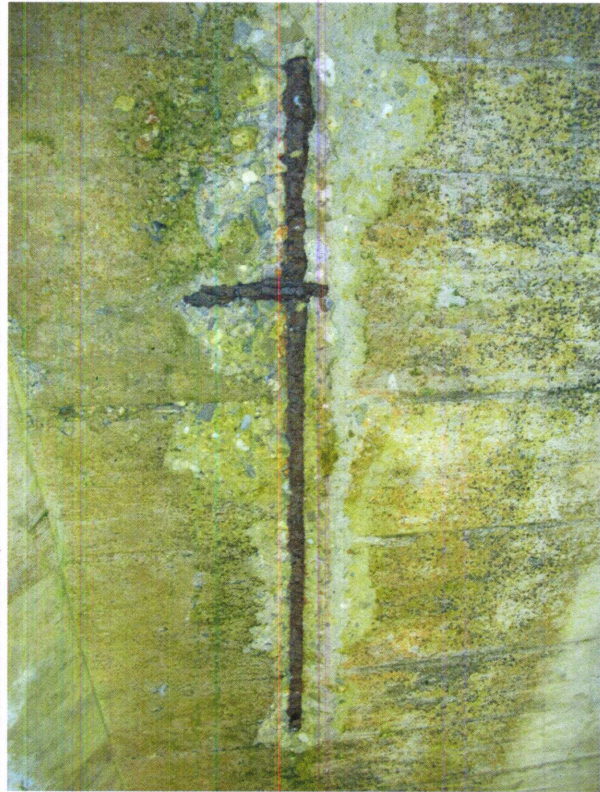
Right spillway training wall - 6" deep deterioration on wall at water



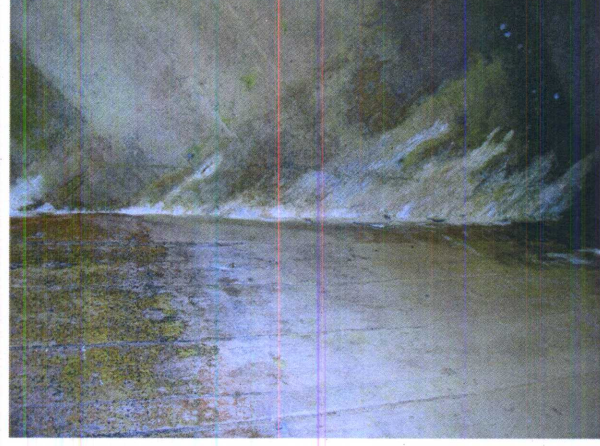
Bay 8'9"



Bay 8'9"



Bay 6 - exposed rebar on ceiling



Bay 6 - efflorescence



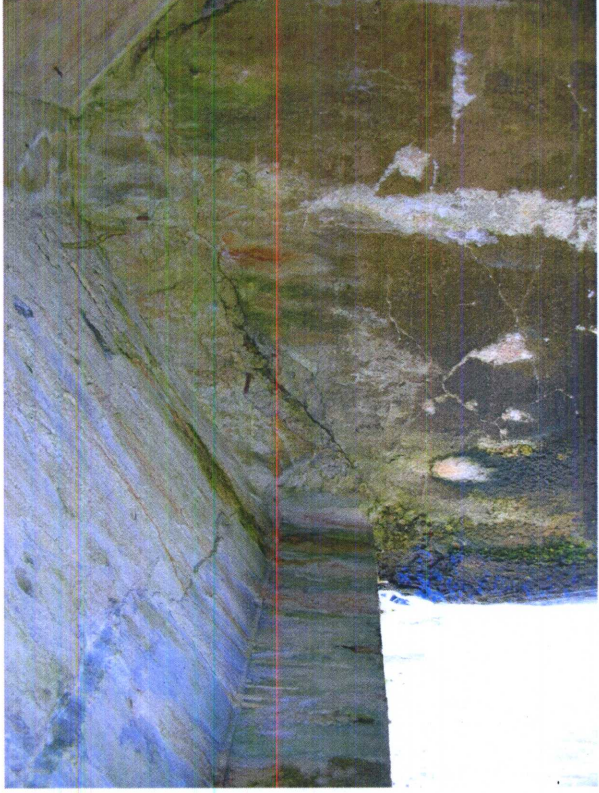
Bay 6



Bay 5 - cracking in bay 5/4 support wall



bay 5 - Cracking in Bay 5/4 support wall



Bay 5 - Crack in Bay 5/4 support wall



Bay 4 - Deterioration on Bay 4/3 pier



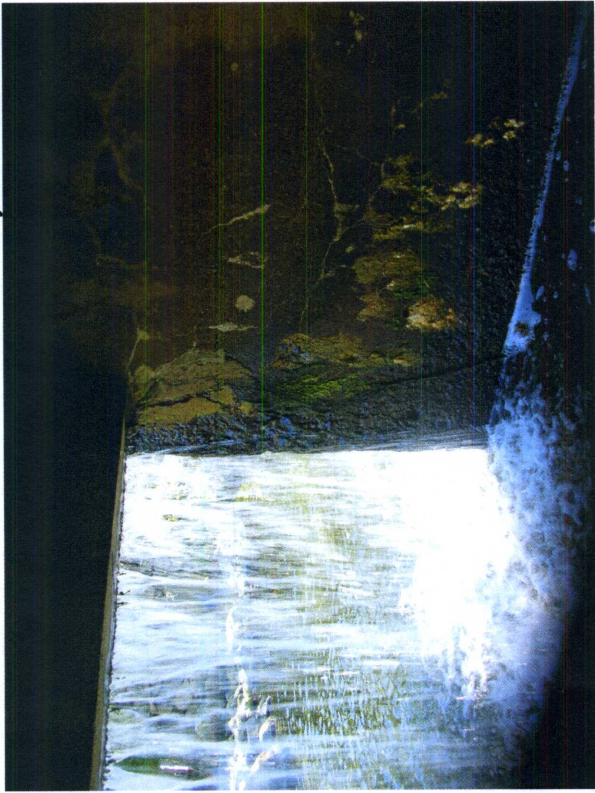
Bay3 - Deterioration on bay 3/2 pier



Bay 3 - Deterioration on Pier 3/4



Bay 2 - exposed rebar on ceiling



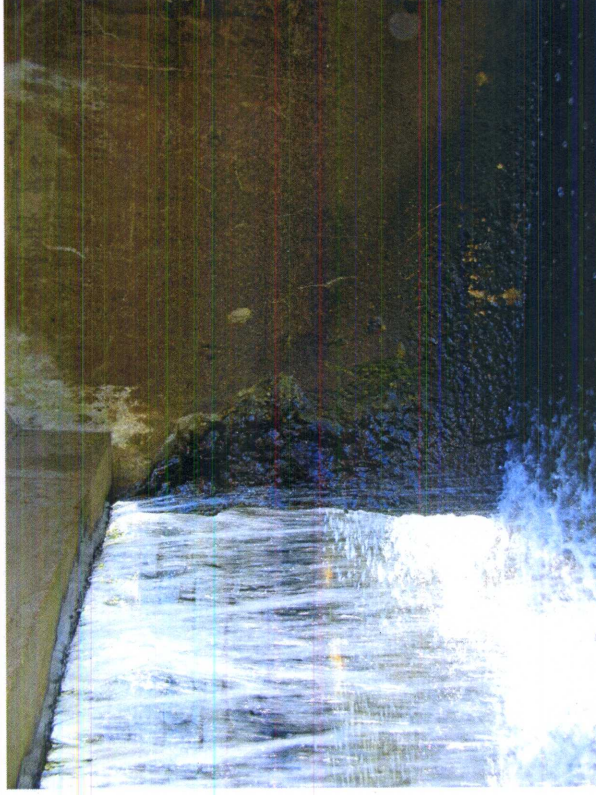
Bay 2 - deterioration on pier 2/1



Bay 2 ceiling



Bay 2 - leaking on pier 2/3



Bay 2 - concrete deterioration pier 2/1



Bay 2 - concrete deterioration



Bay 1 - active leak on connecting gate house wall



Bay 1 - active leakage from spillway slab adjacent to gate chamber



Bay 1 - concrete deterioration on Pier 1/2

APPENDIX F. POSTING OF THE EAP

A complete and up-to-date copy of the Emergency Action Plan shall be posted at the NHDES Water Resources Division office at ~~64 N. Main Street~~, Concord, New Hampshire, at all times. All listed persons and agencies shall be provided with an up-to-date copy of the plan.

The following is a list of entities or persons that has been issued a copy of this Emergency Action Plan:

- A. Town of Durham:
 - a.: Town Administrator 1 copy
 - b. Town Council Chairman 1 copy
 - c. Director of Public Works 2 copies ✓
 - d. Town of Durham Police 1 copy ✓
 - e. Town of Durham Fire Dept. 1 copy ✓
 - f. Town Clerk 1 copy

- B. NH Office of Emergency Management 1 copy ✓
- C. NHDES Water Division, Dam Bureau 1 copy ✓
- D. NH Dept. of Transportation, District #4 1 copy
- E. NH State Police Headquarters Communications 1 copy ✓
- G. Flowchart to New Hampshire Bureau of Emergency Communication Enhanced 911 ✓
- H. Flowchart to NHDOT Division 5 Dispatch ✓