INTERIM INSPECTION REPORT

FOR

OSTRAGER (DUCK) POND DAM
DEEP INVENTORY NO. 06706

DEEPWOOD DRIVE
HEBRON (AMSTON), CONNECTICUT

JANUARY 2024

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Ostrager Pond Dam Inspection

An inspection of the dam was conducted in November of 2023 on a clear and sunny day, with approximately 1½" - 2" of flow (about 1.5 to 2 cfs) passing over the spillway. The dam was found to be in overall stable condition, with grass cover on the embankments well maintained. Reference is made to the 2017 report which contains additional information on the history of the structure and aspects of its construction.

Outstanding issues continue to pertain mainly to the spillway section of the dam, with some tree and brush removal required along the shoreline of the left[1] side upstream embankment. The spillway section is composed of stone masonry, as is the downstream embankment wall. The downstream wall, shown in the following photos, is in overall good structural condition, The spillway training walls are constructed of mortared masonry in their upper section, with dry laid stone in the lower sections. The two side walls (training walls) are considered in fair condition. While stable, they do exhibit cracks in the mortared section on the left side, just upstream of the wall spanning the stream, and voids on both sides. Some of the void areas in close proximity to the spillway weir show water passing through, having potentially lost small supporting stones and soil backfill material. The cracked mortared section on the left may be a result of small movements in the downstream overpass.

The area of greatest concern is the masonry section spanning across the immediate downstream channel. This entire section appears to be supported on three steel rails with support ends set into the base wall section on each side. The rails, which were noted as corroded in the previous 2017 report, have continued to deteriorate, now showing signs of advanced corrosion, particularly where most critical at the left and right side ends where the beams enter the masonry wall. Also, in photo comparisons taken over the last 15 years, there appears to be a slight downward bend in the center of the downstream rail and there is a complete loss of the web section on the right side upstream rail (see photo). There are two major issues with this overpass section: one is the small opening between the stream bed and the base of the wall which could lead to clogging of the opening from debris and organic

[1] Note that references to left and right in this document are always taken looking at flow in a downstream direction.

matter emanating from the upstream marsh area; and the second a potential collapse of the wall over the outlet area, again clogging the opening. In the prior report it was pointed out that should either of these situations occur during a severe storm situation, it could lead to overtopping of the entire dam. As it stands currently, this could also occur in the case of high flows due to the limited flow capacity of the small spillway weir section (see previous report for discussion).

Recommendations include the removal of trees and vegetation along the left side upstream shoreline of the dam embankment and the reconstruction of the spillway area of the dam. A plan was drawn up in 2008 for reconstruction of the spillway along the recommendations noted herein to address these issues; it has, however, never been implemented. Other options for the structure, again discussed in the 2017 report, included doing nothing; breaching the dam; or performing the repairs noted. Once the district association reviews the current findings, we would be pleased to discuss any questions or options related to the conditions described herein.

[See attached sketch for 2017 recommendations which are still applicable.]

Photo 1 – An overall view of the dam from its left side abutment area. The top of the dam and grass area are well maintained.

Photo 2 – The spillway area as seen from a downstream perspective.

Photo 3 – A view of the right side downstream wall in stable condition, with a well maintained downstream grass area.

Photo 4 – The left downstream dam embankment, also in stable condition with a well maintained downstream toe area. Note, however, that there are several large trees along the upstream side of the dam, within the 25-foot limit area, which need to be removed.

Photo 5 – The left side upstream training wall, highlighting a slightly diagonal vertical crack in the mortared masonry wall.

Photo 6 – A closeup of the downstream face, noting the corroded section of supporting rail below the open gap at the base of the supported wall.

Photo 7 – A closeup of the right side downstream rail section, showing advanced corrosion and loss of section at the supporting end at the left side of the photo. Other underlying rail supports, although difficult to photograph, are in similar condition.

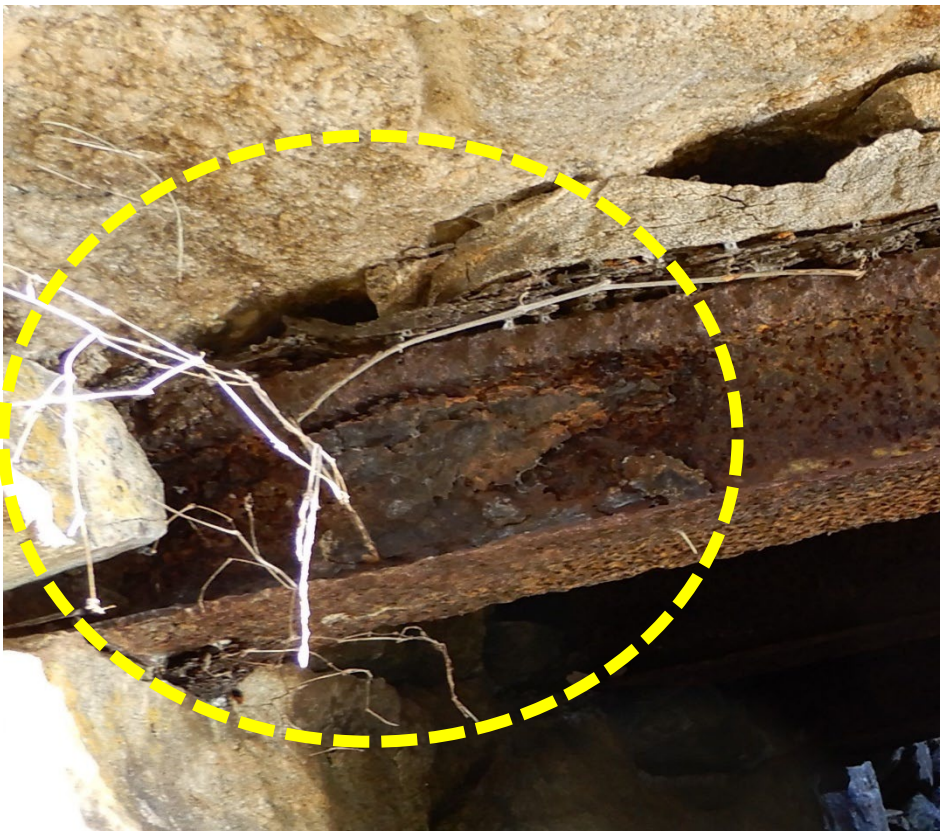

Photo 8 – A further closeup of the rail support section in the above photo.

Photo 9 – The right side spillway training wall, the upper mortared section of which is in good condition.

Photo 10 – The lower portion of the same right side wall section, dry stacked with void spaces and apparently missing chinking stone.

Photo 11 – Another view of the same right side wall, showing seepage through the open stone area directly adjacent to the spillway weir section.

Photo 12 – An upstream view of the stone masonry crossover section below the spillway, showing the corroded upstream support rail.

Photo 13 – A closeup of the upstream support rail showing a complete loss of the rail's web section at its right side support area. While the thickness of these sections varies and the origin of the rails is unknown, a median value should be a thickness of approximately ¾ of an inch.