

Dam Site 1

Vitals

- Location: Eastern side of community; east of Battlewood Road
- Most-likely Hazard Classification: Low Hazard
- Location: Western DS, Southwest of Weehawken Place
- Dam Height: 20-ft (Estimated)
- Dam Crest Width: 12-ft (Estimated)
- Dam Crest Length: 500-ft (Estimated)
- Normal Pool Depth (from Ryan Stanley, Foster Lake and Pond Management): 12-ft (Estimated)

Overall View of Dam



Overall Statement Regarding the Functional Conditions of the Dam and Outlet Works

This dam is in a state of significant disrepair. It is believed at one time this dam included a stand pipe and piped spillway. At the inspection, neither outlet work could be found. Just downstream of the dam is another wet pond. At the inspection, it looked that this downstream pond is fed in part by seepage coming out from underneath the dam for Dam Site 1. Currently, the dam is served by two overland spillways: one located in the eastern abutment, and one located in the

western abutment. Based on the inspection of the dam, it would appear the dam in the vicinity of the eastern overland spillway is overtopping.

Elemental Inspection of Dam for General Maintenance Only

Routine maintenance items are indicated in red.

Dam Embankment

The top, upstream face, and downstream face of the dam are significantly overgrown. **Routine maintenance Item: Remove all trees (six inches in diameter or less) and all overgrowth.**



Just downstream of the downstream toe of the dam, a stream exists. It is believed this flow is principally the result of seepage from under the dam. **Routine Maintenance Item: Monitor (at the toe) the seepage for changes in the quantity of water, changes to the wetland vegetation at the toe, and the emergence of soil boils or active coffee-stained water. It is recommended also that the normal pool be monitored for significant (and/or rapid) drops in water surface.**



The dam in the vicinity of the eastern abutment, where the “pseudo overland spillway” is located, appears to be overtopping. **Routine Maintenance Item: Clear-out the spillway of excess vegetation and sediment build-up, and monitor the overtopping condition for significant erosion, tree uprooting, etc.**





Suggested Rehabilitation Option

Rehabilitation Items

- Locate and eliminate the failed outlet works (e.g., stand pipe and spillway pipe).
- Remove all woody vegetation from the dam.
- Install a new concrete riser and spillway system.
- Install an overland emergency spillway.

Order of Magnitude (OM) Construction Costs \$1,000,000

OM Engineering, As-Building, and Surveying Costs \$100,000

OM Environmental Permitting Costs \$5,000

OM Geotechnical Testing and Observation Costs \$50,000

Construction Observation (Non-Geotech) Costs \$50,000

OM Total Costs \$1,255,000

Suggested Breaching Option

Breaching Items

- Breach dam.
- Stabilize (minimally/only as necessary) stream through impoundment.

Order of Magnitude (OM) Construction Costs \$100,000

OM Engineering, As-Building, and Surveying Costs \$10,000

OM Environmental Permitting Costs \$3,000

OM Geotechnical Testing and Observation Costs \$0

Construction Observation (Non-Geotech) Costs \$10,000

OM Total Costs \$98,000