



Hide-A-Way Hills Club LOFS Dam Remediation Briefing

August 9, 2014

*Lake of Four Seasons -- Autumn 2011
Hide-A-Way Hills, Ohio*

By Melissa K

Management Committee

- Jim Krygier (Chair)
 - Rich Rudawsky
 - Todd Kaho
 - Kevin McLain
 - Paul Heimberger
-
- Each member serves a 3 year term
 - Public Meetings – 2nd & 4th Tuesdays @ 7PM

Fabulous "Lake of Four Seasons" Dam,
Underway.



One of the most comprehensive projects ever undertaken in central Ohio by a private developer has been kicked off at Ride-A-Way Hills.

It is the long-planned dam for the picturesque "Lake of the Four Seasons" which will run the entire length of the 1,600 acre year-round resort.

When completed, the dam will be a homogeneous rolled earth structure 1,131 feet long, 53 feet high with a ten-foot free board to the water which will be 49 feet deep at the dam.

Rock rip-rapping will protect the dam on the up stream face. Another safety factor will be a downstream filter blanket set at the rear base of the structure.

In constructing the huge dam, some 300,000 cubic yards of earth will be moved a quarter of a mile. Weight of the earth has been estimated at 500,000 tons, or one billion pounds.

Sheet piling 12½ inches wide and a quarter inch thick will be driven 30 feet into the ground to hold back along the entire length of the excavation an additional row of sheet piling along the outer, upstream, face.

the gun with an additional row of steel along the center. Water pressure from the water will be greatest. This will be added to the sub-base of water-resistant clay under a base of gunnys. For extra

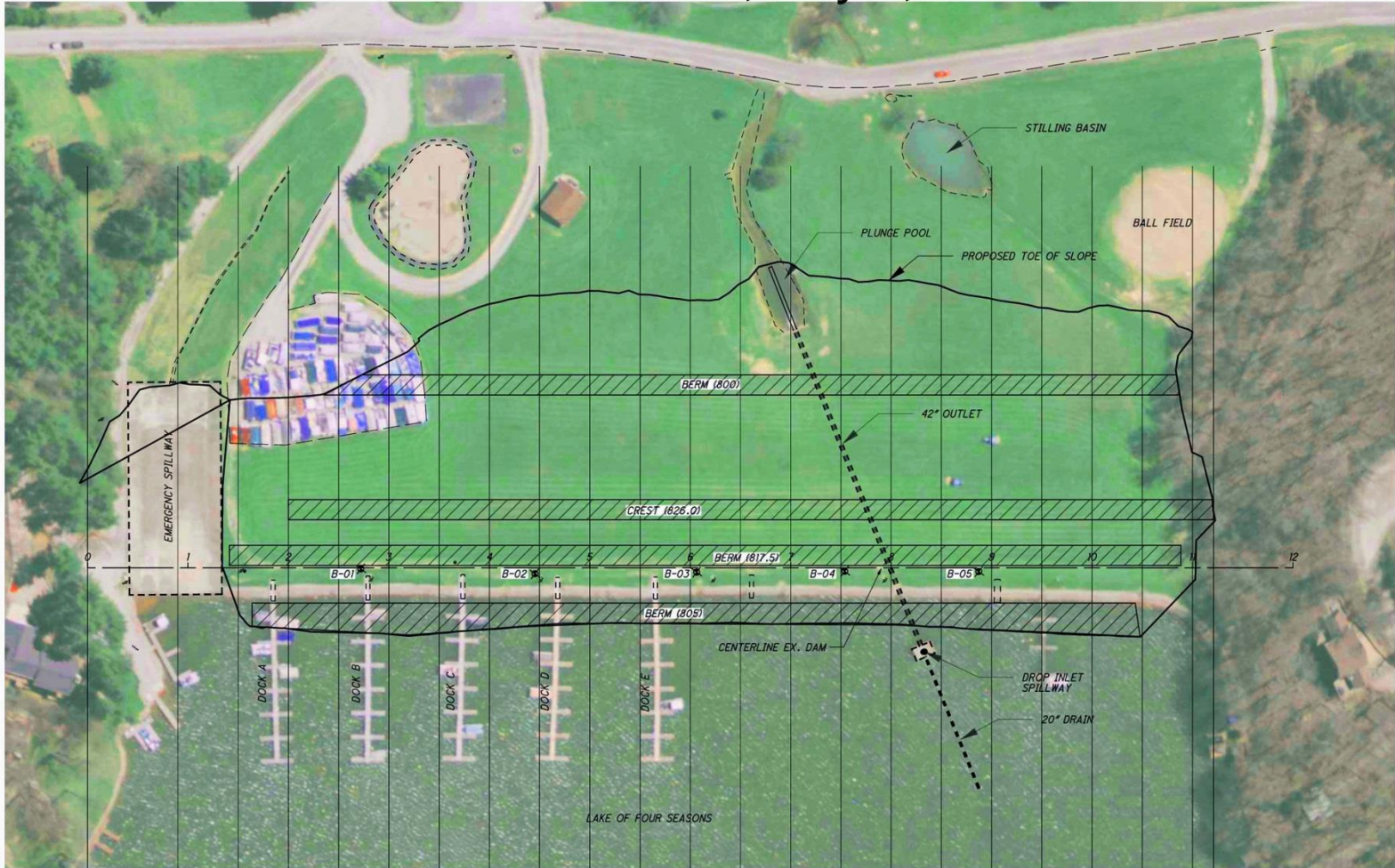
completion date for the rolled earth structure is set for 1992 according to the best available estimates from H. de A.

According to the best available estimates of M. Laburg Construction Company and Ken Le Engineers,

depth of the 165-acre, will be 30 feet, and it is 4,221 acres of Lake Champlain.



Lake of Four Seasons CONCEPTUAL PLAN, July 2, 2014



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LOFS DAM FACTS

- Earthen Dam
- 1,100 Linear Feet Long
- 48.5 Feet in Height
- Principal Spillway – Gate Valve
- Normal Pool is 815.5 feet above Sea Level
- Dam Crest is 823 feet above Sea Level
- Upstream (Lake) Slope is 3:1
- Downstream (Security) Slope is 5:1

LOFS Dam History

- 1965 - Construction
- 1966 - Dam Erosion Remediation
- 1993 - Dam Maintenance Projects: Install Rip Rap, Repair Outlet Basin, Re-seal Emergency Spillway
- 2013 - Observe Dam Slippage
- 2014 – Repair LOFS Dam

2013-14 LOFS Timeline

- October 2013 – Observe Horizontal Crack (Slip) on LOFS, Notify ODNR
- October 24 – Inspection with 2LMN, ODNR, HAH Staff
- November 2013 – Inject Calcium Bentonite into Slips, Maintain LOFS 5 feet below Normal Pool per ODNR Directive
- December 2013 – 2LMN Diagnostic Trench

2014 LOFS Timeline – 2

- January 2014 – Approve Contract Proposal from 2LMN to Analyze Diagnostic Trench
- February 2014 - Approve Contract with 2LMN w/ DLZ as Subcontractor for Amount of \$43,562 for 5 Test Borings and Remediation Analysis
- Maintain LOFS at 5 feet below Normal Pool (Elevation 815 feet above Sea Level)

2014 LOFS Timeline - 3

- March 1-4 – 5 Borings performed by DLZ – Depth 30-40 feet
- March 18 – Trenches (2LMN) Excavated and Analyzed
- April 11 – Received Preliminary Report from DLZ indicating Concern with Global Stability
- April 29 – Receive 2LMN Proposal for Hydraulic & Hydrologic report \$9,600; Inundation Analysis \$4,200 – Both Required by ODNR
- May 23 – Authorize Sonar Survey LOFS Dam – Canter Surveying \$2,500

2014 LOFS Timeline - 4

- May 8 – Receive Request Letter from ODNR requiring Dam Monitoring
- May 13 - DLZ Proposal for Barge Boring \$113,008
- May 27 – Receive DLZ Draft Analysis; Conclusion More Diagnostic Activity REQUIRED
- June 6 – Meeting with HAH, 2LMN, DLZ to confer on Alternative Conceptual Approach
- June 27 – DLZ Proposal – Phase 2 Step 1 \$71,709

2014 LOFS Timeline – 5

- July 1 – Dam Inspection by Terracon (new geotech consultant)
- July 3 – ODNR Project Deadlines letter
- July 8 – Receive 1st Terracon Proposal \$51,791
- August 1 - Receive Joint 2LMN and Terracon (as subcontractor) Proposal - \$106,700
- August 5 – Board Approves Contract
- August 12 – Test Borings Resume; Install Inclinometers

NEXT STEPS

- Await Boring Results
- Analyze Funding Alternatives
- Report to Members