

LBWID Operations Director Report

(August '09 – November '09)

Engineering/Projects

Concrete restoration for the dam (update)

- In Sept. LBWID met with Whitman, Requardt and Associates (WR&A) to discuss the anticipated concrete restoration project on the dam and the repair options that WR&A presented to the LBWID in 2006. The meeting went well and thus LBWID requested that WR&A submit a formal cost proposal for the detailed design and construction management phases of the project.
 - LBWID received the cost proposal from WR&A in early November and will be evaluating the proposal with the LBWID Dam Concrete Restoration Committee (Luis Fernandez, Walter Cate, Sammie Guy, Kevin Howe, LBWID Trustees, LBWID Operations Director).
 - LBWID would like to have the design phase and bid process completed by late May 2010 and shortly thereafter have the actual construction phase begin.

Hydraulic line swivel removal and hydraulic hose installation project on the Dam's hydraulic cylinders (new)

- During the LBWID's annual owners inspection of the dam in Sept. the staff discovered that some of the pipe swivels that carry oil to and from the hydraulic cylinders were showing signs of wear. After evaluating the aging parts further the LBWID thought it best to be proactive and remove all of the aged swivels and replace them with flexible industrial hoses.
 - LBWID also decided to install shut-off valves at each end of every hose to allow for more safe and efficient maintenance or replacement of the hoses in the future.
 - This work was completed in Oct.
 - Cost of project = \$15,000.00

Dam hydraulic cylinder rod maintenance project (new)

- In Sept. the LBWID performed maintenance on the 4 chrome cylinder rods that support the dam's bascule gate.
 - Areas of rust and corrosion had developed on the surface of the cylinder rods.
 - With the help from an outside contractor all of the rusted was removed from the 4 cylinder rods and an industrial spray epoxy was applied to protect the exposed areas from further corrosion.
 - Cost of project = \$3,800.00

Dam hydraulic cylinder testing program (new)

- In an effort to better evaluate the condition of the 4 hydraulic cylinders that support the dam's bascule gate the LBWID has asked WR&A to develop a testing protocol that utilizes the dam's existing hydraulic and computer equipment.
 - In general we will be periodically isolating the hydraulics cylinders and using the existing pressure sensors, gate position sensors and computer system to record data that will be used by WR&A to evaluate the condition of internal piston rings of the hydraulic cylinders.
 - The internal piston rings are non-accessible and thus require in-service testing to evaluate their condition.
 - These tests will more than likely be performed over a period of one year so that seasonal temperature conditions can be factored into the evaluation of the cylinder pressure and gate position data.
 - These tests will only be performed on days when the lake level is at the normal desired elevation and the bascule gate is 100% closed.
- Once the appropriate amount of data is collected and WR&A evaluates it they will submit a report to the LBWID that will be used better determine if or when the hydraulic cylinders need to be replaced.
- The LBWID would like to start the hydraulic cylinder testing program in December 2009.
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Dam cathodic protection system inspection

- In September Russell Corrosion Inc. inspected the dam's cathodic protection system.
- The inspection went well with the exception of discovering that a grounding cable had become disconnected on the dam's small fixed gates.
 - The grounded cable was reattached immediately.
- The cost of the inspection was \$1,900.00.
- LBWID will receive a comprehensive inspection report from Russel Corrosion within a couple of months.

Operations

LBWID In-House Dredging Program and Equipment (update)

- Modifications to Beach 3 and 5 are complete (with the exception of some landscaping at Beach 3).
 - Dredging equipment restoration is complete.
 - LBWID will be purchasing a new machine to off-load hopper barges. This was factored into the original plan and will be purchased in the current fiscal budget year.
 - So far this year the LBWID has removed about 1174 cubic yards of sediment

- 582 cubic yards from sand bar upstream of Swift Island
- 472 cubic yards from various locations on the Tripps Run side of the lake.
- 120 cubic yards from various coves.
- The WID will continue dredging well into November and will be focusing on removing more sediment from around Swift Island and Roth Island.
- Fortunately we have not had a major storm event this year and the results of the bathymetry survey conducted in June 2009 indicate that depths in the Lake are good with the exceptions of the small areas around the 2 islands that WID has or will address.

Lake debris removal (new)

- The LBWID had very successful lake debris removal program during the 2009 spring and summer season and received numerous comments from residents stating how pleased they were with cleanliness of the Lake.
- Using it's various equipment the LBWID removed the following:
 - 207 trash can loads
 - 12 wooden barge loads
 - 76 harvester/trash skimmer loads
 - 4 dump truck loads.
 - 70 yellow trash bag loads

Respectfully,
Davis Grant
LBWID Operations Director