

Dam Leak Committee Meeting Summary, November

The Dam Committee met on Sat. Nov 18, 11 AM at the dam spillway. Present were Clarue Holland, Ken Jost, Mike Leiweke, Rick Lippitt, Russ Wilner, and Rich Hirsch.

Most of the time was spent near the site of the leak on the north side of the dam discussing where and how to install a weir box to measure the flow rate of water coming out of the leak.

[As background, the group had previously concluded that the best way to install the weir box would be to use a flexible connector to attach a new length of 12 inch pipe to the existing 12 inch leak outlet pipe. The new pipe would go thru an existing 24" x 20' drainage pipe that runs under the haul road. The weir box would be placed in the creek on the downstream side of the road. Flow from the new 12" pipe extension would enter the weir box via a fitting on the front of the box or dump into the box from above. — rhh]

At the leak site we measured the slope from the outlet of the existing 12" pipe to beyond the haul road in the creek. This was determined to be 13 inches drop for about 24 feet of run, which is equivalent to about 1 foot drop for 22 linear feet. This measurement is important because the inlet to the weir box needs to be below the level of the leak outlet pipe. Since the weir box needs to be about 2 feet tall, we would have to dig down into the creek bed approximately one foot. This could be very difficult if the weir box is located close to the haul road since the creek bed there appears to be solid rock. An alternative is to extend the 12" pipe to 40 feet or so and place the weir box further downstream to take advantage of the natural downward slope of the land. An additional advantage of moving the weir box is that the creek bed further downstream should be easier to dig.

ML and RW took photos of the leak outlet pipe thru the 24" x 20' drainage pipe and these photos are attached. There are two things to notice:

- 1) The 24" drainage pipe is badly corroded and should probably be replaced before the weir box is installed.
- 2) It is not a "straight shot" thru the 24" drainage pipe to connect a 12 inch extension pipe to the leak outlet pipe. It should, however, not be difficult to install a replacement 24" drainage pipe so that the smaller pipe fits easily within the outer pipe.

The next step is probably to put together a proposal for the LTPOA board that will include:

- 1) Cost to replace the existing 24" x 20' drainage pipe with a plastic schedule 80 pipe and install two sections of 12" x 20' pipe with one plastic coupling and one flex coupling. Kevin Seelbach is best able to provide this info as he has the contacts and will provide the labor.
- 2) Cost to build the weir box. In terms of constructing the weir, although it would be possible for ML to construct a weir box out of stainless steel, the group felt it might be better to purchase a fiberglass box and for Mike to modify the box to hold the weir plate.

At the leak pool a sample of water was taken. It was clear and without turbidity. And unlike last month's sample, there was no odor of H₂S and the white algae was now a rust color. Fish-n-temp temperature was 53 deg F (temp by Hg thermometer was 50 deg F).

For the committee — Rich Hirsch



Above: View thru 24" x 20' drainage pipe, from leak pool.



Left: View thru 24" drainage pipe, toward the leak pool. Leak outlet pipe is at center of photo.

Photos by Mike Leiweke.