

Montreux Waterfalls and Lakes Report

October 4, 2011

Lakes

- Treatment
 - Lakes have been treated this summer by Northwest Aquatic Ecosystems. Doug is planning to add fish (triploid grass carp) to all three lakes next spring. (Fall is a bad time to introduce new fish). Total cost of treatments this summer is less than \$2,000.00 for all three lakes
 - In mid-August a spill of red paint or stain was noticed in Lake F (the lake with 2 fountains). The source of the spill is unknown, but the red finish on the surface of the lake dissipated before anything was done about it.
- Fountains
 - Two of the four lights on Lake E went out a while back, and they were replaced by WE Electric on March 8, 2011. I believe all are working fine now.

Waterfalls

- Large waterfall
 - The leak in the large waterfall has been minimized by damming off the small stream leading to the west pond. There is still a little water leaking from this pond, because the dam is not perfect. I have finally found a contractor from Redmond that is willing to work with us to fix this leak. I got the lead from Jeff at Pacific Landscaping. The company's name is Kinssies (<http://kinssies.com/>) and they specialize in the construction of water features. He has not come out to inspect our situation yet, but I have emailed him some digital photos.
- Small waterfall
 - The small falls is no longer leaking water, as long as the water level in the pond is not too high. The current autofill valve gets bumped occasionally, which raises the water level. When that happens we lose water at night via the overflow drain when the pump shuts down.
- New Control Panel

The new control panel is now installed, but all work is not yet completed. The Contractor went over our previously authorized limit of \$25K due to a couple of unanticipated site conditions and to some extras that we requested from him. An itemization of the extras are listed on the following page.

1. 6 floats wiring and relays (3 at each pond) for level control and monitoring \$1,330
2. 2 Pulse Flow Meters, wiring and relays to monitor water usage \$1,870
3. Sensaphone Cell682 Monitoring device, wiring and all necessary relays for communicating with the pump controls \$2,145
4. 2" Irrigation main valve relocation to accommodate new footprint of pump controls \$560
5. Rewired the irrigation valve wiring and relocating all of the wiring into one junction box \$245
6. Provided and installed a new Milbank 200amp power pedestal to replace the existing panel and meter base \$2,665

Note: The original panel and meter base were not going to work well with the new configuration. They were also getting worn out and not sealing water out as they should. This new pedestal allows for a nice clean looking installation that should last for many years.

7. Enclosed the pole building with cedar siding and painting it \$720
8. Provided and installed a metal rollup door for the front of the enclosure \$790
9. Credit for the Pyramidalis that were on the original estimate -\$430

Total Extras: \$9,895

The biggest single extra (\$2,665) was for the power pedestal (see explanation above). The second biggest extra (\$2,145) was the device that allows us to remotely monitor the operation of the system via the internet using our home computers and smart phones. Not only will this allow us to check pond water levels and pump operation remotely, but combined with the third biggest extra (\$1,870) will allow us to monitor exactly how much water each waterfall is consuming. These flow meters will be installed on the pond refill pipes, so we know exactly how much water we are using in each falls, regardless of the condition of the irrigation system. In order to minimize the potential for graffiti and for securing of the control panel, we also asked the Contractor to fully enclose the control panel in a small building (see photos below). The building will be finished with a rollup door with a padlock for security. Although this has taken much longer than anticipated, the Contractor has done an incredible job with this project. He is about 90% completed at this point in time, and we have authorized an initial payment of \$19,022.89, including tax.



Photo 1. Rear view of old control panel showing power meter.

Photo 2. Front view of old control panel showing on/off lights for each pump.



Photo 3. New control panel before building is constructed.

Photo 4. Concrete foundation for new control panel and building.





Photos 5 and 6: Front and back views of enclosure before rollup door is installed.

