

Golf course Irrigation pump house

Description of pump station:

The pump station is the heart of the irrigation system, without it the course would not survive. Our Irrigation system is run by two 75 hp vertical turbine pumps, each capable of supplying 890 gpm at 110 psi, in addition to a 5 hp pressure maintenance pump. The pumps sit in a 13' x 4' concrete tube known as a spill well. The spill well holds water taken from the lake and reduces the likelihood of contamination from weeds, debris, and foreign objects getting sucked through the pumps.

A preventive maintenance procedure is performed each spring to inspect the turbine shaft, the screens on each shaft, well walls, removal of any sediment or debris build up inside spill well, and inspection of foundation.

Problems identified in last preventive:

- The concrete foundation had a crack that was allowing more sediment to enter spill well.
- The concrete box front that blocks sediment and debris for entering well have broken away severely.

Below are pictures of our annual preventive maintenance.

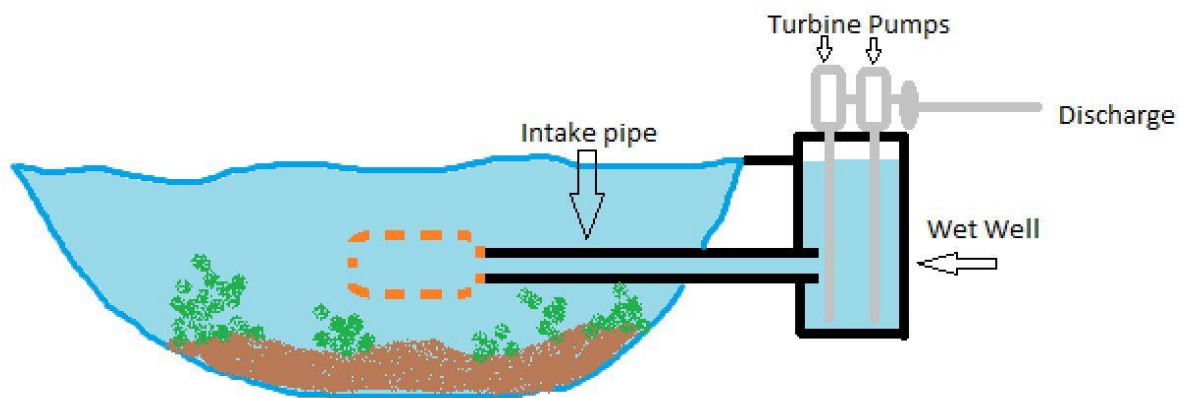




Solutions:

- Re-engineer the pump house well and foundation design that would help with sediment entering the well or losing the well completely.

Attached is one idea of how I think it would maximize the life span of our pump hose.



Re-engineering the pump house is a very costly fix, but this can't be ignored. I will look into other ideas and get site visits by professionals to find what our best solutions can be.