



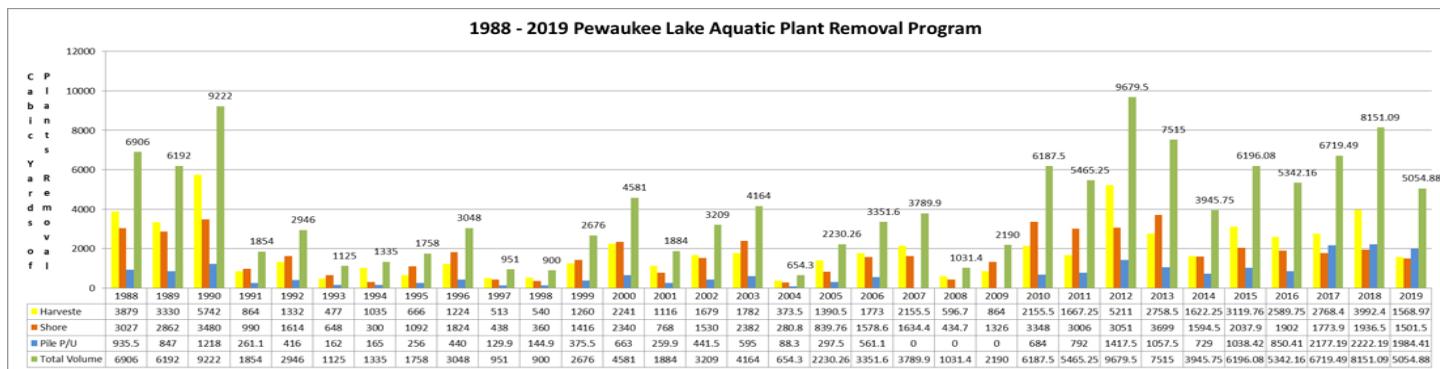
LAKE PEWAUKEE SANITARY DISTRICT

JANUARY, 2020

HAPPY HOLIDAYS AND A PROSPEROUS AND HEALTHY NEW YEAR TO ALL!

LAKE CLEAN UP SUMMARY

It was once again a fair year with the aquatic plants on the lake. Clean-up crews worked through October cutting, picking up shorelines and doing lots of pile pick up. Below is a chart that shows the volume of aquatic plants taken out of the lake over the years and how this last year compares to the previous years and cycles. The total volume of aquatic plants removed from the lake equates to 5,062 cubic yards. Below is a graph of the volumes of aquatic plant removed over the past 30+ years. The tallest spikes are the combined volumes of all the methods of the districts removal operations (the harvesters, shore barges and pile pick up).



Over the last decade, we stepped up our Harvesting and aquatic plant removal program, implementing more equipment and more staff. The lake is constantly improving simply by the increased amount of nutrients we are removing from the lake with the harvesting program. Phosphorus is the main source of nutrients in the aquatic plants and in the lakes sediment. By removing large volumes of phosphorus we remove the nutrients that help the plants grow. We also remove the amount of decaying plants which use up oxygen to break down. Low oxygen is harmful to the fisheries and other aquatic life. So not only do we make the lake better for recreational use by harvesting and picking up plants we are slowly improving the overall quality of the lake. This in turn improves home values in the Delafield and Pewaukee area.

LAKE MANAGEMENT AND WATERSHED PROTECTION PLAN

The Lake Pewaukee Sanitary District contracted with the South Eastern Regional Planning Commission to do a new Lake Management Plan and a draft is finally done (5 years in the making). A few highlights that really weren't in the last versions of the plan are: **Dam operation, Ground Water Recharge and Stream Protection and Restoration of the creeks that drain into the lake.**

LPSD doesn't control the **Dam**, it is the responsibility of the Village of Pewaukee's DPW director/Engineer. The District however is very vocal about maintaining the proper levels and advocating the adjustments daily. This district has initiated changing some of the dam order document to reflect the up-to-date dam construction and the gate operations to maintain lake levels. Maintaining proper levels avoids piers floating away, boats floating off lifts or getting stuck on lifts as well. Adjusting the dam to protect against damage from ice heaving and adjusting to alleviate slow no wake or higher elevations that can affect homes and sanitary sewer back-ups should be first and the highest priority. This should be accomplished while minimizing flooding downstream as much as possible.

Our goal is to simply maintain the Winter and Summer levels very closely and avoid the Slow-no-Wake levels (or any higher level) to the best of our abilities by adjusting the Dam daily if necessary.

Ground Water Recharge: The Lake is recharged by direct rainfall on the lake and into the watershed that drains to the lake as well as ground water feeding into the lake. There are areas that are undeveloped at this time that provide a lot of this groundwater recharge that helps keep our lake elevations up as well as providing fresh water into the Pewaukee river. If more “over-development” occurs without consideration of the effects of impervious surfaces (driveways, parking lots, and rooftops) which eliminate this natural recharge, serious ecological issues affect the lake. As more wells are drilled even more groundwater is depleted from going into the lake. This happens because you pump out groundwater for homes, and businesses (development) and the water gets used and it goes into a sewer pipe to Brookfield. IT DOES NOT GO BACK INTO THE LAKE. So we starve the lake from recharging. All the water that enters the lake allows the lake to “flush”. This groundwater provides “cooler” water and it is the only source feeding the lake during dry weather and droughts so it is extremely critical to the ecology of the lake.

Stream Protection and Restoration: The 3 main tributary's to Pewaukee Lake are Coco, Meadowbrook and Zion Creeks. These provide most of the flow from the watershed and are extremely critical to the lakes ecology and elevations. Erosion of the streambanks feeds the lake with nutrients (mainly phosphorus) which promotes weed growth and algae blooms. Stream bank protection (native vegetation, woody structure and rock) minimizes erosion. Narrower fast moving streams provide cooler deeper water which improves the natural spawning of fish, other aquatic life and organisms. Organisms eat algae keeping the lake clean and clear. Stream buffers (75-100 foot strips of land bordering the streams) are absolutely critical and we must get our surrounding communities (City of Pewaukee, Village of Pewaukee and Town of Delafield) on board to protect these areas.

SEWER SYSTEM

USER FEE SLOWLY RISES WITH THE COST OF LIVING

The new rate for our quarterly sewer user fee will be \$118.00 starting with the April 1st 2020 billing. The user fee covers the operations and maintenance of the sewer. These costs to the district continue to rise and it is not in our control - the price of parts, pumps, transfer switches and generators simply continue to rise as well as construction costs. Several pumps have been replaced as well as some internal piping inside the wet wells that have corroded over the past 35 years. Several more stations need to be done over the next few years. Generators are in need of replacement mostly due to not being able to find parts for the older ones that aren't made anymore. The generator housing units that were made of fiberglass are deteriorating and in need of replacement. Several have been done, some are being completed this year and a few need to be done over the next few years.

Remember - Don't throw rags or cleaning “flushable” wipe's into the toilet, it clogs pumps and cause costly “extra” maintenance that we all pay for. Help keep our rates down, don't flush anything except toilet paper!!

Employment – Summer Lake Crews

Lake Pewaukee Sanitary District will be looking to hire enthusiastic people to help with the lake operations this next year. The temporary summer employees work from early May until the end of August. The shift starts at 7:00 a.m. and ends at 3:30 p.m. with opportunities for overtime depending on lake conditions. Applications for the seasonal help will be accepted for review starting any time after January 1st, 2020. Applicants must be at least 18 years of age.

We also have a need for some temporary help that could start earlier and work through October. Call Rita at (262) 691-4485 for more information. For more information go to: www.lakepewaukee.org