

## **Enclosure 4: Details and Impacts of The Recent EGLE Decision.**

On September 25<sup>th</sup>, EGLE made a decision to reduce our short-term pumping rate from 2,000 GPM to 1,000 GPM. With the reduced rate in place, rainfall had brought the water levels up in excess of three inches eleven days later. Twenty-eight days after the pump rate reduction began; Eagle Lake remained three quarters of an inch above the level when the reduction began. This decision greatly impacts the future success of our short-term solution in a negative way. Because of this decrease in the pumping rate, if the previous rate is not reinstated, hydrologist estimates are that we will not see our flooding levels reduced to normal lake levels until May of 2021, and this is predicated on the assumption of average precipitation and the continuance/extension of the permit and easements after their respective expirations in September and December of 2020.

The EGLE decision must be changed in order to bring about the relief needed by so many residents. According to the EGLE representative on the task force, observations of the vegetation at the downstream wetland monitoring station where the discharge waters from the Crooked Lake pump enters the system are showing the wetland may be experiencing "stress". This has resulted in cutting back the rate of flow to a maximum combined rate of 1,000 GPM. Though the two-day-off pump limitation has been lifted during the period of reduced pumping rate, it is also recognized that rainfall could cause enough additional water flow so as to raise the down-stream levels again causing the pumps to be shut off. Further flow reductions are under consideration by EGLE if the observed "stress" continues. It is worthy of noting that EGLE failed to monitor wetlands not connected to this drainage to have a comparison of changes that might occur, and a means to assess a true cause and effect.

Since pump operation began, the level of Eagle Lake has dropped from the all-time high a total of just over 14", while Crooked Lake has dropped just under 17". However, to reach the "normal" level, Eagle Lake needs to drop another 35+ inches, and Crooked Lake another 27+ inches. The residents of Pine Island Lake and the subdivisions between Pine Island and Eagle Lakes will only see relief from their flooded homes as the level of Eagle Lake slowly drops. (Eagle Lake drops at a rate slower than Crooked Lake due to the surrounding areas seeping (and actually pumping) into Eagle and refilling it as water is pumped away.) Projections at the 2,000 gallon per minute combined pumping rate had Crooked Lake back to normal by July of 2020 and Eagle Lake back to normal by August of 2020.

The reduced pumping rate now imposed by the EGLE/DEQ stretches out those projections to September of 2020 and May of 2021 respectively. This means that homes and properties will remain flooded (or under the potential for flooding) for another 12-18 months. During the upcoming months, above-normal precipitation like we have experienced the last couple of years has the potential to extend this even more. Additionally, continued high water table levels will continue to have an impact on road closures in the area. Please see the accompanying graphs prepared by Prein&Newhof (an engineering firm for Texas Township) that show the effects for the differing pumping rates from Eagle and Crooked Lakes.