Waushara County Land Conservation & Zoning

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2010 Report on Lake Levels Observed in Waushara County

Attached to this memo, you will find several charts and graphs that describe in brief the fluctuating lake levels observed in Waushara County. As you know, there was a period of very high lake levels in the early 1990's, with many of our lakes reaching record or near record highs. Since that time, there has been a steady decline in lake levels, culminating in having many of our lakes experience record or near record low water levels just a few years ago. Since that time, we have seen varying degrees of rebounding of our lake levels.

It should be pointed out that staff from the Waushara County Land Conservation and Zoning Office has recorded lake levels yearly since 1993. Prior to that date, we were able to obtain some historic data collected by Wisconsin DNR, and we have incorporated that data into our files. However, even though we record the water levels on the noted lakes once per year, usually in late July or August, it is only a snapshot in time and cannot begin to record the fluctuations that take place on a daily, monthly, or seasonal basis. In addition, this data has not been a reliable predictor of what the water level trend will be for a particular water body, for the short or long term. Predictions remain very hard to make, even when there is extensive background data. It appears that many factors play a part in the water level a lake will have at any given time. This is evidenced in the one year recordings from this year, where we saw some lakes drop by a few inches from last year, while others have risen more than 2 vertical feet.

We have also mapped the lakes and color coded those that have water levels that remained constant or dropped a few inches. Those are shown in red. Another category was lakes that had water levels rise anywhere from a few inches to one foot. Those are shown in blue. And the remainder of the lakes shown in green had water level increases of one foot to more than 2 feet, with the highest elevation increase being on Big Silver Lake, which rose 2 ½ vertical feet over last year.

You will see from this map that the lakes that had static or decreasing water levels are sometimes very near lakes that had increases of more than a foot or sometimes even two feet. It would seem that a lake's placement in the landscape, the size of the watershed, the amount of local precipitation, the presence of a water supply source such as a spring or creek, the presence of a controlled outlet, the localized groundwater elevation, and the removal of large amounts of groundwater from the local area, along with many factors we don't even know about, all contribute to an individual lakes water level on any particular day.

The only thing that seems certain is that lakes will continue to have fluctuating water levels, and the prediction of those levels will be extremely difficult at best. Long term trends seem to tell us that unpredictable and fluctuating water levels are normal unless the lake has artificial controls to keep the water levels more static.

LAKE	Historic High & yr. recorded	Historic Low & yr. recorded	2009 Elevation	2010 Elevation	2009/2010 Comparison
BEANS	980.95 – 1993	973.85 –2007	974.86	975.69	+0.83 (10")
BIG HILLS	873.83 – 1998	867.77 – 2007	869.42	870.59	+1.17 (14")
BUGH'S	870.86 – 1993	865.93 – 2007	867.11	868.05	+0.94 (111/4")
CURTISS	871.90 – 2010	871.27 – 2007	871.51	871.90	+0.39 (4¾")
DEER	863.71 – 1996	856.75 – 2007	859.05	858.97	-0.08 (1")
FISH (HANCOCK)	1075.86 - 1985	1066.75 – 1968	1068.89	1068.74	-0.15 (13/4")
GILBERT	887.70 – 1993	881.73 – 1964	883.13	883.88	+0.75 (9")
HIDDEN SPRINGS	97.86 – 2010	96.45 – 2009	96.45	97.86	+1.41 (17")
HURON	1091.46 – 1985	1087.13 – 1976	1082.68	1082.62	-0.06 (¾")
IROGAMI	869.81 – 1993 (?)	864.62 – 1958	867.34	868.0	+0.66 (8")
JOHN'S	863.77 – 1999	863.37 - 2003/ 2007	863.43	863.50	+0.07 (3/4")
KUSEL	877.80 – 1993	871.08 – 2007	872.31	874.0	+1.69 (201/4")
LITTLE HILLS	861.21 – 2002	857.01 – 2007	859.02	859.06	+0.04 (1/2")
LONG (OASIS)	1100.03 – 2002	1093.11 – 1964	1094.44	1096.54	+2.10 (251/4")
LONG (SAXEVILLE)	875.37 – 1993	870.54 – 1964	871.55	872.21	+0.66 (8")
LUCERNE	845.11 – 1996/2002	839.09 - 1964	842.32	842.0	-0.32 (4")
MARL	1010.51 – 1993	997.39 – 1968	998.91	998.65	-0.26 (3¼")
NAPOWAN	864.73 – 1985	858.63 – 2007	861.04	862.02	+0.98 (11¾")
NORWEGIAN	91.31 – 1993	90.31 – 2007	90.84	90.92	+0.08 (1")
PEARL	818.37 – 1993	813.70 – 2007	815.37	815.74	+0.37 (4½")
PINE (HANCOCK)	1078.41 – 1993	1071.51 – 2007	1072.81	1072.98	+0.17 (2")
PINE (SPRINGWATER)	894.30 – 1993	889.05 – 2007	890.15	890.92	+0.77 (9¼")
PLEASANT	983.75 – 1994	978.27 – 2007	979.11	979.31	+0.20 (2½")
PORTERS	876.75 – 2010	875.59 – 2009	875.59	876.75	+1.16 (14")
ROUND	876.29 – 1993	870.56 – 2007	872.06	873.50	+1.44 (17¼")
LITTLE SILVER	900.05 – 2010	898.90 – 2007	899.32	900.05	+0.73 (8¾")
SILVER	869.12 – 1993	862.28 – 1970	864.72	867.20	+2.48 (29¾")
SPRING	789.10- 1993	787.56 – 2007	878.75	787.77	+0.02 (¼")
LITTLE TWIN	888.84 – 1985	? – no water for several years	n/a (no water)	n/a (no water)	n/a
TWIN	888.83 – 1995	882.99 – 2007	884.09	884.95	+0.86 (10½")
WILSON	877.50 – 1993	873.62 – 2007	873.96	874.31	+0.35 (41/4")
WITTERS	852.99 – 1993	847.91 – 1976	849.73	850.65	+0.92 (11")

