

Antrim County Operator of Dams
P.O. Box 217, Bellaire, MI 49615

Mr. Ed Boetcher
Chair, Antrim County Board of Commissioners
Bellaire, Michigan

March 6, 2018

Dear Mr. Boetcher,

Please accept the following Annual Report of the Drain Commissioner and Operator of Dams for 2017.

Annual Report of the Antrim County Operator of Dams for 2017

a) Elk Rapids Hydroelectric Facility

The highlight of 2017 was the renovation of the interior of the hydro building. Antrim County hired a firm called Protech as the general contractor. All the interior surfaces were stripped of paint coatings by the use of air blasting with various media, including the brick walls, structural metal and the concrete floors and ceiling. Since the paint was found to have cadmium and lead content, the work was performed in compliance with hazardous material removal and environmental regulations. All window caulk containing asbestos was also removed. About 30% of the brick in the interior masonry walls required replacement. The replacement bricks originated from the same era of the existing brick walls and blended very well. Metal and concrete surfaces were repainted, however the interior masonry walls were only coated with a transparent and breathable coating. The entire project cost \$177,875 and did not exceed the bid.

The Stockhausens also contributed substantially to the project. Prior to commencing work, the Stockhausens emptied the entire building of equipment and non-essential equipment. A shroud was built around the generating equipment to allow constant operation and generation during the entire construction project. Stock Stockhausen stayed on site during the entire construction phase (approximately 3 months), helping to stage the project, keep the generation constant, and move all the equipment and tools back into the power house after completion. Stockhausens also contributed \$2500 of their own funds to pay the extra cost of contrasting paint colors to make the powerhouse color theme consistent with its historical period. We extend our thanks for their contribution.

The Stockhausens also continue to be intensively involved in an effort to lobby the Michigan Legislature and the Michigan Public Services Commission on gaining fair rates for electricity sales to Consumers Energy. To date the effort has now cost in excess of \$180,000 of their own and partners' funds (a coalition of several renewable energy producers, including methane capture facilities, waste incinerators, wind farms, and other small hydro producers). The Michigan Public Services Commission has issued two interim determinations of fair rates, but both were subsequently withdrawn and neither was met with satisfaction from the coalition. We currently await their third "final" determination. Efforts to address the situation in the Michigan State Legislature continue with support from Representative Tristan Cole. The coalition also traveled to Washington, DC to make their case to the Federal Energy Regulatory Commission (FERC) and met with two of the Commissioners. If the coalition does not succeed in getting fair rates from the MPSC, their next avenue of recourse is the Circuit Court, and then to FERC.

County electrical generation revenues in 2017 were \$21,138, a slight increase from \$19,102 in 2016, due to heavier precipitation that leads to a greater volume of water flowing through the dam.

b) Intermediate Lake Dam in Bellaire

2017 Resulted in moderate flows well within the average and no danger of floods until November. Once again, the highest levels occurred in November of 2017 (similar to the high levels in November 2011). Historically, the fall has been a time of lower levels, which leads me to suspect that general precipitation patterns are changing. Coupled with the routine gate settings

that suggest that groundwater discharges remain high, heavy rain could still push lake levels higher than normal in 2018. Intermediate Lake was high in November of 2017, but not at flood level. However, the lakes further up the Chain, especially Ellsworth Lake, Lake St. Clair and Six Mile Lake reached flood stage, even overtopping the road crossing at Ellsworth. This suggests that the connecting rivers above the Mohrmann Bridge are clogging with sand from tributaries at a higher rate than the Intermediate River.

During the summer, a cable on one of the radial gates failed and we realized that some hardware and rubber seals on the gates were in need of replacement. I am currently seeking a contractor qualified to perform the work.

c) Miscellaneous Duties

As many of the commissioners are aware, a very important part of my job is educating the public about water levels, the dam operations and fielding complaints. 2017 brought another steady stream of inquiries, especially about lake levels. Most calls originate from residents on Intermediate Lake or the Intermediate River, and the rest are from residents distributed through the other lakes of the Antrim Chain. High waters in the upper chain last fall made for a higher than usual volume of calls. However, there appears to be growing support for conducting a methodical hydrological study of the Antrim Chain of Lakes.

Annual Report of the Antrim County Drain Commissioner for 2016

As some of the Commissioners are aware, the sole County Drain under the Drain Commissioner's authority is the outlet from Birch Lake in Elk Rapids Township that drains into Grand Traverse Bay. Last spring was the first test of the new replacement culvert under Timberlake Drive that had failed in 2015 (it was replaced in October 2016). All indications are that the culvert is working exactly as designed. Contacts with the Birch Lake Association have expressed their satisfaction with the new culvert and the free passage of fish movement now possible.

Respectively submitted,



Mark Stone
Antrim County Operator of Dams
Antrim County Drain Commissioner