June 9, 2015

Ms. Elaine Johnson
Water Regulations and Zoning Specialist
141 NW Barstow St, Room 180
Waukesha, WI 53188

Dear Elaine,

After having several meetings with residents from the Waterford area, the Norway Dover Drainage District is considering amending our permanent drawdown request to a lower winter level request. I have attached the said amended request. You will see number 6 addresses the issue of changing to a 3.0 level only during the winter months rather than a total drawdown. Number 7 request will remain the same for the high flow periods. We would like to come in and discuss this change with you at your earliest convenience. Following are some of the reasons we believe lower levels are essential:

Over the last eight or nine years, we have been able to observe tremendous improvements in our system when we have a winter drawdown. As you know, our private drainage district ditch, the Wind Lake Canal, is essential for moving all the water from as far north as New Berlin, Big Muskego and Little Muskego Lakes, through Wind Lake to the Fox River. At one point in time, Wind Lake had a two-foot drawdown. The drawdown was completely eliminated in two stages (the first foot in 2000 and the second foot in 2002) with devastating consequences. The drawdown was renegotiated, and we now have a six-inch drawdown which has slightly improved the situation. When the winter drawdown is in effect, we see huge benefits. These benefits include:

1. **Erosion Control**: When the water level is high in the canals and the water freezes, it attaches to the grasses (and topsoil) on the canal banks. You may recall our canal system is very flat with a clay bottom and sides to a point. When the water level isn't maintained within the clay bottom and sides, erosion of the top soil occurs. We have approximately 18 inches of fall in 9 miles with steep banks that were designed to simply handle farm drainage. Now we are getting early runoff from the impervious surfaces to the north such as Muskego and New Berlin. When thawing occurs to the north, prior to the thawing of the canals, we get a large amount of water trying to flow through the frozen canals. This creates ice damming, flooding, and excessive erosion. The erosion comes from the chunks of ice attached to the grass and topsoil that are pulled into the canal system. We have firsthand knowledge that this erosion occurs, and we have pictures to document it. If the water level is lower and is down in the area where the canal is clay-lined, we do not have the excessive erosion.

2. **Safety Issues**: Many of the areas around Wind Lake and the canal system are very flat. When the water level is kept high, the snow and snowbanks are also much higher. These create a safety issue for the school buses and vehicular travel. Windy and blizzard-like conditions can be created. Without a properly functioning drainage system, our community roadways can be greatly affected. Unnecessary gate operation during the winter months has created safety issues for county employees and can cause possible structural damage while torching/thawing gates. A structural engineering firm has analyzed the dam and confirmed that the drawdown will not negatively impact the dam's structure.

3. **Flood Control**: There is no question that the loss of the drawdown in Wind Lake affects flooding in the area. When the two-foot drawdown was removed at Wind Lake, the document stated that this level could be revisited if there were negative effects. In this DNR Environmental Assessment dated 9/12/02, under the heading "Cultural Land Use", number 12, Shane Heyel states, "The Norway Dover Drainage District and other farmers in the area have a vested interest in insuring that the new dam operational order is followed and that the new order does not cause additional flooding, seasonal or otherwise (that would damage crops)...in carrying out the proposed changes, weather and water levels, especially during the spring thaw, will have to be closely monitored. There is a possibility, although not a likely one, that the spring thaw, combined with spring rains, could have significant consequences (flooding) to backyard lawns on portions of the lake and possibly fields in the area." We strongly feel that the drawdown at the Rochester dam will be even more beneficial than revisiting the Wind Lake drawdown.

4. **Ice Damming**: Because the Wind Lake canal, our private drainage district ditch, is so flat, we get a great deal of ice damming. These very flat, low ditches are out in rural areas and do not thaw out as quickly as the watershed to the north. When this happens, these ice dams cause flooding of people's homes and farmland at property owners' expense. The canals full of water going into the winter cause the system to be completely filled with ice and contribute to the slow thaw of the canals. Lower levels with less ice allow for more capacity of water to flow in the spring when melt occurs to the north. I have attached pictures that illustrate this problem.

5. **Recreational Benefits**: With the winter drawdown, recreational snowmobiling is enhanced on the Fox River. In addition, several DNR documents have monitored and measured the effectiveness of drawdowns in controlling invasive aquatic species and plants like the water milfoil which will benefit the walleye and musky fishing by improving the water habitat.

6. **River Restoration**: With the drawdown, property owners along the Fox River have a better opportunity to complete restoration along the banks, including cleaning, riprap to prevent erosion, pier renovation and removal of fallen trees and debris that ultimately end up stuck in the dam. We have also included pictures to illustrate this problem.

A management plan for Wind Lake, prepared by SEWRPC and financed in part by a grant from the Wisconsin DNR, supports the many benefits of winter drawdowns. Please refer to this plan for additional information.

In order for the Norway Dover Drainage District to fulfill its obligations which are mandated by Chapter 88 of the state statute, with an antiquated system and considerable new development in within the district and surrounding areas, it is not unreasonable for us to request a 3.0 level from October 15th to March 1st, considering the previous 1951 order maintained a minimum level of 3.36 year-round for 30 years. Previously, in a 1941 hearing, the findings of fact showed a water depth of six feet in the Fox River during normal water levels (4.3). Maintaining a lower water level should not affect property value as much as silting in from the bottom which causes reduced water depth. It is easier for a few to blame the water level than to fix the actual cause of the reduced depth by cleaning out the bed of the Fox River. In actuality, by dredging our private drainage district ditch and having a lower minimum level, we are protecting property and homeowners within the watershed which encompasses nearly 32,000 acres and 4,572 parcels in the towns of Norway and Dover and also affects the communities of Wind Lake, Muskego and New Berlin. This is a large area that realizes great economic benefits from our dredging maintenance and lower water level.

Thank you,

Alan Jasperson
Secretary/Treasurer
Racine County Drainage District
(262) 721-5162