From: Zachary Savage
To: DNR ESTABROOK
Subject: Remove the Estabrook Dam
Date: Wednesday, April 06, 2016 12:16:07 PM

Bottom Line Up Front:

I am against the repair of the Estabrook Dam. As the final approving body I am petitioning you to decline the permit for repair and instead provide the necessary means for removal.

However, if for some incomprehensible reason you decide to move forward with repair, I am in favor of Alternative #1 and request the gates not be closed until June 1 and be opened September 1. My property is highly susceptible to flooding due to runoff and heavy spring rains so with the seasonal trends it is too risky for my safety if the gates are closed May 15. A large number of the dam repair supporters who live along Rock Place and Montclaire Avenue are situated above the FMEA flood plane, do not pay flood insurance, and have been unwilling to consider the ramifications should a flood occur.

Again, I encourage you to do the right thing by removing this albatross from our community and not allow a small amount of public incompetency dictate this decision.

Comments:

My name is Zach Savage and as a wakeboarder, competitive rower, grease monkey, and mechanical engineer I'm not your typical conservationist. I live at 838 W Riverview Dr in Glendale and am directly impacted by your decision. This address is also worth noting because my street, like many others in Glendale, honors our beautiful River. Throughout Glendale we have gorgeous homes lining roads named River Park, River Forest, River Edge, and Milwaukee River Parkway; the last of which runs through the heart of our renowned Lincoln and Kletzsch Parks. There are not any streets named Lake Drive, Lakeview Road, or Lincoln Lake Parkway because Glendale surrounds a river, not a reservoir. Like many of my neighbors I love living along the Milwaukee River because it provides such a unique experience. Rivers are dynamic, alive, and like us, the Milwaukee needs motion to maintain its health.

In spring it is fed by melting snow and heavy rain as it quickly roars to life.Throughout summer the Milwaukee ebbs after long hot weeks exposing the shallow banks full of aquatic life, only to rise and flow again with the occasional passing storm. In the fall it starts to settle down allowing fish, migrating birds, and furred friends to have one final splash before winter. Even as the bone chilling cold sets in, the Milwaukee never truly sleeps. Under the ice and snow it continues its steady journey to Lake Michigan, revitalizing and preparing for yet another cycle. Without this continuous motion, there is no river.

Living near and along a river comes with responsibility. The Milwaukee is like a child and as a community we are responsible for raising it for the next generations to enjoy. This means sometimes we must admit to our mistakes and right our wrongs. Damming the Milwaukee in the 1930's was a mistake, we know this now. Today we have the perfect opportunity to fix it. Our rich past proves we are capable of correcting wrongs, and have already done this extremely well. The rehabilitation of the 2.5 mile stretch of the Milwaukee River between Estabrook dam and the decommissioned North Avenue dam is proof a healthy

river and an active recreational environment will coexist after the Estabrook dam is gone.

As members of our Department of Natural Resources please look to your mission statement for this decision and consider the future of the Milwaukee River for generations to come. Public will has changed, and the scientific evidence gathered proves we should not replace the Estabrook Dam. I along with the majority of Glendale residents--whose Mayor and Common Council have unfortunately made ambiguous statements on this issue in an attempt to save face--stand beside the officials of our larger community who have taken a clear stand for removal: Milwaukee Mayor Tom Barrett, Shorewood Village President Guy Johnson, Village of Brown Deer President Carl Krueger, Milwaukee Alderman Nik Kovac, County Executive Chris Able, and MMSD Executive Director Kevin Shafer. These officials represent a population more than tenfold that of Glendale and agree removal is the safest, most fiscally responsible option.

I am requesting you please carry out the public will--my will--by declining the permits required for repairing the Estabrook Dam. Instead, I ask that you provide the necessary means for removal to protect and enhance our natural resources for centuries by enabling wildlife, fish, and a sustainable ecosystem to flourish in the upper Milwaukee River. We can protect and enhance our natural resource by taking action now. Outdoor recreation will continue. While the activities and experiences might be different than we have had in the past, it will be OK. Glendale is a strong community that embraces a bright future.

Thank you.

Zach Savage

Evidence Against Repair

Cost

- The estimated cost of repair ($5.13M over life of dam ~30 yrs.) is three times the estimated cost of removal ($1.67 Million).
  - Removal:
    - Capital: $1.674M
    - Annual Operating Costs: $0
  - Repair:
    - Capital: $2.518M
    - Annual Operating Cost: $160K (not including dredging)
    - Total after 20 yrs. (when the dam will need to be rebuilt or repaired again and dredging will need to occur): $5.134M
- Approximately $49M was just spent on dredging and removing harmful

PCB's from Lincoln Park. Dredging will continue to be part of the cost of operation that can be avoided.

Water Quality

- The Dam creates poor water quality north and south of it location. It impounds or back up water upstream, which increases water temperatures. Warm water holds less oxygen than cold water harming fish and other aquatic life. Warm water, in combination with excess nutrients, exacerbates algae growth. When algae are broken down naturally in the stream by bacteria, more oxygen is consumed, which can decrease oxygen levels. This segment of the Milwaukee River (as well areas north to Cedarburg and south to Lake Michigan) is part of the Milwaukee Estuary "Area of Concern," designated as such in 1987 due to harmful historical modifications and pollutants that are considered toxic contaminants.

Sedimentation

- The Dam causes sediment to build up in the impoundment area, which negatively affects fish and mussels. The lack of sediment moving downstream of a dam starves downstream areas of sediment needed to create riparian habitats, sandbars, floodplains, and other river features. Eventually, an impoundment will fill up with sediment, impairing water quality and recreational use, and must be dredged, which is very costly.

- Historically, the County operated the Estabrook Dam by opening and closing the gates on a seasonal basis (open in the fall and close in the spring). When the gates were open, large amounts of sediment would be flushed downstream in one big release rather than slowly over time. These large volumes of sediment can cause harm to fish eggs, mussels, and other aquatic life downstream. While some sediment movement is natural and essential to create riparian habitat and to provide nutrients to downstream areas, these large flushes are unnatural and negatively impact the river system.

- Sedimentation over the years has made the impoundment very shallow, even prior to 2009 when the Dam was ordered open. This can worsen water temperature and oxygen issues, as the depth of water column decreases in the impoundment.

Fish impediment

- Impediment of fish passage is another harm caused by the Dam. Removal of the Dam would allow fish to swim upstream to spawning habitats. Healthy and sustainable fisheries are important to paddlers, fishermen, and the community at large. Ozaukee County spent over $8 million upstream to improve fish passage, and the removal of Estabrook Dam would expand the benefit of those projects.

Unnatural Water Levels

- The historic Dam operations created unnatural water level manipulations.

These abnormal seasonal fluctuations can cause “dry out” or “freeze out” of amphibians and other aquatic life that live in the impoundment. They lay their eggs along the shallow shoreline area and when that water disappears with the opening of the gates, the eggs or individuals dry and/or freeze.

- While the impoundment creates seasonal and limited recreational opportunities, it also increases flooding on properties located upstream of the Dam and within the Milwaukee River floodplain. Removing the Dam would also restore the natural and wild aspect of the Milwaukee River in the Estabrook and Lincoln Park areas. Overall, the ecological health created by a free flowing river offers greater long term value than maintaining the impoundment.

Recreation

- Recreational opportunities, such as, paddling and fishing would be improved with Dam removal. Removing the Dam would eliminate motorized boating, however it would also remove safety hazards for other recreational uses such as swimming, fishing, kayaking and canoeing.