

## Elmer, Linda

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**From:** Bohl, James  
**Sent:** Friday, October 28, 2016 4:13 PM  
**To:** Elmer, Linda  
**Subject:** FW: Response to legal, liability and other issues questions and comments related to the Estabrook Dam

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**From:** Will Wawrzyn [mailto:wwawrzyn@att.net]  
**Sent:** Friday, October 28, 2016 3:46 PM  
**To:** Bohl, James; Murphy, Michael (Alderman); Stamper II, Russell; Coggs, Milele; Rainey, Khalif; Kovac, Nik  
**Subject:** Response to legal, liability and other issues questions and comments related to the Estabrook Dam

Chairman James Bohl  
Zoning, Neighborhoods & Development Committee  
Milwaukee Common Council  
200 W. Wells Street  
Milwaukee, WI 53202

RE: Estabrook Dam

Dear Chairman Bohl and Committee Members:

My name is Will Wawrzyn. I am a resident of Milwaukee County and reside at 4444 South Packard Avenue, Cudahy, WI. I am writing you to state my support for the City of Milwaukee, Zoning, Neighborhoods & Development Committee's October 25, 2016 Agenda item # 160339, *A substitute ordinance relating to the change in zoning, from Parks to Institutional, of lands located south of West Hampton Avenue and east of North Port Washington Road (6th Aldermanic District)*. I was not able to attend the meeting and offer comments but did watch the entire proceedings by way of the streaming video later that evening.

Based on my professional experience I feel qualified to respond to comments and questions presented at the Committee's meeting. I am a former water resources and fisheries biologist with the Wisconsin Department of Natural Resources (DNR) having retired in July 2015 after 38 years with the agency. Briefly, my experience and expertise as it relates to the Estabrook Dam included working with over 15 dam projects of which 14 dams were removed. I was the DNR project manager for the \$4.7 million North Avenue Dam removal completed by the City of Milwaukee in 1997. I have assisted in the design, construction and maintenance of the fish passage facilities. I volunteered my time and assisted Milwaukee County's consultant (AECOM) in the design of the proposed Estabrook Dam fish passage facility assuming the worst case scenario that the County's policy would be to repair the dam. Retirement has allowed me to volunteer and continue to work with public and private stakeholders on a variety of local environmental restoration projects that are beneficial and sustainable; but without the former political constraints. To that end, I am active in arguing for the removal of the Estabrook Dam. Removal of the Estabrook Dam is in the best socio-economic and environmental interests of all the communities, residents and taxpayers within the lower Milwaukee River, Milwaukee's Harbor Estuary and Lake Michigan watersheds.

I appreciate your busy schedule especially during the budget process so I will try to be brief in addressing the most frequent and relevant public comments and questions. For brevity, I have grouped comments and questions and my responses according to the following dam management issues:

### History and Purpose for the Estabrook Dam

Comments: *The dam was constructed to replace the "unique inland lake" and "restore historical water levels that existed since the last glacier".*

- The area flooded by the Estabrook Dam was never a unique that existed since the last glaciations (12,000 years ago). The area was a low-gradient, narrow and meandering river dominated by deeper runs and pools bounded by wetlands. There are numerous examples of similar river reaches in Milwaukee, Ozaukee and Washington Counties. Compared to the historic natural river channel, the Estabrook Impoundment is:
  - Longer by 1.1-mile
  - Deeper by 0.4-feet to 8-feet
  - Wider by 155-feet to 350-feet, and
  - More than double in size by 63-acres, equal to 48 football fields.
- Deepening and widening the river and construction of the dam did not replace a "natural lake" environment to its original water level. Instead it destroyed the historic natural river and wetland features and buried them in mucky sediment. The historic river never supported the current use of deep drafting speed boats by the few private residents that own property along the impoundment.

### Process

*The County Board policy for repairing was open and democratic, and unanimous for repair. Why would City of Milwaukee insert itself into the dam issue? Milwaukee is setting a precedent for other communities that will sell off County park lands (i.e., Bender Park in Oak Creek).*

- There are many issues and arguments surrounding the Estabrook Dam, and no shortage of sound scientific and engineering based-data by which Milwaukee County policy makers could have used to make a weight-of-evidence decision to repair or remove the Dam. As an example, County Board Chairman Lipscomb could have had a standalone up or down vote for funding repair or remove the Dam based on the findings contained in the comprehensive [2015 Environmental Impact Statement](#) completed by the County's own consultant (AECOM), but chose not to. Former County Supervisors Broderick and Jursik and perhaps others favored this option but to no avail. This simple act could have avoided the political impasses that followed, where the County's policy was changed from repair, to removal, and then back to repair with fish passage through several budget cycles in 2014-2016. In 2015, funds for dam repair were tied to a vote to allocate funding for all County capital construction projects. In 2016, County Board rules were suspended to tie a vote on dam repair to a vote on funding for the County's public safety budget.

I do not support Act 55 legislation that enables the County Executive to lease, sell or convey any non-park county property regardless of Board policy and without Board approval. According to Parks Director Dargle, 43 of the 156 named parks and parkways in the county include land that is not zoned as parkland. To his credit County Executive Able has urged all municipal officials to rezone these parks as parkland.

- According to the 2008 independent study by the [Public Policy Forum](#), the deferred maintenance on just County Park and Culture facilities was estimated at over \$250 million. Conservatively, present day costs are over \$350 million. **This means the County cannot pay to repair, maintain, and operate its current facilities. Appropriating millions to the Estabrook Dam that benefits a few power boating enthusiasts means other neighborhood Park's projects used by all County will not be funded.** Unfortunately, County Board Chairman Lipscomb's insistence to spend over \$8 million dollars to repair the dam despite its severe environmental impacts and increased County liability associated with flooding requires the City to practice due diligence (at no cost to City residents) and assist the Milwaukee Metropolitan Sewerage District (MMSD) in their efforts to remove the dam and restore the environmental quality of

the Milwaukee River. Following removal of the dam, the MMSD will convey the land back to the County and I trust that the City would rezone Estabrook Park to “parkland” to protect it from future developments.

#### Property Uses, Value and Liability for Maintaining Water Levels

*State law requires water level to be maintained after 40 years.*

*If the dam is removed, who takes on the liabilities, such as property owners \$12 million claim for lost value (property)?*

*North Ave. impoundment had no private riparian residences so how could one conclude there was no impact to residential property values following removal of the dam.*

*If the dam is removed, who will remediate the miles of effected shoreline in the impacted park?*

- Based on Wisconsin state law, absent a specific covenant between the County and riparian landowners, landowners that live on an impoundments do not have any rights to water levels that would require the owner of a dam (in this case the MMSD) to maintain the dam and the resulting impoundment in perpetuity. Milwaukee County’s own Corporate Counsel has stated that “legal theories and facts that would provide strong defenses for the County in the face of litigation and claims” over lost property value claims and specifically cited a recent ruling in Gaborsky v. Zerwekh, 2013 WI App 73, ¶ 4, 348 Wis. 2d 263, 831 N.W.2d 824.
- Proponents for repairing the dam argue that the MMSD as owners of the former dam would be liable for millions of dollars in lost private property values. This is a straw dog argument. There is no evidence to suggest that this would be the case. To the contrary, there are Wisconsin-based peer-reviewed studies and an independent appraisal of park land completed for the former Milwaukee River North Avenue Dam removal project that looked at the effects of dam removal on water front property values that concluded property values generally stay the same or slightly increase following dam removal. There is no evidence of any property devaluations that have occurred as a result of the 14 dams removed in the Milwaukee River Basin.
- In the City of Milwaukee between the former North Avenue Dam and the upstream limits of the former impoundment at Capitol Drive, there are 21 residential properties along the former North Ave. impoundment including 10 single family, 4 duplexes, and 7 multi-family. There is no evidence that the value of these properties has been diminished following removal of the North Avenue Dam and impoundment in 1997. Similarly, Milwaukee County owns 20 parcels of land riparian to the former North Avenue dam and impoundment. There is no evidence that the value of these parcels has been diminished as a result of removing the dam in 1997.
- The property’s current value is assessed at having water access by way of owning water frontage. There is no distinction between a free-flowing river versus impounded condition. Riparian’s along the Estabrook Impoundment would still have the same amount of water frontage with or without the dam and they would still own access to the river and have title to the thread of the river channel with or without the dam. The types of navigation use of the river may change but the river would remain navigable in fact. As an example, a property owner may no longer have year around water depths sufficient to navigate the river with a larger, deep drafting powered boat or “jet ski” but would still be able to navigate with smaller craft such as by canoe and kayak.
- All property owners are concerned about the future return and salability of their properties. There many tangible and intangible factors that could affect a buyers interest in a riverfront property including the quality of the water, sediment and its fishery, shoreline stability, navigation preferences, and their personal aesthetic preferences of a free-flowing river versus an impoundment. Lost in the discussion is the difference in a property’s worth if it is located inside or outside of the 100-year floodplain and the additional cost for flood insurance over a 15-year or 30-year mortgage.
- Proponents for repairing the dam argue that removal of the dam would require remediation of park and private lands. The sediment contamination remediation project was completed in 2015 and no additional site specific areas have been identified as needing “remediation”. Furthermore, the impoundment has been drawn down since 2008 essentially mimicking the aesthetics and stable river and river bank features that would result following removal of the dam and impoundment.

- For several decades prior to the DNR's 2008 order to drain the impoundment, the County would open the dam gates and drain the impoundment on or about mid-September; and close the gates and fill the impoundment in late-May. This practice prevented vegetation from being established and along stream banks and exposed sediment during the summer growing season; while exposing bare stream banks and exposed river sediment to the eroding forces of ice heaving and high spring flows. Following the extended draw down of the impoundment since 2008, these exposed stream banks and exposed sediment have been stabilized by vegetation.

### Costs

*Costs for dam repair, operation and maintenance are exaggerated by dam removal proponents that now include gate heaters, automated gates and full time operator.*

- The July 2016 lowest contractor bids \$4.1 million, or \$600,000 more than the County had budgeted. The 20-yr total present worth cost is over \$8 million or almost 5-times the dam removal alternative.
- Even with these repairs, in 20-years the dam will be 100-years old and according to structural engineering reports the gated section of the dam's spillway will likely require major work again if not a complete demolition and replacement dwarfing the cost of current day repairs.
- The DNR will no longer allow the dam owner to continue to drain the impoundment from fall through spring because of the environmental impacts. Heaters are required to keep the dam flood gates free of ice. Ice heaves would damage the gates preventing them from being opened during flood events. The automated gates are needed to replace non-functioning systems. The dam operator (proposed to be shared between the County's Kletzsch, Oak Creek and Estabrook Dams) is needed to raise the gates during floods and to open gates during flood events and balance the flow of water flowing through the gates, over the spillway and through the fishway that was added by the County Board. The effectiveness of passing fish is dependent on the right amount of flow and water depth through the fishway. River flow and levels fluctuate widely during the peak spring peak fish migration especially in urbanized watersheds requiring minute changes to the gates on an hourly or even more frequent basis. The operator would also be responsible for managing repairs and debris removal.
- The Milwaukee County Department of Emergency Government Management estimated annual cost to operate and maintain (O&M) the dam is \$207,000. These costs may be too low since the DNR's Operational Order will require annual removal of debris from the entire width of the spillways to prevent damage to the dam and potential flood and drainage risks upstream. To date, the County has allocated only \$51,000 from the television tower rental (Weigel Hearst Trust) directly for the dam O&M and away from the Parks general operating budget.
- The County has yet to remove the debris from the spillways and floodplain 2015 and 2016, and once the \$203,000 balance on the Weigel Hearst Trust is depleted the annual O&M budget shortfall of \$156,000 means the County must appropriate the remaining costs through its annual budget process. The annual O&M cost for the dam will be pitted against the needs of more sustainable Park projects that benefit all County residents and taxpayers.
- Dam O&M costs do not include other tangible and intangible costs associated with sedimentation and future dredging needs to abate poor water and sediment quality, navigation and aesthetics, degraded fish and wildlife habitat, and potential increased flood liability for the County to name a few.

### Environmental

*What are environmental impacts of maintaining or removing the dam?*

*If the dam is removed what is the impact to the recent \$49 million contaminated sediment remediation?*

*The benefits for removing the dam are based on lies by the media and proponents for dam removal.*

*Best fishing was when dam was in place. Caught his first steelhead (trout) when dam was in place.*

*The addition of fish passage (\$750,000+ million) to the dam repair adds value.*

*Swimmable by DNR standards so can be used for swimming*

*Why not keep the dam and impoundment for canoeing, boating fishing and swimming?*

- At over 300 pages in length, the County's [2015 Environmental Impact Statement](#) (EIS) that describe the socio-economic and environmental impacts and benefits for repairing versus removing the Estabrook are too extensive and detailed to present here. Briefly, the weight of evidence contained in the EIS concludes that removal of the dam provides the greatest benefit and least impact at the lowest cost compared to the dam repair alternative when considering long-term water quality, biological and recreation values.
- The high costs for the repair, operation and maintenance of the Estabrook the dam could be considered beneficial and cost effective and worthy of local and state taxpayer's investment if the quality of the Estabrook impoundment's water-based uses (e.g., navigation, water quality and aesthetics, fishing, etc.) were sustainable. Based on my professional background and experiences I am very certain that the near- and long-term prognosis for the Estabrook impoundment is poor. This will occur since the DNR's Operational Order that will no longer allow the County decades-long practice of opening the gates and flushing accumulated and polluted sediment for 7-months of the year. This practice caused extensive erosion and discharge of accumulated and polluted sediment, desiccation and suffocation of fish and other aquatic life, and their habitat. This practice limited the maximum rate and amount of polluted sediment that accumulates in the impoundment.
- As a result of the accelerated rate of polluted sediment accumulation, habitat will become degraded and less desirable fish such as carp and other aquatic life tolerant of poor habitat will dominate; while more desirable fish such as walleye and bass and other aquatic life populations intolerant of poor habitat will be reduced. Water quality will be turbid, water temperatures elevated, nuisance amounts of vegetation will develop, water depths will decrease especially in backwater areas, and the substrate will become "mucky" and unsuitable for swimming or wading. These nuisance conditions will begin to develop over just a few years and County residents will question their local and state policy maker's decision to fund this expensive project, especially after investing \$49 million to remove 176,200 cubic yards of contaminated sediment, **equivalent to over 12,580 dump trucks**.
- Fish, including fall and spring migratory trout and salmon were able to migrate upstream of the dam because the gates were open during their peak migration periods. Following the DNR's Operational Order to keep the dam gates closed year around except during flood conditions, fish passage would cease. In response, the County Board has proposed to fund a \$750,000 fish passage facility at the dam. As an "actively" flow managed facility, it will not be as effective and efficient at passing fish as would simply removing the dam. The fishway will require frequent flow adjustments and debris during peak fish migration periods and will add considerable cost to operating and maintaining the dam and fishway. The fishway will not contribute to improved habitat in the impoundment. As a result, desirable sport fish will continue upstream of the dam and impoundment to access suitable and less degraded spawning habitats.

#### Flooding and Drainage Impacts and Liability

*The dam was built to prevent flooding and ice dams.*

*If the dam is removed what is the impact on flooding?*

*Removing dam will back up debris and cause flooding.*

- The Estabrook Dam was not constructed to prevent over bank and local nuisance flooding, and ice dams. Early planning documents from the 1930's recognized that only the removal of the rock outcrop and construction of the center cut through the Lincoln Park river meander would offer some flood relief. Flooding associated with high river flows and ice jams would continue to be a problem, in particular the 288 flood prone residents located in the Sunny Point neighborhood upstream of Silver Spring Drive in the City of Glendale.
- According to flood studies completed by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and the County's own consultant AECOM, **removal of the Estabrook Dam is the only dam management alternative that reduces potential flood damages from the Milwaukee River or from submerged storm sewers**. Despite this information being available as early as March of 2014, the County Board continued to pursue repair of the dam and not heed the advice of their own Director of the [Office of Emergency Management](#), the City of Glendale's Certified

Floodplain Manager, or an independent risk management and flood insurance provider, which given the greater flood risks, damages and potential liability to the County, the dam should be removed.

- **Compared to the dam removal alternative, the dam repair alternative:**

- Even with all of the dam 's flood gates open, the 100-year flood event elevations increase between 0.5 and 1.5-feet between the dam and Bender Road.
- If the County is unable to raise all of the flood gates of the dam during the 100-year flood event (because of obstacles such as unsafe access to the dam, staff availability, the loss of power during the storm, mechanical gate failure, or the accumulation of ice and debris at the gates), the flood water elevations would be as much as an additional 1.5 feet higher than the 100-year flood elevation near the dam with the gates open, and continue to exceed the 100-year flood elevation at Bender Road. This would result in flood damages to more than the current **292** residences in the current 100-year floodplain, **including areas along Lincoln Creek.**
- If the County is unable to raise all of the flood gates during more frequent and less extreme flood events beginning at the **15-year flood event, the flood levels and resulting damages would be similar to those experienced during the 100-year flood with all of the gates raised.**
- The dam would be responsible for more nuisance flooding of local streets and yards due to storm sewer backups in the City of Milwaukee and City of Glendale. These events have occurred in the past.

The following link is to a more detailed and technical document that provides the technical support for my previous comments. It includes additional links to references and images cited above. I would ask that you at least spend brief time browsing that document. The link can be found at:

<https://static1.squarespace.com/static/55157271e4b0179c6ec8b662/t/57d81b862994ca4304447698/1473780621864/Revised+09122016+EstabrookDam+wo+summary.pdf>

If you have any questions or comments please feel free to contact me at your convenience. I will also be attending your November 1, 2016 meeting.

Respectfully,

Will Wawrzyn

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