

To: Greg Jensen, Stoughton Common Council
From: Mark Hale *Mark Hale*
Re: Waterpark Project/Request for Questions
Date: October 26, 2020

Mr. Jensen,

Per your request I solicited questions from the Friends of Yahara Bay group over the past week (fairly short period of time). The following are included as a request for response from the City from that group. We suspect these are questions the general public is interested in as well. The questions are not ranked in priority. If you have questions or wish to discuss further feel free to contact me. Thanks.

- **There is no evidence that the City made any effort to collaborate with the surrounding townships on the waterpark as plans were developed especially concerning dam removal possibilities. Even after concerns about failure to collaborate with townships were raised, the City has yet to have meaningful meetings to discuss options for the waterpark, including dam removal and contingency plans if water levels drop upstream and in the bay. Why has the City failed to collaborate with these important representative bodies?**

We presented information at a Town of Pleasant Springs meeting earlier this year. The feedback we received mainly focused on water levels changing upstream and wildlife impacts. Andy Paulios, Area Wildlife Supervisor, from the WDNR attended a whitewater park steering committee meeting shortly thereafter to comment about wildlife. The wildlife impact question and others are answered below.

Multiple different design options have been relayed to the consultants working on the project. They have been rejected for various reasons including public safety and not being able to get the design permitted.

- **Why has the City seemingly failed to have broader collaboration/common meetings with Dane County, DNR and Townships to consider broader recreational plans for the river area?**

We have had meetings with Dane County about the project and their plans for dredging. The County was waiting for the City to complete our preliminary engineering phase. The County plans to dredge to the railroad bridge at Cooper's Causeway and they don't plan on dredging in the millpond due to our project. The sediment sampling that was conducted in 2019 found that the natural riverbed is still cobble so dredging is not needed at this time.

There is also a Parks Facility Planner from Dane County Parks on the steering committee. They have been looking at the possibility of adding kayak launches near the Dunkirk Dam. There have been preliminary discussions about adding these aspects into future grants and co-applying.

- **Was the DNR grant for dam removal denied? If so, why was that not officially announced? If it has been denied does the City plan on going alone to remove the dam?**

The City was placed on a priority funding list by the DNR for the Municipal Dam Program Grant. The funds are not awarded until the dam is removed and funds are expended since it's a reimbursement program. The City will continue to apply for other grants, including grants to help pay for the dam removal.

- **The City has seemingly been locked in on the waterpark development to now include the dam removal. Why hasn't the City explored other options to ensure water levels are maintained, like Manchester Iowa did, to ensure water levels are maintained upstream? There has been no discussion of alternative plans other than just dam removal.**

The consultants working on the project have communicated to us that the current design maximizes the water levels upstream. They need to show a "no-rise" situation with the 100-year floodplain to have the project permitted. It was understood very early on that residents would be sensitive to any lowering of the waterway and the park has been designed to minimize the impacts from the onset.

- **By example the WI DOT has been very transparent about options for the HWY 51 bypass and has had a number of forums and invites public comment. Why has the City failed to have more than one forum to ensure transparency? Why isn't the City more actively seeking resident and area resident input about the waterpark and dam removal?**

We have gone above and beyond to gather feedback for the project. There have been 24 steering committee meetings over the past three years that are open to the public. Below is a sample of meetings where the project has been discussed.

2/12/2018 – Stoughton Conservation Club Meeting
2/19/2018 – Stoughton Lions Club Meeting
3/7/2018 – Madison Sports Commission Meeting
4/18/2018 – Conceptual Plan Public Meeting
4/21/2018 – Sustainable Stoughton Earth Day Event
8/15/2018 – Dunkirk Dam Lake District Meeting
9/18/2018 – CORP Public Informational Meeting
10/7/2018 – Stoughton Lions Club Meeting
10/31/2018 – Stoughton Rotary Club Meeting
4/19/2019 – Sustainable Stoughton Earth Day Event

8/7/2019 – Stoughton Rotary Club Meeting
8/7/2019 – Stoughton Redevelopment Authority Open House
1/23/2020 – City Riparian Owner Meeting #1
1/24/2020 – Riparian Owner Meeting Home Visit (City Resident)
1/25/2020 – City Riparian Owner Meeting #2
1/29/2020 – Preliminary Design Public Meeting
2/11/2020 – Meeting with two Pleasant Springs residents
2/18/2020 – Riparian Owner Meeting Home Visit (Pleasant Springs Resident)
3/4/2020 – Meeting with City resident
5/27/2020 – Rock River Coalition Meeting
6/11/2020 – Pleasant Springs Town Hall Meeting

- **Why hasn't the City secured a temporary permit to draw down the water to levels proposed to see the potential impact upstream?**

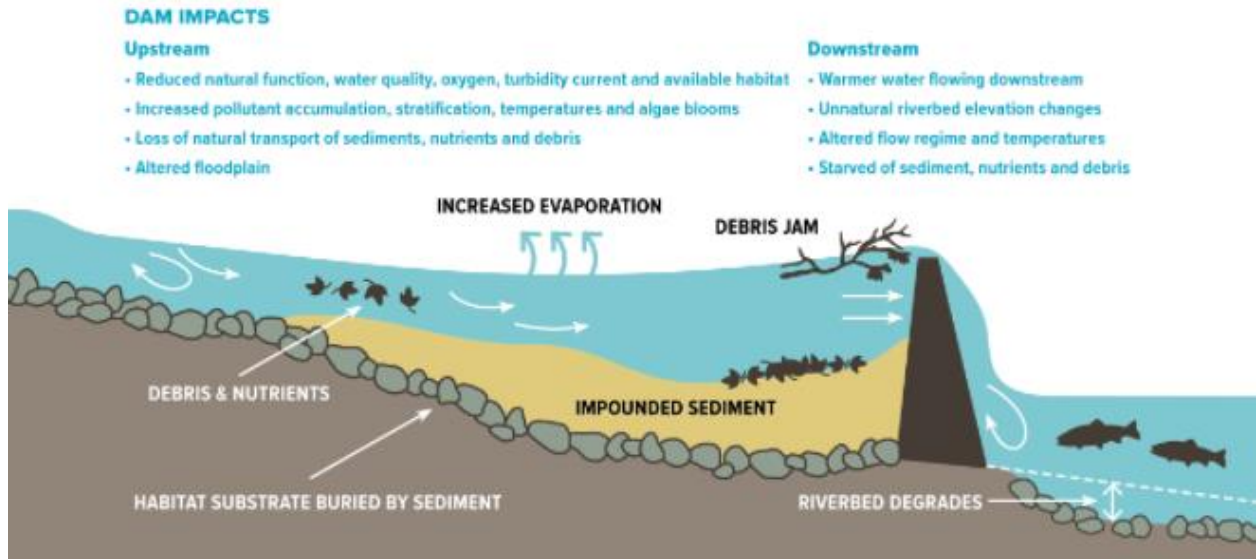
There are a few factors with drawing down the water levels. Temporarily drawing down the water levels has a negative impact on wildlife. Drawing down the water would also expose contamination in the millpond.

Dams trap sediment and sediment can become contaminated. The sediment in the millpond was tested in 2019 and was found to be contaminated. The WDNR has informed the City that if the sediment becomes exposed that it could pose a health risk and would need to be remediated. The remediation would include capping the exposed sediment and planting native grasses.

The drawdown is also not required for permitting.

Sediment sampling report -

http://stoughtonrec.com/s/StoughtonDam_SedimentAssessmentReport_Dec2019_combine-d-ray6.pdf



- **The City has indicated the dam costs taxpayers \$70,000 per year to operate. What line item evidence is there if this expense? Please provide details of this reported annual expense.**

The Benefit-Cost Analysis completed by Steve Steinhoff from the Capital Area Regional Planning Commission states that the ongoing average maintenance costs for the dam is \$61,400. This includes staff operations, extrapolates future and past dam inspections and repairs, and insurance premiums. Please see the Benefit-Cost Analysis for more information.

- **The City has indicated it is not obligated to secure a comprehensive hydrology study to confirm impact or no impact to the river between the 4th street dam and Lake Kegonsa. Why then does the City rely on speculative data to try and convince residents of the City and townships there will be no impact to water levels?**

The City is not required to perform bathymetric surveys of the upper reaches of the Yahara River, but we have completed preliminary hydraulic and hydrological analyses that examines water surface elevations and floodplain impacts upstream to the LaFollette Dam at Lake Kegonsa. The bathymetric surveys show the underwater depth of the riverbed and are not needed for the project since it's not in the project area where construction would happen.

- **If the dam is removed and shorelines are impacted, who takes responsibility for seeding or developing the new revealed shoreline areas?**

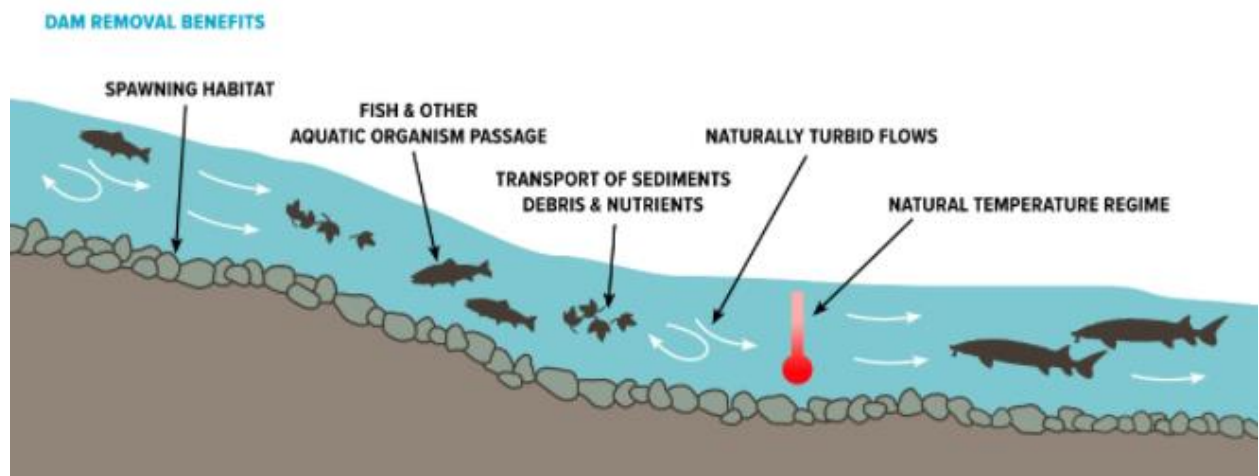
The City will take responsibility for the restoration and remediation of the millpond site and adjacent areas. The City can apply for the 2022 Municipal Flood Control Grant

program that provides funding for restoration efforts. It is believed that there will be little to no restoration needed upstream due to little change in water levels.

- **What environmental impact studies have been completed specific to impact north of the City of Stoughton to Lake Kegonsa? If no studies, why not?**

The WDNR has communicated with the City that it will not have to complete an Environmental Impact Statement or an Environmental Assessment for the project. We have been told that resources staff supports the project and that fish species such as smallmouth bass and walleye will benefit. Below is a document that examines the impacts and benefits of dam removals.

https://www.michigan.gov/documents/dnr/ecodamrmvl_513770_7.pdf



Videos from the Massachusetts DNR on dam removals and river restorations - <https://www.youtube.com/channel/UC7vDKFUGuBbGg4Ti3j4hf3Q/videos>

- **What impact research has been completed on property values in areas where dams have been removed?**

A 2006 University of Wisconsin study examined the effect of the dam removals on property values in Southcentral Wisconsin.

“The general conclusion that emerges from the data is that shoreline frontage along small impoundments confers no noticeable increase in residential property price compared to frontage along free-flowing rivers, and that residential property located in the vicinity of a free-flowing river is more valuable than identical property located in the vicinity of an impoundment.”

<https://static1.squarespace.com/static/5617ffade4b0f733b489eab8/t/5dfa2e33ba6ef66e21f7db37/1576676918459/stpap501.pdf>

- **What research has the City completed on the impact of the Stebbinsville dam removal and the Lake Marion dam removal near Mazomanie?**

We have looked at numerous dam removal projects throughout the state. The consensus amongst them is that there is always some who opposed the dam removal, but down the road the majority of residents overwhelmingly approve of them. The steering committee had an official from West Bend, WI where was a dam removed to hear feedback on their process. The article below highlights the changes in attitudes 20 years post dam removal in Merrill, WI.

<https://www.wxpr.org/post/worth-pain-twenty-years-after-merrill-lake-drained-state-remains-leader-dam-removal#stream/0>

Lake Marion is a manmade lake and was originally created by a diversion dam. The dam was removed so water stopped being diverted from Black Earth Creek and the lake dried up. Mazomanie decided to install pumps and a liner to re-create the lake. The Stoughton dam is not a diversion dam.

The Stebbensville dam was removed in 2010. The dam was breached several years prior to removal. The earthen bank next to the dam washed away and the river flowed around the dam. Riverbank restoration occurred naturally. It was observed that water quality in this reach of the river is better than the reach from the Stoughton dam to Lake Kegonsa.



Stebbensville Dam Removal – May 2010

- **Will the dam still be removed, if the water park does not go in?**

- **How many feet will the water level drop, above the current dam to lake Kegonsa?**

Attached is an inundation map showing the change through Stoughton at 380cfs, the mean discharge based on all the recorded data at the Forton St gage. The water level drop at various locations are shown on the map. The model results show little change to water levels upstream of the railroad at Coopers Causeway, but water level data in that area is currently being collected to calibrate the model to ensure accuracy farther upstream from Stoughton. The results from that modeling will be shared as they become available.

- **How far will the water recede, from its current shoreline position, up to Lake Kegonsa?**

Attached is an inundation map showing the change at 380cfs, the mean discharge based on all the recorded data at the Forton St gage. The model results show little change to water levels upstream of the railroad at Coopers Causeway, but water level data in that area is currently being collected to calibrate the model to ensure accuracy farther upstream from Stoughton. The results from that modeling will be shared as they become available.

- **Why has this not gone to referendum?**

Referendums are typically held when there is historical significance or when a financial threshold will be exceeded. The Stoughton dam doesn't have historical value since it is not the original dam and the repairs done on the current dam voided any historical value. The whitewater park is a small component of the overall project and does not meet the financial threshold needed for a referendum.

- **Why are the impacted surrounding Townships, not involved with this?**

City staff has presented the project at Dunkirk Dam Lake District and Town of Pleasant Springs meetings. Many of these residents are noticed on steering committee meetings, comment during the public comment period, and have been asked to be members on the steering committee.

- **In your opinion. Of the current kayakers, fishermen, hunter's and other outdoor enthusiasts, that use the river between Stoughton and Kegonsa. What percentage of these people will go whitewater kayaking? The river is full of these people now, currently enjoying what we have.**

There have been two public meetings with attendance exceeding 100 at both. There have been paddling enthusiasts from as far away as the Chicago area that have attended. Additionally, project improvements enhance the following outdoor recreation activities:

- Canoe/kayaking
- Paddle boarding
- Bicycling
- Fishing
- Walking/jogging.

Participation in these outdoor recreation activities are on the rise according to the WDNR's Statewide Comprehensive Outdoor Recreation Plan. Additionally, City residents have responded in the past to our Parks and Open Space Plan (also known as Comprehensive Outdoor Recreation Plan) surveys that they would like to see river improvements.

WDNR's Statewide Comprehensive Outdoor Recreation Plan Participation Trends - <https://rb.gy/gedr4f>



- **How will the Syttende Mai canoe race, be affected? Are you willing to ruin, one of Stoughton's greatest traditions?**

We don't believe that the canoe race will be affected. Steering committee members who have participated in past races believe it will enhance the current race with the rapids being at the end. Also, many communities with whitewater parks have weekend or weeklong festivals that are centered on recreational use of their rivers.



- **What effects will this have on waterfowl, wildlife and waterfowl hunting in the area?**

Due to our hydraulic analysis, we don't believe there will be a change upstream of the City that will cause any impact to wildlife, waterfowl, or waterfowl hunting. If a change occurs, Andy Paulios from the WDNR shared at a steering committee meeting that:

The upper reaches of the river in Pleasant Springs wouldn't rank as critical waterfowl habitat. The national Audubon Society has certain thresholds that need to be met to be considered an important bird area. An area like Lake Koshkonong would be considered an important bird area because it provides habitat to 15,000-25,000 ducks annually. If the upper reaches are changed to a more riverine environment with swift water that some species of birds would change, but that would not be good or bad. Species such as ospreys are not specific to the type of water.

The Dane County area is at peak sandhill crane population. They are becoming a nuisance in Madison. Regardless of what happens with the dam, they should be unaffected. Pelicans are not breeding the Madison Chain of Lakes.

- **Why were the residents along the river not informed by the city of the plan to remove the dam? I live on the river in town on East Prospect street and learned about it from a friend that read the article in the State Journal.**

Letters were mailed out to City riparian owners in January with two meeting options. There were at least two property owners who live on Prospect Street that attended the meetings.

- **What were the river flowrate assumptions for determining the water level at Forton Street and North of Coopers Causeway?**

The flows analyzed are based on the USGS gage located at Forton St. The gage has data from late 2003 to present. Link to USGS gage is below:

https://waterdata.usgs.gov/wi/nwis/uv/?site_no=05429700&PARAMeter_cd=00065,00060

- **What is the impact of the water levels based on the lowest recorded river flowrate in the last 20 years?**

Attached is an inundation map showing the change at 380cfs, the mean discharge based on all the recorded data at the Forton St gage. At lower flows, the water levels will be lower, and at higher flows the water levels will be higher. Water level data upstream of Stoughton is currently being collected to calibrate the model to ensure accuracy farther upstream from Stoughton, as well as model flows lower and higher than the mean flow. The results from that modeling will be shared as they become available.

- **What is the impact of the water levels based on the highest recorded river flowrate in the last 20 years?**

The highest discharge recorded at the Forton St gage was 1,380cfs on September 6, 2018. The regulatory flood (100-yr discharge) at the site is 1,304cfs. To meet floodplain regulations, a project cannot cause any rise in the regulatory floodplain at any location. The project is being designed so that there is no change in the regulatory floodplain, so there will be no impact to water levels at flows of 1,304cfs and above.

- **Why can't the waterpark be built with weirs to preserve the existing water levels?**

The challenge is there can be no impact to the regulatory floodplain, and under existing conditions during the 100-yr discharge the gates at the Stoughton Dam are fully opened. The crest of the boulder structures have been set as high as possible to minimize impact to the existing water levels, but not cause any rise in the floodplain.

- **A major bottleneck for water flow in the Yahara is the railroad bridge at Coopers Causeway. This is an old railroad bridge that will likely be replaced in the near future. Has the impact of replacing the RR bridge been assessed in the overall water level impact.?**

The railroad has communicated with City staff that the bridge is in good shape and they have no plans for removal.

- **What will the impact be on the breeding pairs of osprey just north of Coopers Causeway? One nest was original to the Madison basin and helped to re-populate the basin with multiple breeding pair**

Andy Paulios, WDNR Area Wildlife Supervisor, stated at a steering committee meeting that ospreys are not sensitive to the type of water they use.

- **I might add a question like: Given the large amount of public support for the Yahara Bay area, is the water park being designed with preservation of the bay as a priority? For example, I believe the Manchester park added a riser in the design to preserve upstream water levels**
- **Parking and traffic, how it will affect us neighbors on S. Fourth Street?**

The Mandt Park Master Plan doubled the amount of parking inside of the park and included a drop-off/pick-up area. It also includes a restroom near the river where neighbors of Riverside Park indicated that one was needed near the dam. These are all planned in the first phase of improvements for the park which are planned to happen a couple of years after the park opens.

- **Would it be less costly to wait until the dam degrades by itself? OR**
- **Why the hurry to demolish the dam? Won't it degrade with time and thereby cost less to remove in several years?**

The opportunity costs are too high to remain with the status quo and not move forward with the project. Moving forward with the project as soon as possible will maximize the economic impact due to visitor spending and property values. Main St businesses have been hurt due to the pandemic and can really use the influx of money coming into the City.

The cost to repair dams and build whitewater parks is only going to go up in the future. We also hear that the dam was repaired in 2009. Why would we remove the dam after spending hundreds of thousands of dollars? The money spent on repairing the dam is considered a sunk cost. A sunk cost is a cost that has been incurred and cannot be recovered. These types of cost should not affect future decision-making.