

From: [Hicklin, Laura](#)
To: [Flooding, Yahara](#)
Subject: FW: Recommendations for Lake Level Task Force
Date: Thursday, March 14, 2019 5:46:10 AM
Attachments: [Recommendations to Lake Level Task Force SB.docx](#)

From: Stefanie Brouwer [mailto: [REDACTED]]
Sent: Wednesday, March 13, 2019 11:18 PM
To: Hicklin, Laura
Subject: Recommendations for Lake Level Task Force

Sending you my recommendations.

Stefanie

Recommendations for Lake Level Task Force:

The Task Force Group Report lays out the mitigation actions clearly and we need to be ready to use them in (potentially) 2 to 3 months. There are 3 actions that can be undertaken in the near term that don't require lengthy permitting procedures and high cost expenditures to increase the flow in the system: dredging, aquatic plant removal and maintaining the summer minimum on Lake Mendota for a longer time - I suggest into late May - June. Pumping is a brilliant option but it will require more study (technical and fiscal aspects) as well as negotiation with other parties for land acquisition or sharing of infrastructure (land owners, local units of government, MMSD.)

1. **Dredging** - This is of highest importance as both a short and long term activity. Per an email response from Reimer when I asked about how the 2018 urban flooding on the Isthmus could have been reduced he says "We found that that if no other mitigation efforts were in place and just the river between Mendota to Monona was dredged that the water surface profile would drop 6 inches." Given that we could have a major runoff event in 2-3 months, we should do the following:
 - ✓ **Short term:**
 - Decide which locations are of highest priority (hump near Williamson Street, constricted areas between Mendota-Monona and Waubesa-Kegonsa)
 - Apply for Chapter 30 permits
 - Relocate county resources and staff to this effort and/or hire contractors to begin work as soon as possible
 - ✓ **Long term**
 - Establish and fund a yearly dredging schedule and purchase necessary equipment to maintain proper flow gradients through the Yahara system
 - Address ways to reduce sediment from entering storm sewers during rain events - by using catch basins and/or other mechanisms that can effectively remove sediment from storm drains before it gets into the river.
2. **Dam Management** - continue to manage Tenney, Babcock and Lafollette per established procedures. Investigate problems alluded to during public hearing concerning management of Stoughton Dam and work with the City of Stoughton to resolve any issues so flow is not restricted.
3. **Pumping** - Promising for the future but we need to investigate other potential locations (i.e. pipeline from Waubesa to Kegonsa) in light of two factors: 1) damage to the well-documented species diversity and habitats in the Waubesa Wetland and 2) flooding problems being experienced by homeowners in the Badfish Creek Watershed (see March 7 comments from Oregon resident Patricia Hill.)

4. **Aquatic plant harvesting** - this is so important to controlling water levels that it should be listed as one of the “Mitigations” instead of just an assumed activity that it is on-going. It requires a substantial commitment of staff hours, training and equipment as well as preparation of emergency permits. It needs to be elevated to the “Mitigation” level. It certainly fits the definition of that on page 1 of technical report ~ can action that “addresses underlying issues.” It should begin at critical locations as soon as possible and continue throughout the season.

- **Lake Levels** - According to the Dane County Lake Management Guide (page 15, 4.1.2 Summer,) adjustments are made to raise levels in mid-April to coincide with the beginning of the recreational boating season. I question this early date and suggest that the summer minimum level be extended into late May - early June to allow more flexibility in dealing with extreme rain events and runoff later in the summer.

I base it on the following:

- A mid-April date does not appear in the WDNR lake level order
- Lake Mendota water temperatures are not even swimmable (78-85 degrees F) until around June 15 (personal communication with Dane County Park Director Darren Marsh and personal experience)
- As someone who enjoys boating, canoeing and kayaking on Mendota, I’ve observed that the recreational activity doesn’t really get started until after mid June.

- **Lake Level Management Guide** - excellent and informative; no comment

- **Other** -

- We need to adopt a watershed-wide approach with purchase and restoration of new and historic wetlands; protection of agricultural lands and buffer strips along creeks and rivers; increased infiltration in urban areas with rain gardens, green rooftops, grassy swales; purchase in fee or easement areas suited for underground infiltration basins.
- Define and explain the term “100 year water level” in Task Force Report page 24. It is commonly misunderstood that the 100-year-water level occurs once every 100 years but in reality it is a level that has a 1% chance of occurring.
- Publicize the USDA and NRCS easement protection programs for wetlands and agricultural lands through all available channels (Yahara Pride, county announcements of deadlines for example April 19 date for wetland reserve easement program.

Stefanie Brouwer

Submitted March 12, 2019

From: Eric Vieth
To: [Flooding, Yahara](#)
Cc: [REDACTED] [Ritt, Michele](#)
Subject: Fwd: Lake Levels Task Force - Draft Recommendations
Date: Tuesday, March 12, 2019 3:15:33 PM
Attachments: [image001.png](#)
[DRAFT RECOMMENDATIONS.docx](#)

From: Vieth, Eric <eric.vieth@strand.com>
Sent: Tuesday, March 12, 2019 3:09 PM
To: 'erix4@hotmail.com'
Subject: Lake Levels Task Force - Draft Recommendations



Eric Vieth, P.E.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

1. Dredging

- a) Spot river dredging to improve flow through the entire chain at most critical choke points (Immediate, 2019)
- b) Dredging of the entire Yahara River from downstream to upstream, Stoughton to Madison (Short-term, 2019-2024)
- c) Continued dredging of the entire Yahara River from Stoughton to Madison as necessary (Long-term, 2024-2050)

2. Dam Management

- a) Develop an emergency action plan for the temporary reinforcement of the Tenney Dam for water elevations above the 100-year high water level (Immediate, 2019)
- b) Implementation of water level/flow monitoring and gate automation at the Stoughton Dam (Short-term, 2019-2024)
- c) Dane County takeover of operations at the Stoughton Dam if County staff deem this is appropriate and results in management efficiencies (Short-term, 2019-2024)
- b) Implementation of water level/flow monitoring at the Lafollette Dam (Short-term, 2019-2024)
- d) Permanent reinforcement of Tenney Dam for water elevations above the 100-year high water level (Long-term, 2024-2050)

3. Pumping

- a) Complete a feasibility study for an emergency bypass flow route to improve flow through the chain (Immediate, 2019)
- b) Implementation of an emergency flow bypass route, if determined feasible (Short-term, 2019-2024)

4. Aquatic Plant Harvesting

- a) Aggressive river plant harvesting to improve flow through the entire chain (Immediate, Short-Term, Long-Term)

5. Lake Levels

- a) Continue (to attempt) to manage lakes at summer minimums in 2019 (Immediate, 2019)
- c) Continued evaluation of lake levels/management practices and modeling of watershed hydraulics to measure results of past improvements and to identify future improvements if necessary. For example, modeling a 6-inch decrease in water levels on all lakes after flow is improved could be considered along with many other future scenarios/improvements. (Short-Term, Long-Term)

6. Lake Level Management Guide

- a) Eliminate any confusion in the guide that flood protection may not take priority over other factors, at any time. (Short-term, 2019-2024)
- b) Amend the guide to implement management practices that County staff have already adopted from the 7/2/12 peer review recommendations (Short-term, 2019-2024)
- c) Revisit all recommendations from the 7/2/12 peer review and determine if any others should be adopted (note Section 4.2.1 - Slow No Wake may be of interest to many people) (Short-term, 2019-2024)

7. Other

- a) If significant, work with agencies to update 100-year flood elevations on all lakes, based on current or newly adopted lake level management practices that may impact these water levels. (Short-term, 2019-2024)
- b) Review County building standards related to a) above if water level changes are significant. (Short-term, 2019-2024)
- c) Complete other improvements to improve flow and promote flood resiliency as determined necessary and feasible by County staff (i.e. bridge replacements, culvert additions, etc.)
- d) Evaluation of on-land mitigation efforts (wetland restoration, infiltration, stormwater detention) to reduce runoff in the watershed (Short-term, 2019-2024).
- e) Implementation of on-land mitigation efforts (wetland restoration, infiltration, stormwater detention) to reduce runoff in the watershed (Short Term, Long Term)
- f) Implementation of stringent policy regarding land use planning and future development to prevent increased runoff rate and runoff volume in the watershed (Short-term, 2019-2024).

From: [Chawla, Yogesh](#)
To: [Flooding, Yahara](#)
Cc: [Ritt, Michele](#); [REDACTED] [Hicklin, Laura](#)
Subject: Lake Levels Task Force Draft Recommendations
Date: Tuesday, March 12, 2019 9:32:34 PM
Attachments: [Lake Levels Task Force Recommendations Yogesh Chawla.pdf](#)
[Lake Levels Task Force Recommendations Yogesh Chawla.docx](#)

Hello Chairs Ritt and Porter,

I am submitting my Lake Levels Task Force draft recommendations. I am sending as both a PDF and Word Document. Please let me know if you have any questions. Thank you for your leadership on this task force.

Thanks,

Yogesh Chawla

Dane County Board District 6

608 438 5965

Secretary Land Conservation Committee

Secretary Environment, Agriculture & Natural Resources Committee

Dane County Cultural Affairs Commission

<https://yogeshchawla.com/d6-updates/>

Lake Level Task Force Recommendations

1. Dredging

- With the cooperation of local governments, Dane County will immediately work to obtain permitting to dredge the Yahara River from Lake Monona to the Stoughton Dam and from Lake Mendota to Lake Monona and will develop an ongoing maintenance dredging program.
- Any dredging that is done will be coordinated with tribal leaders and archeologists with an eye towards historical preservation due to the historical and cultural significance of The Dyreson fish weir.

2. Dam Management

- Continue to work with Stoughton and other municipalities on a coordinated dam management strategy.
- The Land and Water Resource Department shall work with Dane County Emergency Management to share Tenney dam failure risk reports with EANR and the public. They should also highlight improvements/upgrades/fortifications made to Tenney Dam.
- Develop a protocol to inform the public when the Tenney Dam and other dams are opened or closed along with the reasoning behind why a change is being made.

3. Pumping

- Invest in a study to examine the hydraulic and environmental impacts of pumping water from Lake Waubesa to Badfish Creek. This study will assess these impacts to the lake, the creek and the Waubesa wetlands.
- Analyze alternative pumping routes outside of the Waubesa Wetlands and examine whether it is feasible to re-use any of the existing MMSD infrastructure.

4. Aquatic Plant Harvesting

- Continue to prioritize the aggressive harvesting of aquatic plants, including native species, in the Yahara River to improve water flow through the system.
- The aquatic plant harvesting strategy should be pro-active and started early in the season to help maintain lake levels within their seasonal targets.

5. Lake Level Management Guide

Until the DNR modifies its Lake Level orders for the Yahara Chain of Lakes, and in keeping with Dane County Board Resolution 227-2018 now in force, Dane County will suspend the target ranges for lake levels established by the Dane County Lake Level Management Guide for the Yahara Chain of Lakes and instead continue the Res-227-2018 directive that:

“Dane County will continue to implement any tools that may be available to lower lake levels to DNR designated minimum levels as soon as possible and work to maintain lakes at that level. This directive will be implemented where possible and to the extent that managing any given lake will not create flooding on other lakes or other unintended consequences”

6. Lake Levels

- After adaptation and mitigation strategies are implemented, the county shall report regularly to the task force (or the Lakes and Watershed Commission/EANR) on the effects of flow through the system and the county’s ability to manage lakes to seasonal minimums. This will include how many days per year each lake is within its prescribed range.
- Dane County will model scenarios using a variety of rainfall patterns from the last 30 years, including the flood years of 1993, 2000, 2006, 2007, 2008, and the drought year of 2012. This data will be used to determine what volume of rainfall the watershed can absorb in what period of time and will help inform proper target lake levels.
- The task force will request assistance from the Wisconsin DNR to re-examine mandated lake levels for the Yahara watershed that were set in 1979 and request an assessment of how to best manage lake levels on the Yahara Chain of Lakes.
- If this assessment and continued research point to a need for changes, a petition will be developed to the Wisconsin DNR. The petition will request proper lake level targets that provide flooding resiliency and take into account the changes to the watershed including increased development and rainfall from climate change.

7. Wetlands Managements and Prioritizing Land Purchase

- Dane County will partner with municipalities within the county to prioritize wetland and land purchases that will provide the maximum storm water infiltration and environmental return.
- Dane County will work environmental organizations like the Nature Conservancy to determine which parcels to purchase and work aggressively to acquire conservation easements.
- Dane County will also consider phosphorous reduction goals outline in the Healthy Farms, Healthy Lakes task force report when making land purchases.

8. Storm water Recommendations

- Request that EANR and the Lakes and Watershed Commission work jointly to create policy resolutions to implement the recommendations in the 2017 Storm water TAC report that are within Dane County’s purview.
- Dane County will work with CARPC to map internally drained wetland areas and assess the volume control impact of protecting them from being drained and or developed.
- Dane County will expand the use of Urban Water Quality Grants to help municipalities manage storm water.

- Dane County will study the flooding mitigation impacts of expanded stormwater infiltration projects for developed urban areas and provide technical and financial assistance to groups that want to install rain barrels, rain gardens, and other infiltration solutions that keep the rain out of the storm drains
- Dane County will research the use of pervious pavement options in future projects where appropriate
- Dane County will lobby the state to allow flood impacted communities an exemption to (Act 243) that recently limited local governments ability to regulate stricter storm water runoff standards.

9. Other Recommendations

- Recommend the county evaluate a special assessment to provide additional funding for flood mitigation.

From: [Buckingham, Tanya](#)
To: [Flooding, Yahara](#)
Subject: Re: Improved flow & better infiltration
Date: Wednesday, March 06, 2019 9:15:22 PM

Thank you, Grant!

I wrote a summary of my thoughts after last night's meeting late in the night (I'm sure it needs some editing). I agree with you and think we should prioritize wetland restoration and infiltration options before doing some the suggested items in the study until we know more about their impact.

You can find my summary here: <http://www.tanyabuckingham.com/dane-county/2019/3/6/my-recommendations-on-the-lake-level-task-force>

See you Saturday!

Tanya

From: Flooding, Yahara
Sent: Wednesday, March 6, 2019 4:22 PM
To: Brouwer, Stefanie; Buckingham, Tanya; Chawla, Yogesh; 'David Pfeiffer'; Erickson, Chuck; Miles, Patrick; 'Phillips, Rob'; 'Porter, Pam'; Ripp, David; Ritt, Michele; Stubbs, Shelia; 'Vieth, Eric'; 'Wells, Topf'
Cc: Balousek, Jeremy; Reimer, John
Subject: FW: Improved flow & better infiltration

From: Grant Foster [REDACTED]
Sent: Tuesday, March 05, 2019 3:39 PM
To: Flooding, Yahara
Subject: Improved flow & better infiltration

Good afternoon/evening Lake Level Task Force members:

I really appreciate the work of this group and for the work of the technical advisory group. I thought the report was very well organized, informative, and I generally support the recommendations. I do still have some questions about the impact to vegetation and would encourage you to look at that in more detail before final decisions are made.

I'd also ask that you recommend further study/remediation around the topic of stormwater management in the watershed, particularly in the developed urban areas of the county. While the focus of the technical report was primarily on managing expected inputs (big rain events) by increasing flow to avoid catastrophe, I think there's important work for us to do as a community around improving stormwater infiltration and retention to slow and reduce some of the input into the system as well. In addition to softening the impact of big rain events into the

chain of lakes, it would also help to improve the actual quality of the water as well.

The City of Madison Stormwater Utility is investing significant dollars into studying and mitigating some of the most flash-flood prone areas of the city's west side this year, but I think we need to be looking at stormwater management as a county-wide issue. The closer the county works with and supports municipalities on these efforts, the better it will be for everyone in the county.

Thanks again for your work on this task force and please know you have my support on this important issue.

Grant Foster



From: David Pfeiffer
To: [Flooding_Yahara](#)
Subject: Re: Lake Level Task Force recommendations
Date: Thursday, March 14, 2019 5:47:33 AM

I've made some minor edits to my previous submission.

The revised version is below.

Thanks

The following are my comments for consideration in developing the Lake Level Task Force recommendations:

Stormwater volumes and peak flows will continue to increase across the Yahara watershed unless significant and urgent action is taken to give appropriate priority to this issue. Climate models predict increasing precipitation both in volume and severity of storm events. Efforts to reduce future flooding risk will not be successful through lake management alone.

1. Strengthen stormwater control management to the highest degree possible. Stop making the problem worse. Recent changes in state law prohibit local governments from setting stricter volume control, but we can eliminate exemptions.

1a. Move quickly to implement the recommendation of the 2017 Stormwater TAC to identify or create an entity empowered to administer a watershed stormwater retention credit (volume trading) system and enforce existing stormwater retention requirements without exemptions. Develop the detailed framework for the program. Fund and develop projects that can create initial supply of credits.

1b. Work to get State legislation that provides flooding at-risk municipalities an exemption to current law that restricts ordinances requiring stormwater retention practices in excess of State standards. Without a 100% pre-development stay-on requirement, each developed parcel contributes additional runoff to the watershed.

2. Work to reduce existing stormwater volumes and peak flows. Flood risk is already significant in the watershed. All opportunities to address the impact that existing development has contributed to the problem should be pursued. Collaboratively develop a clear plan for the watershed that establishes goals and identifies the most cost effective practices and locations to achieve them.

2a. Extend enforcement of pre-development stay-on requirements for all redevelopment projects. 2017 Stormwater TAC recommends setting 50% requirement for redevelopment with goal to eventually move to the same requirement as for new development.

2b. Work with CARPC to map existing and formerly closed basins (internally drained areas) and model the flooding mitigation impact of protecting and restoring them.

2c. Require prioritization of stormwater retention for all County infrastructure projects including road reconstruction, park improvements, etc. Projects should have to justify why cost effective stormwater reduction strategies should not be employed before approval.

Encourage similar prioritization of all other public infrastructure projects.

2d. Encourage, both via public education and financial assistance, the implementation of cost effective stormwater reduction practices on private property.

Lake management does play a vital role in reducing flood risk. Changes are needed to provide County staff with more effective tools for lake level management. It is unreasonable to expect that all flooding can be prevented via lake management practices. A reasonable goal is to reduce the frequency and severity of flooding.

3. Improve Flow. Data provided by the Technical Work Group clearly document that low rates of flow are a significant impediment to lake management. Without sufficient flow, Babcock and LaFollette dams have remained wide open. Until lake levels at those dams are lower, the ability to manage the entire system is severely limited.

3a. Continue proactive weed management practices in Yahara River below Babcock and LaFollette dams.

3b. Identify specific locations where river bottom profiles indicate flow is being significantly impeded and perform targeted dredging to improve flow. The historic fish weir should be protected although it has been previously disturbed for navigational purposes in the past and minor modifications should be considered if a substantial benefit can be achieved as a result. In no case should dredging occur to deeper than natural levels.

3c. Flow improvement practices must be ecologically sound. If pumping proves necessary, investigate pumping options that don't involve lower Waubesa. A more detailed analysis is needed for extensive dredging and/or pumping options that thoroughly evaluates benefits, costs and potential environmental impacts.

4. Modify lake management practices. Since pumping and more significant dredging solutions cannot be quickly implemented, the near-term risk cannot be avoided. Lake levels remain high and soils are saturated. However, we have achieved lower lake levels in past years at lower flows. Assuming we don't experience extreme precipitation totals similar to 2018, the significantly improved flows already achieved below Babcock and LaFollette dams through weed management should be sufficient to lower Kegonsa levels in the next year or two. Monona/Waubesa levels could also be reduced to within the targeted range with the addition of limited additional dredging.

4a. Modify lake management practices to target summer minimums rather than mid-point between summer min and max. Dams can be operated to reduce flow in dry years. Flow cannot be easily increased in wet years.

4b. Consider potential impact of modified lake level orders on reducing future flood risk. The current lake level orders were established without benefit of more recent data. INFOS should be utilized to model the impact of a number of "less dramatic" scenarios, both with regard to the "adaptation" and to the amount of precipitation with the goal of determining whether expanding the min - max range would give County staff increased ability to manage lake levels in response to precipitation variability and forecasts. INFOS modeling should also be utilized to inform the timing of the move from winter lake levels to summer targets. Lake

ecology impacts must be included in analysis.

4c. Consider whether transferring authority for operation of Stoughton dam to County staff would be beneficial to overall system management by ensuring that Stoughton dam operation is always responsive to total system needs. Transferring authority would only require adding remote monitoring capability and would not necessarily mean that Stoughton would relinquish operation responsibility. Transferring operational responsibility would require adding remote operation capability or inefficient travel time for County staff.

5. Share the burden. Flooding impacts the entire community and mitigation of risk is a shared responsibility.

5a. Funding mechanisms for stormwater reduction and flood mitigation should be shared. A stormwater credit trading system together with publicly funded expenditures ensure that new development and existing property owners contribute. Consider a County assessment for flood mitigation projects.

5b. Lake management practices should also spread the pain. Riparian property owners in all parts of the watershed should receive equal consideration when making lake management decisions. Negative impacts on non-riparian property values due to increasing flood frequency and severity should be given equal priority.

David Pfeiffer, Town Chair
Town of Pleasant Springs



From: Patrick Miles
To: [REDACTED]
Cc: [Ritt, Michele](#); [Hicklin, Laura](#)
Subject: Re: Yahara Flooding - Preparing draft recommendations
Date: Thursday, March 14, 2019 2:46:40 PM
Attachments: [Patrick Miles Comments re Flood Resiliency Recommendations.pdf](#)
[Patrick Miles Comments re Flood Resiliency Recommendations.xlsx](#)

Hello All,

Day job got in the way this morning..finally, here are my comments/recommendations. Laura, I'm attaching the spreadsheet in which I recorded my comments so it is easier for you to copy & paste as needed.

Thank you.
Patrick

On Thu, Mar 14, 2019 at 9:39 AM Gmail2 <[REDACTED]> wrote:

Thank you Patrick. If staff time can't incorporate your comments in time for Friday submittal, you can certainly raise them at our meeting.

On Mar 14, 2019, at 9:29 AM, Patrick Miles <Miles@countyofdane.com> wrote:

Good Morning Pam, et al.,

My apologies, I had in my head our comments were due Friday. I've been a bit scattered dealing w/father who's now well among other things.

I'm typing up my remarks right now but wanted to alert you in case youre prepping Monday's packet now. I'll try to get t to you shortly.

Patrick

Sent from my Droid phone.
Forgive my brevity & typos.

On Sun, Mar 10, 2019, 7:42 PM Pamela Porter <[REDACTED]> wrote:

Greetings,

We are writing to let you know we will be working with staff to compile draft recommendations in preparation for the March 18th meeting, using comments and discussions of the task force to date as the starting point.

Please send any comments that you'd like included in the first draft to yaharaflooding@countyofdane.com by noon on Wednesday, March 13th. Your attention to the following format is appreciated:

Succinct bullet points grouped by the following categories:

1. Dredging, 2. Dam Management, 3. Pumping, 4. Aquatic Plant Harvesting, 5. Lake Levels, 6. Lake Level Management Guide, and 7. Other

Within each category, there may also be short- and long-term recommendations.

All of your suggestions will be included in the draft, however like recommendations will be summarized into one common recommendation. The draft recommendations will be attached to the March 18th agenda, and will be available on legistar Friday, March 15th.

<https://dane.legistar.com/DepartmentDetail.aspx?ID=38965&GUID=D01F0A86-7972-4F2B-B82B-235A23E4367B>

Thank you in advance for your contributions. Please let us know if you have any questions.

Sincerely,

Pamela Porter, Chair Dane County Lakes and Watershed Commission

[Redacted signature]

Supervisor Michele Ritt

Dane County Supervisor

District 18

ritt.michele@countyofdane.com

(608) 335-6827

Environment, Agriculture, and Natural Resources Committee, Chair

City County Homeless Issues Committee

Dane County Food Council

Dane County Food Council Food Waste Task Force

Dane County Food Council Budget Sub Committee

Dane County Tree Board

Land Conservation Committee

General Comments

Overall, approaches to increasing the rate of flow through the system should be prioritized over changes in lake level orders in the short to mid term. Over the long term, methods to slowing or preventing flow into the system should be a priority.

Category	Near/Mid Term	Long Term
Dredging	<p>Dredging projects should be done from the bottom of the system up so as not to overburden downstream areas from upstream flow improvements</p> <p>An analysis of the Exchange St bridge done last September shows significant scour around the abutments. Coordinate dredging this area with Town of Dunn & Village of McFarland's work on the scour issue.</p>	
Dam Management		<p>Eliminate Stoughton dam or acquire control of it if flow is improved through the system such that the dam is needed for a lake level control (especially in times of low water and droughts).</p>
Pumping		<p>While flow reroute/pumping shows the greatest effect on peak water levels in the model, I have come to question its viability given the likely high cost relative to the frequency of need for it, environmental impacts, limited options for routing. It also stands out that it is projected to produce 400 CFS. For the investment needed, it's not much increase in flow rate when you consider that the June 2018 dredging of the trestle in Stoughton produced an increase of 300 CFS and the weed harvesting south of LaFollette produced 3x that.</p> <p>If this option is pursued, the southern bulb of Waubesa roughly south of a horizontal line from near Beal St. on the west to near Morris Rd on the east should be excluded from consideration of possible outlets given the sensitivity of wetlands and investments in Heritage Park and conservation easements south of Waubesa. That leaves perhaps a route following E. Tower Rd to Hwy 51. If such a path leads to Kegonsa, will it help or create high water problems on that lake?</p> <p>The fact that the stones of the fish weir haven't sunk in sediment or muck suggests there might be a hard surface such as bedrock in the riverbed such that dredging in this area may not work. Explore whether there would be benefit to creating an overflow route for water in this area during times of high water.</p>

Category Near/Mid Term

Long Term

Aquatic Plant Harvesting

Include the area south of the LaFollette Dam in the next update of the Aquatic Plant Management Plan and request the DNR include this area in the Aquatic Plant Harvesting permit so the area is harvested in general as other areas and not just in times of emergencies.

Lake Levels

To the extent practicable, maintain below the mid point between summer max and min; preferably closer to the summer min., perhaps 3/4" to 1" above summer min.

In all due diligence, I think we should have the DNR study the impacts of a reduction of the levels of at least 6" for all the lakes. What would the impacts be once the system adapts to a reduced level? Setting aside added ability to take on water in storm events, I wonder if there would be significant opportunity in wetland restoration and would such restoration have a higher factor of storage capacity or significantly slow the flow into the system?

Lake Level Management Guide

Revise guide to include recommendations of the 2012 peer review. Update to reflect infrastructure changes made since (e.g., no longer manually manipulate stop logs in Babcock or LaFollette dams; I don't think Stoughton is considering converting their dam to hydropower). Revise 4.2.1 Summer to manage below mid point as described in my recommendation above. This may require a change in the targeted increase during the transition from winter to spring.

Other

Native American Fish Weir: Work with Ho Chunk and WI Historical Society to remove and reconstruct the weir in a county park, most likely Fish Camp Park to create an historical, cultural marker/display.

Review the Town of Westport's use of Water Inflatable Property Protection devices during the 2018 flood. My review of one such product advertised that the 26" x 50' device replaces 1,075 sandbags and 34,000 pounds of sand. This coupled with the ease of deployment could justify the county using some of the funds for sand, bags and bagging machine for these devices.

Category**Near/Mid Term**

Work with County Lobbyist and WCA to work with the state legislature and Governor to rescind legislative changes that prohibit local gov'ts from establishing stormwater regulations greater than state regulations.

As mentioned in the Stormwater TAC recommendations, identify closed basins that could pose increase flow into Mendota if they were to have releases. Work with respective property owners and Columbia County to mitigate this risk.

Both in near term and ongoing, work with the Nature Conservancy and use their web-based Wetlands & Watershed Explorer tool to identify & acquire wetland sites to be protected or restored.

Long Term

Once state policy is changed, pursue the 2017 recommendations of the Stormwater Technical Advisory Committee.

With respect to the Stormwater TAC recommendations, create a fund and revenue stream for volume runoff control infrastructure investments in developed areas. A possible revenue stream might be to place a fee on property sales. The transfer fees collected by the Register of Deeds is a State fee, but the ability for the County Treasurer to collect a fee on property sales should be explored (some states allow for this, but I don't know whether WI does).

From: Topf Wells
To: [Flooding, Yahara](#)
Cc: [Hicklin, Laura](#); [Reimer, John](#)
Subject: response to Chairs Porter and Ritt's requests
Date: Monday, March 11, 2019 3:18:11 PM

1. Dredging. I suggest that the Taskforce recommend that the County begin to dredge the Yahara River from its outlet at the Tenney Lock and Dam to Stoughton based on the following principles and considerations:

a) Consistent recognition that the Yahara River is an important and valued resource and not simply a means for draining the Yahara Lakes. It provides important spawning, migratory, and nursery habitat for a variety of fish and is home to a number of fish and other species on a more permanent basis. The river's wild celery is a valuable native plant and not a harmful invasive.

b) Planning and implementation should focus on cooperation with the DNR regulators, fish biologists, and other staff to first identifying and dredging those segments of the river in which dredging would be most helpful in managing flow and would be the most beneficial or least harmful to the river itself.

c) Adoption of the goal to use dredging and other restoration options to improve the health of the river whenever feasible. In some cases, removal of sand and sediment can revitalize segments of the river. The County's Suck the Muck can offer a model in that the goals of that program have always included stream restoration as well as the removal of legacy phosphorous.

d)) Recognition that dredging will be a multi-year process and probably require maintenance.

2. Dam Management.

a) Strengthen the Tenney Dam so that it can withstand more catastrophic rainfalls such as those which occurred in the Cross Plains/Middleton Area last year.

b) Reach the necessary agreements and create necessary procedures with the operators of the Stoughton Dam to insure that the operation of all the dams is always properly coordinated.

c) Stoughton is in the process of studying modifications to its dam or the area around it so that part of the river's flow would bypass the dam and be used to create kayaking courses and other recreational opportunities. Work with those officials to insure that that project does not impair management of the river's flow.

3. Pumping. This option may be worth additional study and I would not object if the Taskforce identified this as an option worthy of additional study. Should we do so, we should acknowledge that the study itself will be expensive, complex, and time-consuming. Actual pumping will be all that and more. Meanwhile ...

Please reject the option of pumping through the Waubesa Wetlands.

4. Aquatic Plant Harvesting. The County should continue the expanded harvesting that occurred next year with that harvesting limited to mechanical means of doing so. We should recommend two limits: no use of herbicides and the aim of controlling the growth of wild celery but not eliminating it.

5. Lake Levels. The Taskforce cannot recommend that County staff operate illegally. Consequently, we should not recommend that the County deliberately manage the lake levels outside of the legally prescribed ranges. Moreover, I do not think the Taskforce should recommend changes to those ranges for the following reasons:

- a) Such an action is probably not supported by the resolution which created the Taskforce.
 - b) Lake levels are the DNR's responsibility which that agency must address with an opportunity for all the stakeholders to participate. Several citizens also opined that the DNR will have to undertake that review with more complex considerations because of a Wisconsin Supreme Court decision with regard to Lake Koshkonong lake levels.
 - c) The Taskforce heard fragmentary testimony on the issue and did not hear representatives of all the stakeholders (no one, for example, testified from the perspective of shore anglers on the Yahara Lakes, a large and diverse group of anglers, who would be affected by a change in lake levels). What testimony we heard make it abundantly clear that stakeholders are very divided in their judgments about lake levels. The Taskforce does not have the time, resources, or legal authority to convene the stakeholders in a fair process.
- However, many citizens made an excellent point: that the 1979 order could not include consideration of how climate change has affected the fluctuations and management of the lakes. Noting how often that point was made and the strong interest of many stakeholders to have lake levels re-visited I think the Taskforce could request the DNR to undertake the review of those levels. We should accompany that request with the observation that such a review will almost certainly be contentious and time-consuming.

6. Lake Level Management Guide. If this guide should be modified to include the County Board's direction to manage the lakes at the minimum of the legally prescribed ranges and other technical considerations, staff should do so as soon as it is feasible to do so. My concern is that too many citizens see managing at those minimum levels as far more possible than it will be. With our climate having changed so that drastic events will occur more frequently, with the Yahara watershed having lost much of its ability to buffer severe downpours or long periods of heavy rains, and with the river's limited flow capacity, the County or any other manager of the lakes will often be unable to manage lake levels quickly.

7. Other. I respectfully request that the Taskforce recommend the following additional actions:

- a) That the County Board and other policymaker begin implementing the CARPC and Lakes and Watershed Commission's recommendations on stormwater management.
- b) That the County and other interested and able organizations pursue the restoration of wetlands throughout the Yahara River sub-watersheds but especially in the Upper Mendota watershed.
- c) That the County, local governments, and conservation organizations promote much greater infiltration of stormwater throughout urban, suburban, and rural areas.

Thank you for your consideration of these comments and suggestions.

Topf Wells

From: Dave Ripp
To: [Flooding, Yahara](#)
Subject: Task force
Date: Tuesday, March 12, 2019 1:50:29 PM

Recommendations. Dave Ripp

1. Dredging

- a) Last year the lakes were high early due to Kegonsa flooding. First effort needs to be dredging below Kegonsa and into the lake to start the flow.
- b) Second, we need to dredge below Monona. It may be possible to do both at the same time.
- c) Third are all other areas where needed and possible. The area around the artifacts needs to be checked to see if dredging is possible without harming the artifacts.

2. Dam management

- a) Strengthen the Tenney Dam to provide more safety and continue yearly muskrat trapping so the dam isn't undermined.
- b) Coordinate all dams together including Stoughton.
- c) Stoughton is studying sediment near their dam and may remove it. Support their efforts.

3. Pumping

- a) Pumping along roads while avoiding wetlands should be explored.
- b) Investigate the possibility of establishing an overflow channel around the area of artifacts leaving the main river at present levels.

4. Weedcutting

- a) Additional cutting helped in 2018. Get permits to allow cutting of all areas for when needed.
- b) Cut as much as possible while doing what we can to avoid too much cutting of native plants.

5. Lake Levels

- a) Mendota is the only lake we have some control during flooding. The study didn't support a change to the DNR orders, however the Department may want to move from winter to summer levels a little later and attempt to manage at minimum levels.
- b) The County needs to work with the committee studying Cherokee Marsh and follow their recommendations.

6. Lake Level Management Guide

- a) Modify to allow management at minimums when possible.

7. Other

- a) The railroad bridge below Kegonsa appears to be a choke point. Work toward widening if dredging there doesn't solve the problem.
- b) The County needs to work closer with Farmers, USDA, and NRCS on reestablishing wetlands on private property.
- c) While all land purchases are useful, the County should prioritize wetland purchases whenever possible.
- d) Promote infiltration and publicize existing infiltration projects.
- e) Improve stormwater management.

From: Pamela Porter
To: [Flooding, Yahara](#)
Subject: Yahara Flooding - Public Comment
Date: Wednesday, March 13, 2019 11:51:21 AM

Your comments below must include a name and address in order to be reviewed by the task force. Comments may be posted online and available as open records.

Name: Pam Porter

Address: [REDACTED]

Comments:

Submitting a few ideas as many of the submitted Task Force Comments have addressed my concerns.

Dredging

Immediately develop plans to prioritize dredging the channel system from Lake Mendota to Stoughton to improve the channel hydraulics so flow is increased and lakes can be managed to seasonal minimums and meet with appropriate community partners, including the HoChunk nation to discuss flooding, modeling results, constriction points and recent historical activity in the lower river.

Other

Evaluate a special assessment to provide additional funding for dredging and other flood mitigation activity.

Pamela Porter

[REDACTED]