



Bassett Creek Watershed Management Commission

Technical Advisory Committee Meeting

Monday November 22, 2021

11:00 a.m.– 12:30 p.m.

Online via Zoom

Join meeting [HERE](#)

1. CALL TO ORDER

2. COMMUNICATIONS

3. BUSINESS

A. Revisit XPSWMM Model Update Timing & Get Updates on MnDNR Risk Map Project

At their meeting in August, the BCWMC approved the TAC's recommendations to:

- begin the process of updating the H&H model this year and adopt the updated model as the Commission's official H&H model in 2022;
- annually request that cities submit data for future model updates and that model updates be scheduled not on a regular timeline, but once every few to several years, depending on the amount of new data and changing conditions; and
- include in the Commission's Operating Budget an annual, steady budget for model maintenance to save for years when the more time-consuming (i.e., expensive) model updates are needed and to minimize significant fluctuations in the budget.

Commissioners also requested that the timing of future model updates be revisited and confirmed at a future TAC meeting. (August [TAC memo](#) to BCWMC and [August meeting minutes](#))

The TAC should articulate its recommendations on model update timing. Staff continues to recommend no set schedule for model revisions due to dependence on multiple factors. TAC could consider aiming for updates once every 5 years, or more frequently as updates/conditions warrant.

If model update timing is not set to a specific schedule, the TAC should list the factors that will be annually considered to determine whether or not a model update should be scheduled. Factors could include:

- the number of potential update locations (based on update information provided by the cities annually)
- the location or magnitude of the update projects, especially if located along/directly impacting the Bassett Creek trunk system (versus upstream watershed areas)
- specific requests to update from BCWMC member communities
- in advance of known larger CIP projects that could directly impact the Bassett Creek trunk system (e.g. City or MnDOT have large project slated in upcoming years that might impact the trunk system so may be worthwhile having the model as current as possible to inform planning/design)

B. Review Latest Costs for Flood Control Project (FCP) Inspections and Consider Budget Implications

During 2016 the BCWMC adopted several [Flood Control Project \(FCP\) policies](#) that were approved by the Commission at their May 19 and July 21, 2016 meetings. The Commission engineer reviewed the latest costs for FCP inspections. The following comments/recommendations and the proposed revised Table 1 from the 2016 FCP policy document are provided for discussion.

1. Does the TAC recommend any modifications to Commissions overall tunnel responsibilities, or should the Commission keep the existing policy in place to help spread out costs among all communities?
2. Except as noted we recommend the Commission continue its inspection and maintenance program for the FCP features. The current inspection and maintenance program is identified in the FCP policy document and includes:
 - Annual inspection of all non-tunnel FCP features
 - Inspection at least every 5 years of the double box culvert
 - Inspection every 5 years of the 3rd Avenue Deep Tunnel (in conjunction with City of Minneapolis I-94 tunnel inspection) We recommend disconnecting the 3rd Avenue tunnel inspections from the City of Minneapolis I-94 tunnel inspection program. The TAC should consider the recommendation to inspect the 3rd Avenue tunnel at 10-year interval consistent with the 2nd Street tunnel or inspecting the 3rd Avenue tunnel and unsubmerged sections of the 2nd Street tunnel every 5 years.
 - Inspection every 10 years of the 2nd Street Deep Tunnel We recommend adding "...and the 3rd Avenue Deep Tunnel)
3. The overall expenses for FCP inspections have increased from originally forecast in 2016. Much of the added expenses are due to increased attention to safety and significant time spent coordinating with the USACE and others. Currently, the Commission sets aside \$25,000 per year from the Operating Budget to cover the costs of the FCP inspection program. After reviewing changes to Table 1 below, the TAC should discuss and consider recommending that \$32,500 be set aside for annual inspections over 20 years. (\$650,000 total estimated 20-year cost/20 years).

Table 1. Current and Recommended Flood Control Project Inspection Program

Item	Current/ Recommended Inspection Cycle	Cost/Inspection ¹	20-Year Cost ^{1,2}
			Current/Recommended
Annual inspection of the FCP features, except double box culvert and the deep tunnel	Annually	\$10,000 \$15,000	\$200,000/\$200,000 \$200,000/\$300,000
Double box culvert inspection (NASSCO) ³	Every 5 years	\$32,000 \$45,000	\$128,000/\$128,000 \$128,000/\$180,000
Deep tunnel (2 nd St. & 3 rd Ave.) inspection (NASSCO) ³	Every 10 years	\$45,000 \$65,000	\$45,000/\$90,000 \$65,000/\$130,000
Two additional 3rd-Ave deep tunnel inspections (NASSCO)^{3,4}	Not Applicable/ Every 5 years/-	\$5,000	\$0/\$10,000⁴
Option 1: Two additional deep tunnel inspections of 3 rd Ave. tunnel and unsubmerged portions of 2 nd St. tunnel (NASSCO) ³	Every 10 years (two total inspections)	\$30,000	\$0/\$60,000
Option 2: Two additional deep tunnel inspections of 3 rd Ave tunnel and unsubmerged portions of 2 nd St. tunnel (non-NASSCO) ⁴	Every 10 years (two total inspections)	\$20,000	\$0/\$40,000
Total²			\$373,000/\$428,000 \$428,000/\$650,000- \$670,000

¹ 2021 dollars

² Simple summation (annualized or present worth not calculated)

³ Tunnel condition inspection based on pipeline assessment and certification program developed by the National Association of Sewer Service Companies (NASSCO)

⁴ Brief tunnel inspections looking for significant changes without coding existing or new defects or preparing detailed report, includes preparation of technical memorandum.

C. Discuss Internship Possibilities for Student from Dougherty Family College

At the TAC meeting in July several cities indicated they might be able to house and utilize a student intern from Dougherty Family College. A Google form was sent several weeks ago to TAC members to gather information on the physical spaces that may be available and possible tasks an intern could accomplish in each city. Unfortunately, no cities have completed the form. Staff would like direction on whether or not to pursue internship placement with cities. Google Form:

<https://docs.google.com/spreadsheets/d/1YZ7aBeTR2g5pYmkhAQk9anXxITwOqwa36JGgdSKrxRw/edit#gid=0>)

D. Discuss Climate Resiliency Grant and Consider Inventories and Assessments Needed for 2025 Watershed Plan

1. Are there TAC thoughts or recommendations on goals or aspects staff should include in the Climate Resiliency Grant application. Right now, staff is working with these possible activities (listed as eligible projects in the [grant RFP](#)).
 - a. Community-wide climate vulnerability assessment involving stakeholders and authentic community engagement processes to identify community assets (such as parks and recreational areas, roads, public buildings, local power infrastructure, etc.) at risk from more extreme weather and changing climate conditions, as well as local population segments at greater risk from harm, stress or displacement due to climate change.
 - b. Vulnerability assessment using a hydrologic/hydraulic model such as XP-SWMM or equivalent to identify areas (e.g. creek corridors, bridges, intersections, etc.) within a tribal/local governmental unit that are at risk for flooding. Includes assessment of changes in future precipitation with storm events of greater intensity and frequency to evaluate how to optimize resiliency of stormwater infrastructure.
 - c. Inventory of water infrastructure issues developed using new or existing modeling information to identify critical impacts (e.g. number of structures flooded, frequency of flooding, social vulnerability, local environmental impacts, etc.), including but not limited to consideration of existing asset management plans. Provides a prioritized list of critical areas needing infrastructure improvements to increase resilience.
2. Are there other inventories or assessments the Commission should consider completing to inform the 2025 Watershed Plan and to aide in identifying issues or priority resources/locations?
Possibilities include:
 - a. Subwatershed analyses to help determine locations for projects/programs in high pollutant loading areas (TP, TSS)
 - b. Chloride loading assessment (GIS analysis and loading estimates of individual chloride sources to specific waterbodies)
 - c. Lake shore/streambank inventories of riparian conditions, erosion, vegetation, etc.
 - d. Wetland assessments or inventories
 - e. Plant or fish IBIs
 - f. Groundwater-surface water interactions

4. ADJOURN and SET FUTURE AGENDA ITEMS