



Item 5E.
BCWMC 10-19-17

Bassett Creek Watershed Management Commission

NOTE: TAC recommendations #1 and #2 were approved at Sept meeting. Please review only #3 and #4 for consideration at this meeting.

MEMO

To: Bassett Creek Watershed Management Commissioners
From: BCWMC Technical Advisory Committee
Date: September 13, 2017

RE: TAC Recommendations – 8/4/17 TAC Meeting

The BCWMC Technical Advisory Committee met on August 4th to discuss 1) FEMA modeling in the watershed, 2) communication needs regarding the XP-SWMM model and revised floodplain elevations, 3) the timing and process for updating the XP-SWMM model, and 4) possible revisions to the BCWMC review fees. They forward the following recommendations for the Commission's consideration.

TAC Members and Others at 8/4/17 TAC Meeting:

Liz Stout, Minneapolis	Rachael Crabb, MPRB
Jeff Oliver and Eric Eckman, Golden Valley	Jim de Lambert, Commission Chair
Richard McCoy and Marta Roser, Robbinsdale	Jim Prom, Plymouth Commissioner
Megan Albert, New Hope	Laura Jester, Administrator
Mark Ray, Crystal	Karen Chandler and Jim Herbert, Commission Engineers
Tom Dietrich, Minnetonka	Suzanne Jiwani, Pat Lynch and Jason Spiegel, MDNR
Ben Scharenbroich, Plymouth	
Susan Wiese, Medicine Lake	

1. FEMA Modeling in the Bassett Creek Watershed

At their May meeting, the Commission directed the Commission Engineer to contact the MN Department of Natural Resources (DNR) about possible funding for the FEMA map revision process (as part of the discussion regarding the TAC's recommendations regarding the XP-SWMM model). In communications with DNR staff, the Commission Engineer learned that the DNR will be receiving a FEMA grant to develop hydrologic and hydraulic (H&H) models for the Twin Cities Mississippi River watershed, which includes the Bassett Creek watershed. Once completed, the modeling may lead to a FEMA physical map revision (i.e., official revisions to the FEMA floodplain maps).

Suzanne Jiwani with the DNR attended the TAC meeting and reported that the State of Minnesota agreed to do this work (with FEMA funding) rather than FEMA using their own consultants to perform the work. She went on to discuss the opportunity and gauge the Commission's interest in participating in the modeling effort. She reported the following information:

FEMA wants to model key watersheds in the Twin Cities area because these areas were "digitally captured" when the most recent digital Flood Insurance Rate Maps (DFIRMs) were produced. This

means FEMA took what was on the old map and placed it on the new maps, with no additional modeling, and with no use of the LiDAR data to delineate the floodplain. FEMA wants to go back and update these areas so they are supported by a new model.

The FEMA grant would cover the development of H&H models for the Bassett Creek (HUC10) watershed, along with the Coon Creek, Shingle Creek, Elm Creek, and Upper Minnehaha Creek watersheds, and parts of the Rice Creek and Vadnais Lakes area watersheds. The DNR's scope for the Bassett Creek watershed includes:

- Developing a hydrologic model
- Creating a hydraulic model for 25.4 miles of stream
- Delineating the Special Flood Hazard areas
- Developing other FEMA Flood Risk Products.

The BCWMC completed much of this work through its XP-SWMM modeling effort. (The FEMA grant cannot be used to reimburse this already-completed work.) Some additional work is needed to collect and analyze all data sought by FEMA for this effort. The TAC members discussed the pros and cons and possible costs if the Commission were to be involved with the effort. Further points of discussion included:

1. The work will be done with or without the Commission's involvement. The entire scope of the project is included in table below.
2. Although formal FEMA map updates are several years out, FEMA is likely to place a higher priority on map updates where new data (i.e., FEMA modeling) is available. It is also likely that local partners (like the BCWMC) would complete the FEMA modeling work faster than the DNR. (This, then, has added benefit of possibly getting formal map revisions completed sooner – something cities are hoping for.)
3. If the Commission does the work, Commission costs would be approximately \$2,000 for development of a scope of work and budget. These costs would not be reimbursed by the DNR or FEMA grant funds, but all other work would be reimbursed through the FEMA grant.
4. If the Commission does not do the work, the Commission would be asked to review the DNR's work, and would likely interact with DNR at various points throughout the process, which would likely cost the Commission more than developing the scope of work mentioned in #3.
5. There is likely to be better and more timely communication and coordination with cities if the Commission does the work.
6. Other benefits (identified by the DNR) for the Commission doing the work: The Commission will have more input during the modeling process; a better model will be completed because of the detail that has gone into it; and there could be extra money at the end to use for other flood risk reduction projects.

RECOMMENDATION:

The TAC recommends that the Commission direct the Commission Engineer to develop a scope and budget for completing the tasks laid out for the FEMA modeling work and to submit that scope and budget to the DNR to seek FEMA grant funds to complete the work. (Upon a vote among TAC members, 7 cities were in favor of this recommendation, Plymouth staff voted against the recommendation, and City of St. Louis Park was absent.)

Table 1. Tasks to Complete the FEMA Modeling Process

<ol style="list-style-type: none">1. Obtain approval from the Interagency Hydrology Review Committee on the XPSWMM model hydrology and make necessary modifications to the model. (<i>The Interagency Hydrology Review Committee includes staff from the DNR, US Army Corps of Engineers, Natural Resource and Conservation Service, and United States Geological Survey.</i>)2. Develop a set of cross-sections that associate the XPSWMM model to the FEMA streamline. These will be used as the cross-sections on the DFIRMs and will need to be used to delineate the floodplain and create the FEMA Flood Risk Products.3. Develop the 1-percent-chance (100-year) and 0.2-percent-chance (500-year) floodplain polygons.4. Develop the floodway polygon.5. Format the cross-sections and floodplain/floodway polygons to FEMA standards (the DNR has templates for this).6. Submit model hydraulics for review by the DNR. Suggested changes will most likely be minor, but they may include requiring a survey for road crossings in detailed study areas if as-built data are not available.7. Perform the suggested corrections/updates to the XP-SWMM model.8. Develop FEMA Flood Risk Products (Changes Since Last FIRM and Depth Grids). The DNR can provide instructions regarding the development of these products.9. Organize all files and supporting data for uploading to FEMA's Mapping Information Platform (MIP).

2. Proposed Revisions to BCWMC Review Fee Schedule

At the March 27, 2017 BCWMC Budget Committee meeting, the committee discussed the discrepancy between development review expenses and fees collected for reviews. It was noted that in 2016 and 2017 there were a few large, complicated projects that required much more time to review and to coordinate with developers about the XP-SWMM model and MIDS, than was recovered in fees. The Budget Committee requested TAC input on the issue.

At this meeting, the TAC reviewed data provided by the Commission Engineers showing reviews, fees, and a comparison of fees collected with the current structure and fees that would have been collected if their proposed new structure was in place (attached). Commission Engineer Herbert noted that the current fee schedule (attached) is based on project size but that smaller parcels often have more complicated and time-consuming projects and review needs. There was consensus that it makes sense to revise the fee structure so that complicated projects end up paying a fee more commensurate with actual expenses. The Commission Engineers presented a proposed restructured fee schedule (attached) that attempts to base fees more on review effort than project size.

Commission Engineers noted that the proposed fee schedule still includes lower fees for single-family homes and municipal projects because the Commission does not intend to burden single family homeowners with high fees, and the Commission offers lower fees to municipalities that fund the operating budget of the Commission. However, it was also noted that often single-family home projects require more communication with project proposers due to their

inexperience with construction projects; and that lately municipal projects have been more complex and challenging, resulting in more time needed for review.

TAC members discussed situations where reviews take considerable time and expense including when substantial changes are made to a project after an initial review and comment letter from the Commission, requiring further review and a revised comment letter. There was consensus that escrow accounts are too complicated and time consuming to administer. Instead, the TAC recommended that, if legally appropriate, the Commission should charge project proposers for actual expenses when a project review exceeds \$5,000.

RECOMMENDATION:

The TAC recommends that the Commission adopt the proposed review fee structure (attached) and include a provision to charge actual costs for review expenses above a \$5,000 threshold.

The TAC recommended that the revised fee schedule take effect January 1, 2018. Commission staff recommend adopting the revised fee schedule effective October 1, 2017 to be more in-line with recent changes to the requirements document.

3. Communication Needs for XP-SWMM/Revised Floodplain Elevations

There was some discussion about how cities are currently communicating with residents and other city staff (such as planning departments) about recent changes to floodplain elevations and discrepancies between FEMA and BCWMC floodplain elevations. The group suggested that the Commission develop only a minor communication piece for use on the website and for communications with residents and others.

RECOMMENDATION:

The TAC recommends that the Commission develop a one-page explanation of why there are two different numbers for floodplain elevations and a description of the modeling effort.

4. Timing and Process for BCWMC Model Updates

The Commission Engineer noted that updates to the P8 and XP-SWMM models are generally based on information provided by member cities on projects constructed in the watershed. They asked for the TAC's input on a timeline and process for submitting the information needed for model updates.

RECOMMENDATIONS:

- The TAC recommends that the Commission direct member cities to submit all pertinent information from the calendar year to the Commission Engineer no later than March 1st of the following year.
- The TAC recommends that the Commission direct the Commission Engineer to finalize model updates no later than June 1st of each year.

Proposed Fee Schedule

Fee Schedule (Effective _____, 2017)

Bassett Creek Watershed Management Commission Project Reviews

Project Review Fees (check appropriate boxes) ^{1, 7}		
<input checked="" type="checkbox"/> Base Fees		
<input type="checkbox"/>	Single Family Lot (No add-on fees required)	\$500
<input type="checkbox"/>	Projects Requiring Only Erosion and Sediment Control Review	\$1,500
<input type="checkbox"/>	Municipal Projects ² (No add-on fees required)	\$1,500
<input type="checkbox"/>	All Other Projects	\$1,500
<input checked="" type="checkbox"/> Add-On Fees³		
<input type="checkbox"/>	1. Projects requiring Rate Control or Treatment to MIDS Performance Goal	\$1,000
<input type="checkbox"/>	2. Projects involving work within or below the 100-year floodplain (Table 2-9, Watershed Management Plan) - select highest of following add-on fees (a or b)	
<input type="checkbox"/>	a. Work involving filling and compensating storage within or below the 100-year floodplain (identified in Table 2-9)	\$1,000
<input type="checkbox"/>	b. Work along the Bassett Creek trunk system or inundation areas involving review of, or modifying the XP-SWMM model.	\$2,000
<input type="checkbox"/>	3. Work involving creek crossings (bridges, culverts, etc.)	\$1,000
<input type="checkbox"/>	4. Projects involving review of alternative BMPs ⁴	\$1,000
<input type="checkbox"/>	5. Project involving variance request	\$1,000
<input checked="" type="checkbox"/> Wetland Fees⁵		
<input type="checkbox"/>	Wetland delineation review	Varies
<input type="checkbox"/>	Wetland replacement plan review	Varies
<input type="checkbox"/>	Monitoring and reporting	Varies
<input type="checkbox"/>	Wetland replacement escrow	Varies
Total Project Review Fees ^{6, 7}		\$ _____
<p>1 State agencies are exempt from review fees. Other public agencies are required to pay review fees and add-on fees.</p> <p>2 Including Minneapolis Park & Recreation Board projects</p> <p>3 Required in addition to base fee (except for single family lots and municipal projects).</p> <p>4 BMPs not included in <i>Minnesota Stormwater Manual</i>.</p> <p>5 Wetland fees will be billed at actual cost for projects where BCWMC acts as the LGU for the Wetland Conservation Act or when a member city requests assistance from the BCWMC for wetland-related review tasks (BCWMC is the LGU for the cities of Medicine Lake, Robbinsdale and St. Louis Park).</p> <p>6 Include check for total project review fees or other fees with application form. Check should be payable to Bassett Creek Watershed Management Commission.</p> <p>7 If the actual cost to conduct a review reaches \$5,000, the applicant shall be required to reimburse the Commission for all costs it incurs in excess of that amount. The Commission shall bill the applicant for the additional costs. If an applicant fails to fully reimburse the Commission for the additional costs, any future requests for a review from the applicant shall be deemed incomplete, and the Commission will not conduct a review, until all outstanding amounts have been paid.</p>		

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Current Fee Schedule

Fee Schedule (Effective September 17, 2015)

Bassett Creek Watershed Management Commission Project Reviews

Project Review Fees (check appropriate boxes)		
Base Fees¹		
	Single Family Lot	\$300
Single Family Residential Development (density less than 3 units per acre)		
	Total parcel size <15 acres	\$1,500
	Total parcel size 15–30 acres	\$1,800
	Total parcel size >30 acres	\$2,500
All Other Development²		
	Total parcel size <5 acres	\$1,700
	Total parcel size 5–20 acres	\$2,200
	Total parcel size >20 acres	\$3,000
	Street/highway/trails/utility/municipal projects	\$1,100
Add-On Fees³		
	Work within or below the 100-year floodplain (Table 2-9, Watershed Management Plan)	\$300
	Work involving creek crossings (bridges, culverts, etc.)	\$300
	Projects involving review of alternative BMPs ⁴	\$300
Other Fees		
	Variance escrow	\$2,000
Wetland Fees⁵		
	Wetland delineation review	Varies
	Wetland replacement plan review	Varies
	Monitoring and reporting	Varies
	Wetland replacement escrow	Varies
Total Project Review Fees⁶		\$ _____
<ol style="list-style-type: none"> 1 Project-review fee based on total parcel size (not disturbed area) including wetlands, buffer, right-of-way, and other nondeveloped area. 2 State agencies are exempt from review fees. 3 Required in addition to base fee. 4 BMPs not included in <i>Minnesota Stormwater Manual</i>. 5 Wetland fees will be billed at actual cost for projects where BCWMC acts as the LGU for the Wetland Conservation Act or when a member city requests assistance from the BCWMC for wetland-related review tasks (BCWMC is the LGU for the cities of Medicine Lake, Robbinsdale and St. Louis Park). 6 Include check for total project review fees or other fees with application form. Check should be payable to Bassett Creek Watershed Management Commission. 		

BCWMC Fee Schedule Comparison and Analysis (Select FY 2016 Applications)

Application Form No.	Task #	Project Name	City	Application Fee (Current Fee Schedule)	Application Fee (Proposed Fee Schedule)	Application Fee Change	Review Cost	Application Fee Review Cost (Current Fee Schedule)	Application Fee Review Cost (Proposed Fee Schedule)
2016-01	2067	Theodore Wirth Adventure and Welcome Ctr	GV	\$1,100	\$2,500	\$1,400	\$4,002	(\$2,902)	(\$1,502)
2016-02	2068	2016 Northwood Lake Improvements ¹	NH	\$1,400	\$1,500	\$100	\$2,250	(\$850)	(\$750)
2016-03	2069	2016 Northwood South Area Infrastructure ¹	NH	\$1,100	\$1,500	\$400	\$5,540	(\$4,440)	(\$4,040)
2016-04	2070	Three Rivers PD BC Regional Trail	NH	\$1,400	\$2,500	\$1,100	\$4,402	(\$3,002)	(\$1,902)
2016-05	2071	Arlington Row East Apts	SLP	\$1,700	\$1,500	(\$200)	\$1,531	\$169	(\$31)
2016-06	2072	GV 2016 PMP STH 169-Plymouth Ave ¹	GV	\$1,100	\$1,500	\$400	\$3,404	(\$2,304)	(\$1,904)
2016-07	2073	Gardendale Development	CRY	\$1,500	\$1,500	\$0	\$873	\$627	\$627
2016-09	2075	Four Seasons Mall Demo	PLY	\$2,200	\$1,500	(\$700)	\$1,376	\$824	\$124
2016-10	2076	Old Rockford Rd Overlay & Trail	PLY	\$1,100	\$1,500	\$400	\$1,115	(\$15)	\$385
2016-11	2077	Armstrong HS Baseball Field Imp.	PLY	\$2,200	\$1,500	(\$700)	\$1,071	\$1,129	\$429
2016-12	2078	Pilgrim Lane Elementary Additions	PLY	\$2,200	\$2,500	\$300	\$2,279	(\$79)	\$221
2016-13	2079	Little Newtons Addition	PLY	\$1,700	\$2,500	\$800	\$738	\$962	\$1,762
2016-14	2080	Mortenson Hdqtrs Addition ²	GV	\$2,200	\$2,500	\$300	\$1,529	\$671	\$971
2016-15A	3009	SP 2772-104 TH 169 16th St/Ramp Closure ³	SLP	\$0	\$0	\$0	\$762	(\$762)	(\$762)
2016-15B	3010	SP 2772-105 TH 169 Pavement Project ³	SLP (GV, Ply, Mtk)	\$0	\$0	\$0	\$1,199	(\$1,199)	(\$1,199)
2016-17	2083	SWLRT Minneapolis ⁴	MPLS	-	-	-	-	-	-
2016-18	2084	Beacon Academy	CRY	\$2,200	\$2,500	\$300	\$1,498	\$702	\$1,002
2016-19	2085	Ply PW Campus Facility Add	PLY	\$1,100	\$2,500	\$1,400	\$1,367	(\$267)	\$1,133
2016-20	2086	Cherrywood Pointe ²	MTKA	\$1,700	\$2,500	\$800	\$2,183	(\$483)	\$317
2016-22	2088	Theo Wirth Utility Improvements	GV	\$1,100	\$1,500	\$400	\$1,498	(\$398)	\$2
2016-23	2089	Daugherty 2860 Evergreen Ln	PLY	\$600	\$500	(\$100)	\$1,482	(\$882)	(\$982)
2016-24	2090	Luther Support Center	GV	\$2,200	\$2,500	\$300	\$2,699	(\$499)	(\$199)
2016-25	2092	Hutton House (10715 S Shore Dr)	ML	\$1,700	\$2,500	\$800	\$3,042	(\$1,342)	(\$542)
2016-26	2094	226 Peninsula Road	ML	\$600	\$500	(\$100)	\$1,474	(\$874)	(\$974)
2016-27	2095	Brookview Community Ctr ²	GV	\$1,100	\$1,500	\$400	\$1,772	(\$672)	(\$272)
2016-28	2096	Liberty Crossing Fld Mitigation	GV	\$1,100	\$1,500	\$400	\$1,128	(\$28)	\$372
2016-29	2097	@glenwood Campus	MPLS	\$2,000	\$5,500	\$3,500	\$9,370	(\$7,370)	(\$3,870)
2016-31	2099	GV Tank Mound Project	GV	\$2,200	\$1,500	(\$700)	\$702	\$1,498	\$798
2016-33	2101	Twin City Outdoor Services	PLY	\$1,700	\$1,500	(\$200)	\$517	\$1,183	\$983
2016-34	2102	Ridgedale Corner Shoppes	MKTA	\$1,700	\$2,500	\$800	\$3,075	(\$1,375)	(\$575)
2016-35	2103	Mpls Marriott West	SLP	\$2,200	\$1,500	(\$700)	\$701	\$1,499	\$799
2016-36	2104	Berger Financial Group Addition ²	PLY	\$1,700	\$1,500	(\$200)	\$740	\$960	\$760
2016-37	2105	Crest Ridge Senior Housing	MTKA	\$2,200	\$2,500	\$300	\$1,519	\$681	\$981
2016-38	2106	Northwood N. Infrastructure Imp	NH	\$1,100	\$1,500	\$400	\$2,357	(\$1,257)	(\$857)
2016-39	2107	French Regional Park Pavement	PLY	\$1,400	\$1,500	\$100	\$2,061	(\$661)	(\$561)
Totals:				\$50,500	\$62,000	\$11,500	\$71,256	(\$20,756)	(\$9,256)

¹ Municipal Applicant; no add-on fees

² Review in Progress

³ State Agency Applicant; exempt from review fees

⁴ Separate Agreement was Established with the BCWMC for Review

Does not factor in recouping expenses for reviews over \$5,000. This figure would drop to (\$4,346) if footnote "7" in proposed schedule is approved.