



## MEMORANDUM

**TO:** The Honorable Board of Water Commissioners  
**FROM:** Gary Brown, Director, Detroit Water and Sewerage Department  
**DATE:** July 26, 2018  
**RE:** Post-Construction Stormwater Management Ordinance – SWMP Review Fees

The purpose of this memorandum is to provide a summary of the proposed stormwater management plan (SWMP) review fee as well as the basis, for developer compliance with the proposed 2018 post-construction stormwater management ordinance. These review fees are important to help recover City administrative costs associated with ordinance enforcement.

The Stormwater Management Group (SMG) based the fee structure on a three part analysis: 1) review of regional and national fee structures, 2) quotes from consultants, and 3) an estimate for using in-house SMG staff. Based on SMG's current resources, it is anticipated that consultants will be needed in the near term to perform SWMP reviews. As such, it is recommended to use a fee structure from a low to mid-range consultant as this allows the Department to recover fees for consultant services as well as when the review is conducted by in-house SMG staff.

### 1 REVIEW OF REGIONAL AND NATIONAL MUNICIPALITIES' FEE STRUCTURES

SMG has reviewed fee structures for over 25 municipalities. Fees varied greatly in structure (whether it was based on size of disturbed area/regulated development, hourly rate, construction costs, or a flat fee), ultimate cost, and available information. Additionally, some municipalities had separate fees for the SWMP review while others incorporated this cost into an overall site plan review fee. A table summarizing review fees for municipalities either located near or demographically similar to the City of Detroit is below.

Municipality	Fee Structure	Additional Review Fees	SW Utility/ Drainage Charge?	Fee Part of Overall SPR Process?
<b>Brownstown Township, MI</b>	\$1,000 flat fee + 50/acre for two reviews	\$500 + \$30/acre	No	Yes
<b>Dearborn, MI</b>	<\$500k construction cost = \$180 + \$42 for processing >500k construction cost = \$650 + 0.0003% of construction cost after \$500k + \$42 for processing	1st Revision = \$40 2nd Revision = \$180	No	Yes

<b>Novi, MI</b>	0.0015 x 1.75 of the construction cost	Minor Change = \$100 Major Change = 0.0015 x 0.5 of construction cost	No	Yes
<b>Warren, MI</b>	New construction: \$1,000 (5,000 SF or less) + \$20 per additional 1,000 SF Redevelop: \$500 (5,000 SF or less) + \$20 per additional 1,000 SF	\$150 for administrative SPR	No	Yes
<b>Cincinnati, OH</b>	Fee is based on an hourly rate reasonably related to the cost to the City (\$ amount not specified)	Unknown	Yes	Unknown
<b>Columbus, OH</b>	Engineering Review = \$85/hour	Final Compliance = \$475	Yes	Partially
<b>Philadelphia, PA</b>	Concept Plan review = \$600 PCSWM Plan submittal fee = \$600 PCSWM Plan hourly fee = \$90/hour	-	Yes	No
<b>Milwaukee, WI</b>	Submittal Fee = \$100	-	Yes	No

## 2 CONSULTANT-BASED PROPOSED FEES

SMG also requested price proposals from three consultants that have existing contracts with DWSD for stormwater-related services. Each consultant was given the same proposed scope of work and was asked to prepare a cost to review the ordinance compliance of stormwater elements in a site plan. The base fee provided by the consultants includes a preliminary plan review meeting, an initial site plan review, and an initial as-built inspection. Each consultant provided additional fees for different activities, such as costs for additional site plan reviews. The table below summarizes the breakdown of the price proposals received from the three consultants.

Task	Consultant A	Consultant B	Consultant C
<i>Base Fee (per site plan)</i>	\$2,550	\$1,110*	\$3,600
<i>Additional meetings</i>	-	-	\$350/meeting
<i>Additional plan reviews</i>	\$400/site plan	\$510/site plan	\$850/site plan
<i>Additional as-built inspections</i>	-	-	\$750/inspection
<i>One time checklist development</i>	\$3,500	\$3,500	\$4,500

\*Fees were based on the size of the site. The base fee listed is for sites up to 1-acre in size. Sites larger than 1-acre will cost an additional \$60/acre.

## 3 SMG PROPOSED FEES USING IN-HOUSE STAFF

Additionally, SMG prepared a cost to perform the SWMP review tasks by in-house staff. The costs are broken down by specific task, task hours, and direct labor cost of mid-range salaried employees, followed by the proposed fee.

Task No.	Task Description	Required Manpower	Hours	Direct Labor Cost*	Total Fees	Proposed Fee
		A	B	C	(A*B*C)	

1	Preliminary meeting	1	Engineer	1.5	\$67.24	\$100.85	\$100
2	Initial plan review < 2 ac.	1	Engineer	6	\$67.24	\$403.42	\$400
3	Initial plan review > 2 ac.(per ac.)	1	Engineer	1	\$67.24	\$67.24	\$100
4	Initial as-built inspection < 2 ac.	1	Inspector	5	\$43.26	\$216.30	\$250
5	Initial as-built inspection > 2 ac. (per ac.)	1	Inspector	1	\$43.26	\$43.26	\$50
6	Additional plan reviews	1	Engineer	3	\$67.24	\$201.71	\$200
7	Additional as-built inspections	1	Inspector	3	\$43.26	\$129.78	\$150
8	Administrative tasks, per site plan	1	Office Support Specialist	3	\$36.15	\$108.45	\$100

\*Direct labor cost is based on the mid-point of the salary range for the specified position, times a multiplier of 1.65 for indirect costs.

Based on the above listed tasks, the following cost is proposed for the base SWMP review fee with in-house staff and the costs for additional tasks.

<b>Base SWMP review fee &lt; 2 acres (Includes Task No. 1, 2, 4, 8):</b>	<b>\$850</b>
Additional plan review cost, per acre > 2 acres (Task No. 3, 5):	\$150
Subsequent plan reviews (Task No. 6):	\$200
Subsequent as-built inspections (Task No. 7):	\$150

#### 4 EXAMPLE SITE SWMP REVIEW FEES USING DIFFERENT FEE STRUCTURES

Three proposed project scenarios that vary in scale were used to estimate and compare stormwater management plan review costs across the varying municipal, consultant, and SMG in-house staff fee structures. All review fees calculated in the table below assume one site plan review, one plan review meeting and one as-built inspection.

SWMP Review Organization	SWMP Review Fee		
	Small Site <sup>1</sup>	Medium Site <sup>2</sup>	Large Site <sup>3</sup>
<i>Brownstown Township, MI.<sup>4</sup></i>	\$1,025	\$1,150	\$1,750
<i>Dearborn, MI.<sup>4</sup></i>	\$222	\$785	\$1,232
<i>Warren, MI.<sup>4</sup></i>	\$840	\$3,020	\$13,480
<i>Columbus, OH.<sup>4</sup></i>	\$815	\$900	\$1,070
<i>Philadelphia, PA.</i>	\$960	\$1,050	\$1,230
<i>Milwaukee, WI.</i>	\$100	\$100	\$100
<b>Consultant A</b>	<b>\$2,550</b>	<b>\$2,550</b>	<b>\$2,550</b>
<i>Consultant B</i>	\$1,110	\$1,230	\$1,950
<i>Consultant C</i>	\$3,600	\$3,600	\$3,600
<i>In-House SMG Staff</i>	\$850	\$1,000	\$2,800

<sup>1</sup>Small site review fees are calculated assuming a 0.5 acre site, construction cost of \$280,000, and takes 4 hours to review

<sup>2</sup>Medium site review fees are calculated assuming a 3 acre site, construction cost of \$810,000, and takes 5 hours to review

<sup>3</sup>Large site review fees are calculated assuming a 15 acre site, construction cost of \$2.3 million, and takes 7 hours to review

<sup>4</sup>The SWMP Review Fee is wrapped in to an overall Site Plan Review Process/fee.

## 5 RECOMMENDATION

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It is anticipated that consultants will be utilized in the near-term for the review process as DWSD expands capacity of in-house SMG resources. Over the next few years, SMG anticipates building up sufficient capacity to perform the SWMP reviews using in-house staff.

In an effort to ensure DWSD is adequately recovering costs associated with these SWMP reviews, it is recommended that the mid-range review cost from the consultant proposals, \$2,550, (shown in bold in table above) be used as the SWMP review fee. This will allow DWSD to recover the cost incurred by the Department for consultants to perform the SWMP reviews and will adequately cover the fees if high level in-house SMG staff review the SWMPs. Based on our review of other municipalities, this fee structure is within the range of other operable SWMP review fee structures.

The proposed base review fee of \$2,550 would include the following services:

1. Preliminary plan review meeting
2. Initial plan review and comments
3. As-built plan review
4. Inspection of as-built project

Additional fees for services performed beyond those included in the base fee, are shown below:

1. Additional plan reviews - \$400 per plan review beyond the initial review
2. Additional inspections - \$750 per inspection beyond the initial inspection of the as-built project



Addendum A  
Scope of Work for Consultant Fee Proposals

Request for Proposals  
Detroit Water and Sewerage Department  
Stormwater Management Plan Reviews and Inspections

**Background**

The Detroit Water and Sewerage Department requests assistance with implementing the new post construction stormwater management ordinance anticipated for adoption in spring of 2018. The ordinance will include performance standards for water quality, channel/infrastructure protection and flood control. The ordinance will include a requirement for all regulated projects to submit a post construction stormwater management plan which demonstrates compliance with these standards. The plan will include – at a minimum – a map which indicates impervious cover, disturbed area and the locations and details for all proposed stormwater controls; colocations which demonstrate that the controls meet performance standards for the regulated area of the project.

**Scope of Work**

Consultants will provide plan review and inspections services for DWSD. Plans may be transmitted to the consultants from DWSD via hard copy plan sheets or electronically. Plan review will include a review of the site map and accompanying calculations to determine compliance with all stormwater management regulations (to be found in the utility code). Plan review estimate should presume substantial communication with DWSD staff to ensure adequate and consistent reviews. A written summary of plan deficiencies will be provided to DWSD within 10 business days of receipt. In addition, the scope and costing should presume participation in preliminary plan review (PPR) meetings for regulated projects, one as-built inspection per plan review and one additional review to confirm necessary changes were made to the original SWMP submission.

**Fee Schedule**

Proposers should provide a cost per regulated project based on assumptions above in addition to a fee per service. Services to include: Participation in PPR, initial review, each additional review, as-built inspection, each additional inspection. Fee schedule should be, at a minimum, based on the size of the project, however, consultants can propose an alternative fee distribution methodology, i.e. land use type, impervious cover, etc.