

Reissuance of the Phase I and Western Washington Phase II Municipal Stormwater Permits

The Washington Department of Ecology (Ecology) is working on reissuing the Phase I and Western Washington Phase II Municipal Stormwater Permit. Ecology prepared preliminary draft permit language or narrative descriptions of specific permit sections and is accepting informal comments until 11:59 p.m., January 19, 2018. Send your comments to: <http://ws.ecology.commentinput.com/?id=tkx29>

Or mail hard copies to:
Municipal Stormwater Comments
WA Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

S8. MONITORING AND ASSESSMENT

- A. All Permittees including Secondary Permittees shall provide, in each annual report, a summary description of the findings of any stormwater monitoring or stormwater-related studies conducted by the Permittee during the reporting period. If other stormwater monitoring or stormwater-related studies were conducted on behalf of the Permittee during the reporting period, or if stormwater-related investigations conducted by other entities were reported to the Permittee during the reporting period, a brief description of the type of information gathered or received and its relevance to the Permittee's SWMP shall be included in the annual report.

Permittees are not required to provide descriptions of:

1. Any monitoring, studies, or analyses conducted as part of the regional stormwater monitoring program (Stormwater Action Monitoring, or SAM).
2. Any monitoring that triggers S4.F and is reported in accordance with that section of this permit,
3. Any monitoring for IDDE activities per section S5.C.8,
4. Any monitoring conducted for TMDLs listed in S7 and Appendix 2, or
5. Independent monitoring conducted in accordance with requirements in S8.B.2 or 3 or S8.C.3 or 4 below.

Permittees' reporting of these five categories of monitoring activities must follow the requirements specified in those sections. A summary of these monitoring activities does not need to be included in this annual report submittal.

Note to reviewers: Ecology reviewed the Phase I and Phase II permittees' S8.A annual report submittals for the past three years and found that many permittees are reporting on TMDL monitoring, submitting data tables, or referring to their SWMPs. Ecology wants this S8.A reporting to be meaningful, and therefore proposes to target the summary requested in this submittal to unexpected or other findings reported to the permittees. Do stakeholders agree with this narrowed focus? Do you propose another approach?

- B. Regional status and trends monitoring.

1. Each Permittee that chose S8.B Status and Trends Monitoring Option #1 in the Phase I Municipal Stormwater Permit August 1, 2013 – July 31, 2018 (extended to July 31, 2019) shall pay into the collective fund to implement regional small streams and marine nearshore status and trends monitoring in Puget Sound. The payments are due on or before December 1, 2019 and the amounts are listed in *(new)* Appendix XX.

Note to reviewers: The annual payments in the prior permit were established to cover 1/4 of the five-year budget for receiving water monitoring. Ecology proposes that the annual payments beginning in 2019 be established to cover 1/5 of the proposed budget. The allocated annual per capita cost for S8.B monitoring would therefore be reduced from \$0.2442 to \$0.1954. OFM data for 2017 will be used for the calculations in the formal draft permit (the amounts provided for S8.B-C annual payments in the draft new Appendix XX use 2016 data). Continuing annual contributions rather than skipping a year will provide continuity for monitoring projects. The same approach is proposed for Western WA Phase II permittees. Do stakeholders agree with this approach, and will it work for permittees?

2. No later than December 1, 2019, King, Pierce, and Snohomish Counties, the Cities of Seattle and Tacoma, and the Ports of Seattle and Tacoma shall notify Ecology in writing which of the following two options for status and trends monitoring the Permittee chooses to carry out during this permit cycle. Either option will fully satisfy the Permittee's obligations under this section (S8.B.2). Each Permittee shall select a single option for the duration of this permit.
 - a. Puget Sound regional status and trends monitoring: Each Permittee that chooses this option shall pay into a collective fund to implement regional small streams and marine nearshore status and trends monitoring in Puget Sound. The payments into the collective fund are due to Ecology annually beginning August 15, 2020 and the amounts are listed in (*new*) Appendix XX.

Or

Note to reviewers: The option provided in the 2013-2018 permit for permittees to conduct individual receiving water monitoring did not produce the data Ecology hoped would meaningfully contribute to the regional program, and threatened its integrity. Ecology has considered not including any opt-out option at all in the 2019-2024 permit.

The Stormwater Work Group (SWG, the stakeholder committee that selects all SAM projects) recommended in June 2016:

“It is important to maintain the integrity of the regional status and trends monitoring program. This program needs to be fully funded to ensure that we can detect regional trends” ... and ...

“The permit needs to provide a strong, but not exclusive, incentive for permittees to participate in the pay-in approach as the primary means of funding the permit-driven regional status and trends monitoring program in Puget Sound receiving waters.”

What do stakeholders think of the approach proposed proposed below? Do you have a recommendation for another approach?

- b. Stormwater discharge monitoring: Each Permittee that chooses not to participate in the regional status and trends monitoring shall conduct stormwater discharge monitoring in accordance with Appendix 9 and an Ecology-approved QAPP as follows:
 - i. Cities and counties shall monitor five independent discharge locations; ports shall monitor two independent discharge locations. Permittees are encouraged to continue this monitoring at locations monitored under S8.D of the Phase I Municipal Stormwater Permit February 16, 2007 – February 15, 2012.
 - ii. No later than February 1, 2020 each Permittee shall submit to Ecology a draft stormwater discharge monitoring QAPP for review and approval. The QAPP shall be prepared in accordance with Ecology publication 10-10-75 “Quality Assurance Project Plan Guidance: Special Condition S8.D: Phase I Municipal Stormwater Permit.” If Ecology does not request changes within 90 days, the draft QAPP is considered approved. The final QAPP shall be submitted to Ecology as soon as possible following finalization, and before August 15, 2020.
 - iii. Flow monitoring at new discharge monitoring locations shall begin no later than October 1, 2020. Stormwater discharge monitoring shall be fully implemented no later than October 1, 2020 at existing discharge monitoring locations and October 1, 2021 at new discharge monitoring locations.

Note to reviewers: Ecology is proposing to update Appendix 9 with changes including:

- Reduce antecedent dry period from 24 to 8 hours
- Update laboratory methods as appropriate
- More clearly define sediment sampling as in-system solids sampling via sediment trap
- Add total PCBs to the runoff characterization list (using 1668C)
- Add guidance for interpreting non-detects
- Add particle size distribution
- Add or remove other parameters as more information comes in from SAM receiving water studies

Are these and other changes needed and/or appropriate for this appendix?

- iv. Data and analyses shall be reported annually in accordance with the Ecology-approved QAPPs.
3. Clark County shall:
 - a. Conduct regional small urban streams monitoring in the Lower Columbia River Basin.

Note to reviewers: During the 2013-2018 permit, Clark County, seven Phase II permittees, and other stakeholders worked on a study design and implementation plan for this monitoring. The Lower Columbia Habitat Status and Trends Monitoring (LC HSTM) QAPP Template is the outcome of that effort. Clark County will conduct the monitoring and the Phase II permittees will contribute to this monitoring in the same manner as Puget Sound permittees contribute to SAM (payments to Ecology kept in an account –separate from the Puget Sound fund– and Ecology then enters into a contract with Clark County). Do stakeholders agree with this approach, and will it work for the LC permittees?

- i. Submit a completed “Lower Columbia Habitat Status and Trends Monitoring (LC HSTM) Urban Streams QAPP Template” to Ecology before November 1, 2019. If Ecology does not request changes within 90 days, the QAPP is considered approved. The final QAPP shall be submitted to Ecology as soon as possible following finalization, and before February 28, 2020. The completed QAPP shall include all of the specifications and deadlines in the “LC HSTM Urban Streams QAPP Template.”

Note to reviewers: The final draft “LC HSTM Urban Streams QAPP Template” is expected to be available for review in early 2018. The study design includes a base set of non-negotiable parameters and an extended list of additional parameters yet to be prioritized. Ecology envisions that Clark County and the Phase II permittees will set these priorities as part of completing the QAPP template or as an early reporting requirement in implementing the final QAPP. Do stakeholders agree with this approach, and will it work for the LC permittees?

- ii. Report data and analyses annually in accordance with the approved QAPP.

C. Stormwater management program effectiveness and source identification studies.

Note to reviewers: During the 2013-2018 permit, the intent and purpose of S8.D Source Identification and Diagnostic Monitoring evolved from a Source Identification Information Repository to a focus on analyzing information from and supporting permittees’ IDDE and source control programs. The SWG recommended that a small portion of the S8.D funds continue to support analysis of IDDE incident tracking data and that the remaining funds be rolled into the effectiveness study component. Ecology is proposing to eliminate the third account and to continue to fund both effectiveness and source identification studies from the same account. SWG will continue to select the studies. Do stakeholders agree with this approach, and will it work for permittees?

1. Each permittee shall submit records of SWMP activities tracked and/or maintained in accordance with S5 and/or S9 in response to requests for information associated with effectiveness and source identification studies under active SAM contracts.

Note to reviewers: A small number of SAM studies are designed to answer questions with data directly provided by permittees. During the 2013-2018 there were two SAM effectiveness studies that required permittees' records. The projects ended up working with very limited data sets due to lack of permittee-provided data. SAM's future requests for information will be rare and targeted. The value of the study findings will only be as good as the data provided. Ecology wants the SAM studies to be as robust as possible. This does not require permittees to provide data to SAM project proponents; it is only for SWG-approved studies under contract with Ecology. Do stakeholders agree with this approach, and will it help permittees provide the necessary data?

2. Each Permittee that chose S8.C Effectiveness Studies Option #1 or Option #3 in the Phase I Municipal Stormwater Permit August 1, 2013 – July 31, 2018 (extended to July 31, 2019) shall pay into the collective fund to implement effectiveness studies. The payments are due before December 1, 2019 and the amounts are listed in (*new*) Appendix XX.

Note to reviewers: See the note on S8.B.1 above and the new Appendix provided for review. These amounts are all the less than the S8.C amounts in the prior permit.

3. No later than December 1, 2019, Clark, King, Pierce, and Snohomish Counties, the Cities of Seattle and Tacoma, and the Ports of Seattle and Tacoma shall notify Ecology in writing which of the following three options for effectiveness studies the Permittee chooses to carry out during this permit cycle. Any one of the three options will fully satisfy the Permittee's obligations under this section (S8.C). Each Permittee shall select a single option for the duration of this permit term.
 - a. Effectiveness Studies Option #1: Each Permittee that chooses this option shall pay into a collective fund to implement SAM effectiveness studies. The payments into the collective fund are due to Ecology annually beginning August 15, 2020 and the amounts are listed in (*new*) Appendix XX.

Note to reviewers: See the notes above for S8.B.1 and S8.C. The allocated annual per capita cost for S8.C studies is thereby reduced from \$0.4068 to \$0.3556. OFM data for 2017 will be used for the calculations in the formal draft permit (the amounts in the new Appendix XX use 2016 data). Do stakeholders agree with this approach, and will it work for permittees?

Or

- b. Effectiveness Studies Option #2: Each Permittee that chooses not to participate in the effectiveness studies component of the regional monitoring program/SAM shall conduct stormwater discharge monitoring in accordance with Appendix 9 and the following:

Note to reviewers: See the note on S8.B.2.b above regarding proposed changes to Appendix 9.

- i. Each city and county Permittee shall conduct stormwater discharge monitoring at five locations. Permittees are encouraged to continue stormwater monitoring at locations monitored under S8.D of the Phase I Municipal Stormwater Permit February 16, 2007 – February 15, 2012. Permittees who choose this option and also choose Stormwater discharge monitoring per S8.B.2.b shall conduct this monitoring at a total of ten locations.
- ii. Each port Permittee shall conduct stormwater discharge monitoring at two locations representing different pollution-generating activities or land uses. Permittees are encouraged to continue stormwater monitoring at locations monitored under S8.D of the Phase I Municipal Stormwater Permit February 16, 2007 – February 15, 2012. Permittees who choose this option and also choose stormwater discharge monitoring per S8.B.2.b shall conduct this monitoring at a total of four locations.
- iii. No later than February 2, 2020 each Permittee shall submit to Ecology a draft updated stormwater discharge monitoring QAPP for review and approval. The QAPP shall be prepared in accordance with Ecology publication 10-10-75 “Quality Assurance Project Plan Guidance: Special Condition S8.D: Phase I Municipal Stormwater Permit.” If Ecology does not request changes within 90 days, the draft QAPP is considered approved. Final QAPPs shall be submitted to Ecology as soon as possible but no later than July 31, 2020.
- iv. Flow monitoring at new discharge monitoring locations shall begin no later than October 1, 2020. Stormwater discharge monitoring shall be fully implemented no later than October 1, 2020 at existing discharge monitoring locations and October 1, 2021 at new discharge monitoring locations. All monitoring shall be conducted in accordance with an Ecology-approved QAPP.

Or

- c. Effectiveness Studies Option #3: Each Permittee that chooses this option shall both pay into a collective fund to implement regional effectiveness and source identification studies **AND** independently conduct an effectiveness study that

is not expected to be undertaken as part of the regional monitoring program/SAM.

- i. Payments into the collective fund are due to Ecology annually beginning August 15, 2020. The payment amounts are:

Permittee	Payment amount
Clark County	\$ 38,894
King County	\$ 43,725
Pierce County	\$ 69,744
Snohomish County	\$ 60,274
Port of Seattle	\$ 3,233
Port of Tacoma	\$ 3,233
City of Seattle	\$122,113
City of Tacoma	\$ 36,645

- ii. Conduct the independent effectiveness study in accordance with the requirements below:
 - (1) No later than February 2, 2020 submit to Ecology, for review and approval, a detailed proposal describing: the purpose, objectives, design, and methods of the independent effectiveness study; anticipated outcomes; expected modifications to the Permittee’s stormwater management program; and relevance to other Permittees.
 - (2) Submit a draft QAPP to Ecology within 120 days of Ecology’s approval of the detailed proposal. The QAPP shall be prepared in accordance with [*QAPP templates under development, see note below*]. The QAPP shall include reporting details including timely uploading of all relevant data to Ecology’s EIM database and/or the International Stormwater BMP Database as appropriate, and sharing the findings with other Permittees. If Ecology does not request changes within 120 days of submittal, the QAPP is considered approved.

Note to readers: Three QAPP templates for structural, operational, and education/outreach BMP effectiveness studies were developed for Eastern WA during the 2014-2019 permit; they are being adapted for W WA.

- (3) Begin full implementation of the study no later than six months following Ecology’s approval of the QAPP.
- (4) Describe interim results and status of the study implementation in annual reports throughout the duration of the study.

Proposed 2019-2024 Phase I MS4 permit language for S8. Monitoring and Assessment

- (5) Report final results, including recommended future actions, to Ecology and on the Permittee's webpage no later than six months after completion of the study.
- (6) According to the schedule in the approved QAPP, produce a two page fact sheet for distribution among municipal stormwater permittees.

Note to reviewers: S8.D is removed from this informal draft permit. See notes on S8.C above. See proposed draft language for IDDE incident tracking and annual reporting, S5.C.8.g.

Please read the "notes to reviewers" at the end of this document

Permittees are grouped by County and listed alphabetically

Municipality	Population	Annual amount for S8.B.2.a	Annual amount for S8.C.1	S8.D
Clallam				
Port Angeles	19,270	\$ 3,765	\$ 6,852	\$ -
Clark				
Unincorporated	218,750	N/A	\$ 77,788	\$ -
Battle Ground	19,640	\$ 4,796	\$ 6,984	\$ -
Camas	21,810	\$ 5,326	\$ 7,756	\$ -
Vancouver	173,500	\$ 42,369	\$ 61,697	\$ -
Washougal	15,560	\$ 3,800	\$ 5,533	\$ -
Cowlitz				
Unincorporated	16,480	\$ 4,024	\$ 5,860	\$ -
Kelso	11,970	\$ 2,923	\$ 4,257	\$ -
Longview	37,230	\$ 9,092	\$ 13,239	\$ -
Grays Harbor				
Aberdeen	16,780	N/A	\$ 5,967	\$ -
Island				
Oak Harbor	22,410	\$ 4,378	\$ 7,969	\$ -
King				
Unincorporated	245,920	\$ 48,043	\$ 87,449	\$ -
Algona	3,175	\$ 620	\$ 1,129	\$ -
Auburn	77,060	\$ 15,054	\$ 27,403	\$ -
Bellevue	139,400	\$ 27,233	\$ 49,571	\$ -
Black Diamond	4,305	\$ 841	\$ 1,531	\$ -
Bothell	43,980	\$ 8,592	\$ 15,639	\$ -
Burien	50,000	\$ 9,768	\$ 17,780	\$ -
Clyde Hill	3,060	\$ 598	\$ 1,088	\$ -
Covington	18,750	\$ 3,663	\$ 6,668	\$ -
Des Moines	30,570	\$ 5,972	\$ 10,871	\$ -
Duvall	7,425	\$ 1,451	\$ 2,640	\$ -
Enumclaw	11,410	\$ 2,229	\$ 4,057	\$ -
Federal Way	93,670	\$ 18,299	\$ 33,309	\$ -
Issaquah	34,590	\$ 6,758	\$ 12,300	\$ -
Kenmore	21,370	\$ 4,175	\$ 7,599	\$ -
Kent	124,500	\$ 24,322	\$ 44,272	\$ -
Kirkland	84,680	\$ 16,543	\$ 30,112	\$ -
Lake Forest Park	12,940	\$ 2,528	\$ 4,601	\$ -
Maple Valley	24,790	\$ 4,843	\$ 8,815	\$ -
Medina	3,165	\$ 618	\$ 1,125	\$ -
Mercer Island	23,660	\$ 4,622	\$ 8,413	\$ -
Newcastle	11,090	\$ 2,167	\$ 3,944	\$ -
Normandy Park	6,540	\$ 1,278	\$ 2,326	\$ -
Pacific	6,915	\$ 1,351	\$ 2,459	\$ -

Proposed new Appendix XX. Proposed annual permittee contribution amounts for S8.B.2.a and S8.C.1

Port of Seattle	18,183	\$	3,552	\$	6,466	\$	-
Redmond	60,560	\$	11,831	\$	21,535	\$	-
Renton	101,300	\$	19,790	\$	36,022	\$	-
Sammamish	61,250	\$	11,966	\$	21,781	\$	-
SeaTac	27,810	\$	5,433	\$	9,889	\$	-
Seattle	686,800	\$	134,173	\$	244,226	\$	-
Shoreline	54,990	\$	10,743	\$	19,554	\$	-
Snoqualmie	13,110	\$	2,561	\$	4,662	\$	-
Tukwila	19,540	\$	3,817	\$	6,948	\$	-
Woodinville	11,570	\$	2,260	\$	4,114	\$	-
Kitsap							
Unincorporated	42,876	\$	8,376	\$	15,247	\$	-
Bainbridge Island	23,760	\$	4,642	\$	8,449	\$	-
Bremerton	40,500	\$	7,912	\$	14,402	\$	-
Port Orchard	13,810	\$	2,698	\$	4,911	\$	-
Poulsbo	10,210	\$	1,995	\$	3,631	\$	-
Lewis							
Centralia	16,820		N/A	\$	5,981	\$	-
Pierce							
Unincorporated	392,260	\$	76,632	\$	139,488	\$	-
Bonney Lake	20,000	\$	3,907	\$	7,112	\$	-
Buckley	4,550	\$	889	\$	1,618	\$	-
DuPont	9,330	\$	1,823	\$	3,318	\$	-
Edgewood	9,735	\$	1,902	\$	3,462	\$	-
Fife	9,910	\$	1,936	\$	3,524	\$	-
Fircrest	6,625	\$	1,294	\$	2,356	\$	-
Gig Harbor	9,065	\$	1,771	\$	3,224	\$	-
Lakewood	58,800	\$	11,487	\$	20,909	\$	-
Milton	7,695	\$	1,503	\$	2,736	\$	-
Orting	7,535	\$	1,472	\$	2,679	\$	-
Port of Tacoma	18,183	\$	3,552	\$	6,466	\$	-
Puyallup	39,850	\$	7,785	\$	14,171	\$	-
Steilacoom	6,170	\$	1,205	\$	2,194	\$	-
Sumner	9,705	\$	1,896	\$	3,451	\$	-
Tacoma	206,100	\$	40,264	\$	73,289	\$	-
University Place	32,230	\$	6,296	\$	11,461	\$	-
Skagit							
Unincorporated	5,235	\$	1,023	\$	1,862	\$	-
Burlington	8,675	\$	1,695	\$	3,085	\$	-
Anacortes	16,580	\$	3,239	\$	5,896	\$	-
Mount Vernon	33,730	\$	6,589	\$	11,994	\$	-
Sedro-Woolley	11,030	\$	2,155	\$	3,922	\$	-
Snohomish							
Unincorporated	338,995	\$	66,226	\$	120,547	\$	-
Arlington	18,620	\$	3,638	\$	6,621	\$	-
Brier	6,555	\$	1,281	\$	2,331	\$	-
Edmonds	40,900	\$	7,990	\$	14,544	\$	-
Everett	108,300	\$	21,157	\$	38,511	\$	-
Granite Falls	3,395	\$	663	\$	1,207	\$	-
Lake Stevens	30,900	\$	6,037	\$	10,988	\$	-

Proposed new Appendix XX. Proposed annual permittee contribution amounts for S8.B.2.a and S8.C.1

Lynnwood	36,560	\$ 7,142	\$ 13,001	\$ -
Marysville	64,940	\$ 12,687	\$ 23,093	\$ -
Mill Creek	19,900	\$ 3,888	\$ 7,076	\$ -
Monroe	18,120	\$ 3,540	\$ 6,443	\$ -
Mountlake Terrace	21,090	\$ 4,120	\$ 7,500	\$ -
Mukilteo	21,070	\$ 4,116	\$ 7,492	\$ -
Snohomish	9,625	\$ 1,880	\$ 3,423	\$ -
Thurston				
Unincorporated	51,555	\$ 10,072	\$ 18,333	\$ -
Lacey	47,540	\$ 9,287	\$ 16,905	\$ -
Olympia	51,600	\$ 10,081	\$ 18,349	\$ -
Tumwater	23,040	\$ 4,501	\$ 8,193	\$ -
Whatcom				
Birch Bay UGA	7,914	\$ 1,546	\$ 2,814	\$ -
Unincorporated	10,702	\$ 2,091	\$ 3,806	\$ -
Bellingham	84,850	\$ 16,576	\$ 30,173	\$ -
Ferndale	13,250	\$ 2,589	\$ 4,712	\$ -
Lynden	13,380	\$ 2,614	\$ 4,758	\$ -
Totals	4,836,236	\$ 907,827	\$ 1,715,858	\$ -

Notes to reviewers:

This is a proposed new appendix with all Phase I and W WA Phase II permittees' annual SAM contributions listed. The appendix would be the same in both the Phase I and W WA Phase II permits.

1. The table shows updated annual costs using the same per-capita cost allocation from the prior permit but spread over five years instead of four. Do stakeholders agree with this approach? Do you propose another approach?
 - a. With some exceptions listed below, the source for the population data is <https://data.wa.gov/Demographics/2012-2014-Population/782x-jqab> accessed on 9/20/16. Ecology plans to update these populations using the most current data for the formal draft permit.
 - b. Phase II County unincorporated area UGA populations for 2016 are from <http://www.ofm.wa.gov/pop/smallarea/default.asp> updated 9/21/16 and accessed on 10/5/16. Ecology plans to update these populations using the most current data for the formal draft permit.
 - c. Cowlitz County is not a Growth Management Act planning county - their 2016 permit coverage area population was determined by subtracting populations of Longview and Kelso from OFM's "county parts of urban areas" estimate released on 9/21/16.
 - d. WSDOT's contributions to S8.B.2.a SAM and LC HSTM programs would be included in the table so that all permittees can get a sense of their relative contributions. Using the current population data, WSDOT would be expected to contribute \$24,322 to SAM receiving water monitoring and \$9,092 to LC HSTM urban streams monitoring.
2. Permittees/permitted areas that were new in the 2013-2018 permit (Snoqualmie, Lynden, and Birch Bay UGA) would not contribute to SAM until the second year of the 2019-2024 permit. Do stakeholders agree with this approach? Do you propose another approach?
3. Population estimates for the Ports of Tacoma and Seattle were made by increasing the figure used in the 2013-2018 permit and increasing it by 1.078 percent – the cumulative population increase for all western Washington permittees. Do stakeholders agree with this approach? Do you propose another approach?
4. For S8.B, the total 5-year per capita SAM and LC HSTM allocations are the same but Phase II permittees' LC HSTM allocations would begin in the second year of the 2019-2024 permit and are spread over four years. Do stakeholders agree with this approach? Do you propose another approach?