



SEATTLE CITY COUNCIL

Legislative Summary

CB 118465

Record No.: CB 118465

Type: Ordinance (Ord)

Status: Passed

Version: 2

124872

In Control: City Clerk

File Created: 07/17/2015

Final Action: 09/29/2015

Title: AN ORDINANCE relating to the Stormwater Code; amending Chapters 22.800, 22.801, 22.802, 22.803, 22.805, 22.807, and 22.808 of the Seattle Municipal Code and adding a new Section 22.800.100.

Date

Notes:

Filed with City Clerk:

Mayor's Signature:

Sponsors: Bagshaw

Vetoed by Mayor:

Veto Overridden:

Veto Sustained:

Attachments:

Drafter: bob.hennessey@seattle.gov

Filing Requirements/Dept Action:

History of Legislative File

Legal Notice Published:

☐ Yes

☐ No

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
1	Mayor	08/03/2015	Mayor's leg transmitted to Council	City Clerk			
	Action Text: The Council Bill (CB) was Mayor's leg transmitted to Council. to the City Clerk						
	Notes:						
1	City Clerk	08/03/2015	sent for review	Council President's Office			
	Action Text: The Council Bill (CB) was sent for review. to the Council President's Office						
	Notes:						
1	Council President's Office	08/05/2015	sent for review	Seattle Public Utilities and Neighborhoods Committee			
	Action Text: The Council Bill (CB) was sent for review. to the Seattle Public Utilities and Neighborhoods Committee						
	Notes:						

Legislative Summary Continued (CB 118465)

- | | | | | | |
|---|---|------------|------------------------------------|---|------|
| 1 | Full Council | 08/10/2015 | referred | Seattle Public
Utilities and
Neighborhoods
Committee | |
| 1 | Seattle Public Utilities and
Neighborhoods
Committee | 09/11/2015 | pass as amended | | Pass |
| | Action Text: The Committee recommends that Full Council pass as amended the Council Bill (CB). | | | | |
| | Notes: | | | | |
| | | | In Favor: 3 | Chair Bagshaw, Vice Chair Sawant, Member Harrell | |
| | | | Opposed: 0 | | |
| 2 | Full Council | 09/21/2015 | passed | | Pass |
| | Action Text: The Council Bill (CB) was passed by the following vote and the President signed the Bill: | | | | |
| | | | In Favor: 9 | Councilmember Bagshaw, Council President Burgess, Councilmember
Godden, Councilmember Harrell, Councilmember Licata, Councilmember
O'Brien, Councilmember Okamoto, Councilmember Rasmussen,
Councilmember Sawant | |
| | | | Opposed: 0 | | |
| 2 | City Clerk | 09/22/2015 | submitted for
Mayor's signature | Mayor | |
| | Action Text: The Council Bill (CB) was submitted for Mayor's signature. to the Mayor | | | | |
| | Notes: | | | | |
| 2 | Mayor | 09/29/2015 | Signed | | |
| | Action Text: The Council Bill (CB) was Signed. | | | | |
| | Notes: | | | | |
| 2 | Mayor | 09/29/2015 | returned | City Clerk | |
| | Action Text: The Council Bill (CB) was returned. to the City Clerk | | | | |
| | Notes: | | | | |
| 2 | City Clerk | 09/29/2015 | attested by City
Clerk | | |
| | Action Text: The Ordinance (Ord) was attested by City Clerk. | | | | |
| | Notes: | | | | |
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CITY OF SEATTLE
ORDINANCE 124872
COUNCIL BILL 118465

AN ORDINANCE relating to the Stormwater Code; amending Chapters 22.800, 22.801, 22.802, 22.803, 22.805, 22.807, and 22.808 of the Seattle Municipal Code and adding a new Section 22.800.100.

WHEREAS, the City of Seattle is committed to protecting local creeks and lakes, the Duwamish River and Puget Sound; and

WHEREAS, Seattle Public Utilities provides efficient, forward-looking utility services that keep Seattle the best place to live; and

WHEREAS, the City of Seattle uses stormwater regulations to protect people, property and the environment from damage related to stormwater runoff, for the purposes stated in Section 22.800.020 of the Seattle Municipal Code; and

WHEREAS, the City of Seattle is subject to the 2013-2018 Phase I Municipal Stormwater Permit (National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Discharges from Large and Medium Municipal Separate Storm Sewer Systems) issued August 1, 2012, by the State of Washington Department of Ecology (Ecology) in compliance with the federal Clean Water Act and state law, as effective August 1, 2013, and amended effective January 16, 2015 (MS4 Permit); and

WHEREAS, the MS4 Permit requires that the City's Stormwater Code and associated technical manual include minimum requirements, thresholds, definitions, and other specified requirements, limitations and criteria, determined by Ecology to be equivalent to Appendix 1 of the MS4 Permit for new development, redevelopment and construction, and that maintenance and source control must be as least as protective as or functionally

1 equivalent to Ecology's Stormwater Management Manual for Western Washington, 2012
2 edition as amended in 2014; and

3 WHEREAS, the MS4 Permit also requires that the City evaluate and, if necessary, revise the
4 Stormwater Code to incorporate low impact development principles and best
5 management practices; and

6 WHEREAS, this ordinance, to be known at the 2016 Stormwater Code Update, contains
7 amendments to comply with the MS4 Permit and other amendments not required to
8 comply with the MS4 Permit, to further the purposes of the Stormwater Code; and

9 WHEREAS, the City is in the final stages of securing Ecology's approval of certain Seattle
10 Stormwater Manual provisions that were drafted to meet MS4 Permit obligations, and the
11 approved provisions will be adopted during 2015 by joint Directors' Rule of Seattle
12 Public Utilities and the Seattle Department of Planning and Development; and

13 WHEREAS, Ecology has reviewed the City's proposed revisions to the Stormwater Code that
14 were drafted in response to the City's MS4 Permit obligations and that required Ecology
15 approval, and Ecology has found that those provisions, together with final approved
16 Seattle Stormwater Manual revisions, will meet the regulatory requirements of the MS4
17 Permit; and

18 WHEREAS, Chapter 22.800 of the Seattle Municipal Code was established, and Chapter 22.805
19 of the Seattle Municipal Code was added, by Ordinance 123105, which repealed and
20 amended by reenacting, relocating and amending the text of Chapters 22.800, 22.801,
21 22.802, and 22.808 of the Seattle Municipal Code, previously amended by Ordinances
22 122738, 122055, 121276, 119965, 118396, 117852, 117789, 117697, and 117432 and
23 adopted by Ordinance 116425; and

WHEREAS, Sections 22.800.040, 22.805.050, and 22.805.060 of the Seattle Municipal Code
were amended by Ordinance 124758; and

WHEREAS, in developing stormwater regulations that protect the functions and values of
critical areas, including those in the Shoreline District, the City has included the best
available science; NOW THEREFORE,

BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:

Section 1. Section 22.800.020 of the Seattle Municipal Code, enacted by Ordinance
123105, is amended as follows:

22.800.020 Purpose

A. The provisions of this subtitle shall be liberally construed to accomplish its remedial
purposes, which are:

1. ((Protect)) To protect, to the greatest extent practicable, life, property and the
environment from loss, injury and damage by pollution, erosion, flooding, landslides, strong
ground motion, soil liquefaction, accelerated soil creep, settlement and subsidence, and other
potential hazards, whether from natural causes or from human activity;

2. ((Protect)) To protect the public interest in drainage and related functions of
drainage basins, watercourses and shoreline areas;

3. ((Protect)) To protect receiving waters from pollution, mechanical damage,
excessive flows and other conditions in their drainage basins which will increase the rate of
downcutting, streambank erosion, and/or the degree of turbidity, siltation and other forms of
pollution, or which will reduce their low flows or low levels to levels which degrade the
environment, reduce recharging of groundwater, or endanger aquatic and benthic life within
these receiving waters and receiving waters of the state;

1 4. ~~((Meet))~~ To meet the requirements of state and federal law and the City's
2 municipal stormwater National Pollutant Discharge Elimination System (~~((("NPDES"))~~
3 ~~(NPDES)~~ permit;

4 5. To protect the functions and values of environmentally critical areas as
5 required under the state's Growth Management Act and Shoreline Management Act;

6 6. To protect the public drainage system from loss, injury and damage by
7 pollution, erosion, flooding, landslides, strong ground motion, soil liquefaction, accelerated soil
8 creep, settlement and subsidence, and other potential hazards, whether from natural causes or
9 from human activity; and

10 7. ~~((Fulfill))~~ To fulfill the responsibilities of the City as trustee of the
11 environment for future generations.

12 B. It is expressly the purpose of this subtitle to provide for and promote the health, safety
13 and welfare of the general public. This subtitle is not intended to create or otherwise establish or
14 designate any particular class or group of persons who will or should be especially protected or
15 benefited by its terms.

16 C. It is expressly acknowledged that water quality degradation can result either directly
17 from one discharge or through the collective impact of many small discharges. Therefore, the
18 water quality protection measures in this subtitle are necessary to protect the health, safety and
19 welfare of the residents of Seattle and the integrity of natural resources for the benefit of all and
20 for the purposes of this subtitle. Such water quality protection measures are required under the
21 federal Clean Water Act, 33 U.S.C. Section 1251, et seq., and in response to the obligations of
22 the City's municipal stormwater discharge permit, issued by the State of Washington under the
23 federal ~~((National Pollutant Discharge Elimination System))~~ NPDES program.

Section 2. Section 22.800.030 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.800.030 Scope and Applicability

This subtitle applies to:

A. All grading and drainage and erosion control, whether or not a permit is required;

B. All land disturbing activities, whether or not a permit is required;

C. All discharges directly or indirectly to a public drainage system or a public combined sewer;

D. All discharges directly or indirectly into receiving waters within or contiguous to Seattle city limits;

E. All new and existing land uses; and

F. All real property.

Section 3. Section 22.800.040 of the Seattle Municipal Code, last amended by Ordinance 124758, is amended as follows:

22.800.040 Exemptions, Adjustments, and Exceptions

A. Exemptions ((-))

1. The following land uses are exempt from the provisions of this subtitle:

a. Commercial agriculture, including only those activities conducted on lands defined in RCW 84.34.020(2), and production of crops or livestock for wholesale trade; and

b. Forest practices regulated under Title 222 Washington Administrative Code, except for Class IV general forest practices, as defined in WAC 222-16-050, that are conversions from timber land to other uses.

2. The following land disturbing activities are not required to comply with the specific minimum requirements listed below.

a. Maintenance, repair, or installation of underground or overhead utility facilities, such as, but not limited to, pipes, conduits and vaults, and that includes replacing the ground surface with in-kind material or materials with similar runoff characteristics are not required to comply with Section 22.805.070 (Minimum Requirements for On-site Stormwater Management), Section 22.805.080 (Minimum Requirements for Flow Control), or Section 22.805.090 (Minimum Requirements for Treatment), except as modified as follows:

1) Installation of a new or replacement of an existing public drainage system, public combined sewer, or public sanitary sewer in the public right-of-way shall comply with Section 22.805.060 (Minimum ~~((requirements))~~ Requirements for Roadway Projects) when these activities are implemented as publicly bid capital improvement projects funded by Seattle Public Utilities; and

2) Installation of underground or overhead utility facilities that are integral with and contiguous to a road-related project shall comply with Section 22.805.060 (Minimum ~~((requirements))~~ Requirements for Roadway Projects).

b. ~~((Road))~~ Pavement maintenance practices limited to the following activities are not required to comply with Section 22.805.060 (Minimum ~~((requirements))~~ Requirements for Roadway Projects), Section 22.805.070 (Minimum Requirements for On-site Stormwater Management), Section 22.805.080 (Minimum Requirements for Flow Control), or Section 22.805.090 (Minimum Requirements for Treatment):

1) Pothole and square cut patching;

2) Overlaying existing asphalt or concrete or brick pavement with asphalt or concrete without expanding the area of coverage;

3) Shoulder grading;

4) Reshaping or regrading drainage ditches;

5) Crack sealing; and

6) Vegetation maintenance.

3. Sites that produce no runoff as determined by a licensed civil engineer using a continuous runoff model approved by the Director are not required to comply with Section 22.805.080 (Minimum Requirements for Flow Control).

4. When a portion of the site being developed discharges only to the public combined sewer, that portion is not required to comply with the provision of subsection ~~((22.805.020.K))~~ 22.805.020.I (Install Source Control BMPs) unless the Director determines that these activities pose a hazard to public health, safety or welfare; endanger any property; adversely affect the safety and operation of city right-of-way, utilities, or other property owned or maintained by the City; or adversely affect the functions and values of an environmentally critical area or buffer.

5. Residential activities are not required to comply with the provision of subsection ~~((22.805.020.K))~~ 22.805.020.I (Install Source Control BMPs) unless the Director determines that these activities pose a hazard to public health, safety or welfare; endanger any property; adversely affect the safety and operation of city right-of-way, utilities, or other property owned or maintained by the City; or adversely affect the functions and values of an environmentally critical area or buffer.

1 6. With respect to all state highway right-of-way under Washington State
2 Department of Transportation (WSDOT) control within the jurisdiction of the City of Seattle,
3 WSDOT shall use the current, approved Highway Runoff Manual (HRM) for its existing and
4 new facilities and rights-of-way, as addressed in WAC 173-270-030(1) and (2). Exceptions to
5 this exemption, where more stringent stormwater management requirements apply, are addressed
6 in WAC 173-270-030(3)(b) and (c).

7 a. When a state highway is located in the jurisdiction of a local
8 government that is required by Ecology to use more stringent standards to protect the quality of
9 receiving waters, WSDOT shall comply with the same standards to promote uniform stormwater
10 management.

11 b. WSDOT shall comply with standards identified in watershed action
12 plans for WSDOT rights-of-way, ~~((as))~~ to the extent required by state law ~~((WAC 400-12-570))~~ .

13 c. Other instances where more stringent local stormwater standards apply
14 are projects subject to tribal government standards or to the stormwater management-related
15 permit conditions imposed under Chapter 25.09 to protect environmentally critical areas and
16 their buffers (under the Growth Management Act), an NPDES permit, or shoreline master
17 programs (under the Shoreline Management Act). In addition, WSDOT shall comply with local
18 jurisdiction stormwater standards when WSDOT elects, and is granted permission, to discharge
19 stormwater runoff into a municipality's ~~((stormwater))~~ drainage system or combined sewer
20 system.

21 B. Adjustments ~~((÷))~~

22 1. The Director may approve a request for adjustments to the requirements of this
23 subtitle when the Director finds that:

1 a. The adjustment provides substantially equivalent environmental
2 protection; and

3 b. The objectives of safety, function, environmental protection, and
4 facility maintenance are met, based on sound engineering practices.

5 2. During construction, the Director may require, or the applicant may request,
6 that the construction of drainage control facilities and associated project designs be adjusted if
7 physical conditions are discovered on the site that are inconsistent with the assumptions upon
8 which the approval was based, including but not limited to unexpected soil and/or water
9 conditions, weather generated problems, or changes in the design of the improved areas.

10 3. A request by the applicant for adjustments shall be submitted to the Director
11 for approval prior to implementation. The request shall be in writing and shall provide facts
12 substantiating the requirements of subsection ((22.805.080.B1)) 22.800.040.B.1 ((7)) and, if
13 made during construction, the factors in subsection ((B2)) B.2. Any such modifications made
14 during the construction of drainage control facilities shall be recorded on the final approved
15 drainage control plan, a revised copy of which shall be filed by the Director.

16 C. Exceptions ((7))

17 1. The Director may approve a request for an exception to the requirements of
18 this subtitle when the applicant demonstrates that the exception will not increase risks in the
19 vicinity and/or downstream of the property to public health, safety and welfare, or to water
20 quality, or to public and private property, and:

21 a. The requirement would cause a severe and unexpected financial
22 hardship that outweighs the requirement's benefits, and the criteria for an adjustment cannot be
23 met; or

1 b. The requirement would cause harm or a significant threat of harm to
2 public health, safety and welfare, the environment, or public and private property, and the criteria
3 for an adjustment cannot be met; or

4 c. The requirement is not technically feasible, and the criteria for an
5 adjustment cannot be met; or

6 d. An emergency situation exists that necessitates approval of the
7 exception.

8 2. An exception shall only be granted to the extent necessary to provide relief
9 from the economic hardship, to alleviate the harm or threat of harm, to the degree that
10 compliance with the requirement becomes technically feasible, or to perform the emergency
11 work that the Director determines exists.

12 3. An applicant is not entitled to an exception, whether or not the criteria
13 allowing approval of an exception are met.

14 4. The Director may require an applicant to provide additional information at the
15 applicant's expense, including, but not limited to, an engineer's report or analysis.

16 5. When an exception is granted, the Director may impose new or additional
17 requirements to offset or mitigate harm that may be caused by granting the exception, or that
18 would have been prevented if the exception had not been granted.

19 6. Public notice of an application for an exception and of the Director's decision
20 on the application shall be provided in the manner prescribed for Type II land use decisions, as
21 set forth in Chapter 23.76.

1 7. The Director's decision shall be in writing with written findings of fact.
2 Decisions approving an exception based on severe and unexpected economic hardship shall
3 address all the factors in subsection ~~((22.805.080.C.8))~~ 22.800.040.C.8.

4 8. An application for an exception on the grounds of severe and unexpected
5 financial hardship must describe, at a minimum, all of the following:

- 6 a. The current, pre-project use of the site; and
7 b. How application of the requirement(s) for which an exception is being
8 requested restricts the proposed use of the site compared to the restrictions that existed prior to
9 the adoption of this current subtitle; and
10 c. The possible remaining uses of the site if the exception were not
11 granted; and
12 d. The uses of the site that would have been allowed prior to the adoption
13 of this current subtitle; and
14 e. A comparison of the estimated amount and percentage of value loss as
15 a result of the requirements versus the estimated amount and percentage of value loss as a result
16 of requirements that existed prior to adoption of the requirements of this subtitle; and
17 f. The feasibility of the owner or developer to alter the project to apply the
18 requirements of this subtitle.

19 9. In addition to rights under Chapter 3.02 ~~((of the Seattle Municipal Code))~~, any
20 person aggrieved by a Director's decision on an application for an exception may appeal to the
21 Hearing Examiner's Office by filing an appeal, with the applicable filing fee, as set forth in
22 Section 23.76.022. However, appeals of a Notice of Violation, Director's order, or invoice issued.

pursuant to this subtitle shall follow the required procedure established in Chapter 22.808 (~~of this subtitle~~).

10. The Hearing Examiner shall affirm the Director's determination on the exception unless the examiner finds the determination is clearly erroneous based on substantial evidence. The applicant for the exception shall have the burden of proof on all issues related to justifying the exception.

11. The Director shall keep a record, including the Director's written findings of fact, on all approved requests for exceptions.

Section 4. Section 22.800.050 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.800.050 Potentially Hazardous Locations

A. Any site on a list, register, or (~~data base~~) database compiled by (~~the United States Environmental Protection Agency~~) EPA or (~~the Washington State Department of~~) Ecology for investigation, cleanup, or other action regarding contamination under any federal or state environmental law shall be a potentially hazardous location under this subtitle. When EPA or Ecology removes the site from the list, register or (~~data base~~) database, or when the Director of DPD or the Director of SPU determines the owner has otherwise established the contamination does not pose a present or potential threat to human health or the environment, the site will no longer be considered a potentially hazardous location.

B. The following property may also be designated by the Director of DPD or the Director of SPU as potentially hazardous locations:

1. Existing and/or abandoned solid waste disposal sites;

2. Hazardous waste treatment, storage, or disposal facilities, all as defined by the federal Solid Waste Disposal Act, 42 U.S.C. ((s))Section 6901, et seq.

Section 5. Section 22.800.070 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.800.070 Minimum Requirements for City Agency Projects

A. Compliance. City agencies shall comply with all the requirements of this subtitle except as specified below:

1. City agencies are not required to obtain permits and approvals under this subtitle, other than inspections as set out in subsection B of this ((s))Section 22.800.070 and review and approval when applying roadway project infeasibility as provided in subsection 22.805.060.E, for work performed within a public right-of-way or for work performed for the operation and maintenance of park lands under the control or jurisdiction of the Department of Parks and Recreation. Where the work occurs in a public right-of-way, it shall also comply with ((Seattle Municipal Code)) Title 15, Street and Sidewalk Use, including the applicable requirements to obtain permits or approvals.

2. A City agency project, as defined in Section 22.801.170, that is not required to obtain permit(s) and approval(s) ((per)) pursuant to subsection 22.800.070.A.1 and meets all of the conditions set forth below, is not required to comply with ((Section 22.805.080 (Minimum Requirements for Flow Control) or Section 22.805.090 (Minimum Requirements for Treatment))) the amendments to 22.800.020 through 22.808.110 that take effect on January 1, 2016, except the amendments to this subsection 22.800.070.A.2.

a. The project begins land disturbing activities within 18 months of the effective date of this subtitle, and;

b. The project complies with ~~((subsections 22.802.015.C.4, 22.802.016.B.1, and 22.802.016.B.2 of))~~ the Stormwater ~~((, Grading and Drainage Control))~~ Code that was made effective ~~((July 5, 2000))~~ November 30, 2009, by Ordinance ~~((119965))~~ 123105 which requires compliance with Directors' Rules 15-2012/DWW 201.1 and 16-2012/ DWW 201.2 effective March 1, 2013, as amended by Ordinance 124758 ((,)) ; and

c. The project meets one or more of the following criteria:

1) Project funding was appropriated as identified in Ordinance ~~((122863))~~ 124648 titled, "An ordinance adopting a budget, including a capital improvement program and ~~((a position list))~~ position modifications, for the City of Seattle for ~~((2009))~~ 2015"; or

2) Project received or will receive voter approval of financing before January 1, ~~((2009))~~ 2015; or

3) Project received or will receive funds based on grant application(s) submitted before January 1, ~~((2009))~~ 2015.

B. Inspection ~~((,))~~

1. When the City conducts projects for which review and approval ~~((is))~~ are required under Chapter 22.807 (Drainage Control Review and Application Requirements) the work shall be inspected by the City agency conducting the project or supervising the contract for the project. The inspector for the City agency shall be responsible for ascertaining that the ~~((grading and))~~ drainage control is done in a manner consistent with the requirements of this subtitle.

2. A City agency need not provide an inspector from its own agency provided either:

1 a. The work is inspected by an appropriate inspector from another City
2 agency; or

3 b. The work is inspected by an appropriate inspector hired for that
4 purpose by a City agency; or

5 c. The work is inspected by the licensed civil or geotechnical engineer
6 who prepared the plans and specifications for the work; or

7 d. A permit or approval is obtained from the Director of DPD, and the
8 work is inspected by the Director.

9 C. Certification of Compliance. City agencies shall meet the same standards as non-City
10 projects, except as provided in subsection 22.800.070.A, and shall certify that each individual
11 project meets those standards.

12 Section 6. Section 22.800.080 of the Seattle Municipal Code, enacted by Ordinance
13 123105, is amended as follows:

14 **22.800.080 Authority**

15 A. For projects not conducted in the public right-of-way, the Director of DPD has
16 authority regarding the provisions of this subtitle pertaining to grading, review of drainage
17 control plans, and review of construction stormwater control plans, and has inspection and
18 enforcement authority pertaining to temporary erosion and sediment control measures.

19 B. The Director of SPU has authority regarding all other provisions of this subtitle
20 pertaining to drainage water, drainage, and erosion control, including inspection and enforcement
21 authority. The Director of SPU may delegate authority to the Director of DPD or the Director of
22 ((Seattle Department of Transportation)) SDOT regarding the provisions of this subtitle
23 pertaining to review of drainage control plans, inspection of drainage control facilities, review of

1 ((~~erosion~~)) construction stormwater control plans, and inspection and enforcement authority
2 pertaining to temporary erosion and sediment control measures for projects conducted in the
3 public right-of-way.

4 C. The Directors of DPD, SDOT and SPU are authorized to take actions necessary to
5 implement the provisions and purposes of this subtitle in their respective spheres of authority to
6 the extent allowed by law, including, but not limited to, the following: promulgating and
7 amending rules and regulations, pursuant to the Administrative Code, Chapter 3.02 ((~~of the~~
8 ~~Seattle Municipal Code~~)) ; establishing and conducting inspection programs; establishing and
9 conducting or, as set forth in Section 22.802.040, requiring responsible parties to conduct
10 monitoring programs, which may include sampling of discharges to or from drainage control
11 facilities, the public drainage system, or receiving waters; taking enforcement action; abating
12 nuisances; promulgating guidance and policy documents; and reviewing and approving,
13 conditioning, or disapproving required submittals and applications for approvals and permits.
14 The Directors are authorized to exercise their authority under this subtitle in a manner consistent
15 with their legal obligations as determined by the courts or by statute.

16 D. The Director of SPU is authorized to develop, review, or approve drainage basin
17 plans for managing receiving waters, drainage water, and erosion within individual basins. A
18 drainage basin plan may, when approved by the Director of SPU, be used to modify
19 requirements of this subtitle, provided the level of protection for human health, safety and
20 welfare, the environment, and public or private property will equal or exceed that which would
21 otherwise be achieved. A drainage basin plan that modifies the minimum requirements of this
22 subtitle at a drainage basin level must be reviewed and approved by Ecology and adopted by City
23 ordinance.

1 E. The Director of SPU is authorized, to the extent allowed by law, to develop, review,
2 or approve an Integrated Drainage Plan as an equivalent means of complying with the
3 requirements of this subtitle, in which the developer of a project voluntarily enters into an
4 agreement with the Director of SPU to implement an Integrated Drainage Plan that is specific to
5 one or more sites where best management practices are employed such that the cumulative effect
6 on the discharge from the site(s) to the same receiving water is the same or better than that which
7 would be achieved by a less integrated, site-by-site implementation of best management
8 practices.

9 F. The Director of SPU is authorized, to the extent allowed by law, to enter into an
10 agreement with the developer of a project for the developer to voluntarily contribute funds
11 toward the construction of one or more drainage control facilities that mitigate the impacts to the
12 same receiving water that have been identified as a consequence of the proposed development.

13 G. The Director of SPU is authorized, to the extent allowed by law, to enter into an
14 agreement with the developer of a project for the developer to voluntarily construct one or more
15 drainage control facilities at an alternative location, determined by the Director, to mitigate the
16 impacts to the same receiving water that have been identified as a consequence of the proposed
17 development.

18 H. If the Director of SPU determines that a discharge from a site, real property, or
19 drainage control facility, directly or indirectly to a public drainage system, a private drainage
20 system, or a receiving water within or contiguous to Seattle city limits, has exceeded, exceeds, or
21 will exceed water quality standards at the point of assessment, or has caused or contributed, is
22 causing or contributing, or will cause or contribute, to a prohibited discharge or a known or
23 likely violation of water quality standards in the receiving water or a known or likely violation of

1 the City's municipal stormwater NPDES permit, and cannot be adequately addressed by the
2 required best management practices, then the Director of SPU has the authority, to the extent
3 allowed by law, to issue an order under Chapter 22.808 requiring the responsible party to
4 undertake more stringent or additional best management practices. These best management
5 practices may include additional source control or structural best management practices or other
6 actions necessary to cease the exceedance, the prohibited discharge, or causing or contributing to
7 the known or likely violation of water quality standards in the receiving water or the known or
8 likely violation of the City's municipal stormwater NPDES permit. Structural best management
9 practices may include but shall not be limited to: drainage control facilities, structural source
10 controls, treatment facilities, constructed facilities such as enclosures, covering and/or berming
11 of container storage areas, and revised drainage systems. For existing discharges as opposed to
12 new projects, the Director may allow 12 months to install a new flow control facility, structural
13 source control, or treatment facility after the Director notifies the responsible party in writing of
14 the Director's determination pursuant to this subsection 22.800.080.H and of the flow control
15 facility, structural source control, or treatment facility that must be installed.

16 I. Unless an adjustment (~~((per))~~) pursuant to subsection 22.800.040.B or an exception
17 (~~((per))~~) pursuant to subsection 22.800.040.C is approved by the Director, an owner or occupant
18 who is required to connect, or who (~~((wishes,))~~) chooses to connect, to a public drainage system
19 shall be required to extend the public drainage system if a public drainage system is not
20 accessible within an abutting public area across the full frontage of the (~~((property))~~) site.

21 J. The Director of DPD or the Director of SPU has the authority, to the extent allowed by
22 law, to require sites with addition or replacement of less than 5,000 square feet of (~~((impervious))~~)
23 hard surface or with less than one acre of land disturbing activity to comply with the

requirements set forth in Section 22.805.080 or Section 22.805.090 when necessary to accomplish the purposes of this subtitle. In making this determination, the Director of DPD or the Director of SPU may consider, but is not ~~((be))~~ limited to, the following attributes of the site: location within an Environmentally Critical Area; proximity and tributary to an Environmentally Critical Area; and proximity and tributary to an area with known erosion or flooding problems.

Section 7. A new Section 22.800.100 is added to the Seattle Municipal Code as follows:

22.800.100 Transition to Revised Stormwater Code

A. Any building or grading permit (a) which was not considered, either in the initial application process or in a renewal process, under the version of the Stormwater Code in effect on or after January 1, 2016, and (b) pursuant to which construction has not started by June 30, 2020, shall expire on June 30, 2020.

B. Any master use permit for a project not requiring a building permit (a) which was not considered, either in the initial application process or in a renewal process, under the version of the Stormwater Code in effect on or after January 1, 2016, and (b) pursuant to which construction has not started by June 30, 2020, shall expire on June 30, 2020.

C. Neither Section 23.22.028, Section 23.22.064, Section 23.24.050, RCW 58.17.033, nor RCW 58.17.170 shall require any permit application submitted on or after January 1, 2016, to be considered under a version of the Stormwater Code in effect prior to January 1, 2016. For purposes of this subsection 22.800.100.C, "permit application" means an application for any permit required for construction within a plat or short plat or for construction of facilities and improvements for a plat or short plat, including, but not limited to, master use, building and grading permits.

1 D. Neither Section 23.22.028 nor Section 23.22.064 shall authorize starting construction,
2 after June 30, 2020, of facilities or improvements for any plat without compliance with the
3 version of the Stormwater Code in effect on or after January 1, 2016.

4 E. For purposes of this section, "starting construction" or "started construction" means
5 the site work associated with and directly related to the approved project has begun. For
6 example: grading the project site to final grade or utility installation. Simply clearing the project
7 site does not constitute the start of construction.

8 Section 8. Section 22.801.010 of the Seattle Municipal Code, enacted by Ordinance
9 123105, is amended as follows:

10 **22.801.010 General**

11 For the purpose of this subtitle, the words listed in this ((chapter)) Chapter 22.801 have
12 the following meanings, unless the context clearly indicates otherwise. Terms relating to
13 pollutants and to hazardous wastes, materials, and substances, where not defined in this subtitle,
14 shall be as defined in Washington Administrative Code Chapters 173-303, 173-304 and 173-340,
15 the Seattle Building Code or the Seattle Fire Code, including future amendments to those codes.
16 Words used in the singular include the plural, and words used in the plural include the singular.

17 Section 9. Section 22.801.020 of the Seattle Municipal Code, last amended by Ordinance
18 123668, is amended as follows:

19 **22.801.020 "A"**

20 "Agency" means any governmental entity or its subdivision.

21 "Agency, City" means "City agency" as defined in Section 25.09.520.

1 (~~"Agency with jurisdiction" means those agencies with statutory authority to approve,~~
2 ~~condition or deny permits, such as the United States Environmental Protection Agency, the~~
3 ~~Washington State Department of Ecology or Public Health—Seattle & King County.))~~

4 "Approved" means approved by the Director.

5 "Aquatic life use" means "aquatic life use" as defined in WAC 173-201A-200. For the
6 purposes of this subtitle, at minimum the following water bodies are designated for aquatic life
7 use: small lakes, creeks, and freshwater designated receiving waters.

8 "Arterial" means "arterial" as defined in Section 11.14.035.

9 Section 10. Section 22.801.030 of the Seattle Municipal Code, enacted by Ordinance
10 123105, is amended as follows:

11 **22.801.030 "B"**

12 (~~"Basin plan" means a plan to manage the quality and quantity of drainage water in a~~
13 ~~watershed or a drainage basin, including watershed action plans.))~~

14 "Basic treatment facility" means a drainage control facility designed to reduce
15 concentrations of total suspended solids in drainage water.

16 "Best management practice" (BMP) (~~"~~) means a schedule of activities, prohibitions of
17 practices, operational and maintenance procedures, structural facilities, or managerial practice or
18 device that, when used singly or in combination, prevents, reduces, or treats contamination of
19 drainage water, prevents or reduces soil erosion, or prevents or reduces other adverse effects of
20 drainage water (~~(on receiving waters)~~). When the Directors develop rules and/or manuals
21 prescribing (~~(best management practices)~~) BMPs for particular purposes, whether or not those
22 rules and/or manuals are adopted by ordinance, BMPs prescribed in the rules and/or manuals
23 shall be the BMPs required for compliance with this subtitle.

1 "Building permit" means a document issued by ~~((the Department of Planning and~~
2 ~~Development))~~ DPD authorizing construction or other specified activity in accordance with the
3 Seattle Building Code (Chapter 22.100) or the Seattle Residential Code (Chapter 22.150).

4 Section 11. Section 22.801.040 of the Seattle Municipal Code, enacted by Ordinance
5 123105, is amended as follows:

6 **22.801.040 "C"**

7 "Capacity-constrained system" means a drainage system or public combined sewer that
8 the Director of SPU has determined to have inadequate capacity to carry ~~((drainage water))~~
9 existing and anticipated loads, or a drainage system that includes ditches or culverts.

10 ~~(("Cause or contribute to a violation" means and includes acts or omissions that create a~~
11 ~~violation, that increase the duration, extent or severity of a violation, or that aid or abet a~~
12 ~~violation.))~~

13 "Certified Erosion and Sediment Control Lead" (CESCL) ~~((=))~~ means an individual who
14 has current certification through an approved erosion and sediment control training program that
15 meets the minimum training standards established by ~~((the Washington State Department of))~~
16 Ecology.

17 "Civil engineer, licensed" means a person who is licensed by the State of Washington to
18 practice civil engineering.

19 "City agency" means "City agency" as defined in Section 25.09.520.

20 "Combined sewer." See "public combined sewer."

21 "Combined sewer basin" or "public combined sewer basin" means the area tributary to a
22 public combined sewer feature, including, but not limited to, a combined sewer overflow outfall,
23 trunk line connection, pump station, or regulator.

1 "Compaction" means the densification, settlement, or packing of earth material or fill in
2 such a way that permeability is reduced by mechanical means.

3 "Construction Stormwater Control Plan" means a document that explains and illustrates
4 the measures to be taken on the construction site to control pollutants on a construction project.

5 (~~"Compaction" means the densification of earth material by mechanical means.~~)

6 "Containment area" means the area designated for conducting pollution-generating
7 activities for the purposes of implementing source controls or designing and installing source
8 controls or treatment facilities.

9 "Contaminate" means the addition of sediment, any other pollutant or waste, or any illicit
10 or prohibited discharge.

11 "Creek" means a Type 2-5 water as defined in WAC 222-16-031 and is used
12 synonymously with "stream."

13 Section 12. Section 22.801.050 of the Seattle Municipal Code, enacted by Ordinance
14 123105, is amended as follows:

15 **22.801.050 "D"**

16 "Damages" means monetary compensation for harm, loss, costs, or expenses incurred by
17 the City, including, but not limited, to the following: costs of abating or correcting violations of
18 this subtitle; fines or penalties the City incurs as a result of a violation of this subtitle; and costs
19 to repair or clean the public drainage system or public combined sewer as a result of a violation.
20 For the purposes of this subtitle, damages do not include compensation to any person other than
21 the City.

22 "Designated receiving waters" means the Duwamish River, Puget Sound, Lake
23 Washington, Lake Union, Elliott Bay, Portage Bay, Union Bay, the Lake Washington Ship

1 Canal, and other receiving waters determined by the Director of SPU and approved by Ecology
2 as having sufficient capacity to receive discharges of drainage water such that a site discharging
3 to the designated receiving water is not required to implement flow control.

4 "Detention" means temporary storage of drainage water for the purpose of controlling the
5 drainage discharge rate.

6 "Development" means land disturbing activity or the addition or replacement of
7 ((impervious)) hard surface.

8 "Director" means the Director of the Department authorized to take a particular action,
9 and the Director's designees, who may be employees of that department or another City
10 department.

11 "Director of DPD" means the Director of the Department of Planning and Development
12 of The City of Seattle and/or the designee of the Director of Planning and Development, who
13 may be employees of that department or another City department.

14 "Director of SDOT" means the Director of Seattle Department of Transportation of The
15 City of Seattle and/or the designee of the Director of Seattle Department of Transportation, who
16 may be employees of that department or another City department.

17 "Director of SPU" means the Director of Seattle Public Utilities of The City of Seattle
18 and/or the designee of the Director of Seattle Public Utilities, who may be employees of that
19 department or another City department.

20 "Discharge point" means the location from which drainage water from a site is released.

21 "Discharge rate" means the rate at which drainage water is released from a site. The
22 discharge rate is expressed as volume per unit of time, such as cubic feet per second.

23 "DPD" means the Department of Planning and Development.

1 "Drainage basin" means the geographic and hydrologic tributary area or subunit of a
2 watershed through which drainage water is collected, regulated, transported, and discharged to
3 receiving waters.

4 "Drainage basin plan" means a plan to manage the quality and quantity of drainage water
5 in a watershed or a drainage basin, including watershed action plans.

6 "Drainage control" means the management of drainage water. Drainage control is
7 accomplished through one or more of the following: collecting, conveying, and discharging
8 drainage water; controlling the discharge rate from a site; controlling the flow duration from a
9 site; controlling the quantity from a site; and separating, treating or preventing the introduction
10 of pollutants.

11 "Drainage control facility" means any facility, including best management practices,
12 installed or constructed for the purpose of controlling the discharge rate, flow duration, quantity,
13 and/or quality of drainage water.

14 "Drainage control plan" means a plan for collecting, controlling, transporting and
15 disposing of drainage water falling upon, entering, flowing within, and exiting the site, including
16 designs for drainage control facilities.

17 "Drainage system" means a system intended to collect, convey and control release of only
18 drainage water. The system may be either publicly or privately owned or operated, and the
19 system may serve public or private property. It includes ~~((constructed and/or natural))~~
20 components such as pipes, ditches, culverts, ~~((streams, creeks, or))~~ and drainage control
21 facilities. Drainage systems are not receiving waters.

22 "Drainage water" means stormwater and all other discharges that are permissible ~~((per))~~
23 pursuant to subsection 22.802.030.A.

Section 13. Section 22.801.060 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.801.060 "E"

"Earth material" means any rock, gravel, natural soil, fill, or re-sedimented soil, or any combination thereof, but does not include any solid waste as defined by RCW 70.95.

"Ecology" means the Washington State Department of Ecology.

"Effective impervious surface" means those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system.

"Enhanced treatment facility" means a drainage control facility designed to reduce concentrations of dissolved metals in drainage water.

"Environmentally critical area" (ECA) means an area designated in Section 25.09.020.

"EPA" means the United States Environmental Protection Agency.

"Erodible or leachable materials" means wastes, chemicals, or other substances which, when exposed to rainfall, measurably alter the physical or chemical characteristics of the drainage water. Examples include: erodible soils that are stockpiled; leachable materials that are stockpiled; uncovered process wastes; manure; fertilizers; oily substances; ashes, kiln dust; and garbage dumpster leakage.

"Erosion" means the wearing away of the ground surface as a result of mass wasting or of the movement of wind, water, ice, or other geological agents, including such processes as gravitational creep. Erosion also means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

"Excavation" means the mechanical removal of earth material.

"Exception" means relief from a requirement of this subtitle to a specific project.

1 "Existing grade" means "existing grade" as defined in Section 22.170.050.

2 Section 14. Section 22.801.070 of the Seattle Municipal Code, enacted by Ordinance
3 123105, is amended as follows:

4 **22.801.070 "F"**

5 "Fill" means a deposit of earth material placed by artificial means.

6 "Flow control" means controlling the discharge rate, flow duration, or both of drainage
7 water from the site through means such as infiltration or detention.

8 "Flow control facility" means a drainage control facility for controlling the discharge rate,
9 flow duration, or both of drainage water from a site.

10 ~~(("Flow-critical receiving water" means a surface water that is not a designated receiving~~
11 ~~water as defined in this subtitle.))~~

12 "Flow duration" means the aggregate time that peak flows are at or above a particular
13 flow rate of interest.

14 Section 15. Section 22.801.080 of the Seattle Municipal Code, enacted by Ordinance
15 123105, is amended as follows:

16 **22.801.080 "G"**

17 "Garbage" means putrescible waste.

18 "Geotechnical engineer" or "Geotechnical/civil engineer" means a ~~((professional civil~~
19 ~~engineer))~~ person licensed by The State of Washington as a professional civil engineer who has
20 ~~((at least four years of professional experience as a))~~ expertise in geotechnical ~~((engineer,~~
21 ~~including experience with landslide evaluation))~~ engineering.

1 "Grading" means excavation, filling, in-place ground modification, removal of roots or
2 stumps that includes ground disturbance, stockpiling of earth materials, or any combination
3 thereof, including the establishment of a grade following demolition of a structure.

4 "Green stormwater infrastructure" means ((a)) distributed BMPs, integrated into a project
5 design, ((drainage control facility)) that ((uses)) use infiltration, filtration, storage, or
6 evapotranspiration, or provide stormwater reuse. ((Examples of green stormwater infrastructure
7 include permeable pavement, bioretention facilities, and green roofs.))

8 "Groundwater" means water in a saturated zone or stratum beneath the surface of land or
9 below a surface water body. Refer to Ground Water Quality Standards, Chapter 173-200 WAC.

10 Section 16. Section 22.801.090 of the Seattle Municipal Code, enacted by Ordinance
11 123105, is amended as follows:

12 **22.801.090 "H"**

13 "Hard surface" means an impervious surface, a permeable pavement, or a vegetated roof.

14 "High-use sites" means sites that typically generate high concentrations of oil due to high
15 traffic turnover or the frequent transfer of oil. High-use sites include:

16 1. An area of a commercial or industrial site subject to an expected average daily
17 traffic (ADT) count equal to or greater than 100 vehicles per 1,000 square feet of gross building
18 area;

19 2. An area of a commercial or industrial site subject to petroleum storage and
20 transfer in excess of 1,500 gallons per year, not including routinely delivered heating oil;

21 3. An area of a commercial or industrial site subject to parking, storage or
22 maintenance of 25 or more vehicles that are over 10 tons gross weight (trucks, buses, trains,
23 heavy equipment, etc.);

1 4. A road intersection with a measured ADT count of 25,000 vehicles or more on
2 the main roadway and 15,000 vehicles or more on any intersecting roadway, excluding projects
3 proposing primarily pedestrian or bicycle use improvements.

4 Section 17. Section 22.801.100 of the Seattle Municipal Code, enacted by Ordinance
5 123105, is amended as follows:

6 **22.801.100 "I"**

7 "Illicit connection" means any direct or indirect infrastructure connection to the public
8 drainage system or receiving water that is not intended, not permitted, or not used for collecting
9 drainage water.

10 "Impervious ((S))surface" means any surface exposed to rainwater from which most
11 water runs off. ((Common impervious)) Impervious surfaces include, but are not limited to, roof
12 tops, walkways, patios, driveways, formal planters, parking lots or storage areas, concrete or
13 asphalt paving, ((permeable paving,)) areas with underdrains designed to remove stormwater
14 from subgrade (e.g. playfields, athletic fields, rail yards), gravel surfaces subjected to vehicular
15 traffic, compact gravel, packed earthen materials, and oiled macadam or other surfaces which
16 similarly impede the natural infiltration of stormwater. Open, uncovered retention/detention
17 facilities shall not be considered as impervious surfaces for the purposes of determining whether
18 the thresholds for application of minimum requirements are exceeded. Open, uncovered
19 retention/detention facilities shall be considered impervious surfaces for purposes of stormwater
20 modeling.

21 ((Impervious surface, replaced. See "replaced or replacement of impervious surface."))

22 "Industrial activities" means material handling, transportation, or storage; manufacturing;
23 maintenance; treatment; or disposal. Areas with industrial activities include plant yards, access

1 roads and rail lines used by carriers of raw materials, manufactured products, waste material, or
2 by-products; material handling sites; refuse sites; sites used for the application or disposal of
3 process waste waters; sites used for the storage and maintenance of material handling equipment;
4 sites used for residual treatment, storage, or disposal; shipping and receiving areas;
5 manufacturing buildings; storage areas for raw materials, and intermediate and finished products;
6 and areas where industrial activity has taken place in the past and significant materials remain
7 and are exposed to stormwater.

8 "Infiltration" means the downward movement of water from the surface to the subsoil.

9 "Infiltration facility" means a drainage control facility that temporarily stores, and then
10 percolates, drainage water into the underlying soil.

11 "Integrated Drainage Plan" means a plan developed, reviewed, and approved ((per))
12 pursuant to subsection 22.800.080.E.

13 "Interflow" means that portion of rainfall and other precipitation that infiltrates into the
14 soil and moves laterally through the upper soil horizons until intercepted by a stream channel or
15 until it returns to the surface.

16 "Inspector" means a City inspector, their designee, or licensed civil engineer performing
17 the inspection work required by this subtitle.

18 Section 18. Section 22.801.110 of the Seattle Municipal Code, enacted by Ordinance
19 123105, is amended as follows:

20 **22.801.110 (("J")) Reserved.**

21 ((("Joint project" means a project that is both a parcel-based project and a roadway
22 project.))

Section 19. Section 22.801.130 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.801.130 "L"

"Land disturbing activity" means any activity that results in a ~~((movement of earth, or a))~~ change in the existing soil cover, both vegetative and nonvegetative, or the existing topography. Land disturbing activities include, but are not limited to, clearing, grading, filling, excavation, or addition of new or the replacement of ~~((impervious))~~ hard surface. Compaction, excluding hot asphalt mix, that is associated with stabilization of structures and road construction ~~((shall also be))~~ is also considered a land disturbing activity. Vegetation maintenance practices, including landscape maintenance and gardening, are not considered land disturbing activities. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures.

"Large project" means a project including 5,000 square feet or more of new plus ~~((impervious surface or))~~ replaced ~~((impervious))~~ hard surface ~~((, individually or combined, or))~~ ; one acre or more of land disturbing activity; conversion of 3/4 acres or more of vegetation to lawn or landscaped area; or conversion of 2.5 acres or more of native vegetation to pasture.

"Listed ~~((creek basins))~~ creeks" means Blue Ridge Creek, Broadview Creek, Discovery Park Creek, Durham Creek, Frink Creek, Golden Gardens Creek, Kiwanis Ravine/Wolfe Creek, Licton Springs Creek, Madrona Park Creek, Mee-Kwa-Mooks Creek, Mount Baker Park Creek, Puget Creek, Riverview Creek, Schmitz Creek, Taylor Creek, ~~((or))~~ and Washington Park Creek.

Section 20. Section 22.801.140 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.801.140 "M"

"Master use permit" means a document issued by DPD giving permission for development or use of land or street right-of-way in accordance with Chapter 23.76.

"Maximum extent feasible" means the requirement is to be fully implemented, constrained only by the physical limitations of the site, practical considerations of engineering design, and reasonable considerations of financial costs ~~((and environmental impacts))~~ .

"Municipal stormwater NPDES permit" means the permit issued to the City under the federal Clean Water Act for public drainage systems within the City limits.

Section 21. Section 22.801.150 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.801.150 "N"

"Native vegetation" means "native vegetation" as defined in Section 25.09.520.

~~((("Nutrient-critical receiving water" means a surface water or water segment that has been listed as Category 5 (impaired) under Section 303(d) of the Clean Water Act for total phosphorus through the State of Washington's Water Quality Assessment program and approved by EPA.))~~

"NPDES" means National Pollutant Discharge Elimination System, the national program for controlling discharges under the federal Clean Water Act.

"NPDES permit" means an authorization, license or equivalent control document issued by the ~~((United States Environmental Protection Agency))~~ EPA or ~~((the Washington State Department of))~~ Ecology to implement the requirements of the NPDES program.

1 "Nutrient-critical receiving water" means a surface water or water segment that is
2 determined to be impaired due to phosphorus contributed by stormwater, as prescribed in rules
3 promulgated by the Director of SPU which shall be based on consideration of waterbodies
4 reported by Ecology, and approved by EPA, under Category 5 (impaired) under Section 303(d)
5 of the Clean Water Act for total phosphorus through Ecology's Water Quality Assessment.

6 Section 22. Section 22.801.160 of the Seattle Municipal Code, enacted by Ordinance
7 123105, is amended as follows:

8 **22.801.160 "O"**

9 "Oil control treatment facility" means a drainage control facility designed to reduce
10 concentrations of oil in drainage water.

11 "On-site BMP" means a best management practice identified in subsection 22.805.070.D.

12 "Owner" means any person having title to and/or responsibility for, a building or
13 property, including a lessee, guardian, receiver or trustee, and the owner's duly authorized agent.

14 Section 23. Section 22.801.170 of the Seattle Municipal Code, enacted by Ordinance
15 123105, is amended as follows:

16 **22.801.170 "P"**

17 "Parcel-based project" means any project that is not a roadway project, single-family
18 residential project, sidewalk project, or trail project. The boundary of the public right-of-way
19 shall form the boundary between the parcel and roadway portions of a project.

20 "Person" means an individual, receiver, administrator, executor, assignee, trustee in
21 bankruptcy, trust estate, firm, partnership, joint venture, club, company, joint stock company,
22 business trust, municipal corporation, the State of Washington, political subdivision or agency of
23 the State of Washington, public authority or other public body, corporation, limited liability

1 company, association, society or any group of individuals acting as a unit, whether mutual,
2 cooperative, fraternal, nonprofit or otherwise, and the United States or any instrumentality
3 thereof.

4 "Pervious surface" means a surface that is not impervious. See also, "impervious
5 surface."

6 "Phosphorus treatment facility" means a drainage control facility designed to reduce
7 concentrations of phosphorus in drainage water.

8 "Plan" means a graphic or schematic representation, with accompanying notes, schedules,
9 specifications and other related documents, or a document consisting of checklists, steps, actions,
10 schedules, or other contents that has been prepared pursuant to this subtitle, such as a site plan,
11 drainage control plan, construction stormwater control plan, stormwater pollution prevention
12 plan, ~~((and))~~ or integrated drainage plan.

13 "Pollution-generating activity" means any activity that is regulated by the joint SPU/DPD
14 Directors' Rule titled ~~((§))~~ " ~~((Source Control Technical Requirements))~~ Seattle Stormwater
15 Manual" at "Volume 4 – Source Control" or ~~((activities))~~ any activity with similar impacts on
16 drainage water. These activities include, but are not limited to: cleaning and washing activities;
17 transfer of liquid or solid material; production and application activities; dust, soil, and sediment
18 control; commercial animal care and handling; log sorting and handling; boat building, mooring,
19 maintenance, and repair; logging and tree removal; mining and quarrying of sand, gravel, rock,
20 peat, clay, and other materials; cleaning and maintenance of swimming pool and spas; deicing
21 and anti-icing operations for airports and streets; maintenance and management of roof and
22 building drains at manufacturing and commercial buildings; maintenance and operation of

1 railroad yards; maintenance of public and utility corridors and facilities; and maintenance of
2 roadside ditches.

3 "Pollution-generating hard surface" means those hard surfaces considered to be a
4 significant source of pollutants in drainage water. See definition of pollution-generating
5 impervious surface in this Section 22.801.170 for surfaces that are considered significant sources
6 of pollutants in drainage water.

7 "Pollution-generating impervious surface" means those impervious surfaces considered to
8 be a significant source of pollutants in drainage water. Such surfaces include those that are
9 subject to: vehicular use; certain industrial activities; or storage of erodible or leachable
10 materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of
11 rainfall; roofs subject to venting of significant sources of pollutants; ~~((Erodible or leachable~~
12 ~~materials, wastes, or chemicals are those substances which, when exposed to rainfall, measurably~~
13 ~~alter the physical or chemical characteristics of the drainage water. Examples include: erodible~~
14 ~~soils that are stockpiled; uncovered process wastes; manure; fertilizers; oily substances; ashes;~~
15 ~~kiln dust; and garbage dumpster leakage. Metal))~~ and metal roofs ~~((are also considered to be~~
16 ~~PGIS)) unless ((they are))~~ coated with an inert, non-leachable material (e.g., baked-on enamel
17 coating).

18 A surface, whether paved or not, shall be considered subject to vehicular use if it is
19 regularly used by motor vehicles. The following are considered regularly-used surfaces: roads;
20 unvegetated road shoulders; ~~((permeable pavement;))~~ bike lanes within the traveled lane of a
21 roadway; driveways; parking lots; unfenced fire lanes; vehicular equipment storage yards; and
22 airport runways.

1 The following are not considered regularly-used ((surfaces)) by motor vehicles: paved
2 bicycle pathways separated from and not subject to drainage from roads for motor vehicles;
3 fenced fire lanes; and infrequently used maintenance access roads.

4 "Pollution-generating pervious surface" means any non-impervious surface subject to
5 vehicular use, industrial activities, or storage of erodible or leachable materials, wastes, or
6 chemicals, and that receives direct rainfall or run-on or blow-in of rainfall, use of pesticides and
7 fertilizers, or loss of soil ((~~and typically~~)). Typical pollution-generating pervious surfaces
8 include((s)) lawns, landscaped areas, golf courses, parks, cemeteries, and sports fields (natural
9 and artificial turf).

10 "Pre-developed condition" means the vegetation and soil conditions that are used to
11 determine the allowable post-development discharge peak flow rates and flow durations, such as
12 pasture or forest.

13 "Private drainage system" means a drainage system that is not a public drainage system.

14 "Project" means the addition or replacement of ((impervious)) hard surface or the
15 undertaking of land disturbing activity on a site.

16 "Project site" means that portion of a property, properties or right-of-way subject to
17 addition or replacement of hard surface or the undertaking of land disturbing activity.

18 "Public combined sewer" means a publicly owned and maintained system which carries
19 drainage water and wastewater and flows to a publicly owned treatment works.

20 "Public drainage system" means a drainage system owned or ((used)) operated by the
21 City of Seattle.

1 "Public place" means and includes streets, avenues, ways, boulevards, drives, places,
2 alleys, sidewalks, and planting (parking) strips, squares, triangles and right-of-way for public use
3 and the space above or beneath its surface, whether or not opened or improved.

4 "Public sanitary sewer" means the sanitary sewer that is owned or operated by ~~((a))~~ the
5 City ~~((agency))~~ of Seattle.

6 "Public storm drain" means the part of a public drainage system that is wholly or partially
7 piped, owned or operated by a City agency~~((s))~~ and designed to carry only drainage water.

8 Section 24. Section 22.801.190 of the Seattle Municipal Code, enacted by Ordinance
9 123105, is amended as follows:

10 **22.801.190 "R"**

11 "Real property" means "real property" as defined in ~~((Section))~~ Chapter 3.110.

12 "Receiving water" means the surface water, such as a creek, stream, river, lake, ~~((or))~~
13 wetland or marine water, or groundwater, receiving drainage water. Drainage systems and public
14 combined sewers are not receiving waters.

15 "Repeat ~~((Violation))~~ violation" means a prior violation of this subtitle within the
16 preceding five years that became a final order or decision of the Director or a court. The
17 violation does not need to be the same nor occur on one site to be considered repeat.

18 "Replaced hard surface" or "replacement of hard surface" means, for structures, the
19 removal and replacement of hard surfaces down to the foundation and, for other hard surfaces,
20 the removal down to existing subgrade or base course and replacement.

21 "Replaced impervious surface" or "replacement of impervious surface" means, for
22 structures, the removal and replacement of impervious surfaces down to the foundation ~~((For))~~
23 and, for other impervious surfaces, the ~~((impervious surface that is removed))~~ removal down to

1 ~~((earth material and a new impervious surface is installed))~~ existing subgrade or base course and
2 replacement.

3 "Responsible party" means all of the following persons:

- 4 1. Owners, operators, and occupants of property; and ((5))
5 2. Any person causing or contributing to a violation of the provisions of this

6 subtitle.

7 "Right-of-way" means "right-of-way" as defined in Section 23.84A.032.

8 "Roadway" means "roadway" as defined in Section 23.84A.032.

9 "Roadway project" means a project located in the public ~~((right-of-way,))~~ right-of-way
10 that involves the creation of a new or replacement of an existing roadway or alley ((, or that
11 involves the creation of new or replacement of existing impervious surface)) . The boundary of
12 the public right-of-way shall form the boundary between the parcel and roadway portions of a
13 project.

14 "Runoff" means the portion of rainfall or other precipitation that becomes surface flow
15 and interflow.

16 Section 25. Section 22.801.200 of the Seattle Municipal Code, enacted by Ordinance
17 123105, is amended as follows:

18 **22.801.200 "S"**

19 ~~(("SPU" means Seattle Public Utilities.))~~

20 "Sanitary sewer" means a system that conveys wastewater and is not designed to convey
21 drainage water ~~((stormwater))~~ .

22 "SDOT" means the Seattle Department of Transportation.

23 "Service drain" means "service drain" as defined in Section 21.16.030.

"Side sewer" means "side sewer" as defined in Section 21.16.030.

"Sidewalk" means "sidewalk" as defined in Section 23.84A.036.

"Sidewalk project" means a project ~~((that exclusively involves))~~ for the creation of a new sidewalk or replacement of an existing sidewalk, including any associated planting strip, apron, curb ramp, curb, or gutter, and necessary roadway grading and repair. If the total new plus replaced hard surface in the roadway exceeds 10,000 square feet, the entire project is a roadway project.

"Single-family residential project" means a project ~~((s))~~ that constructs one Single-family Dwelling Unit ~~((per))~~ pursuant to Section 23.44.006.A located in land classified as being Single-family Residential 9,600 (SF 9600), Single-family Residential 7,200 (SF 7200), or Single-family Residential 5,000 (SF 5000) ~~((per))~~ pursuant to Section 23.30.010, and the total new plus replaced ~~((impervious))~~ hard surface is less than 10,000 square feet, and the total new plus replaced pollution-generating ~~((impervious))~~ hard surface is less than 5,000 square feet.

"Site" means the lot or parcel, or portion of street, highway or other right-of-way, or contiguous combination thereof, where ~~((a permit for the addition or replacement of impervious surface or the undertaking of land-disturbing activity has been issued or where any such work))~~ development is proposed or performed. For roadway projects, the length of the project site and the right-of-way boundaries define the site.

"Slope" means an inclined ground surface.

"Small lakes" means Bitter Lake, Green Lake and Haller Lake.

"Small project" means a project with:

1. Less than 5,000 square feet of new and replaced ~~((impervious))~~ hard surface;

and

2. Less than one acre of land disturbing activities.

"SMC" means the Seattle Municipal Code.

"Soil" means naturally deposited non-rock earth materials.

"Solid waste" means "solid waste" as defined in Section 21.36.016.

"Source controls" means structures or operations that prevent contaminants from coming in contact with drainage water through physical separation or careful management of activities that are known sources of pollution.

"SPU" means Seattle Public Utilities.

"Standard design" is a design pre-approved by the Director for drainage and erosion control available for use at a site with pre-defined characteristics.

"Storm drain" means both public storm drain and service drain.

"Stormwater" means ~~((that portion of precipitation and snowmelt that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes and other features of a drainage system into a receiving water or a constructed infiltration facility))~~ runoff during and following precipitation and snowmelt events, including surface runoff, drainage and interflow.

"Stream" means a Type 2-5 water as defined in WAC 222-16-031 ~~((Used))~~ and is used synonymously with "creek."

Section 26. Section 22.801.210 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.801.210 "T"

"Topsoil" means the weathered surface soil, including the organic layer, in which plants have most of their roots.

1 "Trail" means a path of travel for recreation and/or transportation within a park, natural
2 environment, or corridor (~~((that is not classified as a highway, road, or street))~~) .

3 "Trail project" means a project (~~((that exclusively involves creating))~~) for the creation of a
4 new trail or replacement of an existing trail, and which does not contain pollution-generating
5 (~~((impervious))~~) hard surfaces.

6 "Treatment facility" means a drainage control facility designed to remove pollutants from
7 drainage water.

8 Section 27. Section 22.801.240 of the Seattle Municipal Code, enacted by Ordinance
9 123105, is amended as follows:

10 **22.801.240 "W"**

11 "Wastewater" means "wastewater" as defined in Section 21.16.030.

12 "Water Quality Standards" means Surface Water Quality Standards, Chapter 173-201A
13 WAC, Ground Water Quality Standards, Chapter 173-200 WAC, and Sediment Management
14 Standards, Chapter 173-204 WAC.

15 "Watercourse" means the route, constructed or formed by humans or by natural
16 processes, generally consisting of a channel with bed, banks or sides, in which surface waters
17 flow. Watercourse includes small lakes, bogs, streams, creeks, and (~~((intermittent artificial~~
18 ~~components (including ditches and culverts)))~~) other receiving waters but does not include
19 designated receiving waters.

20 "Watershed" means a geographic region within which water drains into a particular river,
21 stream, or other body of water.

22 "Wetland" means a wetland designated under Section 25.09.020.

1 "Wetland function" means the physical, biological, chemical, and geologic interactions
2 among different components of the environment that occur within a wetland. Wetland functions
3 can be grouped into three categories: functions that improve water quality; functions that change
4 the water regime in a watershed, such as flood storage; and functions that provide habitat for
5 plants and animals.

6 "Wetland values" means wetland processes, characteristics, or attributes that are
7 considered to benefit society.

8 Section 28. Section 22.802.020 of the Seattle Municipal Code, enacted by Ordinance
9 123105, is amended as follows:

10 **22.802.020 Prohibited Discharges**

11 A. Prohibited Discharges. The following common substances are prohibited to enter,
12 either directly or indirectly, a public drainage system, a private drainage system, or a receiving
13 water within or contiguous to Seattle city limits, including but not limited to when entering via a
14 service drain, overland flow, or as a result of a spill or deliberate dumping:

- 15 1. acids;
- 16 2. alkalis including cement wash water;
- 17 3. ammonia;
- 18 4. animal carcasses;
- 19 5. antifreeze, oil, gasoline, grease and all other automotive and petroleum
20 products;
- 21 6. chemicals not normally found in uncontaminated water;
- 22 7. chlorinated swimming pool or hot tub water;
- 23 8. chlorine;

- 1 9. commercial and household cleaning materials;
- 2 10. detergent;
- 3 11. dirt;
- 4 12. domestic or sanitary sewage;
- 5 13. drain cleaners;
- 6 14. fertilizers;
- 7 15. filter backwash wastewater;
- 8 ((15.)) 16. flammable or explosive materials;
- 9 ((16.)) 17. food and food waste;
- 10 ((17.)) 18. gravel ((-)) ;
- 11 ((18.)) 19. herbicides;
- 12 ((19.)) 20. human and animal waste;
- 13 ((20. industrial process wastewater,))
- 14 21. ink;
- 15 22. laundry waste;
- 16 23. metals in excess of naturally occurring amounts, whether in liquid or solid
- 17 form;
- 18 24. painting products;
- 19 25. pesticides;
- 20 26. process wastewater;
- 21 ((26.)) 27. sand;
- 22 ((27.)) 28. soap;
- 23 ((28.)) 29. solid waste;

1 ((29.)) 30. solvents and degreasers;

2 ((30.)) 31. steam-cleaning waste; and ((5.))

3 ((31.)) 32. yard waste.

4 B. Prohibited Discharges to Public and Private Drainage System. Except as provided in
5 Section 22.802.030, any discharge to a public drainage system or to a private drainage system
6 that is not composed entirely of stormwater is prohibited.

7 C. Prohibited Discharges to Receiving Waters. Except as provided in Section
8 22.802.030, any discharge, either directly or indirectly to receiving waters within or contiguous
9 to Seattle city limits or to a public drainage system, that is not composed entirely of stormwater
10 is prohibited.

11 D. Prohibited Discharges to Public Combined Sewers. For discharges to the public
12 combined sewer, the applicable prohibited discharges are stated in Chapter 21.16 (Side Sewer
13 Code).

14 Section 29. Section 22.802.030 of the Seattle Municipal Code, enacted by Ordinance
15 123105, is amended as follows:

16 **22.802.030 Permissible Discharges**

17 A. Conditionally Permissible Discharges to Drainage Systems and Receiving Waters.
18 Discharges from the sources listed below are permissible discharges only if the stated conditions
19 are met and unless the Director of SPU determines that the type of discharge, directly or
20 indirectly to a public drainage system, private drainage system, or a receiving water within or
21 contiguous to Seattle city limits, whether singly or in combination with others, is causing or
22 contributing to a violation of the City's NPDES stormwater permit or is causing or contributing
23 to a water quality problem:

1 1. Discharges from potable water sources, including, but not limited to, flushing
2 of potable water lines, hyperchlorinated water line flushing, fire hydrant system flushing, ((and))
3 pipeline hydrostatic test water, and washing of potable water storage reservoirs. Planned
4 discharges shall be de-chlorinated to a total residual chlorine concentration of 0.1 ppm or less,
5 pH-adjusted if necessary, and volumetrically and velocity controlled to prevent resuspension of
6 sediments in the drainage system. No chemicals may be added, and settleable solids must be
7 removed prior to discharge;

8 2. Discharges from swimming pools, spas, hot tubs, fountains, or similar aquatic
9 recreation facilities and constructed water features, provided the discharges have been de-
10 chlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and
11 reoxygenated if necessary, volumetrically and velocity controlled to prevent resuspension of
12 sediments in the drainage system, and thermally controlled to prevent an increase of temperature
13 in the receiving water. Swimming pool cleaning wastewater and filter backwash shall not be
14 discharged;

15 3. Discharges of street and sidewalk washwater when the surfaces are swept prior
16 to washing, detergents are not used, and water use is minimized;

17 4. Discharges of water from routine external building washdown when detergents
18 are not used and water use is minimized;

19 5. Discharges of water used to control dust when water use is minimized; and

20 6. Other non-stormwater discharges, provided that these discharges are in
21 compliance with the requirements of a pollution prevention plan that addresses control of such
22 discharges and is approved by the Director.

1 B. Permissible Discharges. Discharges from the sources listed below are permissible
2 discharges unless the Director of SPU determines that the type of discharge, directly or indirectly
3 to a public drainage system, private drainage system, or a receiving water within or contiguous to
4 Seattle city limits, whether singly or in combination with others, is causing or contributing to a
5 violation of the City's NPDES stormwater permit or is causing or contributing to a water quality
6 problem:

7 ~~((2. Discharges from washing or rinsing of potable water storage reservoirs,~~
8 ~~dechlorinated as above;))~~

9 ((3)) 1. Discharges from surface waters, including diverted stream flows;

10 ((4)) 2. Discharges of uncontaminated groundwater, including uncontaminated
11 groundwater infiltration (as defined at 40 CFR 35.2005(b)(20), uncontaminated pumped
12 groundwater, and rising ~~((ground waters))~~ groundwaters;

13 ((5)) 3. Discharges of air conditioning condensation;

14 ((6)) 4. Discharges from springs;

15 ((7)) 5. Discharges of uncontaminated water from crawl space pumps;

16 ((8)) 6. Discharges from lawn watering;

17 ((9)) 7. Discharges from irrigation runoff, including irrigation water from
18 agricultural sources that is commingled with stormwater and that does not contain prohibited
19 substances;

20 ((10)) 8. Discharges from riparian habitats and wetlands;

21 ((11)) 9. Discharges from approved footing drains and other subsurface drains or,
22 where approval is not required, installed in compliance with this subtitle and rules promulgated
23 pursuant to this subtitle;

1 ((42)) 10. Discharges from foundation drains;

2 ~~((13. Discharges from swimming pools, hot tubs, fountains, or similar aquatic~~
3 ~~recreation facilities and constructed water features, provided the discharges have been de-~~
4 ~~chlorinated to a concentration of 0.1 ppm or less, pH adjusted and reoxygenated if necessary,~~
5 ~~and volumetrically and velocity controlled to prevent resuspension of sediments in the drainage~~
6 ~~control system;~~

7 ~~14. Discharges of street and sidewalk wash water that does not use detergents or~~
8 ~~chemical additives;~~

9 ~~15. Discharges of water used to control dust;~~

10 ~~16. Discharges of water from routine external building washdown that does not~~
11 ~~use detergents or chemical additives;))~~

12 ((47)) 11. Non-stormwater ((D))discharges authorized by another ((that are in
13 ~~compliance with a separate individual or general))~~ NPDES permit or State Waste Discharge
14 permit;

15 ((48)) 12. Discharges that are from emergency fire fighting activities; and

16 13. Discharges of tracing dye used to establish or verify a drainage or sewer
17 connection.

18 ~~((19. Other non-stormwater discharges, provided these discharges are in~~
19 ~~compliance with the requirements of an approved stormwater pollution prevention plan that~~
20 ~~addresses such discharges.))~~

21 ((B))C. Permissible Discharges to Sanitary Sewers. In consultation with the local sewage
22 treatment agency, the Director of SPU may approve discharges of drainage water to a sanitary
23 sewer if the discharging party demonstrates to the satisfaction of the Director of SPU that other

1 methods of controlling pollutants in the discharge are not adequate or reasonable, the discharging
2 party certifies that the discharge will not harm the environment, and the discharging party
3 certifies that the discharge will not overburden or otherwise harm the sanitary sewer.
4 Connections to the sanitary sewer shall be made in accordance with Chapter 21.16 (Side Sewer
5 Code). The Director of SPU shall condition approval of such a discharge on compliance with
6 local pretreatment regulations and on maintaining compliance with the required certifications
7 given by the discharging party.

8 ((C))D. Permissible Discharges to Public Combined Sewers. In consultation with the
9 local sewage treatment agency, the Director of SPU may approve discharges of drainage water to
10 a public combined sewer if the discharging party certifies that the discharge will not harm the
11 environment, and the discharging party certifies that the discharge will not overburden or
12 otherwise harm the public combined sewers. Connections to the public combined sewers shall be
13 made in accordance with Chapter 21.16 (Side Sewer Code). The Director of SPU shall condition
14 approval of such a discharge on compliance with local pretreatment regulations and on
15 maintaining compliance with the required certifications given by the discharging party.

16 Section 30. Section 22.802.040 of the Seattle Municipal Code, enacted by Ordinance
17 123105, is amended as follows:

18 **22.802.040 Testing for Prohibited Discharges**

19 A. Any person conducting dye testing to establish or verify a drainage connection shall
20 notify the Director of SPU prior to conducting the test.

21 B. When the Director of SPU has reason to believe that any discharge is a prohibited
22 discharge, the Director of SPU may sample and analyze the discharge and recover the costs from
23 a responsible party (~~in an enforcement proceeding~~). When the discharge is likely to be a

1 prohibited discharge on a recurring basis, the Director of SPU may conduct, or may require the
2 responsible party to conduct, ongoing monitoring at the responsible party's expense.

3 Section 31. Section 22.803.010 of the Seattle Municipal Code, enacted by Ordinance
4 123105, is amended as follows:

5 **22.803.010 General**

6 A. All responsible parties are required to comply with this chapter, even where no
7 development is occurring.

8 B. No discharge from a site, real property, or drainage facility, directly or indirectly to a
9 ((public)) drainage system ((, private drainage system, or a receiving water within or contiguous
10 to Seattle city limits,)) may cause or contribute to a prohibited discharge or a known or likely
11 violation of water quality standards in the receiving water or a known or likely violation of the
12 City's municipal stormwater NPDES permit.

13 C. Every permit issued to implement this subtitle shall contain a performance standard
14 requiring that no discharge from a site, real property, or drainage facility, directly or indirectly to
15 a public drainage system, private drainage system, or a receiving water within or contiguous to
16 Seattle city limits, cause or contribute to a prohibited discharge or a known or likely violation of
17 water quality standards in the receiving water or a known or likely violation of the City's
18 municipal stormwater NPDES permit.

19 Section 32. Section 22.803.020 of the Seattle Municipal Code, enacted by Ordinance
20 123105, is amended as follows:

21 **22.803.020 Minimum Requirements for All Discharges and Real Property**

22 A. Requirement to provide documentation and to map infrastructure. The owner is
23 required to make plans, procedures, and schedules required by this ((subsection)) subtitle

1 available to the Director ((of SPU)) when requested. When requested to aid in applying the
2 Stormwater Code, the owner must provide to the Director a complete map of all drainage, side
3 sewer, and plumbing infrastructure on the property.

4 B. Requirement to report spills, releases, or dumping. A responsible party is required to,
5 at the earliest possible time, but in any case within 24 hours of discovery, report to the Director
6 of SPU ((;)) a spill, release, dumping, or other situation that has contributed or is likely to
7 contribute pollutants to a public drainage system, a private drainage system, or a receiving water.
8 This reporting requirement is in addition to, and not instead of, any other reporting requirements
9 under federal, state or local laws.

10 C. Requirements to maintain facilities. All treatment facilities, flow control facilities,
11 drainage control facilities, and drainage systems shall be maintained as prescribed in rules
12 promulgated by the Director in order for these facilities and systems to be kept in continuous
13 working order.

14 D. Requirements for disposal of waste from maintenance activities. Disposal of waste
15 from maintenance of drainage control facilities shall be conducted in accordance with federal,
16 state and local regulations, including the Minimum Functional Standards for Solid Waste
17 Handling, Chapter 173-304 WAC, guidelines for disposal of waste materials, and, where
18 appropriate, Dangerous Waste Regulations, Chapter 173-303 WAC.

19 E. Requirements to maintain records of installation and maintenance activities. When a
20 drainage control facility is installed, the party having the facility installed shall make records of
21 the installation and shall identify the party (or parties) responsible for maintenance and
22 operations. The parties shall retain a continuous record of all maintenance and repair activities,
23 and shall retain the records for at least ten years. If a transfer of ownership occurs, these records

of installation, repair, and maintenance shall be transferred to the new property owner. These records shall be made available to the Director of SPU during inspection of the facility and at other reasonable times upon request of the Director of SPU.

Section 33. Section 22.803.030 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.803.030 Minimum Requirements for Source Controls for All Real Property

For all discharges, responsible parties shall implement and maintain source controls to prevent or minimize pollutants from leaving a site or property. Source controls that are required for all real property include, but are not limited to, the following, as further described in rules promulgated by the Director:

A. Eliminate Illicit or Prohibited Connections (~~((to Storm Drains))~~). It is the responsibility of the property owner or other responsible party to ensure that all plumbing connections are properly made and that only connections conveying stormwater or permissible discharges (~~((per))~~) pursuant to Section 22.802.030 are connected to the drainage system. When requested to aid in applying the Stormwater Code, the owner must provide to the Director a complete map of all stormwater and plumbing infrastructure on the property.

B. Perform Routine Maintenance (~~((for))~~) of (~~((Stormwater))~~) Drainage System. All drainage system components, including, but not limited to, catch basins, flow control facilities, treatment facilities, (~~((green stormwater infrastructure))~~) on-site BMPs, and unimproved drainage pathways shall be kept in (~~((continuously))~~) continuous working order.

C. Dispose of Fluids and Wastes Properly. Solid and liquid wastes must be disposed of in a manner that minimizes the risk of contaminating stormwater.

1 D. Proper Storage of Solid Wastes. Solid wastes must be stored ~~((of))~~ in a manner that
2 minimizes the risk of contaminating stormwater.

3 E. Spill Prevention and Cleanup. All property owners having the potential to spill
4 pollutants shall take measures ~~((to the maximum extent feasible))~~ to prevent spills of
5 ~~((pollutant))~~ pollutants and to properly clean up spills that ~~((may))~~ might occur.

6 F. Provide Oversight and Training for Staff. ~~((Train at least))~~ For businesses and public
7 entities, annually train all employees responsible for the operation, maintenance, or inspection of
8 BMPs, assign oversight responsibilities, and maintain records.

9 G. Site Maintenance. For businesses and public entities, locate pollution-generating
10 activities away from stormwater pathways where feasible and engage in proper site maintenance
11 to prevent pollutant transport off site, including but not limited to sweeping paved areas and
12 inspecting loading, unloading, storage and parking areas.

13 Section 34. Section 22.803.040 of the Seattle Municipal Code, enacted by Ordinance
14 123105, is amended as follows:

15 **22.803.040 Minimum Requirements for Source Controls For ~~((All))~~ Businesses and Public**
16 **Entities for Specific Activities**

17 ~~((A-))~~ For all discharges except those that drain only to the public combined sewer, ((S))
18 source controls shall be implemented, to the extent allowed by law, by ~~((all))~~ businesses and
19 public entities for specific pollution-generating activities as specified in the joint SPU/DPD
20 Directors' Rule ~~((S))~~ titled "~~((Source Control Technical Requirements Manual))~~ Seattle
21 Stormwater Manual" at "Volume 4 - Source Control," to the extent necessary to prevent
22 prohibited discharges as described in subsection 22.802.020.A through subsection 22.802.020.C,
23 and to prevent contaminants from coming in contact with drainage water. Source controls

1 include, but are not limited to, segregating or isolating wastes to prevent contact with drainage
2 water; enclosing, covering, or containing the activity to prevent contact with drainage water;
3 developing and implementing inspection and maintenance programs; sweeping; and taking
4 management actions such as training employees on pollution prevention.

5 ~~((B. Spill prevention shall be required for all businesses and public entities, as further~~
6 ~~defined in rules promulgated by the Director:~~

7 ~~1. Develop and implement plans and procedures to prevent spills and other accidental~~
8 ~~releases of materials that may contaminate drainage water. This requirement may be satisfied by~~
9 ~~a Stormwater Pollution Prevention Plan prepared in compliance with an NPDES industrial~~
10 ~~stormwater permit for the site; and~~

11 ~~2. Implement procedures for immediate containment and other appropriate action~~
12 ~~regarding spills and other accidental releases to prevent contamination of drainage water; and~~

13 ~~3. Provide necessary containment and response equipment on-site, and training of~~
14 ~~personnel regarding the procedures and equipment to be used.))~~

15 Section 35. Section 22.805.020 of the Seattle Municipal Code, enacted by Ordinance
16 123105, is amended as follows:

17 **22.805.020 Minimum Requirements for All Projects**

18 A. Minimum Requirements for Maintaining Natural Drainage Patterns. For all projects,
19 natural drainage patterns shall be maintained and discharges shall occur at the natural location to
20 the maximum extent feasible and consistent with subsection 22.805.020.B. Drainage water
21 discharged from the site shall not cause a significant adverse impact to receiving waters or down-
22 gradient properties. Drainage water retained or infiltrated on the site shall not cause significant
23 adverse impact to up-gradient or down-gradient properties.

1 B. Minimum Requirements for Discharge Point. The discharge point for drainage water
2 from each site shall be selected using criteria that shall include, but not be limited to,
3 preservation of natural drainage patterns and whether the capacity of the drainage system is
4 adequate for the flow rate and volume. For those projects meeting the drainage review threshold,
5 the proposed discharge point shall be identified in the drainage control plan required by this
6 subtitle, for review and approval or disapproval by the Director.

7 C. Minimum Requirements for Flood-prone Areas. On sites within flood-prone areas,
8 responsible parties are required to employ procedures to minimize the potential for flooding on
9 the site and to minimize the potential for the project to increase the risk of floods on adjacent or
10 nearby properties. Flood control measures shall include those set forth in other titles of the
11 Seattle Municipal Code and rules promulgated thereunder, including, but not limited to, Chapter
12 23.60 (Shoreline ~~((Master Program))~~ District), Chapter 25.06 (Floodplain Development), and
13 Chapter 25.09 (Environmentally Critical Areas) of the Seattle Municipal Code.

14 D. Minimum Requirements for Construction Site Stormwater Pollution Prevention
15 Control. Temporary and permanent construction controls shall be used to accomplish the
16 following minimum requirements. All projects are required to meet each of the elements below
17 or document why an element is not applicable. Additional controls may be required by the
18 Director when minimum controls are not sufficient to prevent erosion or transport of sediment or
19 other pollutants from the site.

20 1. Mark Clearing Limits and Environmentally Critical Areas. Within the
21 boundaries of the project site and prior to beginning land disturbing activities, including clearing
22 and grading, clearly mark all clearing limits, easements, setbacks, all environmentally critical

1 areas and their buffers, and all trees ((;)) and drainage courses that are to be preserved within the
2 construction area.

3 2. Retain Top Layer. Within the boundaries of the project site, the duff layer,
4 topsoil, and native vegetation, if there is any, shall be retained in an undisturbed state to the
5 maximum extent feasible. If it is not feasible to retain the top layer in place, it should be
6 stockpiled on-site, covered to prevent erosion, and replaced immediately upon completion of the
7 ((ground)) land disturbing activities to the maximum extent feasible.

8 3. Establish Construction Access. Limit construction vehicle access, whenever
9 possible, to one route. Stabilize access points and minimize tracking sediment onto public roads.
10 Promptly remove any sediment tracked off site.

11 4. Protect Downstream Properties and Receiving Waters. Protect properties and
12 receiving waters downstream from the development sites from erosion due to increases in the
13 volume, velocity, and peak flow rate of drainage water from the project site. If it is necessary to
14 construct flow control facilities to meet this requirement, these facilities shall be functioning
15 prior to implementation of other land disturbing activity. If permanent infiltration ((ponds))
16 facilities are used to control flows during construction, these facilities shall be protected from
17 siltation during the construction phase of the project.

18 5. Prevent Erosion and Sediment Transport from the Site. Pass all drainage water
19 from disturbed areas through a sediment trap, sediment pond, or other appropriate sediment
20 removal BMP before ((leaving)) the water leaves the site or prior to discharge to an infiltration
21 facility. Sediment controls intended to trap sediment on site shall be constructed as one of the
22 first steps in grading and shall be functional before other land disturbing activities take place.

1 BMPs intended to trap sedimentation shall be located in a manner to avoid interference with the
2 movement of juvenile salmonids attempting to enter off-channel areas or drainages.

3 6. Prevent Erosion and Sediment Transport from the Site by Vehicles. Whenever
4 construction vehicle access routes intersect paved roads, the transport of sediment onto the paved
5 road shall be minimized. If sediment is transported onto a paved road surface, the roads shall be
6 cleaned thoroughly at the end of each day. Sediment shall be removed from paved roads by
7 shoveling or sweeping and shall be transported to a controlled sediment disposal area. If
8 sediment is tracked off site, roads shall be cleaned thoroughly at the end of each day, or at least
9 twice daily during wet weather. Street washing is allowed only after sediment is removed, and
10 street wash wastewater shall be prevented from entering the ((public)) drainage system and
11 receiving waters.

12 7. Stabilize Soils. Prevent on-site erosion by stabilizing all exposed and
13 unworked soils, including stock piles and earthen structures such as dams, dikes, and diversions.
14 From October 1 to April 30, no soils shall remain exposed and unworked for more than two
15 days. From May 1 to September 30, no soils shall remain exposed for more than seven days.
16 Soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on the
17 weather forecast. Soil stockpiles shall be stabilized from erosion, protected with sediment
18 trapping measures, and be located away from storm drain inlets, waterways, and drainage
19 channels. Before the completion of the project, permanently stabilize all exposed soils that have
20 been disturbed during construction.

21 8. Protect Slopes. Erosion from slopes shall be minimized. Cut and fill slopes
22 shall be designed and constructed in a manner that will minimize erosion. Off-site stormwater
23 run-on or groundwater shall be diverted away from slopes and undisturbed areas with interceptor

dikes, pipes, and/or swales. Pipe slope drains or protected channels shall be constructed at the top of slopes to collect drainage and prevent erosion. Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations. Check dams shall be placed at regular intervals within constructed channels that are cut down a slope.

9. Protect Storm Drains. Prevent sediment from entering all storm drains, including ditches that receive drainage water from the project. Storm drain inlets protection devices shall be cleaned or removed and replaced as recommended by the product manufacturer, or more frequently if required to prevent failure of the device or flooding. Storm drain inlets made operable during construction shall be protected so that drainage water does not enter the drainage system without first being filtered or treated to remove sediments. Storm drain inlet protection devices shall be removed at the conclusion of the project. When manufactured storm drain inlet protection devices are not feasible, inlets and catch basins must be cleaned as necessary to prevent sediment from entering the drainage control system.

10. Stabilize Channels and Outlets. All temporary on-site drainage systems shall be designed, constructed, and stabilized to prevent erosion. Stabilization shall be provided at the outlets of all drainage systems that is adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches.

11. Control Pollutants. Measures shall be taken to control potential pollutants ~~((that include, but are not))~~ and shall include, but not be limited to, the following measures:

a. All pollutants, including sediment, waste materials, and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of drainage water and ~~((per))~~ pursuant to all applicable disposal laws.

1 b. Containment, cover, and protection from vandalism shall be provided
2 for all chemicals, liquid products, petroleum products, and other materials that have the potential
3 to pose a threat to human health or the environment.

4 c. On-site fueling tanks shall include secondary containment.

5 d. Maintenance, fueling, and repair of heavy equipment and vehicles
6 involving oil changes, hydraulic system drain down, solvent and de-greasing cleaning operations,
7 fuel tank drain down and removal, and other activities which may result in discharge or spillage
8 of pollutants to the ground or into drainage water runoff shall be conducted using spill
9 prevention and control measures.

10 e. Contaminated surfaces shall be cleaned immediately following any
11 discharge or spill incident.

12 f. Wheel wash or tire bath wastewater shall be discharged to a separate
13 on-site treatment system that prevents discharge to surface water, such as closed-loop
14 recirculation or upland application, or to the sanitary sewer or combined sewer system with
15 approval of the Director of SPU. Temporary discharges or connections to the public sanitary and
16 combined sewers shall be made in accordance with Chapter 21.16 (Side Sewer Code).

17 g. Application of fertilizers and pesticides shall be conducted in a manner
18 and at application rates that will not result in loss of chemical to drainage water. Manufacturers'
19 label requirements for application rates and procedures shall be followed.

20 h. BMPs shall be used to prevent or treat contamination of drainage water
21 by pH-modifying sources. These sources include, but are not limited to, bulk cement, cement
22 kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from
23 concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer

1 washout waters. Construction site operators may be required to adjust the pH of drainage water if
2 necessary to prevent a violation of water quality standards. Construction site operators must
3 obtain written approval from Ecology prior to using chemical treatment other than carbon
4 dioxide (CO₂) or dry ice to adjust pH.

5 12. Control Dewatering. When dewatering devices discharge on site, ~~((or))~~ to a
6 public drainage system, or to the public combined sewer, dewatering devices shall discharge into
7 a sediment trap, sediment pond, gently sloping vegetated area of sufficient length to remove
8 sediment contamination, or other sediment removal BMP. Foundation, vault, and trench
9 dewatering waters must be discharged into a controlled drainage system prior to discharge to a
10 sediment trap or sediment pond. Clean, non-turbid dewatering water, such as well-point ~~((ground~~
11 ~~water))~~ groundwater, that is discharged to systems tributary to state surface waters must not
12 cause erosion or flooding. Highly turbid or contaminated dewatering water shall be handled
13 separately from drainage water. For any project with an excavation depth of 12 feet or more
14 below the existing grade and for all large projects, dewatering flows must be determined and it
15 must be verified that there is sufficient capacity in the public drainage system and public
16 combined sewer prior to discharging.

17 13. Maintain BMPs. All temporary and permanent erosion and sediment control
18 BMPs shall be maintained and repaired as needed to assure continued performance of their
19 intended function. All temporary erosion and sediment controls shall be removed within five
20 days after final site stabilization is achieved or after the temporary controls are no longer needed,
21 whichever is later. Trapped sediment shall be removed or stabilized on site. Disturbed soil areas
22 resulting from removal shall be permanently stabilized.

1 14. Inspect BMPs. BMPs shall be periodically inspected. For projects with 5,000
2 square feet or more of new plus replaced (~~(impervious)~~) hard surface or 7,000 square feet or
3 more of land disturbing activity, site inspections shall be conducted by a Certified Erosion and
4 Sediment Control Lead who shall be identified (~~((in the Construction Stormwater Control Plan))~~)
5 prior to construction and shall be present on-site or on-call at all times.

6 15. Execute Construction Stormwater Control Plan. Construction site operators
7 shall maintain, update, and implement their Construction Stormwater Control Plan. Construction
8 site operators shall modify their Construction Stormwater Control Plan to maintain compliance
9 whenever there is a change in design, construction, operation, or maintenance at the site that has,
10 or could have, a significant effect on the discharge of pollutants to waters of the state.

11 16. Minimize Open Trenches. In the construction of underground utility lines,
12 where feasible, no more than 150 feet of trench shall be opened at one time, unless soil is
13 replaced within the same working day, and where consistent with safety and space
14 considerations, excavated material shall be placed on the uphill side of trenches. Trench
15 dewatering devices shall discharge into a sediment trap or sediment pond.

16 17. Phase the Project. Development projects shall be phased to the maximum
17 extent feasible in order to minimize the amount of land disturbing activity occurring at the same
18 time and shall take into account seasonal work limitations.

19 18. Install (~~(Permanent)~~) Flow Control and Water Quality Facilities.
20 Development projects required to comply with Section 22.805.080 (Minimum Requirements for
21 Flow Control) or Section 22.805.090 (Minimum Requirements for Treatment) shall install
22 permanent flow control and water quality facilities to prevent erosion or transport of sediment or
23 other pollutants from the site during construction.

1 19. Protect Stormwater BMPs

2 a. Protect all stormwater BMPs from sedimentation through installation
3 and maintenance of erosion and sediment control BMPs. Restore the BMPs to their fully
4 functioning condition if they accumulate sediment during construction. Restoring the stormwater
5 BMP must include removal of sediment and any sediment-laden stormwater BMP soils, and
6 replacing the removed soils with soils meeting the design specification.

7 b. Prevent compacting on-site BMPs by excluding construction
8 equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to
9 construction equipment.

10 c. Control erosion and avoid introducing sediment from surrounding land
11 uses onto permeable pavements. Do not allow muddy construction equipment on the base
12 material or pavement. Do not allow sediment-laden runoff onto permeable pavements or base
13 materials.

14 d. Permeable pavements fouled with sediments or no longer passing an
15 initial infiltration test must be cleaned until infiltrating per design or replaced.

16 e. Keep all heavy equipment off existing soils under on-site BMPs that
17 have been excavated to final grade, to retain the infiltration rate of the soils.

18 ~~((E. Minimum Requirement to Amend Soils. Prior to completion of the project all new,~~
19 ~~replaced, and disturbed topsoil shall be amended with organic matter per rules promulgated by~~
20 ~~the Director to improve onsite management of drainage water flow and water quality.~~

21 ~~F. Implement Green Stormwater Infrastructure. All Single-family residential projects and~~
22 ~~all other projects with 7,000 square feet or more of land disturbing activity or 2,000 square feet~~
23 ~~or more of new plus replaced impervious surface must implement green stormwater~~

1 ~~infrastructure to infiltrate, disperse, and retain drainage water onsite to the maximum extent~~
2 ~~feasible without causing flooding, landslide, or erosion impacts.))~~

3 ((G)) E. Protect Wetlands. All projects discharging into a wetland or its buffer, either
4 directly or indirectly through a drainage system, shall prevent impacts to wetlands that would
5 result in a net loss of functions or values.

6 ((H)) F. Protect Streams and Creeks. All projects, including projects discharging directly
7 to a stream or creek, or to a drainage system that discharges to a stream or creek, shall maintain
8 the water quality in any affected stream or creek by selecting, designing, installing, and
9 maintaining temporary and permanent controls.

10 ((I)) G. Protect Shorelines. All projects discharging directly or indirectly through a
11 drainage system into the shoreline district as defined in Chapter 23.60 shall prevent impacts to
12 water quality and stormwater quantity that would result in a net loss of shoreline ecological
13 functions as defined in WAC 173-26-020(13) ~~((H))~~ .

14 ((J)) H. Ensure Sufficient Capacity. All large projects, all projects with an excavation
15 depth of 12 feet or more below the existing grade, and all projects with an excavation depth of
16 less than 12 feet located in an area expected to have shallow groundwater depths, shall ensure
17 that sufficient capacity exists in the public drainage system and public combined sewer to carry
18 existing and anticipated loads, including any flows from dewatering activities. Capacity analysis
19 shall extend to at least 1/4-mile from the discharge point of the site. Sites at which there is
20 insufficient capacity may be required to install a flow control facility or improve the drainage
21 system or public combined sewer to accommodate flow from the site. Unless approved otherwise
22 by the Director as necessary to meet the purposes of this subtitle:

1 1. Capacity analysis for discharges to the public drainage system shall be based
2 on peak flows with a 4 ((%)) percent annual probability (25-year recurrence interval); and

3 2. Capacity analysis for discharges to the public combined sewer shall be based
4 on peak flows with a 20 ((%)) percent annual probability (5-year recurrence interval).

5 ((K)) I. Install Source Control BMPs. Source control BMPs shall be installed for specific
6 pollution-generating activities as specified in the joint SPU/DPD Directors' Rule ((;)) titled
7 "~~((Source Control Technical Requirements Manual))~~ Seattle Stormwater Manual" at "Volume 4 -
8 Source Control," to the extent necessary to prevent prohibited discharges as described in Section
9 22.802.020 ((;)) and to prevent contaminants from coming in contact with drainage water. This
10 requirement applies to the pollution-generating activities that are stationary or occur in one
11 primary location and to the portion of the site being developed. Examples of installed source
12 controls include, but are not limited to, the following:

13 1. A roof, awning, or cover erected over the pollution-generating activity area;

14 2. Ground surface treatment in the pollution-generating activity area to prevent
15 interaction with, or breakdown of, materials used in conjunction with the pollution-generating
16 activity;

17 3. Containment of drainage from the pollution-generating activity to a closed
18 sump or tank. Contents of such a sump or tank must be pumped or hauled by a waste handler, or
19 treated prior to discharge to a public drainage system.

20 4. Construct a berm or dike to enclose or contain the pollution-generating
21 activities;

5. Direct drainage from containment area of pollution-generating activity to a closed sump or tank for settling and appropriate disposal, or treat prior to discharging to a public drainage system;

6. Pave, treat, or cover the containment area of pollution-generating activities with materials that will not interact with or break down in the presence of other materials used in conjunction with the pollution-generating activity; and

7. Prevent precipitation from flowing or being blown onto containment areas of pollution-generating activities.

((L)) J. Do not obstruct watercourses. Watercourses shall not be obstructed.

((M)) K. Comply with Side Sewer Code.

1. All privately owned and operated drainage control facilities or systems, whether or not they discharge to a public drainage system or public combined sewer, shall be considered side sewers and subject to Chapter 21.16 (Side Sewer Code), SPU Director's Rules promulgated under Title 21, and the design and installation specifications and permit requirements of SPU and DPD for side sewer and drainage systems.

2. Side sewer permits and inspections shall be required for constructing, capping, altering, or repairing privately owned and operated drainage systems as provided for in Chapter 21.16. When the work is ready for inspection, the permittee shall notify the Director ~~((of DPD))~~. If the work is not constructed according to the plans approved under this subtitle, Chapter 21.16, the SPU Director's Rules promulgated under Title 21, and SPU and DPD design and installation specifications, then ~~((SPU, after consulting with DPD,))~~ the Director may issue a stop work order under Chapter 22.808 and require modifications as provided for in this subtitle and Chapter 21.16.

Section 36. Section 22.805.030 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.805.030 Minimum Requirements for Single-Family Residential Projects

A. Soil Amendment. Retain and protect undisturbed soil in areas not being developed, and prior to completion of the project, amend all new, replaced, and disturbed topsoil (including construction lay-down areas) with organic matter to the extent required by and in compliance with the rules promulgated by the Director.

B. On-site Stormwater Management. ((All single)) Single-family residential projects shall ((implement green stormwater infrastructure to the maximum extent feasible)) meet the Minimum Requirements for On-site Stormwater Management contained in Section 22.805.070, to the extent allowed by law, if:

1. For a project on a lot most recently created, adjusted, altered, or otherwise amended by a plat or other lawful document recorded with the King County Recorder on or after January 1, 2016, and where that document either created the lot or reduced the size of the lot, either the total new plus replaced hard surface is 750 square feet or more or land disturbing activity is 7,000 square feet or more; or

2. For any other project, either the total new plus replaced hard surface is 1,500 square feet or the land disturbing activity is 7,000 square feet or more.

Section 37. Section 22.805.040 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.805.040 Minimum Requirements for Trail and Sidewalk Projects

A. Soil Amendment. Retain and protect undisturbed soil in areas not being developed, and prior to completion of the project, amend all new, replaced, and disturbed topsoil (including

1 construction lay-down areas) with organic matter to the extent required by and in compliance
2 with the rules promulgated by the Director.

3 B. On-site Stormwater Management. All trail and sidewalk projects with 2,000 square
4 feet or more of new plus replaced (~~((impervious))~~) hard surface or 7,000 square feet or more of
5 land disturbing activity shall (~~((implement green stormwater infrastructure to the maximum extent~~
6 ~~feasible))~~) meet the Minimum Requirements for On-site Stormwater Management contained in
7 Section 22.805.070, to the extent allowed by law.

8 Section 38. Section 22.805.050 of the Seattle Municipal Code, amended by Ordinance
9 124758, is amended as follows:

10 **22.805.050 Minimum Requirements for Parcel-Based Projects**

11 A. Soil Amendment. Retain and protect undisturbed soil in areas not being developed,
12 and prior to completion of the project, amend all new, replaced, and disturbed topsoil (including
13 construction lay-down areas) with organic matter to the extent required by and in compliance
14 with the rules promulgated by the Director.

15 B. On-site Stormwater Management. Parcel-based projects shall meet the Minimum
16 Requirements for On-site Stormwater Management contained in Section 22.805.070, to the
17 extent allowed by law, if:

18 1. For a project on a lot most recently created, adjusted, altered, or otherwise
19 amended by a plat or other lawful document recorded with the King County Recorder on or after
20 January 1, 2016, and where that document either created the lot or reduced the size of the lot,
21 either the total new plus replaced hard surface is 750 square feet or more or land disturbing
22 activity is 7,000 square feet or more; or

2. For any other project, either the total new plus replaced hard surface is 1,500 square feet or more or the land disturbing activity is 7,000 square feet or more.

((A)) C. Flow Control. Parcel-based projects shall meet the minimum requirements for flow control contained in Section 22.805.080, to the extent allowed by law, as prescribed below.

1. Discharges to Wetlands. Parcel-based projects discharging into a wetland or to the drainage basin of a wetland shall comply with subsection 22.805.080.B.1 (Wetland Protection Standard) if: ((-))

a. The total new plus replaced ((impervious)) hard surface is 5,000 square feet or more; or

b. The project converts 3/4 ((-)) acres or more of ((native)) vegetation to lawn or landscaped areas, and from ((which)) the project there is a surface discharge into a natural or man-made conveyance system from the site; or

c. The project converts 2.5 acres or more of native vegetation to pasture, and from ((which)) the project there is a surface discharge into a natural or man-made conveyance system from the site.

2. Discharges to Listed Creek Basins. Parcel-based projects discharging into Blue Ridge Creek, Broadview Creek, Discovery Park Creek, Durham Creek, Frink Creek, Golden Gardens Creek, Kiwanis Ravine/Wolfe Creek, Licton Springs Creek, Madrona Park Creek, Mee-Kwa-Mooks Creek, Mount Baker Park Creek, Puget Creek, Riverview Creek, Schmitz Creek, Taylor Creek, or Washington Park Creek, or to the drainage basin of such creek, shall:

a. Comply with subsection 22.805.080.B.2 (Pre-developed Forested Standard) if the existing ((impervious)) hard surface coverage is less than 35 percent and one or more of the following apply:

1 1) The project adds 5,000 square feet or more of new
2 ((~~impervious~~)) hard surface and the total new plus replaced ((~~impervious~~)) hard surface is 10,000
3 square feet or more; or

4 2) The project converts 3/4 acres or more of ((~~native~~)) vegetation
5 to lawn or landscaped areas, and from ((~~which~~)) the project there is a surface discharge into a
6 natural or man-made conveyance system from the site; or

7 3) The project converts 2.5 acres or more of native vegetation to
8 pasture, and from ((~~which~~)) the project there is a surface discharge into a natural or man-made
9 conveyance system from the site; or

10 4) The project adds 5,000 square feet or more of new
11 ((~~impervious~~)) hard surface and, through a combination of effective ((~~impervious~~)) hard surfaces
12 and converted pervious surfaces, causes a 0.1 cubic feet per second increase in the 100-year
13 recurrence interval flow frequency as estimated using a continuous model approved by the
14 Director.

15 b. Comply with subsection 22.805.080.B.3 (Pre-developed Pasture
16 Standard) if the criteria in subsection 22.805.050.((A))C.2.a do not apply and the total new plus
17 replaced ((~~impervious~~)) hard surface is 2,000 square feet or more.

18 3. Discharges to Non-listed Creek Basins. Parcel-based projects discharging into
19 a creek not listed in subsection 22.805.050.((A))C.2, or to the drainage basin of such creek,
20 shall:

21 a. Comply with subsection 22.805.080.B.2 (Pre-developed Forested
22 Standard) if the existing land cover is forested and one or more of the following apply:

1 1) The project adds 5,000 square feet or more of new
2 ((~~impervious~~)) hard surface and the total new plus replaced ((~~impervious~~)) hard surface is 10,000
3 square feet or more; or

4 2) The project converts 3/4 acres or more of ((~~native~~)) vegetation
5 to lawn or landscaped areas, and from ((~~which~~)) the project there is a surface discharge into a
6 natural or man-made conveyance system from the site; or

7 3) The project converts 2.5 acres or more of native vegetation to
8 pasture, and from ((~~which~~)) the project there is a surface discharge into a natural or man-made
9 conveyance system from the site; or

10 4) The project adds 5,000 square feet or more of new
11 ((~~impervious~~)) hard surface and, through a combination of effective impervious surfaces and
12 converted pervious surfaces, causes a 0.1 cubic feet per second increase in the 100-year
13 recurrence interval flow frequency as estimated using a continuous model approved by the
14 Director.

15 b. Comply with subsection 22.805.080.B.3 (Pre-developed Pasture
16 Standard) if the criteria in subsection 22.805.050.((A))C.3.a do not apply and the total new plus
17 replaced ((~~impervious~~)) hard surface is 2,000 square feet or more.

18 4. Discharges to Small Lake Basins. Parcel-based projects discharging into Bitter
19 Lake, Green Lake, or Haller Lake ((~~drainage basins~~)) , or to the drainage basin of such lake, shall
20 comply with subsection 22.805.080.B.4 (Peak Control Standard) if the total new plus replaced
21 ((~~impervious~~)) hard surface is 2,000 square feet or more.

22 5. Discharges to Public Combined Sewer. Unless the Director of SPU has
23 determined that the public combined sewer has sufficient capacity to carry existing and

1 anticipated loads, parcel-based projects discharging into the public combined sewer or its basin
2 shall comply with subsection 22.805.080.B.4 (Peak Control Standard) if the total new plus
3 replaced (~~((impervious))~~) hard surface is 10,000 square feet or more.

4 6. Discharges to a Capacity-constrained System. In addition to applicable
5 minimum requirements for flow control in subsection 22.805.050.~~((A))~~C.1 through subsection
6 22.805.050.~~((A))~~C.5, parcel-based projects discharging into a capacity-constrained system or its
7 basin shall also comply with subsection 22.805.080.B.4 (Peak Control Standard) if the total new
8 plus replaced (~~((impervious))~~) hard surface is 2,000 square feet or more.

9 7. Discharges from Groundwater. In addition to applicable minimum
10 requirements for flow control in subsection 22.805.050.C.1 through subsection 22.805.050.C.6,
11 parcel-based projects that will permanently discharge groundwater to a public drainage system or
12 to a public combined sewer shall also comply with subsection 22.805.080.B.4 (Peak Control
13 Standard) if the total new plus replaced hard surface is 2,000 square feet or more.

14 ~~((B))~~ D. Treatment. Parcel-based projects not discharging to the public combined sewer
15 shall comply with the minimum requirements for treatment contained in Section 22.805.090 for
16 flows from the total new plus replaced pollution-generating hard surface and the new plus
17 replaced pollution-generating pervious surface, to the extent allowed by law, if:

18 1. The total new plus replaced pollution-generating (~~((impervious))~~) hard surface is
19 5,000 square feet or more; or

20 2. The total new plus replaced pollution-generating pervious surfaces is 3/4 (~~((of~~
21 ~~an))~~ acres or more, and from (~~((which))~~) the project there is a surface discharge in a natural or
22 man-made conveyance system from the site.

Section 39. Section 22.805.060 of the Seattle Municipal Code, last amended by Ordinance 124758, is amended as follows:

22.805.060 Minimum Requirements for Roadway Projects

A. Soil Amendment. Retain and protect undisturbed soil in areas not being developed, and prior to completion of the project, amend all new, replaced, and disturbed topsoil (including construction lay-down areas) with organic matter to the extent required by and in compliance with the rules promulgated by the Director.

B. On-Site Stormwater Management. All roadway projects with 2,000 square feet or more of new plus replaced hard surface or 7,000 square feet or more of land disturbing activity shall meet the Minimum Requirements for On-site Stormwater Management contained in Section 22.805.070, to the extent allowed by law, except as provided in subsection 22.805.060.E.

((A)) C. Flow Control. Roadway projects shall meet the minimum requirements for flow control contained in Section 22.805.080, to the extent allowed by law, as prescribed below, except as provided in subsection 22.805.060.E.

1. Discharges to Wetlands. Roadway projects discharging into a wetland or to the drainage basin of a wetland shall comply with subsection 22.805.080.B.1 (Wetland Protection Standard) if:

a. The total new plus replaced ~~((impervious))~~ hard surface is 5,000 square feet or more; or

b. The project converts 3/4 acres or more of ~~((native))~~ vegetation to lawn or landscaped areas, and from ~~((which))~~ the project there is a surface discharge into a natural or man-made conveyance system from the site; or

1 c. The project converts 2.5 acres or more of native vegetation to pasture
2 and from ((which)) the project there is a surface discharge into a natural or man-made
3 conveyance system from the site.

4 2. Discharges to Listed Creek Basins. Roadway projects discharging into Blue
5 Ridge Creek, Broadview Creek, Discovery Park Creek, Durham Creek, Frink Creek, Golden
6 Gardens Creek, Kiwanis Ravine/Wolfe Creek, Licton Springs Creek, Madrona Park Creek, Mee-
7 Kwa-Mooks Creek, Mount Baker Park Creek, Puget Creek, Riverview Creek, Schmitz Creek,
8 Taylor Creek, or Washington Park Creek, or to the drainage basin of such creek, shall:

9 a. Comply with subsection 22.805.080.B.2 (Pre-developed Forested
10 Standard) if the existing ((impervious)) hard surface coverage is less than 35 percent and one or
11 more of the following apply:

12 1) The project adds 5,000 square feet or more of new
13 ((impervious)) hard surface and the total new plus replaced ((impervious)) hard surface is 10,000
14 square feet or more; or

15 2) The project converts 3/4 acres or more of ((native)) vegetation
16 to lawn or landscaped areas, and from ((which)) the project there is a surface discharge into a
17 natural or man-made conveyance system from the site; or

18 3) The project converts 2.5 acres or more of native vegetation to
19 pasture, and from ((which)) the project there is a surface discharge into a natural or man-made
20 conveyance system from the site; or

21 4) The project adds 5,000 square feet or more of new
22 ((impervious)) hard surface and, through a combination of effective ((impervious)) hard surfaces
23 and converted pervious surfaces, causes a 0.1 cubic feet per second increase in the 100-year

recurrence interval flow frequency as estimated using a continuous model approved by the Director.

b. Comply with subsection 22.805.080.B.3 (Pre-developed Pasture Standard) if the criteria in subsection 22.805.060.((A))C.2.a do not apply and the total new plus replaced ((~~impervious~~)) hard surface is 10,000 square feet or more.

3. Discharges to Non-listed Creek Basins. Roadway projects discharging into a creek not listed in subsection 22.805.060.((A))C.2, or to the drainage basin of such creek, shall:

a. Comply with subsection 22.805.080.B.2 (Pre-developed Forested Standard) if the existing land cover is forested and one or more of the following apply:

1) The project adds 5,000 square feet or more of new ((~~impervious~~)) hard surface and the total new plus replaced ((~~impervious~~)) hard surface is 10,000 square feet or more; or

2) The project converts 3/4 acres or more of ((~~native~~)) vegetation to lawn or landscaped areas, and from ((~~which~~)) the project there is a surface discharge into a natural or man-made conveyance system from the site; or

3) The project converts 2.5 acres or more of native vegetation to pasture, and from ((~~which~~)) the project there is a surface discharge into a natural or man-made conveyance system from the site; or

4) The project adds 5,000 square feet or more of new ((~~impervious~~)) hard surface and, through a combination of effective ((~~impervious~~)) hard surfaces and converted pervious surfaces, causes a 0.1 cubic feet per second increase in the 100-year recurrence interval flow frequency as estimated using a continuous model approved by the Director.

1 b. Comply with subsection 22.805.080.B.3 (Pre-developed Pasture
2 Standard) if the criteria in subsection 22.805.060.~~((A))~~C.3.a do not apply and the total new plus
3 replaced (~~((impervious))~~) hard surface is 10,000 square feet or more.

4 4. Discharges to Small Lake Basins. Projects discharging into Bitter Lake, Green
5 Lake, or Haller Lake, or to the drainage basin of such lake, shall comply with subsection
6 22.805.080.B.4 (Peak Control Standard) if the total new plus replaced (~~((impervious))~~) hard
7 surface is 10,000 square feet or more.

8 5. Discharges to Public Combined Sewer. Unless the Director of SPU has
9 determined that the public combined sewer has sufficient capacity to carry existing and
10 anticipated loads, roadway projects discharging into the public combined sewer or its basin shall
11 comply with subsection 22.805.080.B.4 (Peak Control Standard) if the total new plus replaced
12 (~~((impervious))~~) hard surface is 10,000 square feet or more.

13 6. Discharges to a Capacity-constrained System. In addition to applicable
14 minimum requirements for flow control in subsection 22.805.060.~~((A))~~C.1 through subsection
15 22.805.060.~~((A))~~C.5, roadway projects discharging into a capacity-constrained system or its
16 basin shall also comply with subsection 22.805.080.B.4 (Peak Control Standard) if the total new
17 plus replaced (~~((impervious))~~) hard surface is 10,000 square feet or more.

18 7. Discharges from Groundwater. In addition to applicable minimum
19 requirements for flow control in subsection 22.805.060.C.1 through subsection 22.805.060.C.6,
20 roadway projects that will permanently discharge groundwater to a public drainage system or to
21 a public combined sewer shall also comply with subsection 22.805.080.B.4 (Peak Control
22 Standard) if the total new plus replaced hard surface is 10,000 square feet or more.

1 ((B)) D. Treatment. Roadway projects not discharging to the public combined sewer
2 shall, to the extent allowed by law, except as provided in subsection 22.805.060.E:

3 1. If the site has less than 35 percent existing ((impervious)) hard surface
4 coverage, and the project's total new plus replaced pollution-generating ((impervious)) hard
5 surface is 5,000 square feet or more, comply with the minimum requirements for treatment
6 contained in Section 22.805.090 for flows from the total new plus replaced pollution-generating
7 ((impervious)) hard surface and new plus replaced pollution-generating pervious surface; and

8 2. If the site has greater than or equal to 35 percent existing impervious surface
9 coverage and the project's total new pollution-generating ((impervious)) hard surface is 5,000
10 square feet or more, and

11 a. If the new pollution-generating ((impervious)) hard surface adds 50
12 percent or more to the existing ((impervious)) hard surfaces within the project limits, comply
13 with the minimum requirements for treatment contained in Section 22.805.090 for flows from
14 the total new plus replaced pollution-generating ((impervious)) hard surface and new plus
15 replaced pollution-generating pervious surface. The project limits are defined by the length of
16 the project and the width of the right-of-way; or

17 b. If the new pollution-generating ((impervious)) hard surface adds less
18 than 50 percent to the existing ((impervious)) hard surfaces within the project limits, comply
19 with the minimum requirements for treatment contained in Section 22.805.090 for flows from
20 the total new pollution-generating ((impervious)) hard surface and new pollution-generating
21 pervious surface. The project limits are defined by the length of the project and the width of the
22 right-of-way; and

1 3. If the total new plus replaced pollution-generating pervious surfaces is (~~three-~~
2 ~~quarters of an~~) 3/4 acres or more, and from (~~which~~) the project there is a surface discharge in a
3 natural or man-made conveyance system from the site, comply with the minimum requirements
4 for treatment contained in Section 22.805.090 for flows from the total new plus replaced
5 pollution-generating pervious surface and the new plus replaced pollution-generating hard
6 surface((-)).

7 E. For a roadway project that adds less than 50 percent to the existing hard surface within
8 the project limits on a site having greater than 35 percent existing hard surface coverage, the
9 requirements of subsections 22.805.060.B, 22.805.060.C and 22.805.060.D to install drainage
10 control facilities are modified based on infeasibility to the degree that (a) complete installation
11 would require that an existing major publicly or privately-owned infrastructure or utility element
12 be relocated, or (b) the drainage control facility cannot be built and operated to discharge
13 stormwater from the site under gravity flow conditions while meeting the applicable engineering
14 standards. Compliance with subsections 22.805.060.B, 22.805.060.C and 22.805.060.D is
15 required to the degree that the project can avoid the infeasibility described in this subsection
16 22.805.060.E. Standard drainage control review and approval shall be required whenever this
17 subsection is used, whether or not Section 22.800.070 applies.

18 1. The following are considered existing major infrastructure or utility elements:

19 a. Gravity flow pipe greater than or equal to 24 inches in diameter or
20 gravity flow pipe which cannot be relocated to discharge under gravity flow conditions;

21 b. High-pressure gas pipe;

22 c. Pressure gas pipe greater than 8 inches in diameter;

d. Any other pressure pipe greater than 12 inches in diameter (e.g. water or steam);

e. Duct banks, vaults, or handholes, for underground electrical, fiber optic, or telecommunication services;

f. Bridge, building, or tunnel structural foundations; and

g. Foundations for walls greater than 6 feet in height or 15 feet in length.

Section 40. Section 22.805.070 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.805.070 ((Minimum Requirements for Joint Parcel-Based and Roadway Projects))

Minimum Requirements for On-Site Stormwater Management

~~((The parcel-based portion of joint projects shall comply with the minimum requirements for parcel-based projects contained in Section 22.805.050. The roadway portion of joint projects shall comply with the minimum requirements roadway projects contained in Section 22.805.060. The boundary of the public right-of-way shall form the boundary between the parcel and roadway portions of the joint project for purposes of determining applicable thresholds.))~~

A. Applicability. The requirements of this subsection 22.805.070 apply as required in Section 22.805.030 to Section 22.805.060.

B. Requirements. On-site stormwater management shall be installed to the extent allowed by law and maintained in compliance with the rules promulgated by the Director to receive flows from that portion of the site being developed and shall:

1. Comply with either:

a. Subsection 22.805.070.C (On-site Performance Standard); or

b. Subsection 22.805.070.D (On-site Lists).

1 C. On-site Performance Standard:

2 1. If the existing hard surface coverage is less than 35 percent and the project
3 discharges to a listed creek, or to the drainage basin of such creek:

4 a. The post-development discharge durations shall match the discharge
5 durations of a pre-developed forested condition for the range of pre-developed discharge rates
6 from 8 percent of the 2-year peak flow to 50 percent of the 2-year peak flow.

7 2. For all other projects:

8 a. The post-development discharge durations shall match the discharge
9 durations of a pre-developed pasture condition for the range of pre-developed discharge rates
10 between the 1 percent and 10 percent exceedance values.

11 D. On-site Lists:

12 1. For each project surface, follow the appropriate project table in subsection
13 22.805.070.D.2 to subsection 22.805.070.D.5 to evaluate on-site BMPs shown for that type of
14 surface, by category. All on-site BMPs used must comply with the rules promulgated by the
15 Director. For each surface, consider all of the applicable on-site BMPs in the first category. Use
16 any that is considered feasible. If none is feasible for that surface, move on to each successive
17 category and repeat the selection process as necessary. Once one on-site BMP is used for a
18 surface, no other on-site BMP is necessary for that surface. If no BMP in the appropriate
19 categories is feasible, then no further evaluation is required for that surface under this subsection
20 22.805.070.D.1. Feasibility shall be determined by evaluation against:

21 a. Design criteria, minimum size, limitations, and infeasibility criteria
22 identified for each BMP in this subsection and the rules promulgated by the Director; and

1 b. Competing Needs: Subsection 22.805.070.D (On-site Lists) can be
2 superseded or reduced by the Director if the installation of the BMPs is in conflict with:

3 1) Any of the following federal or state laws, rules, and standards,
4 as may be amended or superseded: Historic Preservation and Archaeology Laws identified in
5 subsection 22.805.070.E (Historic Preservation and Archaeology Laws), Federal Superfund or
6 Washington State Model Toxics Control Act, Federal Aviation Administration requirements for
7 airports, the Americans with Disabilities Act, and related rules and standards; or

8 2) Special zoning district design criteria adopted and being
9 implemented pursuant to a community planning process. Special zoning districts include, for
10 example, historic and preservation districts, pedestrian zone overlays, station area overlays,
11 special review districts, multifamily residential zones, urban centers and urban villages, and
12 master planned communities. Specific criteria in these areas include, but are not limited to,
13 minimum Floor Area Ratio standards; zero lot line development; usable open space
14 requirements; minimum sidewalk width and required bicycle facilities; alley, loading, and access
15 requirements; pitched roof standards; and street-level development standards for modulation and
16 projections; or

17 3) Public health and safety standards; or

18 4) Transportation regulations to maintain the option for future
19 expansion or multi-modal use of public rights-of-way; or

20 5) Chapter 15.43 (Tree and Vegetation Management in Public
21 Places); Chapter 25.09 (Regulations for Environmentally Critical Areas); Chapter 25.11 (Tree
22 Protection); and Chapter 23.60A (Standards for Vegetation in the Shoreline Master Plan).

1

2. For single-family residential projects, Table A for 22.805.070 applies.

Table A for 22.805.070

On-site List for Single-family Residential Projects

<u>Category</u>	<u>BMPs</u>	<u>All Discharge</u>
		<u>Locations</u>
<u>1</u>	<u>Full Dispersion</u>	<u>R, S</u>
	<u>Infiltration Trenches</u>	<u>R, S</u>
	<u>Dry Wells</u>	<u>R, S</u>
<u>2</u>	<u>Rain Gardens^a</u>	<u>R, S</u>
	<u>Infiltrating Bioretention</u>	<u>R, S</u>
	<u>Rainwater Harvesting</u>	<u>X</u>
	<u>Permeable Pavement Facilities</u>	<u>R, S</u>
	<u>Permeable Pavement Surfaces</u>	<u>S</u>
<u>3</u>	<u>Sheet Flow Dispersion</u>	<u>R, S</u>
	<u>Concentrated Flow Dispersion</u>	<u>S</u>
	<u>Splashblock Downspout Dispersion</u>	<u>R</u>
	<u>Trench Downspout Dispersion</u>	<u>R</u>
	<u>Non-infiltrating Bioretention</u>	<u>R, S</u>
	<u>Vegetated Roofs</u>	<u>X</u>
<u>4</u>	<u>Single-family Residential Cisterns</u>	<u>R</u>
	<u>Perforated Stub-out Connections</u>	<u>R</u>
	<u>Newly Planted Trees</u>	<u>S</u>

Table A for 22.805.070

On-site List for Single-family Residential Projects

Note that subsection 22.805.070.D.1 requires consideration of all on-site BMPs in a category for feasibility before moving on to each successive category as necessary. Within a category, BMPs may be considered in any order.

Key to Table A for 22.805.070

R = Evaluation is required for all roof runoff from Single-family residential projects.

S = Evaluation is required for all surfaces of Single-family residential projects.

X = Evaluation is not required but is allowed.

^a Installation is only allowed for projects with less than 5,000 square feet of hard surface infiltrating on the project site.

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3. For trail and sidewalk projects, Table B for 22.805.070 applies.

Table B for 22.805.070

On-site List for Trail and Sidewalk Projects

<u>Category</u>	<u>BMPs</u>	<u>Projects</u> <u>Discharging to a</u> <u>Receiving</u> <u>Water Not</u> <u>Designated by</u> <u>Section</u> <u>22.801.050, or</u> <u>its Basin</u>	<u>Projects</u> <u>Discharging to a</u> <u>Public Combined</u> <u>Sewer or</u> <u>Capacity-</u> <u>constrained</u> <u>System,^c or its</u> <u>Basin</u>	<u>Projects</u> <u>Discharging to a</u> <u>Designated</u> <u>Receiving</u> <u>Water, or its</u> <u>Basin</u>
<u>1</u>	<u>Full Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>
<u>2</u>	<u>Rain Gardens</u>	<u>S</u>	<u>S</u>	<u>X</u>
	<u>Permeable Pavement Facilities</u>	<u>X</u>	<u>X^a</u>	<u>X^{a, b}</u>
	<u>Permeable Pavement Surfaces</u>	<u>S</u>	<u>S^a</u>	<u>X^{a, b}</u>
<u>3</u>	<u>Sheet Flow Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>
	<u>Concentrated Flow Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>

Table B for 22.805.070

On-site List for Trail and Sidewalk Projects

Note that subsection 22.805.070.D.1 requires consideration of all on-site BMPs in a category for feasibility before moving on to each successive category as necessary. Within a category, BMPs may be considered in any order.

Key to Table B for 22.805.070

S = Evaluation is required for all surfaces of trail or sidewalk projects.

X = Evaluation is not required for trail or sidewalk projects.

a Minimum permeable pavement area allowed in right-of-way is 2,000 square feet of pavement within the project site.

b Installation is not allowed in the right-of-way if new plus replaced pollution-generating hard surface area is less than 2,000 square feet of pavement within the project site.

c Does not include any project discharging to a receiving water not designated by Section 22.801.050, or its basin, even if the project discharges to a capacity-constrained system or its basin.

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4. For parcel-based projects, Table C for 22.805.070 applies.

Table C for 22.805.070

On-site List for Parcel-based Projects

<u>Category</u>	<u>BMPs</u>	<u>Projects</u> <u>Discharging to a</u> <u>Receiving Water</u> <u>Not Designated</u> <u>by Section</u> <u>22.801.050,</u> <u>Public Combined</u> <u>Sewer, or</u> <u>Capacity-</u> <u>constrained</u> <u>System, or its</u> <u>Basin</u>	<u>Projects Discharging</u> <u>to a Designated</u> <u>Receiving Water or</u> <u>its Basin</u>
<u>1</u>	<u>Full Dispersion</u>	<u>R, S</u>	<u>R, S</u>
	<u>Infiltration Trenches</u>	<u>R, S</u>	<u>R, S</u>
	<u>Dry Wells</u>	<u>R, S</u>	<u>R, S</u>
<u>2</u>	<u>Rain Gardens</u>	<u>R^a, S^a</u>	<u>R^a, S^a</u>
	<u>Infiltrating Bioretention</u>	<u>R, S</u>	<u>R, S</u>
	<u>Rainwater Harvesting</u>	<u>R^b</u>	<u>X</u>
	<u>Permeable Pavement Facilities</u>	<u>R, S</u>	<u>R, S</u>
	<u>Permeable Pavement Surfaces</u>	<u>S</u>	<u>S</u>

<u>3</u>	<u>Sheet Flow Dispersion</u>	<u>R, S</u>	<u>R, S</u>
	<u>Concentrated Flow Dispersion</u>	<u>S</u>	<u>S</u>
	<u>Splashblock Downspout Dispersion</u>	<u>R</u>	<u>R</u>
	<u>Trench Downspout Dispersion</u>	<u>R</u>	<u>R</u>
	<u>Non-infiltrating Bioretention</u>	<u>R, S</u>	<u>R, S</u>
	<u>Vegetated Roofs</u>	<u>R^c</u>	<u>X</u>
<u>4</u>	<u>Perforated Stub-out Connections</u>	<u>R</u>	<u>R</u>
	<u>Newly Planted Trees</u>	<u>S</u>	<u>S</u>

Note that subsection 22.805.070.D.1 requires consideration of all on-site BMPs in a category for feasibility before moving on to each successive category as necessary. Within a category, BMPs may be considered in any order.

Key to Table C for 22.805.070

R = Evaluation is required for all roof runoff from parcel-based projects.

S = Evaluation is required for all surfaces of parcel-based projects, unless otherwise noted below.

X = Evaluation is not required but is allowed.

^a Installation is only allowed for projects not required to meet Section 22.805.080 (Minimum Requirements for Flow Control) or Section 22.805.090 (Minimum Requirements for Treatment) and with less than 5,000 square feet of hard surface infiltrating on the project site.

^b Evaluation is not required for projects with less than 10,000 square feet of new plus replaced rooftop surface.

^c Evaluation is not required for projects with less than 5,000 square feet of new plus replaced rooftop surface.

5. For roadway projects, Table D for 22.805.070 applies.

Table D for 22.805.070

On-site List for Roadway Projects

<u>Category</u>	<u>BMPs</u>	<u>Projects</u> <u>Discharging to</u> <u>a Receiving</u> <u>Water Not</u> <u>Designated by</u> <u>Section</u> <u>22.801.050, or</u> <u>its Basin</u>	<u>Projects</u> <u>Discharging to a</u> <u>Public Combined</u> <u>Sewer or</u> <u>Capacity-</u> <u>constrained</u> <u>System,^g or its</u> <u>Basin</u>	<u>Projects</u> <u>Discharging to</u> <u>a Designated</u> <u>Receiving</u> <u>Water or its</u> <u>Basin</u>
<u>1</u>	<u>Full Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>
<u>2</u>	<u>Rain Gardens</u>	<u>S^a</u>	<u>S^a</u>	<u>S^a</u>
	<u>Infiltrating Bioretention</u>	<u>S</u>	<u>S^b</u>	<u>S^{b, c}</u>
	<u>Permeable Pavement Facilities</u>	<u>X^d</u>	<u>X^{e, f}</u>	<u>X^{c, e, f}</u>
	<u>Permeable Pavement Surfaces</u>	<u>S^d</u>	<u>S^{e, f}</u>	<u>S^{c, e, f}</u>
<u>3</u>	<u>Sheet Flow Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>
	<u>Concentrated Flow Dispersion</u>	<u>S</u>	<u>S</u>	<u>S</u>

Table D for 22.805.070

On-site List for Roadway Projects

Note that subsection 22.805.070.D.1 requires consideration of all on-site BMPs in a category for feasibility before moving on to each successive category as necessary. Within a category, BMPs may be considered in any order.

Key to Table D for 22.805.070

S = Evaluation is required for all surfaces of Roadway Projects.

X = Evaluation is not required for Roadway Projects, but is allowed.

^a Installation is only allowed for projects not required to meet Section 22.805.080 (Minimum Requirements for Flow Control) or Section 22.805.090 (Minimum Requirements for Treatment) and with less than 5,000 square feet of hard surface infiltrating on the project site.

^b Minimum bioretention cell size top area in right-of-way is 500 square feet (including pre-settling area). Evaluation is only required and installation only allowed when contributing area is sufficient to warrant minimum bioretention cell size in right-of-way.

^c Evaluation is not required, and installation is not allowed, if new plus replaced pollution-generating hard surface is less than 2,000 square feet.

^d Evaluation of roadway surfaces is not required, and installation is not allowed, if roadway is an arterial street/collector.

^e Evaluation of roadway surfaces, including alleys, is not required and installation is not allowed.

^f Minimum permeable pavement area allowed in right-of-way is 2,000 square feet of pavement within the project site.

^g Does not include any project discharging to a receiving water not designated by Section

E. Historic Preservation and Archaeology Laws. For use with subsection

22.805.070.D.1.b.1:

1. Federal Laws on Historic Preservation:

a. 16 U.S.C. 470, et seq. (National Historic Preservation Act);

b. 36 CFR Part 60 (National Register of Historic Places);

c. 36 CFR Part 61 (Procedures for State, Tribal, and Local Government
Historic Preservation Programs);

d. 36 CFR Part 63 (Determinations of Eligibility for Inclusion in the
National Register of Historic Places);

e. 36 CFR Part 65 (National Historic Landmarks Program);

f. 36 CFR Part 68 (The Secretary of the Interior's Standards for the
Treatment of Historic Properties);

g. Section 106 of National Historic Preservation Act;

h. Secretary of the Interior's Standards and Guidelines for Professional
Qualifications Standards;

i. Executive Order 11593 (Protection and Enhancement of the Cultural
Environment); and

j. Executive Order 13006 (Locating Federal Facilities in Historic
Properties).

2. Washington State Laws on Historic Preservation:

a. Archaeological and Cultural Resources (Executive Order 05-05);

b. Advisory Council on Historic Preservation (WAC 25-12);

c. Washington State Historic Building Code (RCW 19.27.120);

1 d. Heritage Barn Program (RCW 27.34.400);

2 e. State Historical Societies - Historic Preservation (RCW 27.34); and

3 f. Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60).

4 3. Federal Laws on Archaeology:

5 a. 16 U.S.C. 470aa, et seq. (Archaeological Resources Protection Act of
6 1979);

7 b. 16 U.S.C. 469 (Archaeological and Historic Preservation Act of 1974);

8 c. 25 U.S.C. 3001, et seq. (Native American Graves Protection and

9 Repatriation Act); and

10 d. 16 U.S.C. 470, et seq. (National Historic Preservation Act).

11 4. Washington State Laws on Archaeology:

12 a. Archaeological and Cultural Resources (Executive Order 05-05);

13 b. Registration of Historic Archaeological Resources on State-Owned

14 Aquatic Lands (WAC 25-46);

15 c. Archaeological Excavation and Removal Permit (WAC 25-48);

16 d. Indian Graves and Records (RCW 27.44);

17 e. Archaeological Sites and Resources (RCW 27.53);

18 f. Archaeological Site Public Disclosure Exemption (RCW 42.56.300);

19 g. Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60);

20 and

21 h. Archaeological Activities on State-owned Aquatic Lands – Agreements,

22 Leases, or Other Conveyances (RCW 79.105.600).

5. City of Seattle Laws on Historic Preservation as listed below and historic districts that have been or may be designated by ordinance:

- a. Chapter 23.66 (Pioneer Square and International Special Review Districts);
- b. Chapter 25.12 (Landmarks Preservation);
- c. Chapter 25.16 (Ballard Avenue Landmark District);
- d. Chapter 25.20 (Columbia City Landmark District);
- e. Chapter 25.21 (Fort Lawton Landmark District);
- f. Chapter 25.22 (Harvard-Belmont Landmark District);
- g. Chapter 25.24 (Pike Place Market Historical District); and
- h. Chapter 25.32 (Table of Historical Landmarks).

Section 41. Section 22.805.080 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.805.080 Minimum Requirements for Flow Control

A. Applicability. The requirements of this subsection apply to the extent required in Section 22.805.050 to Section 22.805.0((7))60.

B. Requirements. Flow control facilities shall be installed to the extent allowed by law and maintained ~~((per))~~ pursuant to rules promulgated by the Director to receive flows from that portion of the site being developed. Post-development discharge determination must include flows from dewatering activities. All projects shall use ~~((green stormwater infrastructure))~~ on-site BMPs identified in Section 22.805.070.D to the maximum extent feasible to meet the minimum requirements. Flow control facilities that receive flows from less than that portion of the site being developed may be installed if the total new plus replaced impervious surface is less

1 than 10,000 square feet, the project site uses only ~~((green stormwater infrastructure))~~ on-site
2 BMPs to meet the requirement, and the ~~((green stormwater infrastructure))~~ on-site BMPs
3 provides substantially equivalent environmental protection as facilities not using ~~((green~~
4 ~~stormwater infrastructure))~~ on-site BMPs that receive flows from all of the portion of the site
5 being developed.

6 1. Wetland Protection Standard. Protect the functions and values of wetlands and
7 their buffers from all projects discharging stormwater directly or indirectly to them. ~~((All~~
8 ~~projects discharging to wetlands or their buffers shall protect the))~~ The hydrologic conditions,
9 vegetative community, and substrate characteristics of the wetlands ~~((and their buffers to protect~~
10 ~~the functions and values of the affected wetlands))~~ shall be protected, and impacts caused by
11 changes in water flows and pollutants shall be prevented. The introduction of sediment, heat and
12 other pollutants and contaminants into wetlands shall be minimized through the selection, design,
13 installation, and maintenance of temporary and permanent controls. ~~((Discharges shall maintain~~
14 ~~existing flows to the extent necessary to protect the functions and values of the wetlands.))~~ The
15 total volume of stormwater discharging into a wetland shall not be more than:

16 during a single precipitation event, 20 percent higher or lower than the
17 pre-project volume, and

18 on a monthly basis, 15 percent higher or lower than the pre-project
19 volume.

20 ~~((Prior to))~~ Before authorizing new discharges to a wetland, alternative discharge
21 locations shall be evaluated and infiltration options outside the wetland shall be maximized
22 unless doing so will adversely impact the functions and values of the affected wetlands. If one or
23 more of the flow control requirements contained in 22.805.080.B.2 through 22.805.080.B.4 also

1 apply to the project, an analysis shall be conducted to ensure that the functions and values of the
2 affected wetland are protected before implementing these flow control requirements. Projects
3 triggering this requirement shall refer to Guide Sheets #1 through #3 presented in Appendix I-D
4 of Ecology's Stormwater Management Manual for Western Washington (Ecology 2014) for
5 additional guidance. Notwithstanding any provision in this subtitle, no net loss of wetland
6 functions of values shall result from actions regulated by this subtitle.

7 2. Pre-developed Forested Standard. The post-development discharge (~~peak flow~~
8 ~~rates and flow~~) durations (~~((must be matched to))~~) shall match the discharge durations of a pre-
9 developed forested condition for the range of pre-developed discharge rates from 50 ((%))
10 percent of the 2-year ((recurrence interval)) peak flow ((up)) to the 50-year ((recurrence
11 interval)) peak flow.

12 3. Pre-developed Pasture Standard. The post-development discharge (~~peak flow~~
13 ~~rates and flow~~) durations (~~((must be matched to))~~) shall match the discharge durations of a pre-
14 developed pasture condition for the range of pre-developed discharge rates from 50 ((%)) percent
15 of the 2-year ((recurrence interval)) peak flow ((up)) to the 2-year ((recurrence interval)) peak
16 flow.

17 4. Peak (~~Flow~~) Control Standard. The post-development peak flow with a 4
18 ((%)) percent annual probability (25-year recurrence flow) shall not exceed 0.4 cubic feet per
19 second per acre. Additionally, the peak flow with a 50 ((%)) percent annual probability (2-year
20 recurrence flow) shall not exceed 0.15 cubic feet per second per acre.

21 C. Inspection and Maintenance Schedule. Temporary and permanent flow control
22 facilities shall be inspected and maintained according to rules promulgated by the Director to
23 keep these facilities in continuous working order.

Section 42. Section 22.805.090 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.805.090 Minimum Requirements for Treatment ((-))

A. Applicability. The requirements of this subsection apply to the extent required in Section 22.805.050 to Section 22.805.((070))060.

B. Requirements. Water quality treatment facilities shall be installed to the extent allowed by law and maintained ((per)) pursuant to rules promulgated by the Director to treat flows from the pollution-generating pervious and impervious surfaces on the site being developed. When stormwater flows from other areas, including non-pollution generating surfaces (e.g., roofs), dewatering activities, and off-site areas, cannot be separated or bypassed, treatment BMPs shall be designed for the entire area draining to the treatment facility. All projects shall use ((green stormwater infrastructure)) on-site BMPs identified in Section 22.805.070.D to the maximum extent feasible to meet the minimum requirements.

1. Runoff Volume. Stormwater treatment facilities shall be designed based on the stormwater runoff volume from the contributing area or a peak flow rate as follows:

a. The daily runoff volume at or below which 91 percent of the total runoff volume for the simulation period occurs, as determined using an approved continuous model. It is calculated as follows:

- 1) Rank the daily runoff volumes from highest to lowest.
- 2) Sum all the daily volumes and multiply by 0.09.
- 3) Sequentially sum daily runoff volumes, starting with the highest value, until the total equals 9 percent of the total runoff volume. The last daily value added to the sum is defined as the water quality design volume.

b. Different design flow rates are required depending on whether a treatment facility will be located upstream or downstream of a detention facility:

1) For facilities located upstream of detention or when detention is not required, the design flow rate is the flow rate at or below which 91 percent of the total runoff volume for the simulation period is treated, as determined using an approved continuous runoff model.

2) For facilities located downstream of detention, the design flow rate is the release rate ~~((from the detention facility that has a 50 percent annual probability of occurring in any given year (2-year recurrence interval)))~~ shall be the full 2-year release rate, as determined using an approved continuous runoff model.

c. Infiltration facilities designed for water quality treatment must infiltrate 91 percent of the total runoff volume as determined using an approved continuous runoff model. To prevent the onset of anaerobic conditions, an infiltration facility designed for water quality treatment purposes must be designed to drain the water quality design treatment volume (the 91st percentile, 24-hour volume) within 48 hours.

2. Basic Treatment. A basic treatment facility shall be required for all projects. The requirements of subsection ~~((22.805.090-B3))~~ 22.805.090.B.3 (Oil Control Treatment), subsection ~~((22.805.090-B4))~~ 22.805.090.B.4 (Phosphorus Treatment), and subsection 22.805.090.B.5 (Enhanced Treatment) are in addition to this basic treatment requirement.

3. Oil Control Treatment. An oil control treatment facility shall be required for high-use sites, as defined in this subtitle.

4. Phosphorus Treatment. A phosphorus treatment facility shall be required for projects discharging into nutrient-critical receiving waters.

1 5. Enhanced Treatment. An enhanced treatment facility for reducing
2 concentrations of dissolved metals shall be required for projects ~~((discharging to a fish-bearing~~
3 ~~stream or lake, and to waters or drainage systems that are tributary to fish-bearing streams,~~
4 ~~creeks, or lakes,))~~ that discharge, directly or through conveyance systems, to fresh waters
5 designated for aquatic life use or having an existing aquatic life use, or that use infiltration
6 strictly for flow control (not treatment) and discharge within one-quarter mile of fresh waters
7 designated for aquatic life use or having an existing aquatic life use, if the project meets one of
8 the following criteria:

9 a. For a parcel-based project, ~~((the total of new plus replaced pollution-~~
10 ~~generating impervious surface is 5,000 square feet or more, and))~~ the site is an industrial,
11 commercial, or multi-family project.

12 b. For a roadway project, ~~((the project adds 5,000 square feet or more of~~
13 ~~pollution-generating impervious surface, and))~~ the site is either:

14 1) A fully controlled or a partially controlled limited access
15 highway with Annual Average Daily Traffic counts of 15,000 or more; or

16 2) Any other road with an Annual Average Daily Traffic count of
17 7,500 or greater.

18 6. Discharges to Groundwater. Direct discharge of untreated drainage water from
19 pollution-generating ~~((impervious))~~ hard surfaces to ~~((ground-water))~~ groundwater is prohibited.

20 C. Inspection and Maintenance Schedule. Temporary and permanent treatment facilities
21 shall be inspected and maintained according to rules promulgated by the Director to keep these
22 facilities ~~((to be kept))~~ in continuous working order.

Section 43. Section 22.807.020 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.807.020 Drainage Control Review and Application Requirements

A. Thresholds for Drainage Control Review. Drainage control review and approval shall be required for any of the following:

1. Standard drainage control review and approval shall be required for the following:

a. Any land disturbing activity encompassing an area of ~~((seven hundred fifty-))~~ 750(()) square feet or more;

b. Applications for either a master use permit or building permit that includes the cumulative addition of 750 square feet or more of land disturbing activity and/or new and replaced impervious surface;

c. Applications for which a grading permit or approval is required ~~((per SMC))~~ pursuant to Chapter 22.170;

d. Applications for street use permits for the cumulative addition of 750 square feet or more of new and replaced impervious surface and land disturbing activity;

e. City public works projects or construction contracts, including contracts for day labor and other public works purchasing agreements, for the cumulative addition of 750 square feet or more of new and replaced impervious surface and/or land disturbing activity to the site, except for projects in a City-owned right-of-way and except for work performed for the operation and maintenance of park lands under the control or jurisdiction of the Department of Parks and Recreation; ~~((or))~~

1 f. Permit approvals and contracts that include any new or replaced
2 impervious surface or any land disturbing activity on a site deemed a potentially hazardous
3 location, as specified in Section 22.800.050 (Potentially Hazardous Locations);

4 g. Permit approvals that include any new impervious surface in a
5 Category I peat settlement-prone area delineated pursuant to subsection 25.09.020; ~~((or))~~

6 h. Whenever an exception to a requirement set forth in this subtitle or in a
7 rule promulgated under this subtitle is desired, whether or not review and approval would
8 otherwise be required, including, but not limited to, alteration of natural drainage patterns or the
9 obstruction of watercourses; or

10 i. Whenever roadway project infeasibility pursuant to subsection
11 22.805.060.E is applied, whether or not review and approval would otherwise be required.

12 2. Large project drainage control review and approval shall be required for
13 projects that include:

14 a. Five thousand square feet or more of new plus replaced ~~((impervious))~~
15 hard surface;

16 b. One acre or more of land disturbing activity;

17 c. Conversion of 3/4 acres or more of ~~((native))~~ vegetation to lawn or
18 landscaped area; or

19 d. Conversion of 2.5 acres or more of native vegetation to pasture.

20 3. The City may, by interagency agreement signed by the Directors of SPU and
21 DPD, waive the drainage and erosion control permit and document requirements for property
22 owned by public entities, when discharges for the property do not enter the public drainage
23 system or the public combined sewer system. Whether or not the public entities are required to

1 obtain permits or submit documents, such entities are subject to the substantive requirements of
2 this subtitle, unless exceptions are granted as set forth in Section 22.800.040.

3 B. Submittal Requirements for Drainage Control Review and Approval.

4 1. Information Required for Standard Drainage Control Review. The following
5 information shall be submitted to the Director for all projects for which drainage control review
6 is required.

7 a. Site Plan. A site plan shall be submitted to the Director.

8 b. Standard Drainage Control Plan. A drainage control plan shall be
9 submitted to the Director. Standard designs for drainage control facilities as set forth in rules
10 promulgated by the Director may be used. For a project with no accessible offsite discharge
11 point, the drainage control plan shall be prepared by a licensed civil engineer in accordance with
12 standards adopted by the Director.

13 ((b)) c. Construction Stormwater Control Plan. A construction stormwater
14 control plan demonstrating controls sufficient to determine compliance with subsection
15 22.805.020.D shall be submitted. The Director may approve a checklist in place of a plan,
16 pursuant to rules promulgated by the Director.

17 ((e)) d. Memorandum of Drainage Control. The owner(s) of the site shall
18 sign a "memorandum of drainage control" that has been prepared by the Director of SPU.
19 Completion of the memorandum shall be a condition precedent to issuance of any permit or
20 approval for which a drainage control plan is required. The applicant shall file the memorandum
21 of drainage control with the King County Recorder's Office so as to become part of the King
22 County real property records. The applicant shall give the Director of SPU proof of filing of the

memorandum. The memorandum shall not be required when the drainage control facility will be owned and operated by the City. A memorandum of drainage control shall include:

- 1) The legal description of the site;
- 2) A summary of the terms of the drainage control plan, including any known limitations of the drainage control facilities, and an agreement by the owners to implement those ~~((terms))~~ terms;
- 3) An agreement that the owner(s) shall inform future purchasers and other successors and assignees of the existence of the drainage control facilities and other elements of the drainage control plan, the limitations of the drainage control facilities, and of the requirements for continued inspection and maintenance of the drainage control facilities;
- 4) The side sewer permit number and the date and name of the permit or approval for which the drainage control plan is required;
- 5) Permission for the City to enter the property for inspection, monitoring, correction, and abatement purposes;
- 6) An acknowledgment by the owner(s) that the City is not responsible for the adequacy or performance of the drainage control plan, and a waiver of any and all claims against the City for any harm, loss, or damage related to the plan, or to drainage or erosion on the property, except for claims arising from the City's sole negligence; and
- 7) The owner(s)' signatures acknowledged by a notary public.

e. Submittals identified by rule. Additional information shall be submitted to the Director to comply with the requirements of this subtitle and rules promulgated hereunder and to accomplish the purposes of this subtitle.

2. Information Required for Large Project Drainage Control Review. In addition to the submittal requirements for standard drainage control review, the following information is required for large projects ~~((that include one acre or more of land disturbing activities; 5,000 square feet or more of new and replaced impervious surface; conversion of 3/4 acres or more of native vegetation to lawn or landscaped area; or conversion of 2.5 acres or more of native vegetation to pasture.))~~:

a. Comprehensive Drainage Control Plan. A comprehensive drainage control plan, in lieu of a standard drainage control plan, to comply with the requirements of this subtitle and rules promulgated hereunder and to accomplish the purposes of this subtitle shall be submitted with the permit application. It shall be prepared by a licensed civil engineer in accordance with standards adopted by the Director ~~((of DPD))~~.

b. Inspection and Maintenance Schedule. A schedule shall be submitted that provides for inspection of temporary and permanent flow control facilities, treatment facilities, and source controls to comply with Section 22.805.070 (Minimum Requirements for On-site Stormwater Management), Section 22.805.080 (Minimum Requirements for Flow Control), and Section 22.805.090 (Minimum Requirements for Treatment).

c. Construction Stormwater Control Plan. A construction stormwater control plan prepared in accordance with subsection 22.805.020.D shall be submitted.

3. Applications for drainage control review and approval shall be prepared and submitted in accordance with provisions of this subsection, with Chapter 21.16 (Side Sewer Code), and with associated rules and regulations adopted jointly by the Directors of DPD and SPU.

1 4. The Director ((~~of DPD~~)) may require additional information necessary to
2 adequately evaluate applications for compliance with the requirements and purposes of this
3 subtitle and other laws and regulations, including, but not limited to, Chapter 25.09 (Regulations
4 for Environmentally Critical Areas). The Director ((~~of DPD~~)) may also require appropriate
5 information about adjoining properties that may be related to, or affected by, the drainage control
6 proposal in order to evaluate effects on the adjacent property. This additional information may be
7 required as a precondition for permit application review and approval.

8 (~~(5. Where an applicant simultaneously applies for more than one of the permits~~
9 ~~listed in subsection 22.807.020.A for the same property, the application shall comply with the~~
10 ~~requirements for the permit that is the most detailed and complete.))~~

11 C. Authority to Review. The Director may approve those plans that comply with the
12 provisions of this subtitle and rules promulgated hereunder, and may place conditions upon the
13 approval in order to assure compliance with the provisions of this subtitle. Submission of the
14 required drainage control application information shall be a condition precedent to the processing
15 of any of the above-listed permits. Approval of drainage control shall be a condition precedent to
16 issuance of any of the above-listed permits. The Director may review and inspect activities
17 subject to this subtitle and may require compliance regardless of whether review or approval is
18 specifically required by this subsection. The Director may disapprove plans that do not comply
19 with the provisions of this subtitle and rules promulgated hereunder. Disapproved plans shall be
20 returned to the applicant, who may correct and resubmit the plans.

Section 44. Section 22.807.090 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.807.090 Maintenance and Inspection

A. Responsibility for Maintenance and Inspection. The owner and other responsible ~~((party))~~ parties shall maintain drainage control facilities, source controls, and other facilities required by this subtitle and by rules adopted hereunder to keep these facilities in continuous working order. The owner and other responsible ~~((party))~~ parties shall inspect permanent drainage control facilities, temporary drainage control facilities, and other temporary best management practices or facilities on a schedule consistent with this subtitle and sufficient for the facilities to function at design capacity. The Director may require the responsible party to conduct more frequent inspections and/or maintenance when necessary to ensure functioning at design capacity. The owner(s) shall inform future purchasers and other successors and assignees to the property of the existence of the drainage control facilities and the elements of the drainage control plan, the limitations of the drainage control facilities, and the requirements for continued inspection and maintenance of the drainage control facilities.

B. Inspection by City. The Director of SPU may establish inspection programs to evaluate and, when required, enforce compliance with the requirements of this subtitle and accomplishment of its purposes. Inspection programs may be established on any reasonable basis, including, but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type ~~((which are))~~ more likely than the typical

1 discharge to cause violations of state or federal water or sediment quality standards or the City's
2 NPDES stormwater permit; and joint inspections with other agencies inspecting under
3 environmental or safety laws. Inspections may include, but are not limited to: reviewing
4 maintenance and repair records; sampling discharges, surface water, groundwater, and material
5 or water in drainage control facilities; and evaluating the condition of drainage control facilities
6 and other best management practices.

7 C. Entry for Inspection and Abatement Purposes.

8 1. New Installations and Connections. When any new drainage control facility is
9 installed on private property, and when any new connection is made between private property
10 and a public drainage system, sanitary sewer or combined sewer, the property owner shall grant,
11 ~~((per))~~ pursuant to subsection 22.807.020.B.1.c (Memorandum of Drainage Control), the City the
12 right to enter the property at reasonable times and in a reasonable manner pursuant to an
13 inspection program established pursuant to subsection 22.807.090.B, and to enter the property
14 when the City has a reasonable basis to believe that a violation of this subtitle is occurring or has
15 occurred, and to enter when necessary for abatement of a public nuisance or correction of a
16 violation of this subtitle.

17 2. Existing Real Property and Discharges. Owners of property with existing
18 discharges or land uses subject to this subtitle who are not installing a new drainage control
19 facility or making a new connection between private property and a public drainage system,
20 sanitary sewer, or combined sewer ~~((s))~~ shall have the option to execute a permission form for the
21 purposes described above when provided with the form by the Director of SPU.

Section 45. Section 22.808.010 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.808.010 Violations

A. Civil Violations ((-))

1. The following are civil violations of this subtitle, subject to a maximum civil penalty of up to \$5,000 per day for each violation.

a. General. It is a violation to not comply with any requirement of, or to act in a manner prohibited by, this subtitle, or a permit, approval, rule, manual, order, ((or)) Notice of Violation or Voluntary Compliance Agreement issued pursuant to this subtitle;

b. Aiding and Abetting. It is a violation to aid, abet, counsel, encourage, commend, incite, induce, hire or otherwise procure another person to violate this subtitle;

c. Alteration of Existing Drainage. It is a violation to alter existing drainage patterns which serve a tributary area of more than one acre without authorization or approval by the Director;

d. Obstruction of Watercourse or Public Drainage System. It is a violation to obstruct a watercourse or public drainage system without authorization or approval by the Director;

e. Dangerous Condition. It is a violation to allow to exist, or cause or contribute to, a condition of a drainage control facility, or condition related to grading, drainage water, drainage or erosion that is likely to endanger the public health, safety or welfare, the environment, or public or private property;

1 f. Interference. It is a violation for any person to interfere with or impede
2 the correction of any violation, or compliance with any Notice of Violation, emergency order,
3 stop work order, or the abatement of any nuisance;

4 g. Piecemeal of Projects. It is a violation for any person to knowingly
5 divide a larger project into a set of smaller projects specifically for the purpose of avoiding
6 minimum requirements;

7 h. Altering a Posted Order. It is a violation for any person to remove,
8 obscure, or mutilate any posted order of the Director, including a stop work or emergency order;
9 and

10 i. Continuing Work. It is a violation for any work to be done after service
11 or posting of a stop work order, except work necessary to perform the required corrective action,
12 until authorization is given by the Director.

13 B. Criminal Violations ((-))

14 1. The following are criminal violations, punishable upon conviction by a fine of
15 not more than \$5,000 per violation or imprisonment for each violation for not more than 360
16 days, or both such fine and imprisonment:

17 a. Failing to comply with a Notice of Violation or Director's order issued
18 pursuant to this subtitle;

19 b. Failing to comply with a court order;

20 c. Tampering with or vandalizing any part of a drainage control facility or
21 other best management practice, a public or private drainage system, monitoring or sampling
22 equipment or records, or notices posted pursuant to this subtitle; and

1 d. Anyone violating this subtitle who has had a judgment, final Director's
2 order, or Director's review decision against them for a prior violation of this subtitle in the
3 preceding five years.

4 Section 46. Section 22.808.020 of the Seattle Municipal Code, enacted by Ordinance
5 123105, is amended as follows:

6 **22.808.020 Liability and Defenses of Responsible Parties**

7 A. Who Must Comply. It is the specific intent of this subtitle to place the obligation of
8 complying with its requirements upon the responsible parties, as defined in subsection
9 22.801.190. The City and its agencies are intended to have the same obligation for compliance
10 when the City is a responsible party. No provision of this subtitle is intended to impose any other
11 duty upon the City or any of its officers or employees.

12 1. Joint and Several Liability. Each responsible party is jointly and severally
13 liable for a violation of this subtitle. The Director may take enforcement action, in whole or in
14 part, against any responsible party. All applicable civil penalties may be imposed against each
15 responsible party.

16 2. Allocation of Damages. In the event enforcement action is taken against more
17 than one responsible party, recoverable damages, costs, and expenses may be allocated among
18 the responsible parties by the court based upon the extent to which each responsible party's acts
19 or omissions caused the violation. If this factor cannot be determined the court may consider:

- 20 a. Awareness of the violation;
21 b. Ability to correct the violation;
22 c. Ability to pay the damages, costs, and expenses;
23 d. Cooperation with government agencies;

1 e. Degree to which any impact or threatened impact on water or sediment
2 quality, human health, the environment, or public or private property is related to acts or
3 omissions by each responsible party;

4 f. Degree to which the responsible parties made good-faith efforts to
5 avoid a violation or to mitigate its consequences; and

6 g. Other equitable factors.

7 B. Defenses. A responsible party shall not be liable under this subtitle when the
8 responsible party proves, by a preponderance of the evidence, one of the following:

9 1. The violation was caused solely by an act of God;

10 2. The violation was caused solely by another responsible party over whom the
11 defending responsible party had no authority or control and the defending responsible party
12 could not have reasonably prevented the violation;

13 3. The violation was caused solely by a prior owner or occupant when the
14 defending responsible party took possession of the property without knowledge of the violation,
15 after using reasonable efforts to identify violations. But, the defending responsible party shall be
16 liable for all continuing, recurrent, or new violations after becoming the owner or occupant; or

17 4. The responsible party implemented and maintained all appropriate drainage
18 control facilities, treatment facilities, flow control facilities, erosion and sediment controls,
19 source controls, and best management practices identified in rules promulgated by the Director
20 or in manuals published by ~~((the State Department of))~~ Ecology, or as otherwise identified and
21 required of the responsible party by the Director in writing.

Section 47. Section 22.808.030 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.808.030 Enforcement Actions

A. Investigation. The Director may investigate any site where there is reason to believe that there may be a failure to comply with the requirements of this subtitle.

B. Notice of Violation ((7))

1. Issuance. The Director is authorized to issue a Notice of Violation to a responsible party ((7)) whenever the Director determines that a violation of this subtitle has occurred or is occurring. The Notice of Violation shall be considered an order of the Director.

2. Contents ((7))

a. The Notice of Violation shall include the following information:

1) A description of the violation and the action necessary to correct it;

2) The date of the notice; and

3) A deadline by which the action necessary to correct the violation must be completed.

b. A Notice of Violation may be amended at any time to correct clerical errors, add citations of authority, or modify required corrective action.

3. Service. The Director shall serve the notice upon a responsible party either by personal service, by first-class mail, or by certified mail return receipt requested, to the party's last known address. If by first-class mail, service shall be deemed complete upon the third day following the day upon which the notice is placed in the mail, or if the third day falls on a Saturday, Sunday or legal holiday, then on the next day following that is not a Saturday, Sunday

1 or legal holiday. If the address of the responsible party cannot be found after a reasonable search,
2 the notice may be served by posting a copy of the notice at a conspicuous place on the property.
3 Alternatively, if the whereabouts of the responsible party is unknown and cannot be ascertained
4 in the exercise of reasonable diligence, and the Director makes an affidavit to that effect, then
5 service may be accomplished by publishing the notice once each week for two consecutive
6 weeks in the City official newspaper.

7 4. Nothing in this subtitle shall be deemed to obligate or require the Director to
8 issue a Notice of Violation or order prior to the initiation of enforcement action by the City
9 Attorney's Office pursuant to subsection 22.808.030.E.

10 C. Stop Work and Emergency Orders ((-))

11 1. Stop Work Order. The Director may order work on a site stopped when ((he or
12 she)) the Director determines it is necessary to do so in order to obtain compliance with or to
13 correct a violation of any provision of this subtitle or rules promulgated hereunder, or to correct a
14 violation of a permit or approval granted under this subtitle.

15 a. The stop work notice shall contain the following information:

16 1) A description of the violation; and

17 2) An order that the work be stopped until corrective action has
18 been completed and approved by the Director.

19 b. The stop work order shall be personally served on the responsible party
20 or posted conspicuously on the premises.

21 2. Emergency Order ((-))

22 a. The Director may order a responsible party to take emergency
23 corrective action and set a schedule for compliance and/or may require immediate compliance

1 with an emergency order to correct when the Director determines that it is necessary to do so in
2 order to obtain immediate compliance with or to correct a violation of any provision of this
3 subtitle, or to correct a violation of a permit or approval granted under this subtitle.

4 b. An emergency order shall be personally served on the responsible party
5 or posted conspicuously on the premises.

6 c. The Director is authorized to enter any property to investigate and
7 correct a condition associated with grading, drainage, erosion control, drainage water, or a
8 drainage control facility when it reasonably appears that the condition creates a substantial and
9 present or imminent danger to the public health, safety or welfare, the environment, or public or
10 private property. The Director may enter property without permission or an administrative
11 warrant in the case of an extreme emergency placing human life, property, or the environment in
12 immediate and substantial jeopardy which requires corrective action before either permission or
13 an administrative warrant can be obtained. The cost of such emergency corrective action shall be
14 collected as set forth in subsection 22.808.060.

15 3. Director's Review of Stop Work and Emergency Order. A stop work order or
16 emergency order shall be final and not subject to a Director's review.

17 D. Review by Director.

18 1. A Notice of Violation, Director's order, or invoice issued pursuant to this
19 subtitle shall be final and not subject to further appeal unless an aggrieved party requests in
20 writing a review by the Director within ten business days after service of the Notice of Violation,
21 order or invoice. When the last day of the period so computed is a Saturday, Sunday, or federal
22 or City holiday, the period shall run until ((5:00)) 5 p.m. on the next business day.

1 2. Following receipt of a request for review, the Director shall notify the
2 requesting party, any persons served the Notice of Violation, order or invoice, and any person
3 who has requested notice of the review, that the request for review has been received by the
4 Director. Additional information for consideration as part of the review shall be submitted to the
5 Director no later than 15 business days after the written request for a review is mailed.

6 3. The Director will review the basis for issuance of the Notice of Violation,
7 order, or invoice and all information received by the deadline for submission of additional
8 information for consideration as part of the review. The Director may request clarification of
9 information received and a site visit. After the review is completed, the Director may:

- 10 a. Sustain the Notice of Violation, order, or invoice;
11 b. Withdraw the Notice of Violation, order, or invoice;
12 c. Continue the review to a date certain for receipt of additional
13 information; or
14 d. Modify or amend the Notice of Violation, order, or invoice.

15 4. The Director's decision shall become final and is not subject to further
16 administrative appeal.

17 E. Referral to City Attorney for Enforcement. If a responsible party fails to correct a
18 violation or pay a penalty as required by a Notice of Violation, or fails to comply with a
19 Director's order, the Director (~~((shall))~~) may refer the matter to the City Attorney's Office for civil
20 or criminal enforcement action. Civil actions to enforce (~~((a violation of))~~) this subtitle shall be
21 exclusively in Municipal Court.

22 F. Appeal to Superior Court. Because civil actions to enforce Title 22 are brought
23 exclusively in Municipal Court, notices of violation, orders, and all other actions made under this

1 ((chapter)) subtitle are not subject to judicial review under chapter 36.70C RCW. Instead, final
2 decisions of the Municipal Court on enforcement actions authorized by this ((chapter)) subtitle
3 may be appealed under the Rules ((of Appeals)) for Appeal of Decisions of Courts of Limited
4 Jurisdiction.

5 G. Filing of Notice or Order. A Notice of Violation, voluntary compliance agreement, or
6 an order issued by the Director or court ((;)) may be filed with the King County Recorder's
7 Office.

8 H. Change of Ownership. When a Notice of Violation, voluntary compliance agreement,
9 or an order issued by the Director or court has been filed with the King County Recorder's
10 Office, a Notice of Violation or an order regarding the same violations need not be served upon a
11 new owner of the property where the violation occurred. If no Notice of Violation or order is
12 served upon the new owner, the Director may grant the new owner the same number of days to
13 comply as was given the previous owner. The compliance period for the new owner shall begin
14 on the date that the conveyance of title to the new owner is completed.

15 Section 48. Section 22.808.040 of the Seattle Municipal Code, enacted by Ordinance
16 123105, is amended as follows:

17 **22.808.040 Voluntary Compliance Agreement**

18 A. Initiation. Either a responsible party or the Director may initiate negotiations for a
19 voluntary compliance agreement at any time. Neither has any obligation to enter into any
20 voluntary compliance agreement.

21 B. Contents. A voluntary compliance agreement shall identify actions to be taken by the
22 responsible party that will correct past or existing violations of this subtitle. The agreement may
23 also identify actions to mitigate the impacts of violations. The agreement shall contain a schedule

1 for completion of the corrective actions and any mitigating actions. The agreement shall contain
2 a provision allowing the Director to inspect the premises to determine compliance with the
3 agreement. The agreement shall provide that the responsible party agrees the City may perform
4 the actions set forth in the agreement if the responsible party fails to do so according to the terms
5 and schedule of the agreement, and the responsible party will pay the costs, expenses and
6 damages the City incurs in performing the actions, as set forth in Section 22.808.060.

7 C. Effect of Agreement ((-))

8 1. A voluntary compliance agreement is a binding contract between the party
9 executing it and the City. It is not enforceable by any other party. By entering into a voluntary
10 compliance agreement, a responsible party waives the right to Director's ((Review)) review of
11 the Notice of Violation or order.

12 2. Penalties may be reduced or waived if violations are corrected or mitigated
13 according to the terms and schedule of a voluntary compliance agreement. If the responsible
14 party fails to perform according to the terms and schedule of the voluntary compliance
15 agreement, penalties for each violation addressed in the agreement may be assessed starting from
16 the date the violation occurred, or as otherwise provided for in a Notice of Violation or Director's
17 order.

18 D. Modification. The terms and schedule of the voluntary compliance agreement may be
19 modified by mutual agreement of the responsible party and either Director if circumstances or
20 conditions outside the responsible party's control, or unknown at the time the agreement was
21 made, or other just cause necessitate such modifications.

Section 49. Section 22.808.050 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.808.050 Penalties and Damages

A. Assessment of Penalties by the Director. The Director, after considering all available information, may assess a penalty for each violation of this subtitle based upon the Schedule of Civil Penalties in subsection 22.808.050.B.

B. Schedule of Civil Penalties. The Director shall determine penalties as follows:

1. Basic Penalty.

a. Maximum Penalty. A violation of this subtitle is subject to a maximum civil penalty of up to \$5,000. Each day or portion thereof during which a violation of this subtitle exists is a separate violation of this subtitle.

b. Commencement Date. The penalty shall commence on the date of the violation, unless otherwise provided for in a Notice of Violation or Director's order.

c. Assessment Matrix. The penalty shall be assessed using a matrix of criteria and scored as defined in rules promulgated by the Director. The total score will equate with a penalty up to a maximum of \$5,000 for each violation. The penalty shall be rated for severity by using the criteria listed below and by answering "No", "Possibly", "Probably", or "Definitely":

1) ~~((Does))~~ Did the violation pose a public health risk ~~((;))~~ ?

2) ~~((Does))~~ Did the violation result in ~~((cause))~~ environmental damage or adverse~~((ly))~~ impacts to infrastructure ~~((;))~~ ?

3) Was the ~~((responsible party willful or knowing of the violation))~~ action a willful and knowing violation ~~((;))~~ ?

4) Was the responsible party unresponsive in correcting the violation ((;)) ?

5) ~~((Was there improper operation or maintenance))~~ Was the violation a result of improper operation, inadequate maintenance or inadequate implementation of a required plan that addresses stormwater management (e.g. TESC plans, SWPPP, O&M Manual, DCP) ((;)) ?

6) ~~((Was there a failure to obtain necessary permits or approval))~~ Did the responsible party fail to obtain and comply with relevant permits, certifications, and approvals that require or would have required the responsible party to manage stormwater in a manner that could have prevented or mitigated the Code violation ((;)) ?

7) ~~((Does the violation provide economic benefit for non-compliance))~~ Did anyone benefit economically from non-compliance ((; and)) ?

8) Was the violation a repeat violation ((;)) ?

C. Penalty for Significant Violation. For violations causing significant harm to public health, safety, welfare, the environment, or private or public property, the Director may, as an alternative to the Basic Penalty, refer the matter to the City Attorney's Office for enforcement and request the City Attorney seek a penalty equivalent to the economic benefit the responsible party derived from the violation. Significant harm is damage or injury which cannot be fully corrected or mitigated by the responsible party, and which cannot be adequately compensated for by assessment of the Basic Penalty and costs, expenses, or damages under this subtitle.

Economic benefit may be determined by savings in costs realized by the responsible party, value received by the responsible party, increased income to the responsible party, increase in market value of property, or any other method reasonable under the circumstances.

1 D. Damages. Whoever violates any of the provisions of this subtitle shall, in addition to
2 any penalties provided for such violation, be liable for any: investigation cost, cost to correct or
3 any other cost expense; loss or damage incurred by the City; plus a charge of 15 ((%)) percent
4 for administrative costs. This subtitle does not establish a cause of action that may be asserted by
5 any party other than the City. Penalties, damages, costs and expenses may be recovered only by
6 the City.

7 E. Effect of Payment of Penalties. The responsible party named in a Notice of Violation
8 or order is not relieved of the duty to correct the violation by paying civil penalties.

9 Section 50. Section 22.808.060 of the Seattle Municipal Code, enacted by Ordinance
10 123105, is amended as follows:

11 **22.808.060 Collection of Costs and Penalties**

12 A. Invoice and Demand for Payment of Investigation and Correction Costs. The Director
13 may issue an invoice and demand for payment of the City's costs and expenses when the Director
14 has investigated or corrected a violation of this subtitle. The invoice ((shall)) may include:

15 1. The amount of the City's investigation and correction costs, which may
16 include, but are not limited to:

17 a. Billed cost, including labor, administration, overhead, overtime, profit,
18 taxes, and other related costs, for a hired contractor to investigate and/or perform the abatement
19 work;

20 b. Labor, administration, overhead, overtime, and other related costs for
21 the City staff and crews to investigate and/or perform the abatement work;

22 c. Administrative costs to set up contracts and coordinate work;

d. Time spent communicating with the responsible party, any other enforcing agencies, and the affected community;

e. Inspections for compliance with the Code, documentation of costs, and invoicing the responsible party;

f. Cost of equipment, materials, and supplies, including all related expenses for purchasing, renting, and leasing;

g. Laboratory costs and analytical expenses;

h. Cost of mobilization, disposal of materials, and cleanup ((~~g~~)) ; and

i. Any associated permit fees;

2. Either a legal description of the property corresponding as nearly as possible to that used for the property on the rolls of the King County Assessor or, where available, the property's street address;

3. Notice that the responsible party may request a Director's review pursuant to subsection 22.808.030.D;

4. Notice that if the amount due is not paid within 30 days, the unpaid amount may be collected in any of the manners identified in subsection 22.808.060.C; and

5. Notice that interest shall accrue on the unpaid balance if not paid within 30 days after the invoice date.

B. Invoice and Demand for Payment of Civil Penalties. The Director may issue an invoice and demand for payment of civil penalties when the responsible party has failed to pay a penalty by the deadline in a Notice of Violation or order and has failed to request a Director's review or file an appeal within the required time periods established in subsection 22.808.030.D. The invoice shall include:

1 1. The amount of the penalty;

2 2. Either a legal description of the property corresponding as nearly as possible to
3 that used for the property on the rolls of the King County Assessor or, where available, the
4 property's street address;

5 3. Notice that if the amount due is not paid within 30 days, the Director may
6 collect the unpaid amount ((may be collected)) in any ((of the)) lawful manner((s)), including,
7 but not limited to, referral of the matter to a collection agency ((; identified in subsection
8 22.808.060.C)); and

9 4. Notice that interest shall accrue on the unpaid balance if not paid within 30
10 days after the invoice date.

11 C. Collection Following a Judicial Review or Issuance of a Court Order Affirming the
12 Penalty Due. If a court has issued an order or judgment imposing penalties, costs, damages, or
13 expenses for a violation of this subtitle, and the court's order or judgment is not appealed within
14 30 days, the Director may:

15 1. Refer the matter to the City Attorney to initiate any appropriate
16 ((enforcement)) legal action in an appropriate forum; or

17 2. ~~((Refer, after consultation with the City Attorney, the matter to a collection~~
18 ~~agency; or~~

19 3.)) Add a surcharge in the amount owed under the order to the responsible
20 party's bill for drainage and wastewater services to the site. If unpaid, the surcharge may become
21 a lien on the property, may be foreclosed, and may accrue interest as provided by state law or
22 Section 21.33.110.

Section 51. Section 22.808.070 of the Seattle Municipal Code, enacted by Ordinance 123105, is amended as follows:

22.808.070 Public Nuisance

A. Abatement Required. A public nuisance affecting drainage water, drainage, erosion control, grading and other public nuisances set forth in this subsection are violations of this subtitle. A responsible party shall immediately abate a public nuisance upon becoming aware of its existence.

B. Dysfunctional Facility or Practice. Any private drainage control facility or best management practice not installed or maintained as required by this subtitle, or otherwise found to be in a state of dysfunction creating, a threat to the public health, safety or welfare, the environment, or public or private property is a public nuisance.

C. Obstruction of Watercourse or Public Drainage System. Obstruction of a watercourse or public drainage system without authorization by the Director, and obstruction in such a manner as to increase the risk of flooding or erosion should a storm occur, is a public nuisance.

D. Dangerous Conditions. Any condition relating to grading, drainage water, drainage or erosion which creates a present or imminent danger, or which is likely to create a danger in the event of a storm, to the public health, safety or welfare, the environment, or public or private property is a public nuisance.

E. Abatement by the City. The Director is authorized, but not required, to investigate a condition that the Director suspects of being a public nuisance under this subtitle, and to abate any public nuisance. If a public nuisance is an immediate threat to the public health, safety or welfare or to the environment, the Director may summarily and without prior notice abate the

1 condition. The Director shall give notice of the abatement to the responsible party as soon as
2 reasonably possible after the abatement.

3 F. Collection of Abatement Costs. The costs of abatement may be collected from the
4 responsible party, including ((;)) a reasonable charge for attorney time ((;)) and a 15 ((%))
5 percent surcharge for administrative expenses as set forth in subsection 22.808.050.D.

6 Abatement costs and other damages, expenses and penalties collected by the City shall go into an
7 abatement account for the department collecting the moneys. The money in the abatement
8 account shall be used for abatements, investigations, and corrections of violations performed by
9 the City. When the account is insufficient the Director may use other available funds.

10 Section 52. Section 22.808.080 of the Seattle Municipal Code, enacted by Ordinance
11 123105, is amended as follows:

12 **22.808.080 Additional Relief**

13 In addition to any remedy provided in this subtitle, the Director may seek any other legal
14 or equitable remedy to enjoin any acts or practices or abate any condition that constitutes or will
15 constitute a violation of this subtitle or a public nuisance.

16 Section 53. Section 22.808.090 of the Seattle Municipal Code, enacted by Ordinance
17 123105, is amended as follows:

18 **22.808.090 Suspension or Revocation**

19 Approvals or permits granted on the basis of inaccurate or misleading information may
20 be suspended or revoked. Other permits or approvals interrelated with an approval suspended or
21 revoked under this subsection, including, but not limited to, certificates of occupancy or
22 approvals for occupancy, may also be suspended or revoked. When an approval or permit is
23 suspended or revoked, the Director may require the applicant take corrective action to bring the

1 project into compliance with this subtitle by a deadline set by the Director, or may take other
2 enforcement action.

3 Section 54. Section 22.808.100 of the Seattle Municipal Code, enacted by Ordinance
4 123105, is amended as follows:

5 **SMC 22.808.100 Fees**

6 Fees for ~~((grading permits,))~~ drainage control plan review and approvals shall be as
7 identified in ~~((the Fee Subtitle,))~~ Subtitle IX of Title 22 ~~((, Seattle Municipal Code))~~ . Fees for
8 record-keeping or other activities pursuant to this subtitle shall, unless otherwise provided for in
9 this subtitle, be prescribed by ordinance.

10 Section 55. Section 22.808.110 of the Seattle Municipal Code, enacted by Ordinance
11 123105, is amended as follows:

12 **22.808.110 Financial Assurance and Covenants**

13 As a condition precedent to issuance of any permit or approval provided for in this
14 subtitle, the Director may require an applicant for a permit or approval to submit financial
15 assurances as provided in this subsection.

16 A. Insurance ~~((,))~~

17 1. The Director may require the property owners or contractor to carry liability
18 and property damage insurance naming the City as an additional insured. The amount, as
19 determined by the Director, shall be commensurate with the risks.

20 2. The Director may also require the property owner to maintain a policy of
21 general public liability insurance against personal injury, death, property damage and/or loss
22 from activities conducted pursuant to the permit or approval, or conditions caused by such
23 activities, and naming the City as an additional insured. The amount, as determined by the

1 Director, shall be commensurate with the risks. It shall cover a period of not more than ten years
2 from the date of issuance of a certificate of occupancy or finalization of the permit or approval.

3 A certificate evidencing such insurance shall be filed with the Director before issuing a
4 certificate of occupancy or finalizing a permit for any single-family dwelling or duplex.

5 3. The insurance policy shall provide that the City will be notified of cancellation
6 of the policy at least 30 days prior to cancellation. The notice shall be sent to the Director who
7 required the insurance and shall state the insured's name and the property address. If a property
8 owner's insurance is canceled and not replaced, the permit or approval and any interrelated
9 permit or approval may be revoked, including a certificate of occupancy or approval for
10 occupancy.

11 B. Bonds, Cash Deposits or Instruments of Credit ((-))

12 1. Surety Bond ((-))

13 a. The Director may require that the property owners or contractor deliver
14 to the Director for filing in the Office of the City Clerk a surety bond, cash deposit or an
15 instrument of credit in such form and amounts deemed by the Director to be necessary to ensure
16 that requirements of the permit or approval are met. A surety bond may be furnished only by a
17 surety company licensed to do business in The State of Washington. The bond shall be
18 conditioned that the work will be completed in accordance with the conditions of the permit or
19 approval, or, if the work is not completed, that the site will be left in a safe condition. The bond
20 shall also be conditioned that the site and nearby, adjacent or surrounding areas will be restored
21 if damaged or made unsafe by activities conducted pursuant to the permit or approval.

22 b. The bond will be exonerated one year after a determination by the
23 Director that the requirements of the permit or approval have been met. For work under a

1 building permit, issuance of a certificate of occupancy or approval for occupancy following a
2 final inspection shall be considered to be such a determination.

3 2. Assurance in Lieu of Surety Bond. In lieu of a surety bond, the owners may
4 elect to file a cash deposit or instrument of credit with the Director in an amount equal to that
5 which would be required in the surety bond and in a form approved by the Director. The cash
6 deposit or instrument of credit shall comply with the same conditions as required for surety
7 bonds.

8 C. Covenants ((-))

9 1. The Director may require a covenant between the property owners and the
10 City. The covenant shall be signed by the owners of the site and notarized prior to issuing any
11 permit or approval in a potential landslide area, potentially hazardous location, flood-prone zone,
12 or other area of potentially hazardous soils or drainage or erosion conditions. The covenant shall
13 not be required where the permit or approval is for work done by the City. The covenant shall
14 include:

- 15 a. A legal description of the property;
- 16 b. A description of the property condition making this subsection
17 applicable;
- 18 c. A statement that the owners of the property understand((s)) and
19 accept((s)) the responsibility for the risks associated with development on the property given the
20 described condition, and agrees to inform future purchasers and other successors and assignees
21 of the risks;
- 22 d. The application date, type, and number of the permit or approval for
23 which the covenant is required; and

1 e. A statement waiving the right of the owners, the owners' heirs,
2 successors and assigns, to assert any claim against the City by reason of or arising out of
3 issuance of the permit or approval by the City for the development on the property, except only
4 for such losses that may directly result from the sole negligence of the City.

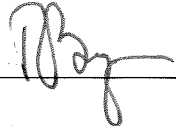
5 2. The covenant shall be filed by the Director with the King County Recorder's Office, at
6 the expense of the owners, so as to become part of the King County real property records.

7 Section 56. To the extent that sections of this ordinance recodify or incorporate into new
8 or different sections provisions of the Seattle Municipal Code as previously in effect, this
9 ordinance shall be construed to continue such provisions in effect. This ordinance does not affect
10 any existing right acquired or liability or obligation incurred under the sections amended in this
11 ordinance or under any rule or order adopted under those sections, nor does it affects any
12 proceeding instituted under those sections. An applicant for a permit that is not subject to the
13 provisions of this ordinance may ask the City to review the entire application under the
14 provisions of this ordinance.

15 Section 57. The provisions of this ordinance are hereby declared to be separate and
16 severable. The invalidity of any clause, sentence, paragraph, subdivision, subsection or portion
17 of this ordinance or the invalidity of the application thereof to any person or circumstance does
18 not affect the validity of the remainder of this ordinance or the validity of its application to other
19 persons or circumstances.


Section 58. This ordinance shall take effect on January 1, 2016.

Passed by the City Council the 21st day of September, 2015, and
signed by me in open session in authentication of its passage this
21st day of September, 2015.



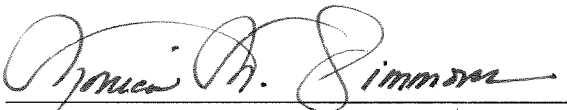
President _____ of the City Council

Approved by me this 29th day of September, 2015.



Edward B. Murray, Mayor

Filed by me this 29th day of September, 2015.



Monica Martinez Simmons, City Clerk

(Seal)

SUMMARY and FISCAL NOTE

Department:	Contact Person/Phone:	Executive Contact/Phone:
SPU	Sherell Ehlers (Project Mgr)/6-4576	Aaron Blumenthal/3-2656
DPD	Ede Courtenay/3-9679	
SDOT	Maureen Meehan/4-8750	
Parks	Becky Rufin/3-3870	

1. BILL SUMMARY

Legislation Title: AN ORDINANCE relating to the Stormwater Code; amending Chapters 22.800, 22.801, 22.802, 22.803, 22.805, 22.807, and 22.808 of the Seattle Municipal Code and adding a new Section 22.800.100.

Summary and background of the Legislation:

The purpose of the City of Seattle's Stormwater Code (Chapters 22.800 – 22.808 SMC) is to protect life, property, public health, and the environment from the adverse impacts of urban stormwater runoff. These can include flooding, water quality pollution, landslides and erosion. The Stormwater Code was substantially updated in 2009, and there were three minor revisions in 2015. Whereas the 2009 Stormwater Code update included several major modifications with significant cost impacts to the City and developers, this 2016 Stormwater Code Update consists of relatively less significant modifications with fewer cost impacts.

The Stormwater Code and associated joint Seattle Public Utilities/Department of Planning and Development (SPU/DPD) Directors' Rules are being revised to comply with the requirements of the City's coverage under the 2013-2018 Phase I Municipal Stormwater Permit (MS4 Permit). The MS4 Permit was issued by the Washington State Department of Ecology under both the National Pollutant Discharge Elimination System (NPDES) program established by the federal Clean Water Act and the State of Washington Water Pollution Control Law. The MS4 Permit was issued on August 1, 2012, became effective on August 1, 2013, and was modified effective January 16, 2015. The MS4 Permit requires the City's Stormwater Code and associated Stormwater Manual (to be contained in the Directors' Rule) include minimum requirements, thresholds, definitions, and other requirements, limitations, and criteria, determined by Ecology to be equivalent to Appendix 1 of the MS4 Permit for new development, redevelopment, and construction. In addition, maintenance provisions must be at least as protective of facility function as, and source control provisions must be functionally equivalent to, Ecology's Stormwater Management Manual for Western Washington. A draft of the Directors' Rule is included as Exhibit C.

SPU, in close collaboration with DPD, other City departments, and external stakeholders, is updating the Stormwater Code to: 1) incorporate new Ecology requirements; 2) incorporate policy changes; and 3) improve usability. All updates to Seattle's Stormwater Code were originally intended to occur at one time with an effective date of June 30, 2015. However, Ecology was delayed in reviewing the City's draft Stormwater Code, which prevented Seattle from making all modifications on the original timeline and extended the City's regulatory

deadline by several months. Nevertheless, Seattle wanted to make three cost-saving Stormwater Code modifications effective by the originally anticipated effective date. Therefore, updates to the Stormwater Code are proceeding as two legislative processes: the now-approved “2015 Revision to Stormwater Code” (effective date 5/24/15) and the “2016 Stormwater Code Update” enacted by this proposed legislation (anticipated effective date 1/1/16).

Several modifications are being proposed in the 2016 Stormwater Code Update. Exhibit A (attached) summarizes significant proposed modifications and their rationale. The following list includes only those proposed modifications with notable financial impacts to the City of Seattle:

1. Definition of "Pollution-generating pervious surface" (Chapter 22.801 SMC).
Proposed modification required by Ecology includes adding “natural and artificial turf” as typical pollution-generating pervious surfaces requiring water quality treatment for 0.75 acres or more of new or replaced turf.
2. Minimum Requirements for Projects (Chapter 22.805 SMC). Modifications are proposed for all development projects to meet Ecology’s minimum requirements and account for Seattle’s unique development patterns. The primary proposed Stormwater Code modifications include:
 - a. “Implement GSI” Becomes “On-site Stormwater Management”. The requirement for projects to perform On-site Stormwater Management (currently “implement green stormwater infrastructure” in the current Stormwater Code) has been moved from the Minimum Requirements for All Projects and is now included as a requirement based on project type (i.e., Single-family residential (SFR), Trail/Sidewalk, Roadway, Parcel). Use of On-site BMPs, such as permeable pavement and bioretention facilities, result in volume reduction to the City’s systems thus leading to additional downstream flood protection and increased system capacity. In accordance with the MS4 Permit, the 2016 Stormwater Code Update specifies projects must either match a quantitative on-site performance standard or install on-site best management practices (BMPs) per a pre-defined list as feasible. Similarly, the requirement to amend soils is relocated from its own specific provision, to now be included based on project type (i.e., Single-family Residential, Trail/Sidewalk, Parcel-based, Roadway).
 - b. On-site Stormwater Management Threshold for SFR Projects. The threshold for applicability of On-site Stormwater Management would change from applying to all single-family residential projects with a credit for the first 1,500 square feet, to applying to single-family residential projects with no credit as follows:
 - i. For a project on a lot most recently created, adjusted, altered, or otherwise amended by a plat or other lawful document recorded with the King County Recorder on or after January 1, 2016, and where that document either created the lot or reduced the size of the lot, either the total new plus replaced hard surface is 750 square feet or more or land disturbing activity is 7,000 square feet or more; or
 - ii. For all other projects where either the total new plus replaced hard surface is 1,500 square feet or the land disturbing activity is 7,000 square feet or more.

- c. On-site Stormwater Management Threshold for Parcel-based Projects. The threshold for applicability of On-site Stormwater Management is proposed to change from applying to all Parcel-Based projects with 2,000 square feet of impervious surface, to applying to Parcel-Based projects as follows:
 - i. For a project on a lot most recently created, adjusted, altered, or otherwise amended by a plat or other lawful document recorded with the King County Recorder on or after January 1, 2016, and where that document either created the lot or reduced the size of the lot, either the total new plus replaced hard surface is 750 square feet or more or land disturbing activity is 7,000 square feet or more; or
 - ii. For all other projects where either the total new plus replaced hard surface is 1,500 square feet or the land disturbing activity is 7,000 square feet or more.
 - d. Public Roadway Right-of-Way Projects. New language is proposed to account for the unique construction limitations posed by public roadway right-of-way work within an urban environment having existing infrastructure (i.e., hydraulic conditions, existing major utilities). The new language reduces flow control and water quality treatment requirements for roadway projects under limited conditions.
3. Minimum Requirements for On-Site Stormwater Management (22.805-070 SMC). Modifications to the Stormwater Code are proposed to meet Ecology's minimum requirements. Additional project site infiltration testing and feasibility analyses are required to meet Ecology's minimum requirements and are proposed in the 2016 Stormwater Manual. The primary proposed Stormwater Code changes include:
- a. Right-of-Way: For projects draining to a creek, wetland, or small lake that trigger On-Site Stormwater Management, Ecology does not allow a prohibition to installation based on minimum facility size for permeable pavement (2,000 square feet) and bioretention (500 square feet) as is allowed in the current Seattle Stormwater Manual. This will result in additional small facilities within the right-of-way.
 - b. List vs. "Cafeteria-Style" Selection: Ecology requires a prescriptive list approach as opposed to the current cafeteria-style approach when determining which on-site stormwater BMPs must be used. In addition, cost feasibility will no longer be a consideration for most On-site Stormwater Management BMPs.

3. SUMMARY OF FINANCIAL IMPLICATIONS

☒ This legislation has direct financial implications.

☐ This legislation does not have direct financial implications.

Budget program(s) affected:				
Estimated \$ Appropriation change:	General Fund \$		Other \$	
	2015	2016	2015	2016
Estimated \$ Revenue change:	Revenue to General Fund		Revenue to Other Funds	
	2015	2016	2015	2016
Positions affected:	No. of Positions		Total FTE Change	
	2015	2016	2015	2016
Other departments affected:				

Summary Notes: This legislation does not directly appropriate funds. No additional resources or appropriations are being requested at this time. However, if additional resources and/or appropriation authority is needed to support preparation activities in advance of the 2016 implementation, the impacted department will bring forward a supplemental budget request prior to the end of this year. Any changes to 2016 endorsed positions, appropriations or revenues will be handled through the budget process by each impacted department. 2015 and 2016 anticipated direct financial implications are addressed in the notes to the Appropriations and Revenues/Reimbursements sections of this fiscal note with indirect and longer term implications noted in the Other Implications sections.

3.a. Appropriations

☐ This legislation adds, changes, or deletes appropriations.

Fund Name and number	Dept.	Budget Control Level Name/##	2015 Appropriation Change	2016 Estimated Appropriation Change
TOTAL				

**See budget book to obtain the appropriate Budget Control Level for your department.*

Appropriations Notes:

2015: Additional training for SPU, DPD, SDOT, and Parks staff will be required in 2015 to prepare for implementation of the Code in 2016. These departments are unlikely to need

additional appropriations in 2015. If additional appropriation is needed the affected department will bring forward a supplemental budget request prior to the end of 2015.

2016: DPD anticipates additional staffing requirements as a result of the code update due to a sizeable increase in the number of projects requiring on-site drainage review and the increased complexity of on-site inspections. As part of the 2016 budget process, DPD will request an additional \$569,778 in annual appropriations to fund requests for 2 additional FTE Drainage Reviewers (\$258,426 annual total or \$129,213 per reviewer) and 2 additional FTE DPD Site Inspectors and associated vehicles (\$311,352 annual total, or \$155,676 per reviewer and vehicle).

As required under the DPD-SPU MOU, SPU will reimburse DPD for the portion of the work carried out by the new staff related to side sewer permitting and authorized overhead activities. As part of the 2016 budget process, SPU will request an additional \$293,400 (N000 General Expense) in 2016 appropriations (\$293, 400 for N000 General Expense) to fund this additional work.

Indirect and long-term financial implications of the proposed legislation to SPU and other departments are specified in the Other Implications section of this fiscal note.

3.b. Revenues/Reimbursements

_____ This legislation adds, changes, or deletes revenues or reimbursements.

Anticipated Revenue/Reimbursement Resulting from this Legislation:

Fund Name and Number	Dept.	Revenue Source	2015 Revenue	2016 Estimated Revenue
TOTAL				

Revenue/Reimbursement Notes:

This legislation does not revise budgeted revenue. As a result of the Stormwater Code update, DPD anticipates increased hours spent on site inspections for side sewer permits (see Appropriations notes above). The payments by permit applicants are transferred to SPU as side sewer permitting revenues. Any projected revisions to 2016 SPU endorsed revenues due to these increased site inspection charges will be addressed through the budget process.

3.c. Positions

— This legislation adds, changes, or deletes positions.

Total Regular Positions Created, Modified, or Abrogated through this Legislation, Including FTE Impact:

Position # for Existing Positions	Position Title & Department*	Fund Name & #	Program & BCL	PT/FT	2016 Positions	2016 FTE	Does it sunset? (If yes, explain below in Position Notes)
TOTAL							

* List each position separately

Position notes: This legislation does not authorize the addition of positions. It will not result in any increase to SPU positions. DPD anticipates position requests related to the code update for 2 additional FTE Drainage Reviewers and 2 additional FTE DPD Site Inspectors as further described in the notes to the Appropriations section of this Fiscal Note. These positions will be requested during the 2016 budget process.

4. OTHER IMPLICATIONS

a) Does the legislation have indirect or long-term financial impacts to the City of Seattle that are not reflected in the above?

Yes. This legislation will have impacts on costs associated with development of various Stormwater Code implementation tools (e.g., checklists and review forms, client assistance memos/Tips, submittal templates, etc.), as well as future project capital and operations and maintenance costs. Additional details on specific cost impacts are outlined below.

General. This legislation does not appropriate funds. It will impact costs and work requirements in several departments. The following department-specific notes are provided for illustrative purposes. Any budget or staffing adjustments will be addressed through the budget process by each individual department as needed.

Note 1. (SPU):

Cost implications for SPU include increases and decreases in capital project costs and associated O&M requirements for drainage control structures, and increases in O&M requirements for drainage control structures constructed in the street right-of-way.

1. Future Capital (\$25,000)

There will be a relatively small increase in SPU capital costs for some projects due to increased requirements related to site infiltration testing that will be included in the updated 2016 Stormwater Manual. SPU estimates \$25,000 in additional cost per year (\$5,000 per infiltration test pit x 5 projects/year).

There will be a relatively small increase in SPU capital costs associated with an increase in the number of smaller On-site Stormwater Management facilities, as there will no longer be a minimum facility size for permeable pavement or bioretention in the right-of-way (modifications 3.a described in Section 1 above). At this time, there isn't sufficient information to accurately project long-term costs; however, they are anticipated to be relatively small.

There will be a relatively small reduction in SPU capital costs associated with a decrease in flow control and water quality facilities resulting from new language to address unique construction limitations posed by public roadway work. At this time, there is not sufficient information to accurately project long-term cost decreases. However, they are anticipated to be relatively small.

2. *Future Operation and Maintenance (\$40,000 increase annually)*

SPU typically takes ownership and assumes operation and maintenance responsibility for subsurface drainage structures installed in the public right-of-way, including flow control and water quality facilities. SPU is therefore responsible for maintaining bioretention facilities installed in the right-of-way. Estimated cost impacts of this code update are provided below and include labor as well as costs associated with equipment, repair, replacement, disposal, and other life-cycle costs related to maintaining these facilities. For reference, it is anticipated that the greatest increase in SPU O&M costs related to stormwater management will result from increased redevelopment, not from updated requirements.

There will be an increase in SPU O&M costs due to an increase in the number of smaller on-site stormwater management facilities as there will no longer be a minimum facility size for permeable pavement in the right-of-way. SPU estimates it will cost an additional \$40,000 annually (\$5,000/year/small facility * 8 additional facilities).

There will be a slight decrease in SPU O&M costs due to a decrease in flow control and water quality facility installations, resulting from new language to address unique construction limitations posed by public roadway right-of-way work. At this time, there isn't sufficient information to accurately project long-term cost savings; however, they are anticipated to be relatively small.

Note 2. (SDOT):

1. *Future Capital (\$65,000 per year)*

SDOT capital project costs in creek basins will increase as a result of this legislation due to an increase in the number of smaller permeable pavement facilities as there will no longer be a minimum facility size for permeable pavement in the right-of-way. SDOT estimates an increase in the number of new permeable pavement

installations on capital projects of approximately 25,000 square feet each year. SDOT compared installation costs of permeable pavement versus standard pavement and found permeable pavements to be approximately 28 percent more expensive to install. Based on the number of capital projects constructed in 2013 and 2014 that would be required to apply On-Site Stormwater Management and could have installed permeable pavement, the fiscal impacts are estimated to be \$65,000 each year and increase each year consistent with construction inflation.

The relative durability of permeable pavement installations versus traditional sidewalks is unknown, though SDOT Pavement Engineering believes it to be less than the estimated 100-year life of traditional sidewalks. The \$65,000 represents only the incremental cost to construct permeable pavement versus a traditional sidewalk. It does not take into account full life cycle costs should the permeable pavement installation not achieve a 100-year useful life, requiring full reconstruction at year 50, for example. At this time there isn't sufficient information to accurately project long-term cost increases.

There will be a relatively small decrease in SDOT capital costs associated with a decrease in flow control and water quality facilities resulting from new language to address unique construction limitation posed by public roadway right-of-way work (modification 2.d described in Section 1). At this time, there isn't sufficient information to accurately project long-term cost decreases; however, they are anticipated to be relatively small.

2. *Future Maintenance (\$40,000+ increase annually)*

There is expected to be a significant increase in permeable sidewalk maintenance needs as a result of an increase in the number of SDOT and privately constructed street improvement projects as there will no longer be a minimum size requirement for permeable pavement facilities (modification 3.a described in Section 1 above) and because permeable pavement is in the top tier of On-site Stormwater Management options of the prescriptive list and must be considered for feasibility before other types of stormwater controls (modification 3.b described in Section 1 above).

The 2010 SDOT-SPU MOA Number GSI-1 assigned SDOT the responsibility for inspection and maintenance of permeable sidewalks. This existing agreement assumed SDOT would accept maintenance units of entire block faces of sidewalk. Because these stormwater code changes result in an increased number of smaller, geographically dispersed permeable pavement projects, the MOA will be re-negotiated, including roles and responsibilities, and may have fiscal impacts between departments.

Preventative maintenance for permeable pavement includes annual maintenance with a sidewalk size street sweeper. SDOT has an MOA with Parks for sweeping of permeable pavement sidewalks; Parks is currently performing this work at no cost to SDOT. Parks intends to re-negotiate that MOA which would result in the existing and future maintenance costs falling on SDOT under the existing 2010 SDOT-SPU MOA Number GSI-1 absent any renegotiation between SDOT and SPU.

There is not sufficient history to accurately project long-term costs associated with this preventative maintenance. When preventative maintenance is not adequate, corrective maintenance will be required, which is anticipated to be done with pressure washing. SDOT estimates the cost of mobilizing a crew and pressure washing a non-permeable sidewalk is \$1.62/square foot. To account for moss growth that occurs on permeable cement and the difficulty of removing the moss, the cost estimate for cleaning installations of permeable sidewalk is increased to \$3.20/square foot.

SDOT estimates, based on previous capital projects (2013 – 2014), a 25,000 square foot increase in permeable pavement sidewalk installations each year. Using that estimate, and conservatively assuming maintenance to occur with pressure washing, maintenance costs will increase from \$40,000 (the cost of cleaning non-permeable pavement) to \$80,000 each year (the cost of cleaning permeable pavement). This cost will increase annually as the estimated 25,000 square feet of new permeable pavement is installed each year.

SDOT has not collected enough data on past private project exemptions from installing permeable sidewalks (i.e., projects under 2,000 square feet of impervious surface under the current Stormwater Code) to accurately estimate future permeable pavement installations. However, based on a total of 221 Street Improvement Projects permitted by SDOT Street Use in 2014 and 2015 to date, approximately 5 percent install permeable pavement. Under this legislation the rate of permeable pavement installation is expected to increase from 5 percent up to 30 percent within affected creek basins. There is not sufficient history to accurately estimate long-term pavement maintenance requirements associated with these projected private project increases (including estimating replacement due to failure rates). However, the O&M costs are expected to escalate under the 2016 Stormwater Code.

Permeable roadways will only be required on low volume roadways including maintenance access roads, alleys and private roadways. There isn't sufficient history to accurately project long-term costs associated with maintenance of the public permeable pavement alleys.

3. *Database enhancements for asset tracking (\$20,000)*

The database SDOT uses to track assets and assign work orders will require modification to allow for tracking of permeable pavement sidewalks on a per-square foot basis. The enhancement to link a GIS field is needed in order to allow for GIS mapping of permeable pavement locations within that system. These enhancements are expected have a one-time cost of \$20,000 and ongoing incremental cost increases for data entry and maintenance tracking

Note 3. (Parks):

Cost implications for Parks include:

1. *Future Capital (\$2.2 million over 6 years)*

The Seattle Parks 2016-2020 Six Year Capital Plan and the Metropolitan Park District Major Maintenance Project list for 2016-2020 include a number of projects that will be affected by the 2016 Stormwater Code update. The project types are primarily athletic fields (including grass turf conversions to synthetic fields) and other Parks

projects such as comfort station renovations and play area renovations. The costs related to each project type are summarized below. Over the six year period, Parks estimates an increase of \$2.2 million in capital costs to comply with the new Stormwater Code.

- a. Athletic Fields – In accordance with Ecology requirements, the 2016 Stormwater Code will add “natural and artificial turf” as a pollution-generating pervious surface that will require stormwater facilities when thresholds are met (modification 1 described in Section 1).
 - i. Parks estimates compliance required stormwater facilities would add 10 percent on a total of \$9.8 million from 2016-2021 for athletic field conversions from grass to synthetic turf (\$1 million). The 2016 CIP does not include any conversion projects and Parks will work with CBO in 2017 to address funding shortfalls on conversions planned in 2017 and beyond.
 - ii. Replacements: For the remaining synthetic turf surfacing replacement projects, Parks estimates half of the total project costs for the surfacing replacement projects would increase due to the 2016 Stormwater Code Update. Fifty percent of the total estimated costs of \$12 million from 2016-2021 are expected to increase by an additional \$600,000 over the six year planning cycle. The 2016 CIP does not include any ball field replacement projects. Parks will work with CBO in 2017 to address funding shortfalls in 2017 and beyond.
- b. Remaining Parks projects:
 - i. Based on the MS4 Permit requirements, the 2016 Stormwater Code Update does not allow use of trees to mitigate 25 percent of the impervious area above using other Best Management Practices (BMPs). Additionally, cost can no longer be a reason for not using other BMPs. Because of these changes, Parks anticipates bioretention and permeable pavement will be used more often than is currently the case. For the remaining Parks projects, these increased costs would add and estimated \$550,000 between 2016-2021. For these projects, Parks will evaluate project scope as a first strategy to address the cost increases and will work with CBO on funding shortfalls that cannot be addressed by this approach.

2. *Future Operation and Maintenance. (TBD as part of 2017-2018 new facility maintenance cost estimates)*

Parks will incur additional costs for maintaining new water quality treatment facilities for ball fields and other BMPs described above. Parks will estimate these new facility maintenance costs as projects are completed and will submit a funding request in the 2017-2018 budget, which will include maintenance staff and possibly equipment.

b) Is there financial cost or other impacts of not implementing the legislation?

Yes. If adequate legislation is not adopted, the City risks non-compliance with its MS4 Permit, which is based on the federal Clean Water Act. Anyone who negligently violates the Clean Water Act is subject to criminal penalties of \$2,500 to \$25,000 per day or imprisonment of up to one year, or both. These penalties increase with second and subsequent violations of the Clean Water Act. Anyone who knowingly violates the Clean Water Act is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for up to three years, or both. Additionally, violating the City's MS4 Permit presents a risk of a third-party lawsuit to enforce the Clean Water Act.

c) Does this legislation affect any departments besides the originating department?

Yes. See Section 3 above. In addition, it is notable that this legislation applies city-wide, and includes minor revisions to minimum requirements related to source control, construction site stormwater pollution prevention, and development projects. The effect of this legislation on other departments will vary to the degree that each department engages in ongoing activities to which source control measures apply, or to the degree that each department is involved in capital projects.

d) Is a public hearing required for this legislation?

Yes. In preparing this legislation, SPU and other City staff held meetings and made presentations to a wide range of stakeholders. A summary listing is below.

Public Presentations on Overall Stormwater Code Update Process

Date	Group
January 24, 2013	Thornton Creek Alliance
March 18, 2013	External User Stakeholders
May 8, 2013	Master Builders Association of King and Snohomish Counties
May 9, 2013	Fauntleroy Watershed Council
June 27, 2013	Seattle Builders Council Master Builders Association
November 7, 2013	Public Open House
November 19, 2013	Thornton Creek Alliance
November 26, 2013	North Seattle Industrial Association
December 17, 2013	King County
June 3, 2014	Public Meeting
June 5, 2014	Seattle Builders Council Master Builders Association
June 11, 2014	American Council of Engineering Companies (ACEC)
July 15, 2014	Washington Society of Landscape Architects (WASLA)
July 16, 2014	Master Builders Association (MBA)
July 17, 2014	American Society of Civil Engineers (ASCE)
July 18, 2014	American Public Works Association (APWA)
August 13, 2014	Urban Forestry Commission
January 26, 2015	Puget Soundkeeper Alliance (PSA)
February 24, 2015	North Seattle Industrial Association
March 19, 2015	SPU Developer Services Advisory Committee
June 3, 2015	Urban Forestry Commission
June 10, 2015	Public Meeting

e) Is publication of notice with *The Daily Journal of Commerce* and/or *The Seattle Times* required for this legislation?

Yes. Publication of notice of the Council public hearing must be made in *The Daily Journal of Commerce* and in the City's Land Use Information Bulletin (LUIB). Additionally, environmental review under the State Environmental Policy Act is required, and publication of notice of the environmental determination was made in *The Daily Journal of Commerce*, *The Seattle Times*, and in the City's Land Use Information Bulletin on March, 9, 2015, when amendments to the Stormwater Code legislation were first proposed. An addendum to the environmental review covering the current proposed legislation has been issued and publication of notice of the addendum was made in *The Daily Journal of Commerce* and *The Seattle Times* on June 25, 2015.

f) Does this legislation affect a piece of property?

No. The proposal is a non-project legislative action with no specific site. As Stormwater Code requirements are city-wide, specific projects affected by the proposal may occur anywhere within Seattle's city limits.

g) Please describe any perceived implication for the principles of the Race and Social Justice Initiative. Does this legislation impact vulnerable or historically disadvantaged communities?

There is no perceived implication for the principles of the Race and Social Justice Initiative.

h) If this legislation includes a new initiative or a major programmatic expansion: What are the long-term and measurable goals of the program? Please describe how this legislation would help achieve the program's desired goals.

This legislation does not include a new initiative or a major programmatic expansion.

i) Other Issues:

List attachments below:

Exhibit A – Directors' Report

Exhibit B – April 2014 Draft Stormwater Manual (Draft Directors' Rule)

Exhibit C – Ecology comments on the Draft Stormwater Code and Draft Stormwater Manual (Draft Directors' Rule)

Exhibit A

Directors' Report and Recommendation July 17, 2015

Introduction

The purpose of the City of Seattle's Stormwater Code (Chapters 22.800 – 22.808 SMC) is to protect life, property, public health, and the environment from the adverse impacts of urban stormwater runoff. Adverse impacts can include flooding, water quality pollution, landslides, and erosion. The Stormwater Code was substantially updated in 2009, and there were three minor revisions in 2015. Whereas the 2009 Stormwater Code update included several major modifications with significant cost impacts to the City and developers, this 2016 Stormwater Code Update consists of relatively less significant modifications with less cost impacts.

The Stormwater Code and associated joint Seattle Public Utilities/Department of Planning and Development (SPU/DPD) Directors' Rules are being revised in order to comply with the requirements of the City's coverage under the 2013-2018 Phase I Municipal Stormwater Permit (Ecology 2012) (as modified effective 2015, this is the MS4 Permit). The Permit was issued by the Washington State Department of Ecology (Ecology) under both the National Pollutant Discharge Elimination System (NPDES) program established by the federal Clean Water Act and the State of Washington Water Pollution Control Law. The Permit was issued on August 1, 2012, became effective on August 2, 2013, and was modified effective January 16, 2015. The MS4 Permit requires that the City's Stormwater Code and associated Stormwater Manual (to be contained in the Directors' Rule) include minimum requirements, thresholds, definitions, and other specified requirements, limitations and criteria, determined by Ecology to be equivalent to Appendix 1 of the MS4 Permit for new development, redevelopment and construction. In addition, maintenance provisions must be at least as protective of facility function as, and source control provisions must be functionally equivalent to, Ecology's Stormwater Management Manual for Western Washington (SWMMWW, Ecology 2014a).

SPU – in close collaboration with DPD, other City departments, and external stakeholders – is in the process of updating the Stormwater Code to 1) incorporate new Ecology requirements, 2) incorporate policy changes, and 3) improve usability. All updates to the Stormwater Code were originally intended to occur at one time with an effective date of June 30, 2015. However, Ecology was delayed in reviewing the City's draft Stormwater Code, which prevented Seattle from being able to make all modifications on the original timeline and extended the City's deadline to adopt all modifications by several months. Nevertheless, Seattle wished to make three cost-saving Stormwater Code modifications effective by the originally anticipated effective date. Therefore, updates to the Stormwater Code are proceeding as two legislative processes: the now-complete "2015 Revision to Stormwater Code" (effective date 5/24/15) and the "2016 Stormwater Code Update" (addressed by this Directors' Report, anticipated effective date 1/1/16).

This Directors' Report, for the "2016 Stormwater Code Update," is submitted jointly by the Directors of SPU and DPD. It answers frequently asked questions about Seattle's Stormwater Code, provides regulatory context, summarizes significant proposed modifications and rationale, and provides recommendations regarding the proposed legislation.

Exhibit A

Frequently Asked Questions

Why do we have a Stormwater Code? Rain water running off of urban land surfaces can cause flooding, landslides, erosion, and other hazards. It can also carry pollutants into creeks, lakes, bays and other receiving waters. Stormwater regulations are needed to protect people, property, and the environment from damage that can be caused by stormwater runoff. Seattle's stormwater regulations are also written to satisfy the City's obligation to comply with the 2013-2018 Phase I Municipal Stormwater Permit, as modified (the MS4 Permit), under which coverage is issued to the City by Ecology.

What is in Seattle's Stormwater Code? Seattle's Stormwater Code includes:

- A description of the purpose, scope, applicability, exemptions, adjustments, exceptions, authorities, and compliance requirements
- Definitions of key terms
- Prohibitions of certain discharges and conditions for permissible discharges
- Minimum requirements for all discharges and all real property, designed to reduce the introduction of pollutants into stormwater runoff as close to the source as possible
- Minimum requirements for all projects regarding stormwater pollution prevention during construction and grading activities
- Minimum requirements for all projects regarding on-site stormwater management, flow control, and water quality treatment facilities
- Drainage control review and application requirements
- Procedures for enforcing the Stormwater Code.

Why are we updating the Stormwater Code? The Stormwater Code is being updated to comply with the City's obligations under the MS4 Permit, to incorporate policy changes, and to improve usability.

Who is responsible for updating the Stormwater Code? It is an SPU-led project being conducted in close collaboration with DPD, the Seattle Department of Transportation (SDOT), other City departments, and internal and external stakeholders.

Why is updating the Stormwater Code being done as a two part legislative process? All updates to Seattle's Stormwater Code were originally intended to occur at one time with an effective date of June 30, 2015. However, Ecology was delayed in reviewing the City's draft Stormwater Code which prevented Seattle from being able to make all modifications on the original timeline and extended the City's regulatory deadline to adopt all modifications by several months. Nevertheless, Seattle wished to make three cost-saving Stormwater Code modifications effective by the originally anticipated effective date. Therefore, updates to the Stormwater Code are proceeding as two legislative processes: the now-complete "2015 Revision to Stormwater Code" (effective date 5/25/15) and the "2016 Stormwater Code Update" addressed by this proposed legislation (anticipated effective date 1/1/16). The legislative documentation for the 2015 revisions to the Stormwater Code, Ordinance 124758, provides additional explanation of the two-part process.

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What are the major changes in the revised Stormwater Code? The “Significant Modifications” section of this Exhibit provides details on the primary proposed modifications to the Stormwater Code. Of the proposed modifications outlined in that section, the four most significant involve: 1) proposed revisions regarding the effective date of the Stormwater Code relative to project application dates and construction dates (#2 in Significant Modifications section); 2) additions, revisions, and deleting of various terminology (#3); 3) proposed changes with regard to permissible discharges, and new and revised conditions that apply to permissible discharges (#5); and 4) proposed changes to the minimum requirements that apply to all development projects to meet the City’s MS4 Permit obligations and account for Seattle’s unique development patterns (#10 - #21).

What has been the extent of public participation? Beginning in January 2013, a series of meetings has been conducted to inform interested stakeholders about proposed updates to the Stormwater Code. These meetings covered modifications proposed both as part of the “2015 Revision to Stormwater Code” and the “2016 Stormwater Code Update.” These meetings included representatives from the business community, development interests, environmental advocacy groups, engineering and consulting firms, community groups, and other local and state regulators. The meeting dates and the name of each target group are shown below.

Public Presentations on Stormwater Code Update Process

Date	Group
January 24, 2013	Thornton Creek Alliance
March 18, 2013	External User Stakeholders
May 8, 2013	Master Builders Association of King and Snohomish Counties
May 9, 2013	Fauntleroy Watershed Council
June 27, 2013	Seattle Builders Council Master Builders Association
November 7, 2013	Public Open House
November 19, 2013	Thornton Creek Alliance
November 26, 2013	North Seattle Industrial Association
December 17, 2013	King County
June 3, 2014	Public Meeting
June 5, 2014	Seattle Builders Council Master Builders Association
June 11, 2014	American Council of Engineering Companies (ACEC)
July 15, 2014	Washington Society of Landscape Architects (WASLA)
July 16, 2014	Master Builders Association (MBA)
July 17, 2014	American Society of Civil Engineers (ASCE)
July 18, 2014	American Public Works Association (APWA)
August 13, 2014	Urban Forestry Commission
January 26, 2015	Puget Soundkeeper Alliance (PSA)
February 24, 2015	North Seattle Industrial Association
March 19, 2015	SPU Developer Services Advisory Committee
June 3, 2015	Urban Forestry Commission
June 10, 2015	Public Meeting

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Regulatory Context

NPDES Municipal Stormwater Permit (MS4 Permit). Seattle's Stormwater Code and associated Stormwater Manual (to be contained in the Directors' Rule) are now being revised in order to comply with the MS4 Permit, as well as to incorporate policy changes and improve usability. After the updated Stormwater Code and Stormwater Manual are adopted, it is anticipated that Ecology will modify the current MS4 Permit to include Ecology's determination that Seattle's updated Stormwater Code and Stormwater Manual meet relevant MS4 Permit requirements and achieves equivalency. The MS4 Permit authorizes the City to discharge municipal stormwater to waters of the State of Washington from municipal separate storm sewers that it owns or operates. Discharges covered under the MS4 Permit, as required by paragraph 402(p)(3) of the Clean Water Act, must effectively prohibit non-stormwater discharges into storm sewers that discharge to surface waters. Per the Clean Water Act, permittees must apply controls to reduce the discharge of pollutants to the maximum extent practicable. Ecology also took action through the issuance of the MS4 Permit, as authorized by Revised Code of Washington (RCW) Chapter 90.48, particularly RCW 90.48.162, to control impacts of stormwater discharges to waters of Washington State, including ground waters, unless the discharges are authorized by another regulatory program. (Ecology 2014b)

The MS4 Permit requires that the City's Stormwater Code and associated Stormwater Manual include minimum requirements, thresholds, definitions, and other specified requirements, limitations and criteria, determined by Ecology to be equivalent to Appendix 1 of the MS4 Permit for new development, redevelopment and construction. Ecology has reviewed the City's proposed revisions to the Stormwater Code that require Ecology approval, and Ecology has found that the revisions meet the regulatory requirements of the MS4 Permit. Any changes to the Stormwater Code made through the City's legislative process that could affect this equivalency determination will be reviewed by Ecology.

Seattle's Stormwater Manual is on a slightly later schedule than the Stormwater Code. Ecology reviewed the draft Manual (Exhibit C to the Bill Summary and Fiscal Note for this legislation) and provided few comments (Exhibit D to the Bill Summary and Fiscal Note for this legislation). The City is in the final stages of making the very limited changes necessary to secure Ecology's final approval, which is expected in summer or fall 2015. The approved Stormwater Manual provisions will be adopted in 2015 by a joint SPU/DPD Directors' Rule.

The Code and Manual also include maintenance provisions at least as protective of facility function as Ecology's SWMMWW (no revisions were needed) and source control provisions that are functionally equivalent to Ecology's SWMMWW. Ecology does not review or approve these provisions.

Seattle Stormwater Code and Stormwater Manual. The City of Seattle's Stormwater Code (Chapters 22.800-22.808 SMC) contains requirements designed to protect life, property, public health, and the environment from the adverse impacts of urban stormwater runoff. Adverse impacts can include flooding, pollution, landslides, erosion, and other potential hazards. The Stormwater Code applies to:

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- All grading and drainage and erosion control, whether or not a permit is required
- All land disturbing activities, whether or not a permit is required
- All discharges directly or indirectly to a public drainage system or (proposed) a public combined sewer
- All discharges directly or indirectly into receiving waters within or contiguous to Seattle city limits
- All new and existing land uses
- All real property.

To support the implementation of the Stormwater Code, the Director of SPU and the Director of DPD issue joint Directors' Rules (Seattle's Stormwater Manual), which clarify or interpret the Stormwater Code by specifying methods, details, and general guidelines as authorized by the Code. The existing Directors' Rules are being revised and will be incorporated into one Directors' Rule, the Seattle Stormwater Manual, that directly relate to the Stormwater Code. The 2016 Seattle Stormwater Manual will consist of the following sections:

- Volume 1 – Project Minimum Requirements (pursuant to the Stormwater Code Minimum Requirements)
- Volume 2 – Construction Stormwater Control
- Volume 3 – Project Stormwater Control
- Volume 4 – Source Control
- Volume 5 – Enforcement
- Appendices.

Best Available Science – When the City updated its Environmentally Critical Areas (ECA) ordinance, it presented a detailed review of the best available science regarding wetlands, fish and wildlife conservation areas, geologic hazard areas, flood-prone areas, abandoned landfills, and critical aquifer recharge areas in its report Environmental Critical Areas: Best Available Science Review (Seattle 2005). As part of the 2009 Stormwater Code Update, the City prepared a document describing the best available science specific to urban stormwater runoff management (Seattle 2009). That document has been updated for this proposed legislation and is included as part of the Bill Summary and Fiscal Note for this legislation, as Exhibit B.

Exhibit A

Significant Modifications

The proposed modifications to the Stormwater Code will affect administration, source control, development, construction site stormwater pollution prevention control, and enforcement requirements. The major modifications being proposed to the Stormwater Code are summarized below by Chapter.

Chapter 22.800 - Title, Scope, and Authority

1. Revised exemptions associated with pavement practices (22.800.040.A.2.b): The proposed modification includes revised terminology associated with exemptions for pavement maintenance practices to match Ecology's revised language in the MS4 Permit. The current Stormwater Code exempts "road maintenance practices" from various Stormwater Code minimum requirements. The proposed 2016 Seattle Stormwater Code update changes "Road maintenance practices" to "Pavement maintenance practices," consistent with the MS4 Permit. This will result in a broader range of projects qualifying for the exemption and will be consistent with the updated MS4 Permit.
2. Added new section for transition to Revised Stormwater Code (22.800.100): In association with its target effective date of January 1, 2016, the 2016 Stormwater Code Update includes new language regarding the applicability of Stormwater Code revisions in relation to specified project permit application and construction dates. The 2016 Stormwater Code Update will apply to permit applications submitted on or after January 1, 2016. In addition, for projects considered under the current Stormwater Code before amendment, if construction has not started by June 30, 2020, the permit expires and the 2016 Stormwater Code will apply. This revision was to achieve equivalency with MS4 Permit requirements (which apply to areas that discharge to the City's municipal stormwater system) and affects both building and master use permits (including subdivisions). A separate, but parallel, Stormwater Code applicability ordinance with associated legislative documentation is being prepared to incorporate these changes into applicable sections of the Building, Residential, Land Use, and Grading Codes.

Chapter 22.801 – Definitions

3. Added, revised, and deleted terms: In the proposed 2016 Stormwater Code Update, new terms have been added to this Chapter, the definitions for other terms have been materially modified, and the definitions for terms have been deleted. Table 1 lists key terms that are proposed to be added (indicated as underlined text), materially modified (indicated by *italicized* text), or deleted (indicated by ~~striketrough~~ text). These proposed definition changes are necessary to clarify certain Stormwater Code provisions, to implement revised minimum requirements, and to meet the provisions of the MS4 Permit. All proposed definition changes are shown in the draft Stormwater Code (Attachment C).

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Table 1: Key New, Materially Modified, or Deleted Definitions

<u>Agency with jurisdiction</u>	<i>Impervious surface</i>	<u>Project Site</u>
<u>Aquatic life use</u>	<u>Industrial activities</u>	<i>Receiving water</i>
<u>Arterial</u>	Joint project	<u>Replaced hard surface</u>
Basin plan	<i>Land disturbing activity</i>	<i>Replace impervious surface</i>
<i>Capacity-constrained system</i>	<i>Large project</i>	<i>Roadway project</i>
Cause or contribute to a violation	<i>Nutrient-critical receiving water</i>	<i>Sidewalk project</i>
<u>Combined sewer basin</u>	<u>On-site BMP</u>	<i>Single-family residential project</i>
<u>Drainage basin plan</u>	<i>Parcel-based project</i>	<i>Site</i>
<i>Drainage system</i>	<u>Pollution-generating hard surface</u>	<u>Small lakes</u>
<u>Erodible or leachable materials</u>	<i>Pollution-generating impervious surface</i>	<i>Stormwater</i>
Flow critical receiving water	<i>Pollution-generating pervious surface</i>	<i>Trail project</i>
<i>Geotechnical engineer</i>	<u>Private drainage system</u>	<i>Watercourse</i>
<i>Green stormwater infrastructure</i>		
<u>Groundwater</u>		
<u>Hard surface</u>		
<u>Illicit Connection</u>		

New: underlined

Materially Modified: *Italicized*

Deleted: ~~Strikethrough~~

Chapter 22.802 – Prohibited and Permissible Discharges

4. Added new subsection to Discharges to Public Combined Sewers (22.802.020.D): A proposed new subsection stating that prohibited discharges to the combined sewer are stated in Chapter 21.16 SMC (Side Sewer Code). This is added to provide a useful cross-reference.
5. Revised Permissible Discharges (22.802.030): The proposed list of permissible discharges includes proposed modifications and conditions, nearly all of which are included for equivalency with the MS4 Permit. Table 2 summarizes the sections where text is proposed for modification. (Underlined text indicates proposed additions relative to the current Stormwater Code). Table 2 does not include all proposed changes, but summarizes the main topic areas and key language. All proposed changes are shown in the draft Stormwater Code (Attachment C).

Exhibit A

Table 2: Substantive Changes to Permissible Discharges (22.802.030)

<p>A. <u>Conditionally</u> Permissible Discharges to Drainage systems and Receiving Waters. Discharges from the sources listed below are permissible discharges <u>only if the stated conditions are met and</u> unless the Director of SPU determines that the type of discharge, directly or indirectly to a public drainage system, private drainage system, or a receiving water within or contiguous to Seattle city limits, whether singly or in combination with others, is causing or contributing to a violation of the City's NPDES stormwater permit or is causing or contributing to a water quality problem:</p> <ol style="list-style-type: none"> 1. Discharges from potable water sources, including, <u>but not limited to,</u> flushing of potable water lines, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water, <u>and washing of potable water storage reservoirs.</u> Planned discharges shall be de-chlorinated to a <u>total residual chlorine</u> concentration of 0.1 ppm or less, pH-adjusted if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the drainage system. <u>No chemicals may be added, and settleable solids must be removed prior to discharge;</u> 2. <u>Discharges from swimming pools, spas, hot tubs, fountains, or similar aquatic recreation facilities and constructed water features, provided the discharges have been dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, volumetrically and velocity controlled to prevent resuspension of sediments in the drainage system, and thermally controlled to prevent an increase of temperature in the receiving water. Swimming pool cleaning wastewater and filter backwash shall not be discharged;</u> 3. <u>Discharges of street and sidewalk washwater when the surfaces are swept prior to washing, detergents are not used, and water use is minimized;</u> 4. <u>Discharges of water from routine external building washdown when detergents are not used and water use is minimized;</u> 5. <u>Discharges of water used to control dust when water use is minimized; and</u> 6. <u>Other non-stormwater discharges, provided that these discharges are in compliance with the requirements of a stormwater pollution prevention plan that addresses control of such discharges and is approved by the Director.</u> <p style="text-align: center;">***</p> <p>B. <u>Permissible discharges: Discharges from the sources listed below are permissible discharges unless the Director of SPU determines that the type of discharge, directly or indirectly to a public drainage system, private drainage system, or a receiving water within or contiguous to Seattle city limits, whether singly or in combination with others, is causing or contributing to a violation of the City's NPDES Municipal Stormwater Permit or is causing or contributing to a water quality problem: [partial excerpt below; most changes to this subsection "B" relate to deletions of text that has been folded into subsection "A" above]</u></p> <p style="text-align: center;">***</p> <ol style="list-style-type: none"> 13. <u>Discharges of tracing dye used to establish or verify a drainage or sewer connection.</u>
--

New: underlined

Exhibit A

6. Added notification requirements related to testing for prohibited discharges (22.802.040.A): The proposed revisions require that any person conducting dye testing to establish or verify a drainage connection shall notify SPU prior to conducting the test. This will improve SPU processes and efficiencies by allowing SPU Water Quality Hotline staff to learn that dye can be expected in the drainage system.

Chapter 22.803 – Minimum Requirements for All Discharges and All Real Property

7. Added requirement to map property drainage, side sewer and plumbing infrastructure (22.803.020.A): The proposed revisions include language to make it explicit that, when requested to aid in applying the Stormwater Code, the owner must map “all drainage, side sewer and plumbing infrastructure on the property.” This will improve the clarity and authority of the Stormwater Code.
8. Added site maintenance to the Minimum Requirements for Source Controls for All Real Property (22.803.030.G): The proposed revisions include a brief subsection requiring that businesses and public entities perform basic site maintenance activities (e.g., site sweeping, and inspecting loading and unloading areas). This will add clarity and authority to further prevent transport of pollutants off site via stormwater runoff.
9. Revised Minimum Requirements for Source Control for specific discharge locations (22.803.040): The proposed revisions clarify that these source control requirements apply to all discharges except those that drain only to the public combined sewer. This is already indicated in the current Source Control Technical Requirements Manual but is proposed to be added to the 2016 Stormwater Code for further clarity.

Chapter 22.805 – Minimum Requirements for Projects

10. Revised applicability of thresholds for Minimum Requirements for Projects to be based on “hard-surfaces” (22.805.030 – .060, 22.801): In accordance with the MS4 Permit, the proposed revisions change the applicability of thresholds from “impervious surface” to “hard surfaces,” a new term required by Ecology. “Hard surfaces” include impervious surfaces, permeable pavements, and vegetated roofs.
11. Added requirements to protect stormwater BMPs during construction (22.805.020.D.19): In accordance with the MS4 Permit, the proposed revisions require protection of stormwater BMPs from sedimentation (through installation and maintenance of erosion and sediment control BMPs) and compaction during the construction phase of a project. The intent is greater protection of permanent stormwater BMPs, particularly for infiltration-based BMPs (which are particularly subject to damage from sedimentation) and vegetation-based BMPs that are prone to damage during construction.
12. Moved requirements for On-site Stormwater Management and soil amendment (22.805.020, etc.): In the proposed revisions, the requirement for projects to perform On-site Stormwater Management (currently “Implement Green Stormwater Infrastructure” in Seattle’s Stormwater Code) has been moved out of the Minimum Requirements for All Projects (22.803.020) and is now included as a requirement in other Stormwater Code sections based on project type (i.e., Single-family Residential (SFR), Trail/Sidewalk, Parcel-based,

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Roadway). Similarly, the requirement to amend soils is relocated from its own specific provision to now be included based on project type (i.e., SFR, Trail/Sidewalk, Parcel-based, Roadway). This modification is for consistency with the MS4 Permit and to clarify that On-site Stormwater Management only applies to certain project types and does not apply to utility work or routine maintenance work.

13. Revised Threshold and applicability changes for Minimum Requirements for Single-Family Residential Projects (22.805.030): On-site Stormwater Management (currently “Implement Green Stormwater Infrastructure” in Seattle’s Stormwater Code) is proposed to change from applying to all SFR projects, to applying to SFR projects as follows:

- a. On a lot most recently created, adjusted, altered, or otherwise amended by a plat or other lawful document recorded with the King County Recorder on or after January 1, 2016, and where that document either created the lot or reduced the size of the lot, either the total new plus replaced hard surface is 750 square feet or more or land disturbing activity is 7,000 square feet or more; or
- b. For any other project, either the total new plus replaced hard surface is 1,500 square feet or the land disturbing activity is 7,000 square feet or more.

Given the above threshold changes and in response to the MS4 Permit, the City also proposes to remove the current 1,500 square foot impervious surface credit for SFRs. Note that the MS4 Permit threshold is set at 2,000 square feet of new plus replaced hard surface, but the City proposes the above thresholds – expected to result in more on-site stormwater management – to better address the types and sizes of development projects typical for Seattle and to make on-site, low impact development best management practices the preferred and commonly-used approach to site development, consistent with S5.C.5.b of the MS4 Permit.

14. Revised Minimum Requirements for Parcel-based Projects (22.805.050):

- a. Revised thresholds. In accordance with the MS4 Permit, On-site Stormwater Management (currently “Implement Green Stormwater Infrastructure” in the Seattle’s Stormwater Code) is proposed to change from applying to 2,000 square feet new plus replaced impervious surface, to applying to parcel-based projects as follows:
 - i. On a lot most recently created, adjusted, altered, or otherwise amended by a plat or other lawful document recorded with the King County Recorder on or after January 1, 2016, and where that document either created the lot or reduced the size of the lot, either the total new plus replaced hard surface is 750 square feet or more or land disturbing activity is 7,000 square feet or more; or
 - ii. For any other project, either the total new plus replaced hard surface is 1,500 square feet or the land disturbing activity is 7,000 square feet or more.

Note that the MS4 Permit threshold is set at 2,000 square feet of new plus replaced hard surface, but the City proposes the above thresholds – expected to result in more on-site stormwater management -- to better address the types and

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sizes of development projects typical for Seattle and to make on-site, low impact development best management practices the preferred and commonly-used approach to site development, consistent with S5.C.5.b of the MS4 Permit.

- b. Added requirements for Discharges from Groundwater. The proposed revision includes new language for applicability of flow control when a project permanently discharges groundwater to some locations. This change incorporates provisions drawn from a current City Directors' Rule directly into the Stormwater Code.
- c. Added requirements for water quality treatment. In accordance with MS4 Permit, the proposed revision will require treatment of both pollution-generating hard surfaces and pervious surfaces if water quality treatment is triggered for a project.

15. Revised Minimum Requirements for Roadway Projects (22.805.060):

- a. Added infeasibility criteria to the Minimum Requirements for Roadway Projects (22.805.060.E). New language is proposed to account for the unique construction limitations posed by public roadway right-of-way work within an urban environment having existing infrastructure. The new language allows the reduction of on-site stormwater management, flow control, and water quality treatment requirements for roadway projects under certain conditions. Specifically, roadway projects will have reduced requirements for on-site stormwater management, flow control, and water quality treatment when it can be demonstrated that full compliance with those requirements is not feasible because “(a) complete installation would require that an existing major publicly or privately-owned infrastructure or utility element be relocated, or (b) the drainage control facility cannot be built and operated to discharge stormwater from the site under gravity flow conditions while meeting the applicable engineering standards.” The proposed language includes additional details describing what constitutes “existing major infrastructure or utility elements” and requires that the project meet the applicable standards to the degree that the project can avoid the infeasibility described in this subsection 22.805.060.E. These Ecology-approved revisions address the same physical site limitation concerns addressed by the 2014 Washington Department of Transportation Highway Runoff Manual (WSDOT 2014).
- b. Added requirements for Discharges from Groundwater. The proposed revision includes new language for applicability of flow control when a project permanently discharges groundwater to some locations. This change incorporates the provisions drawn from a current City Stormwater rule directly into the Stormwater Code.
- c. Added requirements for water quality treatment. In accordance with the MS4 Permit, the proposed revision includes new language requiring treatment of both pollution-generating hard surfaces and pervious surfaces if water quality treatment is triggered for a project.

Exhibit A

16. Added a new section specific to On-site Stormwater Management (22.805.070): In relation to item #12 above, the current Stormwater Code requirements to “Implement Green Stormwater Infrastructure” are proposed to be revised to be consistent with the MS4 Permit and are moved to a new section titled On-site Stormwater Management. On-site Stormwater Management includes requirements to comply with either:

- a. On-site Performance Standard, or
- b. On-site List by project type

This change is proposed for consistency with the MS4 Permit but also complements Seattle’s unique urban environment.

In addition, the current minimum size requirements for projects that trigger On-Site Stormwater Management in the right-of-way (i.e., Roadway Projects, Trail/Sidewalk Projects) are proposed to be removed for creek, wetland, and small lake basins. In these basins, Ecology does not allow a prohibition to installation based on minimum facility size for permeable pavement (2,000 square feet) and bioretention (500 square feet) as is allowed in the current Seattle Stormwater Manual. This will result in additional facilities within the right-of-way in these basins.

17. Added a new On-site Performance Standard (22.805.070.C): In accordance with the MS4 Permit (and per items #12 and #16 above), the proposed revisions include a new quantitative performance standard to meet the On-site Stormwater Management Requirements of 22.805.070. The proposed standard is similar to that specified in the MS4 Permit but is consistent with Seattle’s existing flow control standards by targeting the pre-developed condition of “forested” or “pasture,” depending upon existing hard surface coverage.
18. Added a new On-site List (22.805.070.D) stating specific BMP options and requirements for meeting the new On-site Stormwater Management Requirements of 22.805.070: The MS4 Permit allows two options for projects to achieve the On-site Stormwater Management Requirements (22.805.070): using a specified list of approved BMPs, or meeting a “Low Impact Development Performance Standard.” Ecology’s BMP list is presented in a mandatory evaluation order, and the project applicant is required to achieve 100 percent management of applicable hard surfaces, unless the applicant can demonstrate BMP infeasibility (with no cost feasibility consideration). The proposed revisions to the Stormwater Code include a Seattle-specific On-site List of BMPs (Seattle List) that is modified relative to Ecology’s and meets MS4 Permit equivalency obligations. The Seattle List also better matches Seattle’s local conditions, results in a similar volume of stormwater managed as the current Seattle GSI Directors’ Rule, and provides additional flexibility compared to the Ecology list. Except where a difference is required for compliance with the MS4 Permit, the proposed Seattle List includes a range of BMPs similar to that found in Seattle’s current GSI Directors’ Rule. The proposed language and approach has been developed specific to conditions in the City of Seattle. For further information, a more detailed assessment of the City’s options and preferences has been documented in a 2014 policy paper (Seattle 2014). Consistent with the MS4 Permit, Seattle’s List can be superseded or reduced if the installation is in conflict with specific federal or state laws,

Exhibit A

rules, and standards; special zoning district design criteria; public health and safety standards; transportation regulations; or tree and vegetation regulations.

19. Updated Wetland Protection Standard (22.805.080.B.1): In accordance with the MS4 Permit, the proposed revisions include updates to the Wetland Protection Standard. Since Ecology substantially changed its requirements for this standard, Seattle proposes to incorporate the new Ecology requirements and to add references to Ecology's "guidance sheets."
20. Slightly revised the Pre-developed Forested Standard (22.805.080.B.2) and Pre-developed Pasture Standard (22.805.080.B.3): The standards are proposed to be slightly revised to better complement the new On-site Performance Standard language proposed in 22.805.070.C. The technical requirements of the new On-site Performance Standard language require specific hydrologic modeling approaches that were not consistent with the 2009 "Forest" and "Pasture" standards. Therefore, minor revisions are proposed for improved efficiency for developers and city staff plan reviewers.
21. Updated the Enhanced Treatment requirements (22.805.090.B.5): In accordance with the MS4 Permit, the proposed revisions include updates to the Enhanced Treatment requirements. Specifically, the proposed revisions remove the previous broader references to "fish-bearing" waters and instead reference designations for "aquatic life use."

Chapter 22.807 – Drainage Control Review and Application Requirements

22. Revised application requirements language in Chapter 22.807.020.B.1.b: For projects with an offsite discharge point, the drainage control plan shall be prepared by a licensed civil engineer even if the project has less than 5,000 square feet of new or replaced hard surface.

Chapter 22.808 – Stormwater Code Enforcement

23. Slightly revised Stormwater Code Enforcement language in Chapter 22.808: Based on feedback from SPU and DPD inspectors, there are slight, mainly administrative, changes proposed for this Chapter. The proposed revisions will make enforcement less problematic and more consistent to implement for the City.

Conclusion & Recommendation

All the proposed 2016 modifications to the Stormwater Code are either equivalent or unrelated to Ecology requirements in the MS4 Permit and have been developed in consideration of the best available science.

The Director of SPU and the Director of DPD recommend that the "2016 Revision to Stormwater Code" modifications be adopted.

References

Ecology, Washington State Department of, 2012. Phase I Municipal Stormwater Permit: National Pollutant Discharge Elimination System and State Waste Discharge General Permit for discharges from Large and Medium Municipal Separate Storm Sewer Systems.

Exhibit A

Permit issued on 1, 2012, effective on August 1, 2013, and modified effective January 16, 2015.

Ecology, Washington State Department of, 2014a. Stormwater Management Manual for Western Washington. December 2014.

Ecology, Washington State Department of, 2014b. Fact Sheet: Phase I Municipal Stormwater Permit: National Pollutant Discharge Elimination System and State Waste Discharge General Permit for discharges from Large and Medium Municipal Separate Storm Sewer Systems. Fact Sheet dated April 16, 2014.

Seattle, 2005. Environmentally Critical Areas Code Update: Best Available Science Review. Department of Planning and Development. August 2005.

Seattle, 2009. Environmentally Critical Areas: Best Available Science Review (Supplemental Report): Stormwater Code & Grading Code Revisions. Seattle Public Utilities. June 2009. (This is Attachment 1 to Seattle City Clerk File 310134.)

Seattle, 2014. City of Seattle Stormwater Code and Manual Revisions: Director's Briefing, Issue Resolution Item: On-site Stormwater Management Requirements. February 14, 2014.

WSDOT, 2014. Washington Department of Transportation (WSDOT) Highway Runoff Manual. April, 2014.

Exhibit B

April 2014 Draft Stormwater Manual (Draft Directors' Rule)
July 17, 2015

The documents associated with Seattle's draft Stormwater Manual that were submitted to Washington State Department of Ecology on April 23, 2014 can be found at the links below:

- [Volume 1 – Project Minimum Requirements](#)
- [Volume 2 – Construction Stormwater Control](#)
- [Volume 3 – Project Stormwater Control](#)
- [Volume 4 – Source Control](#)
- [Volume 5 – Enforcement](#)
- [Appendix A – Definitions](#)
- [Appendix B – Chemical Treatment](#)
- [Appendix C – Onsite Stormwater Management BMP Infeasibility Criteria](#)
- [Appendix D – Subsurface Characterization and Infiltration Testing for Infiltration Facilities](#)
- [Appendix E – Additional Design Requirements](#)
- [Appendix F – Hydrologic Analysis and Design](#)
- [Appendix G – Stormwater Control Operations and Maintenance Requirements](#)
- [Appendix H – Integrated Pest Management](#)



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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February 6, 2015

EXHIBIT C

Nancy Ahern, Director
Utility System Management Branch
Seattle Public Utilities
PO Box 34018
Seattle, WA 98124-4018

RE: Phase I Municipal Stormwater Permit (WAR04-4503)
Ecology Comments on Draft (4/23/14) Ordinance and Technical Standards for Runoff
Controls for New and Redevelopment

Dear Ms. Ahern:

The Department of Ecology (Ecology) has completed its review of the City of Seattle's draft Ordinance and Technical Standards, dated April 23, 2014, under the Phase I Municipal Stormwater Permit (Permit). Detailed comments are attached to this letter and constitute Ecology's "written response" per the Permit's Special Condition S5.C.5.a.iii, paragraph 3.

Also in accordance with Special Condition S5.C.5.a.iii, Ecology has calculated Seattle's deadline for adoption of the programs required under S5.C.5.a and S5.C.5.b to be January 15, 2016. This date adds 199 calendar days to the permit-specified deadline for adoption to accommodate the fact that Ecology's written response was provided 289 calendar days following April 23, 2014 (the date Ecology received your submittal).

We look forward to discussing the comments and questions regarding your submittal in order to resolve issues and arrive at an approvable ordinance and director's rule package. Please contact me at (425) 649-7223 or by email at rmcc461@ecy.wa.gov if you have questions.

Sincerely,

Rachel McCrea
Municipal Stormwater Specialist & Lead Water Quality Planner for the Lower Duwamish

cc: Kate Rhoads, Municipal Stormwater Specialist, Seattle Public Utilities (electronic)
Sherell Ehlers, Stormwater Policy Advisory, Seattle Public Utilities (electronic)
Doug Howie, Stormwater Engineer, Ecology HQ
Permit file

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SEATTLE MUNICIPAL CODE CHAPTER 22.800

GENERAL COMMENTS

APPLICABILITY TO GRADING/LAND DISTURBING ACTIVITIES

Changes at 22.800.030.A; also page 69, lines 38-39; minor edits throughout regarding grading – Confirm applicability of stormwater code to land disturbing activities (i.e., grading). SMC 22.170 contains grading permit thresholds; please provide for verification.

DISTINGUISHING BETWEEN THE MS4 AND RECEIVING WATERS

Drainage system vs. stormwater system (edit at 22.800.040.A.6.c, pg 5, line 16 and throughout definitions). Ecology is concerned how numerous terms are used when you need to distinguish between the MS4, a private stormwater system and the receiving waters. See below.

- “Drainage system” includes MS4 and receiving waters.
- “Drainage water” is what is allowed in a stormwater system (stormwater and allowed discharges)
- “public drainage system” is the drainage system owned or used by Seattle (but includes receiving waters)
- “informal drainage system” is undefined (presumably includes receiving waters)
- “private drainage system” is undefined (presumably includes receiving waters)
- “Public storm drain” is wholly or partially piped, owned or operated by city, designed to carry only drainage water. Unclear if this includes receiving waters.
- Use in 22.802.020 B&C (IDDE) suggests receiving waters and drainage system are distinct. However the definitions do not clearly separate the two.
- “Watercourse” is the route surface waters flow not including “designated receiving waters.” Surface waters are not defined. Do they include drainage water as well as receiving water, as the definition implies (i.e., ditches)?

CONSIDERATIONS FOR DUWAMISH SOURCE CONTROL

22.800.040.A.4 & 5 present opportunities for LDW source control. Consider how they factor into the Seattle source control strategy.

22.800.050 Potentially Hazardous Locations – Consider whether B would include sites/buildings where TSCA level PCBs are present.

CHANGES TO FINAL PROJECT DURING CONSTRUCTION

22.800.040.B.3 – Ensure a documented process is in place for filing such changes with the Director and incorporating into GIS? Refer to a related EPA Audit finding.

ROADWAY PROJECT EXCEPTION FOR “SEVERE CONSTRUCTION FEASIBILITY HARDSHIP”

22.800.040.C.1.d (pages 6 & 7) introduce a proposal for a jurisdiction-wide exception associated with roadway project construction conditions. Ecology does not approve this jurisdiction-wide exception.

However we acknowledge that you are trying to solve specific problems that may be better solved in other provisions. Detailed concerns, questions, and clarifications are provided below.

- “severe construction feasibility hardship” is not defined. The City has verbally explained that this is intended for technical feasibility issues, not economics.
- It is not clear how one would “weigh” a severe construction feasibility hardship against the “requirement’s benefits.”
- The proposed exceptions would be subject to public notice and review at C.6.
- The City has explained verbally that “infrastructure limitations” refers to situations where facilities would interfere with or be located in proximity to existing major utility lines; and that “hydraulic limitations” refers to a lack of hydraulic head for discharges from underground vaults (and thus the installation of a pump in the roadway).
- The cited WSDOT HRM Appendix 2-A describes a process to be followed. It is written in a guidance “consider” format and refers to processes that are only established in the WSDOT program. Such guidance is not relevant or appropriate for a city or county MS4 permittee.
- The City verbally explained that other existing flexibilities (for Integrated Drainage Plan, fee-in-lieu, and off-site mitigation (22.800.080.E, F and G.)) would be pursued first, prior to use of the proposed exception.
- Regarding the location in proximity to existing major utility lines in rights-of-way: Ecology has approved an approach in the Highway Runoff Manual to allow for the mitigation/management of this surface area and type in an alternative location as close to the project location as possible. This is similar to Seattle’s off-site mitigation provision (22.800.080.G).

APPLICABILITY OF REQUIREMENTS TO OLDER PROJECTS

22.800.070.A.2 – Explain why this section waives the new MR5 only when the funded public project complies with the old GSI requirement.

22.800.100.C – Confirm definition of “permit application” is consistent with the Phase I Permit’s S5.C.5a.iii, footnote 1.

DEFINITIONS: 22.801

Aquatic life use – This is being introduced due to the enhanced treatment requirement language associated with fresh water discharges. It is a much more limited definition than that in WAC 173-201A, which defines fresh and marine waters, and surface waters of the state. Because Seattle’s definition is not consistent with WAC 173-201A, and to avoid future confusion, suggest including a caveat clause, such as “for the purposes of this section” in this definition.

Arterial – Definition references Section 11.18.010. Please provide this reference.

Capacity constrained system – Confirm this definition works properly. What is the “informal drainage system” (term not defined)?

Compaction – is out of alphabetical order.

Discharge point – This definition makes sense in this code. Use of the modified Phase I Permit definition is not required.

Green Stormwater Infrastructure = While this term and definition parallel “LID BMPs”, infiltration trenches, dry wells, and perforated stub-out connections are not LID BMPs.

Illicit connection – Uses the term “public drainage system” in lieu of MS4. This is an example of the potential problem with Seattle’s definition for “drainage system”.

Impervious surface, pervious surface, and pollution generating pervious and impervious surfaces – Seattle has proposed to not use Ecology’s “hard surface” term for project threshold evaluation requirements. However, Seattle’s proposal is internally inconsistent and confusing. Ecology recommends following the “hard surface” approach per Appendix 1 of the Permit.

- Seattle’s “Impervious surface” definition adds some pervious surfaces: permeable paving, vegetated roofs and areas with underdrains (i.e., playfields).
- However, it is the definition of “pollution generating pervious surfaces” that include permeable pavement subject to vehicle use and sports fields (natural and artificial turf).
- Related note re: “areas with underdrains (i.e., playfields)” – consider clarification that this is not the same as infiltrating bioretention with underdrains.

Large Project – Confirm how this term is used. Per 2008/2009 code work, this term is used to support regulation of piecemealing, and dewatering controls for capacity in downgradient system. Confirm this term is not used for stormwater code thresholds. Same for **small project**.

Maximum extent feasible – Is this term now used in very specific ways that are retained from the previous “GSI to the MEF” approach? It would seem the phrase should be unused now that we have explicit infeasibility criteria.

Nutrient-critical receiving water – Explain what “as prescribed in rules promulgated by the director of SPU” means. Ecology suggests referring to CWA 305(b) list. The previously approved definition was acceptable. What problem is this change trying to solve?

Receiving water – Consider a partial update of this definition per the modified Phase I Permit (excluding “to which an MS4 discharges.”)

Sidewalk project - The word “cannot” in the sidewalk project definition should be “can.”

Missing definitions: rainwater harvesting, detention cisterns, infiltrating bioretention, permeable pavement surfaces, permeable pavement facilities

Clarifying receiving water types: Ecology is concerned that the City’s approach to categorizing receiving waters is not clear and is further confused by the City’s “drainage system”-related terms (see General Comment). Suggest reducing the complexity and/or the sheer number of different terms where possible.

- Designated receiving water (not subject to flow control)
- Flow critical receiving water (not a designated receiving water)
- Listed Creek Basins (defined page 24, lines 8-13) – Are these also flow critical receiving waters?
- Non listed creek basins (undefined creeks otherwise not listed) – Are these also flow critical receiving waters?
- Perhaps the definitions of Listed and NonListed creek basins should explain the purpose of calling them out (i.e., identifies the flow control target to be met in these flow critical receiving waters)?
- Non-flow control basin (used in MR5 list; not included in definitions) discharges to a designated receiving water.
- Projects discharging to a wetland, creek, public combined sewer, small lake or capacity constrained system basins (used in MR5 list).

22.802.030 PERMISSIBLE DISCHARGES

Page 34, line 28 adds “washing or rinsing of potable water storage reservoirs.” BMPs are necessary to ensure nothing but water is used and you remove settled solids and chlorine prior to discharge to the MS4.

Page 34, lines 34-42: Add prohibition for swimming pool cleaning wastewater and filter backwash.

Page 35, line 11 – Refers to a “stormwater pollution prevention plan” but the permit does not use the word “stormwater” here in order to accommodate that some potentially allowable discharges are not stormwater.

Page 35, lines 36 & 37: As a reminder, discharges from lawn watering and other irrigation runoff must be minimized through public education activities and water conservation efforts.

MINIMUM REQUIREMENT THRESHOLDS

22.805.020 – MRs FOR ALL PROJECTS

Page 42, line 24 – Odd comma after “and all trees, and drainage courses...” Delete comma?

Page 45, line 6 – Refer to the Permit Appendix 1 for a clarification that the on-site treatment system must prevent a discharge to surface water (such as a closed loop recirc system or upland application). As written, SMC appears to allow discharge of treated wheel wash water. Not approvable.

Page 46, lines 38-43 – Install Permanent Flow Control and Water Quality Facilities. What is the purpose of this section? Should it also include the new citation to MR5 onsite requirements? How does one know if they are required to comply? Note that E (soil quality and depth BMP) and F (GSI to the MEF) were deleted (page 47). Both referred to old MR5 requirements. Neither were replaced in this section. Soil quality and depth requirement now located in 22.805.070.B2.

22.805.030 THRESHOLD SUMMARY FOR SINGLE FAMILY RESIDENTIAL PROJECTS

Applies MR5 to SFR projects; SFR projects defined to not trigger MRs 6 & 7. OK.

22.805.040 THRESHOLD SUMMARY FOR TRAIL & SIDEWALK PROJECTS

Applies MR5 to trail and sidewalk projects. Seattle proposes that a trail/sidewalk project would not have to do MR 6, 7 or 8. Ecology considers this a jurisdiction-wide exception under Section 6 of Appendix 1 of the Permit. This is generally approvable, pending resolution of related comments. Rationale considered by Ecology includes:

- Trail and sidewalk projects are linear and Ecology expects they would have multiple threshold discharge areas (TDA) over the length of the project. Seattle does not use the TDA concept in threshold evaluations for constructing drainage facilities.
- Trails are not classified as streets, and a trail project does not contain PGIS.
- Sidewalk Projects are defined to result in less than 5,000 sf of new + replaced impervious surface in the roadway. Sidewalks themselves are not “in the roadway” but associated structures such as ADA ramps do require some roadway replacement.
- Sidewalks are not pollution generating.
- The definition of Roadway includes the parking strip (PGIS) and gutter where there is a curb, but not the shoulder where there is no curb.
- Increasing nonmotorized transportation in this dense urban environment by improving or providing trail and sidewalk infrastructure should have a net environmental benefit, reducing stormwater pollutants as vehicle trips and car habitat are reduced.

22.805.050 THRESHOLD SUMMARY FOR PARCEL PROJECTS:

- A. Applies MR5 to parcel based projects. Confirm the application of BMP T5.13 to all projects.
- B.1 Applies MR8 (wetlands) thresholds. Error at 22.805.050.B.1.c: Ecology does not delete the word “native” from the 2.5 acre conversion threshold.
- B.2 Applies MR7 in Listed Creek Basins (forested flow control standard)
 - B.2.a New Development (forested flow control standard):
 - *Effective* impervious surface threshold of 10,000 sf not used; City uses 10,000 new plus replaced impervious surface threshold. Unclear whether “effective” is intentionally left out. See below.
 - Error at 22.805.050.B.2.a.3: Ecology does not delete the word “native” from the 2.5 acre conversion threshold.
 - Update 22.805.050.B.2.a.4 per Appendix 1 of the Permit (or explain why different requirement is needed). Include 15 minute timestep details and other specificity provided in Appendix 1 of the Permit. It is also inconsistent to see use of *effective* impervious surface here but not elsewhere. Clarify City’s intent regarding use of “effective” surfaces.
 - B.2.b Redevelopment (pasture flow control standard) at 2,000 sf new + replaced (no additional thresholds). Ecology has previously approved this provision based on the following rationale:
 - Seattle is requiring a flow control standard based on pasture conditions, rather than existing conditions, for all areas that would, under the Permit’s requirements, only have to meet a standard based on existing conditions.

Additionally, Seattle's MS4 area is predominantly in non-listed creek basins, or those areas that were at least 40% impervious in 1985. Therefore, flow controls in total are expected to be equivalent.

- B.3 Applies MR7 in NonListed Creek Basins (pasture flow control standard).
 - B.3.a if the existing land cover is forest, use forested flow control standard:
 - *Effective* impervious surface threshold of 10,000 sf not used; City uses 10,000 new plus replaced impervious surface threshold. Unclear whether "effective" is intentionally left out. See below.
 - Ecology does not delete the word "native" from the 2.5 acre conversion threshold.
 - Update 22.805.050.B.3.a.4 per Appendix 1 of the Permit (or explain why different requirement is needed). Include 15 minute timestep details and other specificity provided in Appendix 1 of the Permit. It is also inconsistent to see use of *effective* impervious surface here but not elsewhere. Clarify City's intent regarding use of "effective" surfaces.
 - B.3.b use pasture flow control standard at 2,000 sf new + replaced (no additional thresholds). Note that use of a pasture-based standard in this requirement is a necessary component of Seattle's program equivalency.

22.805.060 THRESHOLD SUMMARY FOR ROADWAY PROJECTS:

- A. Applies MR5 to roadway projects. Confirm the application of BMP T5.13 to all projects.
- B.1 Applies MR8 (wetlands) thresholds. Error at 22.805.060.B.1.c: Ecology does not delete the word "native" from the 2.5 acre conversion threshold.
- B.2 Applies MR7 in Listed Creek Basins (forested flow control standard)
 - B.2.a New Development (forested flow control standard):
 - *Effective* impervious surface threshold of 10,000 sf not used; City uses 10,000 new plus replaced impervious surface threshold. Unclear why desire to be different here.
 - Ecology does not delete the word "native" from the 2.5 acre conversion threshold.
 - Update 22.805.060.B.2.a.4 per Appendix 1 of the Permit (or explain why different requirement is needed). Include 15 minute timestep details and other specificity provided in Appendix 1 of the Permit. It is also inconsistent to see use of *effective* impervious surface here but not elsewhere. Clarify City's intent regarding use of "effective" surfaces.
 - B.2.b Redevelopment (pasture flow control standard) at 10,000 sf new + replaced impervious surfaces (not using effective impervious surfaces).
 - Seattle is requiring a flow control standard based on pasture conditions, rather than existing conditions, for all areas that would, under the Permit's requirements, only have to meet a standard based on existing conditions. Additionally, Seattle's MS4 area is predominantly in non-listed creek basins, or

those areas that were at least 40% impervious in 1985. Therefore, flow controls in total are expected to be equivalent.

- B.3 Applies MR7 in NonListed Creek Basins (pasture flow control standard)
 - B.3.a if the existing land cover is forest, use forested flow control standard:
 - *Effective* impervious surface threshold of 10,000 sf not used; City uses 10,000 new plus replaced impervious surface threshold. Unclear why desire to be different here.
 - Ecology does not delete the word “native” from the 2.5 acre conversion threshold.
 - Update 22.805.060.B.3.a.4 per Appendix 1 of the Permit (or explain why different requirement is needed). Include 15 minute timestep details and other specificity provided in Appendix 1 of the Permit. It is also inconsistent to see use of *effective* impervious surface here but not elsewhere. Clarify City’s intent regarding use of “effective” surfaces.
 - B.3.b use pasture flow control standard at 10,000 sf new + replaced (no additional thresholds). Note that use of a pasture-based standard in this requirement is a necessary component of Seattle’s program equivalency. This results in flow control to a higher standard based on a simple threshold evaluation (with no additional 0.1 cfs calculation or initial roadway project cost and size threshold considerations).
- C Applies MR6 as follows:
 - C.1 New Development at 5,000 sf new + replaced PGIS, or
 - C.2 new PGIS at 5,000 and result is 50% or more expansion within project site, or
 - C.3 new + replaced PGPS at ¾ acre or more
 - Note that the HRM contains language about project credits for existing surfaces that receive treatment to standards because runoff is commingled with the new and/or replaced surfaces in the project site that are required to be treated.

22.805.070 ON-SITE STORMWATER MANAGEMENT REQUIREMENTS

- B. A statement is included (“...installed...to receive flows from that portion of the site being developed...”) that implies facility sizing only looks at the new/replaced project area, not any existing surfaces that may run onto the new/replaced project area. Like for treatment, an on-site BMP must be sized to accommodate all surface area draining to the BMP (including existing if it cannot be separated from the flows from the new or replaced surfaces.)
- B.1 requires tree retention (4” diameter) to the MEF. The 2014 SWMMWW indicates a 6” minimum diameter in order to receive modeling credit.
- B.2 requires soil quality and depth BMP.
- C provides for use of the LID Performance standard in lieu of the on-site lists as an option for projects. Because all of Seattle is within a UGA, the Permit does not require use of the LID Performance Standard; it is acceptable as an option.
 - C.1.a New development in Listed Creek Basins (forested flow control standard).

- C.2.a For all other projects, the LID Performance Standard is expressed as a pasture-based standard, consistent with the approvable application of flow control standards under MR#7. This (“pre-developed pasture condition for the range of pre-developed discharge rates between the 1 percent and 10 percent exceedance values”) is a technically appropriate standard to express as the LID performance standard for basins where it is allowable to match existing conditions.

D.1.a includes a phrase: “A BMP is considered infeasible...if the minimum design criteria for the BMP cannot be met for the project in the space remaining on the project site.” This is generally not acceptable. The only explicit allowance in the SWMM for “insufficient space” is for bioretention on redevelopment sites (see infeasibility criteria for BMP T7.30). There is also some relevance for dispersion. This proposed “space remaining” criterion, as well as the Director’s Rule allowance for as much as 50% reduction in size of pre-sized bioretention facilities if area isn’t available (page 5-87), is allowable only for redevelopment projects.

D.1.b refers to competing needs. Subsection 2 includes a reference to the Permit’s response to comments document. Rather than this reference, specify how Seattle will implement this reference with references instead to Seattle-specific special zoning district criteria. At Subsection 5, clarify the SMP reference.

ONSITE BMP LISTS

Ecology is reviewing Seattle’s proposed on-site list structure under the jurisdiction-wide exception provision in the Permit’s Appendix 1, Section 6. Pending resolution of all related comments, Ecology is considering the following lines of evidence and/or conditions in our review:

- Whether or not modeling using Seattle’s design criteria and project types shows equivalent performance within each on-site list category. For BMPs in Category 2, Seattle needs to show equivalent performance, which can be done by showing how each GSI BMP meets the LID Performance Standard.
 - For parcel and road projects, conduct permeable pavement 2-5% slope modeling according to SWMMWW guidance. The standard detail needs a check dam, or other underground flow impediment, to slow flows on a slope. Using 50% impervious/50% lawn is not the current modeling approach.
- All BMPs required for evaluation in any given category must be evaluated (and selected where feasible) before moving on to the next category. This must be clearly described. The single sentence in D.1 (“Consider all GSI BMPs in a category for feasibility before moving on to each successive category as necessary.”) should be emphasized in the Director’s Rule and list footnotes.
- Sizing criteria, including the pre-sized BMPs, should take into account both impervious and pervious surfaces which drain to it. This is not directly addressed in Seattle’s proposal.
- Broad conditional note: Application of Seattle’s modified on-site lists are generally for redevelopment projects only, such as is typical of Seattle lot sizes and density; not new development projects.

GSI BMPs Category 1

- Infiltration trenches and dry wells – The SWMMWW allows infiltration trenches for roof runoff and not other surfaces. To qualify for Category 1, their evaluation is required for R (roof runoff) only. Change the right hand column to R only and remove the S.

GSI BMPs Category 2

- Rainwater Harvesting – Ecology evaluated SPU's claims that the design criteria for rainwater harvesting ensures that this BMP can meet the LID performance standard. Ecology does not believe that it is representative to use 10-years of rainfall as if there is no overflow from the cistern during this time. Uses for the water in the cistern are "irrigation, outdoor cleaning, and indoor plumbing". The amounts for irrigation and outdoor washing are not limited in any way. In order to retain this GSI BMP in Category 2, wet season (Oct to May) uses must be limited to indoor plumbing, and dry-season irrigation, should water be available, should be rate limited by gallons per acre per day.
- Rain Gardens – Ecology does not approve Seattle's proposal to restrict the use of rain gardens at .6 minimum infiltration rate. Rain gardens, if between .3 and .6 infiltration rate, could be designed similar to the standard section for infiltrating bioretention with an underdrain, but without the engineered soil.
- Infiltrating bioretention – Ecology does not generally agree that bioretention and permeable pavement perform equally well, thus Appendix 1 of the Phase I Permit lists permeable pavement before bioretention in On-site List #2. Permeable pavement surfaces should perform better than bioretention. Even 15% better is sufficient to warrant priority consideration. Provide updated modeling for evaluation. Specify minimum sizing criteria for bioretention facilities so that the facility (if used for the list approach) meets the LID performance criteria.
- Permeable Pavement Facilities – The SWMMWW allows for a 2:1 ratio of drainage area to permeable pavement surface. Seattle's proposal accepts up to 5:1 for NPGIS and 3:1 for PGIS. Provide updated modeling for evaluation showing how the increased drainage area will still meet the LID performance standard.

GSI BMPs Category 3

- Noninfiltrating Bioretention and Vegetated Roofs – Ecology would prefer these in category 4, but will approve them in category 3 as they are generally similar to dispersion.
- Single Family Residential Cisterns – Given limited hydrologic performance, single family residential cisterns should be in category 4.

Table 805.1 SFR list

- Application is the same in all basins. This results in greater application of on-site BMPs since flow control exempt projects (discharging to designated receiving water) are not excluded. This is a necessary component of Seattle's program equivalency.
- Footnote 'a' re: 5,000 sf infiltrating on site is acceptable for SFR project rain gardens.

Table 805.2 Trail list

- List distinguishes between projects that discharge to flow control exempt/designated receiving water bodies, which is allowed under the Permit's Appendix 1.
- Footnote 'c' sets a minimum permeable pavement size in the ROW at 2,000 sf contiguous. Ecology is concerned that this limits the application of permeable pavement for sidewalks.
- Footnote 'b' restricts the use of bioretention if the contributing area is smaller than what would result in a 500 sf cell top area. Ecology does not approve this limitation on the use of bioretention. Instead, Ecology suggests setting a minimum size for a bioretention facility, resulting in the installation of BMPs that are potentially oversized for the area draining to it. Additionally, since Seattle is using pre-sized BMPs based solely on impervious surfaces, Ecology believes it is appropriate to potentially oversize a facility in part to accommodate the runoff from pervious surfaces as well.

Table 805.3 Parcel list

- Footnotes a and b do not appear to be used in the table.
- The term "non-flow control basin" is not in the definitions. Suggest fixing the terms and definitions in that section, not footnotes in a table. Also looks like should be relevant to table 805.2. Isn't a "non-flow control basin" the same as a basin discharging to a designated receiving water?

Table 805.4 Roadway list

- Footnote a should refer to infiltrating on the "project site."
- Footnote 'b' restricts the use of bioretention if the contributing area is smaller than what would result in a 500 sf cell top area. Ecology does not approve this limitation on the use of bioretention. Instead, Ecology suggests setting a minimum size for a bioretention facility, resulting in the installation of BMPs that are potentially oversized for the area draining to it. Additionally, since Seattle is using pre-sized BMPs based solely on impervious surfaces, Ecology believes it is appropriate to potentially oversize a facility in part to accommodate the runoff from pervious surfaces as well.

Historic Preservation and Archaeology laws – This list may be better located in the Director's Rule. The "g" and "h" appear to be incomplete citations.

22.805.080 FLOW CONTROL

B. includes the old GSI to the MEF language. The last sentence may also no longer be appropriate, as GSI is used to meet MR5, not MR7. GSI BMPs may be designed to provide credit to flow control facility sizing, but it is no longer acceptable to rely solely on GSI BMPs to meet flow control requirements.

B.2 & B.3 – The forested and pasture standards written description has changed. Is it appropriate to still refer to the "recurrence interval flow" instead of "peak flow" (now that it uses "discharge durations")

instead of “peak flow rates and flow durations”)? Ecology text is “2-year peak flow up to the full 50 year peak flow.”

22.805.090 TREATMENT

B. Is it still appropriate to require all projects to use GSI to the MEF to meet treatment requirements? There are no additional thresholds in this section, as there were in 080.B.

B.1.b.2 – Is “2-year recurrence interval” the same as “full 2-year release rate”?

B.5 (lines 27-28) This “or” clause has an odd sentence structure. Should it say “for projects...which use infiltration...”? Also line 30 “or have” is odd; perhaps should be “or with”?

22.807 DRAINAGE REVIEW AND APPLICATION REQUIREMENTS

- Page 70, Line 39; page 72, line 33 – retain “native” here for consistency with Appendix 1 and previous comments. Note too that use of $\frac{3}{4}$ acre conversion threshold here (line 31) is inconsistent with the definition of Large Project.

VOLUME 1: PROJECT MINIMUM REQUIREMENTS

1. Ensure all final language from code is updated accurately in Volume 1.
2. Page 1-1: Update your references section to the modified 2014 SWMMWW.
3. Page 2-4: Project types 6 (utility) and 7 (road maintenance) are exempt Per SMC 22.800.030. What is the purpose of including these in Vol 1, Chapter 2? None of the Chapter 2 “steps” clearly kick out exempt project types. It is not clear how this Chapter works together with Chapter 4 when the project is exempt.
4. Chapter 3 contains “other minimum requirements” and Chapter 4 contains “project minimum requirements.” This language is potentially confusing and may result in a project that fails to consider Chapter 3 requirements. Flow charts in Chapter 4 do not include the Chapter 3 requirements. Suggest improved phrasing/clarity to explain that both Chapters are relevant.
5. The Soil Quality and Depth BMP requirement should be included in Chapter 3 and/or Chapter 4. This is required of all projects over the initial threshold size of 2,000 sf new + replaced or 7,000 sf LDA.
6. Page 4-2, Table in Section 4.3: The table does not distinguish when you can use “Pre-developed Pasture” for a listed basin and/or a non-listed creek basin. Since this is not an optional selection, we suggest the table provide a more thorough explanation.
7. Chapter 4 uses shorthand “FC#1,” “FC#2 or Forest,” etc. Where are these shorthand abbreviations defined?

8. Chapter 4 updated flow charts will need detailed review and discussion with Ecology to ensure they clearly and accurately reflect the necessary and required thresholds. These draft versions are not entirely accurate. For example:
 - Page 4-3, Figure 4.1B: This diagram does not appear to be consistent with roadway project thresholds. Clarify the 10,000 sf thresholds relative to the Permit's Appendix 1 Figure 3.3 flow chart. For example, you have an "and" in the question so if you have a project with >5,000 sq ft and <10,000 of new plus replaced, the answer is no and it should be yes for >5,000 sq ft. You also have a question about >10,000 new plus replaced later.
9. Page 4-18, Section 4.8: Is it a "close~~d~~-contour" basin, not "close-contour" basin?
10. Page 5-9, Second bullet above Section 5.2.1: Is there a maximum storm that an engineer should evaluate for discharge from the site? Discharge from the site could occur during a very large storm.
11. Page 8-3: Do you have any Cultural Resources approvals? If you do, you should note it here.

VOLUME 2: CONSTRUCTION STORMWATER CONTROL

1. Page 1: Page 3-2, Table 1a:
 - For Element 1 you need to add Fencing (Ecology BMP C103).
 - We prefer "Ecology" over "DOE"
2. Page 3-4, Table 1a, Element 9: the second BMP E3.25 should be BMP E3.70 (also on Table 1b).
3. Page 3-8, Table 1b, Element 5:
 - BMP C231 is called "Brush Barrier"
 - Why did you not include BMP C251 Construction Stormwater Filtration?
4. Page 4-13: Section 4.1.5, bullets: Consider adding Ecology BMP T5.13 Soil Quality and Depth here
5. Page 4-32, Section 4.2.3.6: In the second bullet, you reference Upland land application of wheel wash water. Note that Ecology plans to remove this from the SWMMWW due to lack of specification and applicability. Consider providing additional guidance.
6. Page 4-44, Section 4.2.10.5: In the fourth bullet add "and/or treatment" between "detention" and "may".
7. Page 4-45, Fourth bullet: If you direct intercepted subsurface water to receiving water, you need to consider it in the flow regime off-site and may limit the runoff flow rate off the site.
8. Page 4-49, Tables 6 and 7: Aren't swale side slopes typically described as H:V and not percent slope?
9. Page 4-50: There should be a maximum Turbidity limit to pass before removing the turbidity curtain in addition to the 6 to 12 hour time.

10. Page 4-64: Table 9 lists “Maximum Average Downslope” as high as 33-percent while the text limits slope to 14-percent. Which is correct?
11. Page 4-76: Use of a Chitosan Enhanced Stormwater Filter system requires approval from Ecology (<https://fortress.wa.gov/ecy/publications/summarypages/ecy070258.html>).
12. Page 5-3, Section 5.1.1.3: You state, “If the rating is high” in this sentence. What is a “high” rating?
13. Page 5-5: In step 2, you use “ECA”. Where do you define “ECA”?
14. Page 5-29: Note at the top of page. We are working on revised text here with the construction permit. We need to confirm this before the final approval of the manual.
15. Page 5-36, Last paragraph before Section 5.1.12.4: I think the word “instantaneous” is more appropriate than “simultaneous”.

VOLUME 3: PROJECT STORMWATER CONTROL

1. Page 2-8: TAPE also has systems with GULDs for Preliminary Treatment (50% removal of TSS). Would you consider those as part of a treatment train? You identify Proprietary and Emerging Tech. in Figure 3.1.
2. Page 3-7, Step 4: You should reference Step 4b not 4a.
3. Page 3-9, Section 3.3.1, Step 2: You should reference figure 3.1, there is no Figure 3.2 in our copy of the text.
4. Page 3-10: Figure 3.1:
 - You have a box for pre-treatment, but don’t discuss this in the text in Section 2.
 - It would be helpful if you put in “Yes” or “No” with the arrows to show what direction you move with an answer.
5. Page 3-11, Section 3.3.1, Step 5: You should reference figure 3.1, there is no Figure 3.2 in our copy of the text.
6. Page 3-13: You list the Media Filter Drain in the text, but you don’t show it as approved in Figure 3.1.
7. Page 3-14:
 - You don’t list “Infiltrating Bioretention” in the text, but you identify it in Figure 3.1.
 - The note on Bioretention seems out of place.
8. Page 4-1: Ecology has reviewed the SPU calculations behind the pre-sized approach for BMPs and has the following concerns:

- The pre-sized on-site tables use the impervious area times the factor to get the size of the BMP. This ignores runoff from pervious surfaces. Ecology believes that pervious surfaces should be included in this calculation in order to properly size the BMP. There may be different ways to accomplish this. The SPU factors are used to calculate the bottom area of a bioretention facility and/or permeable pavement. Ecology's 5% requirement is for the top surface area (area at top of Ponding). This makes it difficult to determine how to deal with the pervious area draining to the BMP. One possibility is to designate a certain percentage of the drainage area as pervious and still use the impervious total to size the BMP, until the pervious surfaces exceed the given percentage, at which time the BMP must be sized specifically for its impervious and pervious drainage areas.
 - There are a number of empty cells remaining in the tables in the SPU Director's Rule.
9. Page 4-2, Section 4.1.2.2: Do the BMP sizing factors work for MR #5 as well as #6 and #7? Alternatively, does a designer need to follow the List approach or LID Performance standard in addition?
 10. Page 4-3, second full paragraph: We don't understand the text where you use pre-sizing calculations to size a BMP and then you say that you can have an area twice the size of the area used for pre-sizing flow to the facility.
 11. Page 4-5, Section 4.2.1: In the on-line BMP text, you should also add text saying velocities must not be high enough to resuspend sediments in the BMP.
 12. Page 4-5, Section 4.2.1: Ecology requirement for water quality treatment flow rate for BMPs downstream of detention is the full 2-year release rate. How does this compare with your criteria?
 13. Page 5-12, Section 5.2.5.1: Retained trees must have a minimum diameter of 6-inches to receive credit (SWMMWW Vol. V, BMP T5.16, Tree Retention Design Criteria).
 14. Page 5-12, Section 5.2.5.2: Ecology does not give credit for trees planted in planter boxes (SWMMWW Vol. V, BMP T5.16, Newly Planted Tree Flow Control Credit).
 15. Page 5-42: You have excluded "Permeable Pavement Surfaces" from infiltration facilities and don't require testing for existing soils. Please describe your thinking on this and why Ecology we should accept your decision. Ecology assumes all permeable pavement is an infiltration BMP in some manner. See Table 5.23 as well.
 16. Page 5-45, Table 5.7: Change the number to 0.3 in/hr in the table and discuss the ability to use the elevated underdrain system for the 0.3 to 0.6 in/hr condition in the design criteria for bioretention used to meet the list option.
 17. Page 15-49, Vertical Setbacks: You are using the vertical separation criteria that Ecology set for Bioretention facilities for all infiltration facilities. Ecology has vertical separation requirements that are larger than these for other infiltration facilities. (See SWMMWW SSC-5 in Vol. III, Section 3.3.7).

18. Page 5-55, last paragraph: You need to include the requirements of (See SWMMWW SSC-7 from Vol. III, Section 3.3.7).
19. Page 5-56, Section 5.4.1.7: We believe the correction factor is not a minimum but a maximum. Correction factors are multiplied times the field infiltration rate and could be lower than 0.5.
20. Page 5-61, Section 5.4.2.3: In the footnote to the table, you use 0.5 in/hr as a threshold for infiltration rate. This is greater than the Ecology number and less than your number listed earlier.
21. Page 5-64, Table 5.12: You appear to base this table on a 0.5 in/hr infiltration rate. Additionally, what is the minimum width of the ditch?
22. Page 5-71, Table 5.15: There is a gap between 5 in/hr and 8 in/hr in this table.
23. Page 5-79, bottom two bullets: You are referencing the wrong Tables, should be 5.17 and 5.18.
24. Page 5-84, Plant Material: Do you have any requirements for plant height and bushiness in R-O-Ws?
25. Page 5-86, Table 5-19: You need to complete the table. There are several other incomplete tables in this volume.
26. Page 5-87: If a designer uses the pre-sized approach, does (s)he also meet MR #5 requirements?
27. Page 5-89, Table 5.21: You use a 6-in/hr infiltration rate for bioretention soil. Ecology uses 6 in/hr or 3 in/hr depending on the size of the area draining to the facility. Ecology has evaluated this and changed the criteria in the SWMMWW. Ecology accepts Seattle's proposal as it is effectively an initial infiltration rate of 12-in/hr and a safety factor of 2.
28. Page 5-93, Figure 5.12 is missing (along with several others in this portion of Volume 3).
29. Page 5-101, Table 5.23: What is the difference between "High" and "Low" slopes?
30. Page 5-101 second paragraph after the table: You mention an "aggregate treatment course" in this place and on page 5-102, you mention a "water quality treatment course". Are these referring to two different things or is there an edit required?
31. Page 5-105:
 - Ecology recommends that you limit the run-on area to no greater than the permeable pavement area i.e. 2:1 ratio of drainage area to permeable pavement area. On page 5-106, you use a 5:1 ratio for NPGIS and 3:1 for PGIS.
 - Complete Figure 5.14 and submit it to Ecology for review.
32. Page 5-110, Water Quality Treatment Course: Do you want to reference Ecology BMP T8-10?

33. Page 5-111, Pre-Sized Approach: Storage volume is greater when the pavement is nearly flat, than when it is sloped. Do you need an adjustment factor for the reduction in storage capacity for a sloped permeable pavement facility?
34. Page 5-112: Your modeling approach does not include use of the permeable pavement element in WWHM 2014.
35. Page 5-119: You reference BMP T7.10. This BMP is in Vol. V and there are no design criteria in this section. The text immediately directs readers to Section 3.3 in Vol. III.
36. Page 5-130: Ecology needs to see how you developed your sizing equation in Table 5.27.
37. Page 5-139: Ecology needs to see references for Table 5.28.
38. Page 5-141, Section 5.6.2: We don't fully understand the reasoning behind Permeable Pavement Surfaces and how you will apply them. You will infiltrate through the material, but they are not infiltration facilities. You describe them as not allowing any run-on, yet you allow 10% run-on. You give credits, but if they don't infiltrate, where does the water go?
39. Page 5-159, Table 5.35: You need to create a special stage-storage curve for detention pipe. You do not mention this in the table.

VOLUME 4: SOURCE CONTROL

1. Page 1-6, Table 1: It is hard to answer the questions in Section 2.1 with a yes or no. Since these are always required, does an applicant need to answer these questions?
2. Page 2-6, Section 2.1.5.2: You should reference the Source Control BMP for berming around potential liquid spill areas.
3. Page 3-11, Section 3.2.1.3: You should indent the last two bullets on the page since they apply to the bullet above them and are not stand-alone.
4. Page 3-47, Section 3.4.3.1: Ecology no longer uses the web reference of "biblio" for our documents. You need to review the references to Ecology document and insert the correct URL. For this document, reference <https://fortress.wa.gov/ecy/publications/summarypages/94146.html>.
5. Page 3-62, Section 3.6.2: FYI Ecology is revising the document identified in this section (Publication 04-10-031).

STATE OF WASHINGTON -- KING COUNTY

--SS.

329282

No. 124869,870,871,872,873,74

CITY OF SEATTLE, CLERKS OFFICE

Affidavit of Publication

The undersigned, on oath states that he is an authorized representative of The Daily Journal of Commerce, a daily newspaper, which newspaper is a legal newspaper of general circulation and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continuously as a daily newspaper in Seattle, King County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of this newspaper. The Daily Journal of Commerce was on the 12th day of June, 1941, approved as a legal newspaper by the Superior Court of King County.

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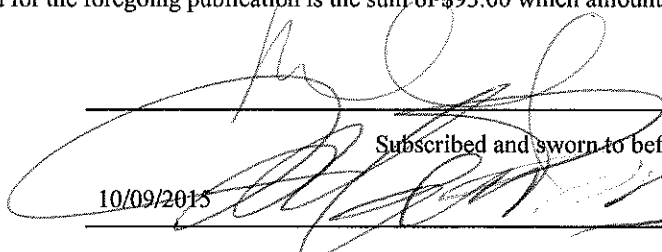
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10/09/15

The amount of the fee charged for the foregoing publication is the sum of \$93.00 which amount has been paid in full.




Subscribed and sworn to before me on
10/09/2015

Notary public for the State of Washington,
residing in Seattle

State of Washington, King County

City of Seattle

Title Only Ordinances

The full text of the following legislation, passed by the City Council on September 21, 2015, and published below by title only, will be mailed upon request, or can be accessed at <http://clerk.seattle.gov>. For information on upcoming meetings of the Seattle City Council, please visit <http://www.seattle.gov/council/calendar>.

Contact: Office of the City Clerk at (206) 684-8344.

Ordinance 124870

AN ORDINANCE relating to The City of Seattle's (City) emergency notification and alerting system; establishing AlertSeattle as the City's emergency notification and alerting system; adopting policies governing the use thereof including administrative guidelines and a governance charter; and repealing Ordinance Number 122527.

Ordinance 124871

AN ORDINANCE relating to the Department of Neighborhoods; authorizing implementation of certain Neighborhood Matching Fund projects in 2015, and specifying that 2015 appropriations for the Neighborhood Matching Subfund shall carry forward automatically to future budget years.

Ordinance 124872

AN ORDINANCE relating to the Stormwater Code; amending Chapters 22.800, 22.801, 22.802, 22.803, 22.805, 22.807, and 22.808 of the Seattle Municipal Code and adding a new Section 22.800.100.

Ordinance 124873

AN ORDINANCE relating to the implementation of the 2016 Stormwater Code update; ensuring that the City's local program for stormwater regulation meets substantive requirements of the State Department of Ecology; amending Sections 22.170.120, 23.22.028, 23.22.074, 23.24.050, and 23.76.032 of the Seattle Municipal Code; amending Section 106 of the 2012 Seattle Building Code; and amending Section R105 of the 2012 Seattle Residential Code.

Ordinance 124874

AN ORDINANCE relating to an open space improvements over and across Utah Avenue South between South Stacy Street and South Lander Street; amending Ordinance 121572; updating the insurance and bond requirements; amending the annual fee and other terms and conditions of the permit; renewing the term of the permit to First & Utah Street Associates, LLC; providing for the acceptance of the permit and conditions; and ratifying and confirming certain prior acts.

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