



## Transportation & Public Works Meeting Agenda

December 16, 2021; 4:30 – 6:00 PM  
“Virtual Meeting”

**Due to the current COVID-19 public health emergency, this meeting will be conducted virtually. The meeting will be live streamed on SeaTV Government Access Comcast Channel 21 and the City’s website <https://www.seatacwa.gov/seatvlive> and click play. The public may also listen to the meeting by calling 206.973.4555 and muting your phone.**

Councilmembers:  
Peter Kwon, Chair  
Pam Fernald  
Takele Gobena

**Note: A quorum of the Council may be present**

Staff Coordinators: Will Appleton, Public Works Director; Florendo Cabudol, City Engineer;

Other Staff participating:

TIME	TOPIC	PROCESS	WHO	Time
1	Call to order		Chair	
2	<p><b>PUBLIC COMMENTS:</b> In an effort to adhere to the social distancing protocols, and in order to keep our residents, Council, and staff healthy, the Committee will not hear any in-person public comments. The committee is providing remote oral and written public comment opportunities. All comments shall be respectful in tone and content. Signing-up for remote comments or providing written comments must be done by <u>2:00PM</u> the day of the meeting. Any requests to speak or provide written public comments which are not submitted following the instructions provided or by the deadline will not be included as part of the record.</p> <ul style="list-style-type: none"> <li>• Instructions for providing remote oral public comments are located at the following link: <a href="#">Council Committee and Citizen Advisory Committee Virtual Meetings</a>.</li> <li>• Submit email public comments to <a href="mailto:TPWPublicComment@seatacwa.gov">TPWPublicComment@seatacwa.gov</a>.</li> </ul>		Chair	5

	The comment will be mentioned by name and subject and then placed in the committee handout packet posted to the website.			
3	Prior Minutes Approval	Nov. 4 Minutes to Approve	Chair	5
4	Adoption of the 2021 King County Surface Water Design Manual	Informational	Dan Smith\ Florendo Cabudol	25
5	<u>Future Meeting Topics:</u> Sound Transit Parking Tax; Final Acceptance of CIPs; City contributions to SR 509 Project; Flight Safety Boundary Line Adjustment; Tukwila International Boulevard Reconfiguration			5
6	Adjourn	Adjourn Meeting	Chair	



# Transportation & Public Works Committee Meeting Minutes

**Approve Prior  
Meeting Minutes**

November 4, 2021  
5:30 PM – 6:30 PM  
\*\* Virtual Meeting \*\*

Members:	Present:	Absent:	Commence: 5:30 PM Adjourn: 6:39 PM
Peter Kwon, Chair	X		
Pam Fernald	X		
Takele Gobena	X		

Other Councilmembers participating: Mayor Erin Sitterley; CM Tombs

Staff Coordinators: Will Appleton, Public Works Director; Florendo Cabudol, City Engineer

Other Staff Participating: David Tomporowski, Senior Planner; Bryan Chappell, PW O&M Manager; Mary Mirante, City Attorney; Gwen Voelpel, Deputy City Manager

Public Comment	No Public Comment
1. Approve Prior Meeting's Minutes	Oct 7 Minutes were approved
2. Salt Brine Interlocal Agreements with various cities	<p>Discussion/Action</p> <p>Presented by Bryan Chappell, PW Operations &amp; Maintenance Manager.</p> <p>Currently the City has been selling salt brine under three-year Interlocal Agreements ending this year with the following jurisdictions: Cities of Burien, Normandy Park, Des Moines, and Tukwila, as well as Highline School District.</p> <p>This has been a successful program, as it allows us to pay for our equipment and facility costs while promoting cooperation among public agencies. The City maintains the right to refuse product when we think we might run short, so we don't go without.</p> <p>The current equipment is aging out, and the City has invested in new equipment, that operates with smart technology, so</p>

	<p>that operators can create the brine remotely with their phones, so staff does not have to be on site to create new batches as long as the products are loaded in the equipment.</p> <p>With the new equipment, the new Interlocal Agreements will include a 10-cent price increase to \$0.48 per gallon. The price to cities is developed from cost of new brine maker, cleaning of equipment, historic repair costs, salt cost, facility costs, and residual value.</p> <p>A question was raised about the cities reimbursing for staff costs. The answer was that staff time was included in the facility cost, and that the other cities have key cards to our facility gate and are able to pump and track there use, with very little staff assistance.</p> <p>The Committee approved to move this topic to next Regular Council Meeting on consent agenda.</p> <p>:</p>
<p>3. WRIA 9 Ratification Presentation</p>	<p>Presentation/Action</p> <p>This topic was presented by Matt Goehring, Salmon Recovery Manager, Water Resource Inventory Area, WRIA 9.</p> <p>IN 1999, Chinook salmon was listed under Endangered Species Act. In 2001, WRIA 9 Interlocal Agreement was created for 17 local governments, involving 5 sub-watersheds, and 1 watershed ecosystem forum, encompassing 575 square miles.</p> <p>IN 2005, the WRIA 9 Salmon Recovery Plan was created.</p> <p>In 2009, only 165 adult wild salmon were tallied returning to their spawning beds. Since then, numbers are higher, half of the years below the short-term target range of 1000 to 4200.</p> <p>Since its inception, the WRIA 9 Partnership has accomplished 2 miles of levee realignments to reconnect floodplains and restore shoreline.</p> <p>4695 feet of marine shoreline restored  500 acres of revegetation  5.8 acres of estuary shallow water habitat</p> <p>2001 to 2020, the Interlocal Agreement has brought in \$8.4 Million, SeaTac has contributed \$278,000.</p> <p>The Committee is being asked to approve the 2021 Salmon Plan Update, which includes chinook salmon status assessment, new science, updated habitat goals, refined recovery strategies, revised capital project list, and monitoring and adaptive management plan.</p> <p>Regional projects of significance include the Lower Duwamish Clean-up and Howard Hansen Dam Fish Passage.</p>

**Approve Prior  
Meeting Minutes**

	<p>The Committee approved moving this to upcoming Regular Council Meeting for Action and requested that a presentation be made at full Council. (3-0)</p>
<p>4. South 200<sup>th</sup> Street Corridor Briefing on Public Outreach</p>	<p><b>Discussion</b>  David Tomporowski, Senior Planner, presented the South 200<sup>th</sup> Street Corridor Study Update.</p> <p>The corridor experiences heavy demand during peak periods due in part to queuing at the I-5 ramps. Safety issues include excessive speeding and the many single-access driveways that enter the corridor. The Angle Lake Light Rail Station and nearby employment centers also generate increased travel demand on the corridor.</p> <p>The Angle Lake District Station Area Plan, adopted in 2015, lays out a vision for how this corridor should be rebuilt. Given the current traffic levels, safety concerns, and unknown future demand, there is a need to either affirm or refine this vision.</p> <p>The current corridor is narrower than principal roadways typically have, 60 feet instead of 100 feet. The current sidewalks are narrow, 4 ½ feet instead of the 8 feet that the Angle Lake District Station Area Plan calls for.</p> <p>One round of outreach has been conducted, and the City has heard about the many issues that people encounter in this area.</p> <p>Three different corridor redesign alternatives have been developed, with a second round of outreach planned to get feedback on these design alternatives.</p> <p>The types of comments received in the first outreach, included:  Speed and noise of traffic is a concern  Left Turns are difficult off South 200<sup>th</sup> Street to neighborhoods and elementary school.  People would like bicycle lanes. Angle Lake Light Rail Station and the Des Moines Creek trail are nearby, and cyclists would like to access them on South 200<sup>th</sup>, but there are no bike lanes.  Sidewalks are narrow  Mailboxes are knocked down by large truck mirrors, and several have lowered their mailboxes to heights lower than the Post Office allows simply to keep them from being knocked down over and over.</p> <p>The three corridor options include:  Reducing the roadway to one lane of travel each way, with a middle turn lane the full length of the corridor, with bike lanes</p>

	<p>and wider sidewalks. This will allow left turners a place to wait while traffic opens up. Also, those entering the roadway from their driveways can pull into the middle turn lane until an opening exists to enter lane traffic. Committee comments include how congested peak hour traffic may grow with this option, but positive comments included how SR 509 freeway extension may take some of this traffic from the corridor.</p> <p>The second option includes building bike lanes off the corridor, on South 198<sup>th</sup> Street, along with improvements to South 198<sup>th</sup> street, like installing sidewalks. South 198<sup>th</sup> Street is one of several candidates for the next sidewalk project.</p> <p>A third option includes widening the roadway by installing wider sidewalks, keeping two lanes of traffic each way. This option would require purchasing up to 10 feet of property on each side of the roadway, bringing those impacts to property owners.</p> <p>The upcoming second round of outreach – titled “Corridor Options” will be conducted in November. Postcards are being mailed to everyone near the corridor, yard signs are being erected along the corridor and the study is being published via social media. Participants will be able to view the three different corridor options and take a survey indicating their preference/ranking/opinions.</p> <p>One Committee comment was that this roadway was initially two lanes of traffic, one each way, and the roadway was redesigned years ago at public request to the two lanes each way that currently exist.</p> <p>This presentation was informational only; no Committee action was taken.</p>
5. Adjourn	Adjourn Meeting

Approve Prior Meeting Minutes



# MEMORANDUM

To: Transportation and Public Works Committee  
Through: William Appleton, Public Works Director  
From:  
Date: 12/3/2021  
Subject: Adoption of the 2021 King County Surface Water Design Manual

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## **Purpose:**

To discuss the required adoption of the 2021 King County Surface Water Design Manual, provide the Committee with a summary of the changes relative to the current manual and review the schedule and process for adoption. This topic is informational only at this point; no action will be requested from the Committee at this meeting.

## **Background:**

For the City of SeaTac to discharge stormwater to waters of the State (i.e., Puget Sound), the City must remain in compliance with its Western Washington National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. The permit is issued and enforced by the Washington State Department of Ecology and is commonly referred to as the NPDES Phase II Permit or NPDES Permit. The NPDES Permit requires local governments to manage and control stormwater runoff so that it does not pollute downstream waters. The current permit became effective August 1, 2019 and expires on July 31, 2024.

Section S5 of the NPDES Permit, Stormwater Management Program for Cities, Towns and Counties, details requirements associated with: 1) Stormwater Planning; 2) Public Education and Outreach; 3) Public Involvement and Participation; 4) Mapping and Documentation; 5) Illicit Discharge Detection and Elimination; 6) Controlling Runoff from New Development, Redevelopment and Construction Sites; 7) Operations and Maintenance; and 8) Source Control for existing development.

To meet the requirements specified under Section S5.6, Controlling Runoff from New Development, Redevelopment and Construction Sites, the City adopted the 2016 King County Surface Water Design Manual (KCSWDM), which was equivalent to the Department of Ecology's Stormwater Management Manual for Western Washington; to remain in compliance with the 2021 NPDES Permit, we are now required to adopt the most current version. The City uses the KCSWDM rather than the Ecology manual because staff are well trained in its use and developers in King County are also very familiar with it; there are no advantages to using Ecology's manual. Therefore, adoption of the 2021 KCSWDM allows the city to remain in

compliance with its NPDES Permit while ensuring the smoothest transition for staff and the development community.

Adoption of the 2021 KCSWDM must be completed by June 30, 2022; the draft schedule outlines the steps and timing necessary to comfortably meet this deadline.

<b>2021 KCSWDM Adoption Schedule</b>	
<b>Adoption Process</b>	
TPW Briefing #1 <i>Informational</i>	Dec 16, 2021
Dept of Commerce Review <i>Request expedited, must have acceptance to proceed to Public Hearing</i>	Dec, 2021 submittal
SEPA Process (SEP21-xxx)	Dec, 2021 submittal
Staff Report & Assessment	
Publish Determination Tues,	
Notice to Clerk Wed, <11:00	
Comment Period (14 days):	
Appeal Period (10 days): <i>if appealed, add min of 2 months</i>	
Planning Commission Briefing #1 <i>Request to hold Public Hearing</i>	Jan, 2022
TPW Briefing #2 (if needed)	Jan, 2022
PC Public Hearing	Feb, 2022
TPW Briefing #2 or #3 <i>Seek recommendation, to consent</i>	Feb/March, 2022
RCM Action	March/April, 2022

Included with this memo is a summary of changes between the 2016 KCSWDM and the 2021 KCSWDM. As part of this process, minor changes will need to be made to both our Code and our SeaTac specific addendum to the manual. Only changes necessary to facilitate the adoption of the new manual will be made. Draft changes to Code and the SeaTac Addendum are included with this packet.

**Options/Recommendation:**

No recommendations are requested at this time. This topic is being discussed with Committee to provide information and answer questions that the Committee may have. Following review of



this topic by the Planning Commission and a Public Hearing, it will be brought back before Committee for final review and recommendation.



**FINAL**  
**Addendum to**  
**the King County**  
**Surface Water Design Manual**

Effective date  
~~January~~ September 1, 2021

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## Introduction

This addendum to the 2021+6 King County Surface Water Design Manual (KCSWDM) applies to development and redevelopment proposals within the City of SeaTac (City). The KCSWDM has been adopted to meet the requirements of the Clean Water Act, the Endangered Species Act and State Growth Management Act. This addendum includes minor revisions to the KCSWDM to address the differences between King County's and the city's organization and processes, as well as to address equivalency requirements. No major substantive changes have been made to the KCSWDM in order to maintain equivalency in the review requirements and level of protection provided by the manual.

[**Note:** Clarifications and interpretations to the KCSWDM or this addendum will be documented and made available through policy statements within the City's Development Standards.]

## Addendum Organization

The information presented in this addendum is organized as follows:

- **Terminology:** At times King County and City of SeaTac use different terminology to describe or refer to equivalent subject matter. This section identifies these terms and the City of SeaTac's equivalent terminology.
- **Key Revisions:** This section specifically identifies the minor revisions the City has made to the KCSWDM. These revisions are necessary to maintain equivalency to the stormwater standards identified in the NPDES Phase II Permit, as well as to address deficiencies within the KCSWDM.
- **Supplemental Documents:** This section identifies technical guidance manuals and documents which shall be used to supplement the KCSWDM. These documents are necessary to maintain equivalency to the stormwater standards identified in the NPDES Phase II Permit, as well as to address deficiencies within the KCSWDM.
- **Code Reference Tables:** King County code is referenced in many places throughout the KCSWDM. This section identifies these code references and equivalent city code where applicable.

Supplemental information in the appendices includes the following:

- Appendix A: Hydrologic Analysis of the Des Moines Creek Regional Detention Facility (July 23, 2003 Memorandum from the Department of Ecology)
- Appendix B: Soil Amendment Requirements
- **Appendix C:** Design and Maintenance Criteria for BMPs/Facilities not included in the KCSWDM

- **Appendix D:** Flow Control and Water Quality Applications Maps

## Terminology

At times King County and City of SeaTac use different terminology to describe or to refer to equivalent subject matter. This section identifies these terms and the City of SeaTac's equivalent terminology.

**Department of Natural Resources and Parks (DNRP)** = City of SeaTac Parks & Recreation.

**Department of Permitting and Environmental Review (DPER)** = City of SeaTac Public Works and Community and Economic Development Departments.

**Director** = City of SeaTac Public Works Director.

**Drainage facilities restoration and site stabilization guarantee and drainage defect and maintenance guarantee** = SeaTac stormwater facilities restoration and site stabilization bond (Performance Bond) and defect and maintenance bond (Stormwater Maintenance Bond).

**King County** = City of SeaTac.

**King County Code (KCC)** = SeaTac Municipal Code (SMC). Check code reference table for equivalent code sections.

**King County Designated/Identified Water Quality Problem** - This determination is made on a case-by-case basis.

**King County Road Standards** = City of SeaTac Development Standards.

**Master Drainage Planning** - Not applicable, no SMC equivalent.

**Sensitive Area Folio** = In addition to the King County Sensitive Area Folio, -Stream, Wetland and Steep Slope maps are also available ~~on the Department of Community and Economic Development web page at <http://www.ci.seatac.wa.us/index.aspx?page=42>~~ through the [City of SeaTac GIS Portal](#).

**Urban Planned Development** = Not applicable, no SMC equivalent.

**Water and Land Resources (WLR) Division** = City of SeaTac Public Works Department.

**Zoning Classifications: Where the KCSWDM references Agricultural (A) Zoning, Forest (F) Zoning, or Rural (R) Zoning** - These zoning classifications are intended for areas outside of the Urban Growth Boundary, therefore the City of SeaTac contains no equivalent zoning. Refer to City zoning maps to determine which zoning classifications apply to your project.

## Key Revisions

This section specifically identifies the minor revisions the City has made to the KCSWDM. These revisions are necessary to maintain equivalency to the stormwater standards identified in the NPDES Phase II Permit, as well as to address deficiencies within the KCSWDM.

**Mitigation of Impacts from Construction Site Runoff** – Property owners and construction site managers are responsible for mitigating off-site impacts from construction regardless of the size of the project or whether a construction permit was required by the City of SeaTac.

**Des Moines Creek Basin Flow Control** – New and redevelopment projects may use the Basic Flow Control standard as identified in the KCSWDM, and the 1994 land use condition as the pre-development conditions for sizing flow control facilities. This adjustment is established based on the Des Moines Creek Basin Plan, the Des Moines Creek Regional Capital Improvement Project and the Hydrologic Analysis of the Des Moines Creek Regional Detention Facility as specified in a letter from the Department of Ecology, dated July 23, 2003 signed by Kevin Fitzpatrick (included in Appendix A).

**Erosion Hazard Areas** – For the purposes of site assessment and site planning and design, slopes greater than or equal to 15% are considered “Erosion Hazard Areas”. Project designs and erosion sedimentation control plans must address these areas accordingly.

**Soil Amendment Requirements** – The City has developed a Soil Amendment Standards handout that is included in Appendix B of this document.

**Continuous Modeling** – SeaTac will allow the Western Washington Hydrology Model (WWHM), MGSFlood, or HSPF to be used to for sizing stormwater facilities to meet flow control, treatment, or the LID performance standard requirements. Explicit modeling of BMP infiltration for facility sizing is also allowed instead of applying the flow control BMP facility sizing credits included in Table 1.2.9.A in Chapter 1 of the KCSWDM.

**Additional Flow Control Facility Options for Core Requirement #3** – The KCSWDM does not include vegetated roofs, but they are allowed in the City of SeaTac. Design and maintenance guidelines for vegetated roofs can be found in Appendix C of this document.

**Additional Water Quality Facility Options for Core Requirement #8** – The following facilities are available as options on the Basic WQ Menu: Compost-amended Vegetated Filter Strips (CAVFS), Media Filter Drains (MFDs) (previously referred to as the Ecology Embankment), and Bioretention.

Emerging technologies currently approved by Ecology (<http://www.ecy.wa.gov/programs/wq/stormwater/newtech/technologies.html>) can be used as options on the Basic WQ Menu if they have received a General Use Level Designation (GULD) for Basic Treatment. Emerging technologies currently approved by Ecology can be used as options on the Enhanced WQ Menu if they have received a GULD for Enhanced Treatment.

Design and maintenance guidelines for CAVFS and MFDs can be found in Appendix C of this document. Design guidelines for Bioretention can be found in Appendix C of this document.

Maintenance guidelines for Bioretention can be found in the KCSWDM. Design and maintenance guidelines for emerging technologies should be requested from the manufacturer.

**Additional Flow Control BMP Options for Core Requirement #9** – In addition to engineered bioretention facilities, non-engineered rain gardens are allowed for small lots in the City of SeaTac with less than 5,000 square feet of impervious surface. Rain gardens shall be sized to have a minimum horizontal projected surface area below the overflow which is at least 5% of the area draining to it. Design and maintenance guidelines for rain gardens can be found in the Rain Garden Handbook for Western Washington. [Note: Rain gardens can be used to meet Core Requirement #9, but cannot be used to meet Core Requirements #3 or #8.]

**Overflows to City ROW** – Where feasible based on topography, private stormwater facilities should be designed to overflow to the City Right-of-Way (ROW) or a receiving water.

**Underdrains** – Underdrains are allowed in permeable pavement designs. ~~No-u~~Underdrains are allowed for bioretention ~~until using the~~ new bioretention soil mix ~~has been approved by Ecology and per~~ King County Reference 11-C in the KCSWDM.

**Flow Control and Water Quality Applications Maps** – City of SeaTac equivalents to the Flow Control Applications Map and Water Quality Applications Map can be found in Appendix D of this document. In lieu of a SeaTac equivalent to the County Landslide Hazard Drainage Areas Map, the City will rely on King County's map.

**Interpretation or Modification of Standards** - The Public Works Director or his/her designee is responsible for all interpretations and/or revisions to the surface water design standards as may be required for their implementation. These standards will be considered as reasonable minimum requirements, and will not be modified, except as may be permitted by the Public Works Director pursuant to a requested modification, adjustment, or variance, and subject to all applicable decision criteria. Such requests must be submitted in writing and provide a detailed explanation as to why a deviation from the standards is necessary and how the proposed modification/adjustment would be in compliance with the intent and purpose of the City's standards.

## Supplemental Documents

This section identifies technical guidance manuals and documents which shall be used to supplement the KCSWDM. These documents are necessary to maintain equivalency to the stormwater standards identified in the NPDES Phase II Permit, as well as to address deficiencies within the KCSWDM.

**King County Stormwater Pollution Prevention Manual** – The most recent edition of the King County Stormwater Pollution Prevention Manual (KCSWPPM) shall be used as technical guidance for water quality best management practices (BMPs). This BMP manual shall also be used as the technical guidance for identifying and implementing source control measures for private residents, businesses, and industries when applying SMC 12.12 (Surface and Stormwater – Illicit Discharge Detection and Elimination Code).

**Low Impact Development Technical Guidance Manual for Puget Sound** – The 2012 Low Impact Development Technical Guidance Manual for Puget Sound created by the Puget Sound Partnership, or as hereafter amended, shall be used as the supplemental technical guidance for the KCSWDM for the use of LID principles and LID BMPs.

**Rain Garden Handbook for Western Washington: A Guide for Design, Installation, and Maintenance** - The 2013 Rain Garden Handbook created by Ecology, the Washington State University Extension, and Kitsap County, or as hereafter amended, shall be used as the supplemental technical guidance for the KCSWDM for the design, installation, and maintenance of rain gardens.

**Stormwater Standard Plans** – The City of Tacoma Standard Plans currently found at [www.cityoftacoma.org/government/city\\_departments/public\\_works/engineering/city\\_of\\_tacoma\\_right\\_of\\_way\\_design\\_manual](http://www.cityoftacoma.org/government/city_departments/public_works/engineering/city_of_tacoma_right_of_way_design_manual) are approved by the City of SeaTac on a conceptual basis. City of SeaTac development review staff will work with applicants to review and implement these standard details.

**Stormwater System Maintenance Standards** – The Maintenance Standards for both public and private stormwater systems are identified in Chapter 6, Appendix A, and Appendix C of the KCSWDM and Appendix C of this document.

**Supplemental Guidelines for Public Right of Way Operations and Maintenance** – The most recent edition of the Regional Road Maintenance - Endangered Species Act Program Guidelines currently found at [www.kingcounty.gov/depts/transportation/roads/endangered-species-act-reports.aspx](http://www.kingcounty.gov/depts/transportation/roads/endangered-species-act-reports.aspx), or as hereafter amended, shall be used to supplement the above mentioned stormwater system maintenance standards for work done in the public right of way, as well as public stormwater systems.

**Supplemental Snow and Ice Policy** – The City of SeaTac will use snow melt materials (i.e., salt brine) as often as necessary on public roads during snow and ice events to maintain safe travel on roadways while minimizing the potential of water quality impacts (i.e., debris entering the storm system).

Field Code Changed



**Vegetation and Land Management Standards** - The most recent edition of the City of SeaTac Integrated Pest and Vegetation Management Plan shall be used as guidance for pest, vegetation and land management activities for all properties or facilities owned or operated by the City of SeaTac.

## Code Reference Tables

King County Code is referenced in many places throughout the KCSWDM. The following tables identify these code references and equivalent city code where applicable.

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
KCC 2.98	Adoption Procedures	1.01	
KCC 2.98	Critical Drainage Areas (CDAs), adoption procedures	12.10.080	
Title 9	Surface Water Management	12.10 & 12.30	
KCC 9.04	Surface Water Run-off Policy: Variances	No Equivalent	The City relies on the adjustment process identified in the KCSWDM
KCC 9.04	Stormwater Runoff and Surface Water and Erosion Control	No Equivalent	In the absence of equivalent SMC, the City will use the King County Code for all general references to KCC 9.04
KCC 9.04.030	Definitions: Targeted Drainage Review/abbreviated evaluation	No Equivalent	In the absence of equivalent SMC, the City will use King County's definition
KCC 9.04.030	Drainage review – when required - type	No Equivalent	In the absence of equivalent SMC, the City will use King County's definition
KCC 9.04.030	Full Drainage Review	No Equivalent	The SMC does not list additional drainage review requirements and relies on the KCSWDM
KCC 9.04.050	Drainage review - requirements	No Equivalent	The SMC does not list additional drainage review requirements and relies on the KCSWDM
KCC 9.04.070	Engineering plans for the purposes of drainage review	Not Applicable	County Code refers to internal DDES procedures and is referenced only in definition of DDES
KCC 9.04.090	Construction timing and final approval	12.10.100	The City also has Subdivision Standard Plan Notes

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
9.04.100	Liability insurance required	12.10.110 - 12.10.150	
KKCC 9.04.115	Drainage facilities accepted by King County for maintenance	No Equivalent	SeaTac generally does not accept stormwater facilities unless they are constructed in the public ROW
KCC 9.04.120	Drainage facilities not accepted by King County for maintenance	No Equivalent	SeaTac generally does not accept stormwater facilities unless they are constructed in the public ROW
K.C.C. 9.05.050	Drainage review - requirements	Not Applicable	King County Code section does not exist. Presumed typo. See KCC 9.04.050
KCC 9.12.025	Prohibited, allowable, and conditional discharges	12.12.020, 12.12.030, and 12.12.040	
KCC 9.12	Water Quality	No Equivalent	In the absence of equivalent SMC, the City will use the King County Code for all general references to KCC 9.12
KCC 9.12.035	Stormwater Pollution Prevention Manual	No Equivalent	Adopted via SeaTac Addendum to KCSWDM
Title 10	Seattle-King County Department of Public Health solid waste regulations	7.40	
KCC 16.62	Erosion and Sediment Control	Not Applicable	King County Code section does not exist. Presumed typo. See KCC 16.82 below.
KCC 16.82	Clearing and Grading Code: Bridge Design	No Equivalent	In the absence of City standards for bridge design, the City will rely on King County Road Design and Construction standards and the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction
KCC 16.82	Clearing and Grading Code: Clearing Limit	No Equivalent	In the absence of City standards for clearing limits, the City will rely on King County standards.

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
KCC 16.82.095(A)	Erosion and sediment control standards	No Equivalent	In the absence of City standards for seasonal construction limitations, the City will rely on King County standards
KCC 16.82.095(A)	Erosion and sediment control standards-seasonal limitation period	No Equivalent	In the absence of City standards for seasonal construction limitations, the City will rely on King County standards
KCC 16.82.100(F)	Grading Standards: Preservation of Duff Layer	No Equivalent	Appendix B of this addendum includes the City's Soil Amendment requirements
KCC 16.82.100(G)	Grading Standards: Soil Amendments	No Equivalent	Appendix B of this addendum includes the City's Soil Amendment requirements
KCC 16.82.150	Clearing standards for individual lots in the rural zone	Not Applicable	SMC does not contain rural zoning classification
KCC 16.82.150 (C)	Clearing standards for individual lots in the rural zone	Not Applicable	SMC does not contain rural zoning classification
KCC 16.85	Clearing and Grading Code: Flood protection facilities	Not Applicable	King County Code section does not exist. Presumed typo. See KCC 16.82 below.
KCC 20.20 or Title 20.20	Land Use Review Procedures	16A	
KCC 20.70.020	Critical aquifer recharge area map adoption	15.700	
KCC 21A or Title 21A	Critical Areas Requirements	15.700	
KCC 21A.06	Definitions: Erosion Hazard Area	15.700	
KCC 21A.06	Definitions: Flood Hazard Area	15.700	

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
KCC 21A.06	Definitions: Landslide Hazard Area	No Equivalent	SMC does not contain an equivalent definition
KCC 21A.06	Definitions: Steep Slope Hazard Area	15.700	
KCC 21A.06	Definition: Structure	15.700	
KCC 21A.06	Definitions: Critical Aquifer Recharge Area	15.700	
KCC 21A.06	Definitions: (Nonconversion) Forest Practices	Not Applicable	City of SeaTac only reviews Type IV - Conversion, forest practice permits
K.C.C. 21A.06.1340	Urban planned development land use designation	Not Applicable	SMC contains no equivalent comprehensive plan land use designation
KCC 21A.08	Definitions: Land Zoned for Agriculture (A zoned lands)	Not Applicable	SMC does not contain agricultural zoning classification
KCC 21.A12	Definitions: Urban Residential Development	15.200	The City of SeaTac Zoning Map contains Urban Low Density Residential (UL), Urban Medium Density Residential (UM), and Urban High Density Residential (UH).
KCC 21A.12.030	Impervious Surface Coverage	15.400.015	Only one zone in the City (Business Park [BP]) contains a maximum impervious surface coverage development standard
KCC 21A.12.030	Impervious Surface Coverage for Residential Subdivisions	Not Applicable	The City does not have impervious surface coverage development standards for residential subdivisions
KCC 21A.14.180	Onsite recreational space	15.510.500 – 15.510.560	The City allows vegetated roofs that are accessible to the general public and permeable pavement trails to count towards multi-purpose outdoor recreation and open

Addendum to the KCSWDM

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
			space
KCC 21A.14.180.D	21A.14.180 On-site recreation - space required.	15.510.510	The City allows vegetated roofs that are accessible to the general public and permeable pavement trails to count towards multi-purpose outdoor recreation and open space
KCC 21A.24	Critical Areas Code: 100-Year Floodplain	15.700	
KCC 21A.24	Critical Areas Code: Bridge Design	No Equivalent	In the absence of City standards for bridge design, the City will rely on King County Road Design and Construction standards and the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction
KCC 21A.24	Critical Areas Code: Bridge pier and abutment locations	No Equivalent	In the absence of City standards for bridge and pier location, the City will rely on King County Road Design and Construction standards and the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction
KCC 21A.24	Critical Areas Code: Critical Area Buffers	15.700	
KCC 21A.24	Critical Areas Code: Building Setbacks	15.700	
KCC 21A.24	Critical Areas Code: Channel Migration Zone	No Equivalent	In the absence of City standards for channel migration zones, the City will rely on King County standards

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
KCC 21A.24	Critical Areas Code: Definition Streams	15.700	
KCC 21A.24	Critical Areas Code: Requirements of crossing streams	15.700	
KCC 21A.24	Critical Areas Code: Definition Wetlands/Wetland Soils	15.700	
KCC 21A.24	Critical Areas Code: Fish Passage Requirements	15.700	
KCC 21A.24	Critical Areas Code: Flood Hazard Area regulations	15.700	
KCC 21A.24	Critical Areas Code: Floodplain/Floodway Delineation	15.700	
KCC 21A.24	Critical Areas Code: Floodplain Data	15.700	
KCC 21A.24	Critical Areas Code: Flood Protection facility	No Equivalent	In the absence of City standards for flood protection facilities, the City will rely on King County standards
KCC 21A.24	Critical Areas Code: Notice on Title	15.700	
KCC 21A.24	Critical Areas Code: Regulation of Wetlands	15.700	
KCC 21A.24	Critical Areas Code: zero-rise and compensatory storage provisions	15.700	In the absence of City standards for zero-rise and compensatory storage, the City will rely on King County standards
KCC 21A.24	Definitions: Critical Area Ordinance (CAO)	15.700	See - Environmentally Sensitive Areas Code
KCC 21A.24	Farm Management Plans	Not Applicable	The City does not have Farm Management Plan code.

<b>King County Code to SeaTac Municipal Code (SMC) Reference Table</b>			
<b>King County Code Reference</b>	<b>Subject of Reference</b>	<b>SMC Equivalent</b>	<b>Comment</b>
KCC 21A.24	Floodplain Development Standards: Bridges	No Equivalent	In the absence of City standards for bridge design, the City will rely on King County Road Design and Construction standards and the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction
KCC 21A.24, KCC 16.82	Rural Stewardship Plan or Farm Management Plan	Not Applicable	
KCC 21A.24	Sensitive Area	15.700	
KCC 21A.24	Sensitive Area Tract	15.700	
KCC 21A.24.100	Critical Area Review	15.700	
KCC 21A.24.110	Critical Area Reports	15.700	
KCC 21A.24.170	Notice on Title	15.700	
KCC 21A.24.230	Floodplain and Flood Hazard Areas	15.700	
KCC 21A.24.270	FEMA Elevation Certification	15.700	
KCC 21A.24.275	channel migration zone development standards	Not Applicable	
KCC 21A.25	Shorelines code	Title 18	
KCC 25 or Title 25	Shoreline Management: Bridge Design	Not Applicable	In the absence of City standards for bridge design, the City will rely on King County standards





**Appendix A – Hydrologic Analysis of the Des Moines  
Creek Regional Detention Facility (July 23, 2003  
Memorandum from the Department of Ecology)**





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

July 23, 2003

Mr. David Masters, Project Coordinator  
Des Moines Creek Regional Detention Facility Planning Committee  
P.O. Box 4008  
Seattle, WA 98194

Dear Mr. Masters;

Re: Hydrologic Analysis of the Des Moines Creek Regional Detention Facility

We have reviewed the following reports submitted by you on behalf of the members of the Des Moines Creek Planning Committee:

- *Hydrologic Analysis of the Des Moines Creek Regional Detention Facility Using HSPF*
- *Des Moines Creek Regional Capital Improvement Project, Preliminary Design Report (including the Alternatives Analysis, Alternative Analyses Addendum, and Appendices A, B, D, and E).*
- *Des Moines Creek Basin Plan*

We find that these documents are responsive to the Department of Ecology's *Stormwater Management Manual for Western Washington, Appendix A, Guidance for Altering the Minimum Requirements Through Basin Planning*. The information submitted provides sufficient technical data to justify an alternative to the department's recommended minimum requirement for flow control within the Des Moines Creek Watershed. The alternative receiving the department's concurrence requires the implementation of three recommendations from the subject reports:

- A Des Moines regional detention facility in the Tyee Golf Course at the southern end of Sea-Tac airport, north of South 200<sup>th</sup> St., including two new stormwater detention ponds referred to as the Northwest Pond and the Approach Light Road Pond, as further described in the documents.
- Two bypass pipelines; a 48-inch diameter line to carry flow from the existing Tyee Regional Stormwater Pond to the Northwest Pond, and a 30-inch diameter line from the Tyee Pond to an abandoned sanitary sewer line that will be refurbished to carry stormwater to Puget Sound.

Hydrologic Analysis of the Des Moines Creek Regional Detention Facility  
July 23, 2003  
Page 2 of 2

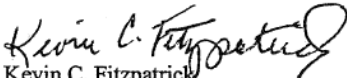
- Application of the King County Runoff Time Series (KCRS) flow model or other DOE approved models, the King County Level 1 flow control standard, and the 1994 land use condition as the pre-developed condition for sizing flow control facilities for new development and redevelopment once the regional facilities and bypass lines are constructed and operational.

This concurrence should not be construed as the issuance of the necessary permits for construction of the above projects.

Because the planning documents do not provide alternative recommendations to the water quality treatment guidance provided in the 2001 Stormwater Management Manual for Western Washington, the Department of Ecology encourages the local governments to use the manual recommendations for new development and redevelopment. In addition, the Department encourages the Basin Committee to continue planning to address the existing water quality problems of the creek. The chemical parameters identified in the planning documents that exceed applicable water quality standards include: fecal coliform bacteria, temperature, dissolved copper and zinc. In addition, because of the relatively urbanized nature of the watershed, it is likely that concentrations of various polycyclic aromatic hydrocarbons and pesticides are periodically problematic.

We congratulate the local governments on their foresight, determination, and commitment to identify and implement a strategy that should give Des Moines Creek and its biologic resources a much improved chance at not only surviving, but thriving.

Sincerely,

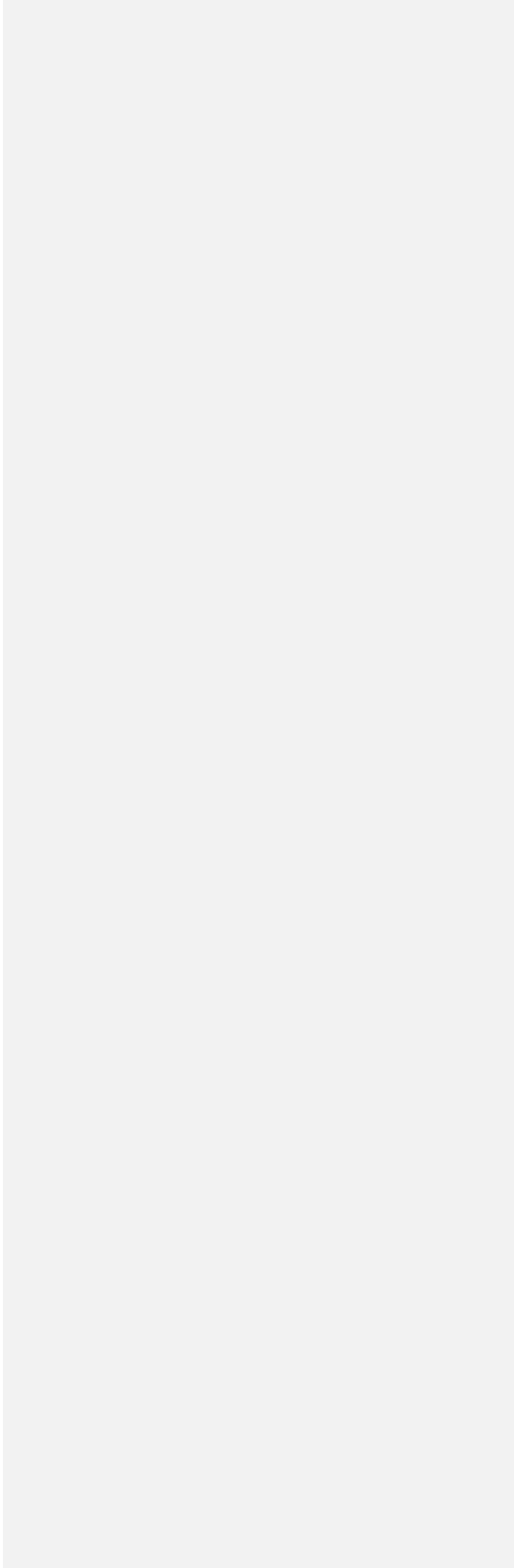
  
Kevin C. Fitzpatrick  
Water Quality Manager  
Northwest regional Office

KCF:ha:jc

Cc: Donald Althausen, P.E., King County  
Ed O'Brien, P.E., DOE, Water Quality, HQ  
Ed Abbasi, Water Quality, NWRO

**Appendix B – Soil Amendment Requirements**

.....:~:



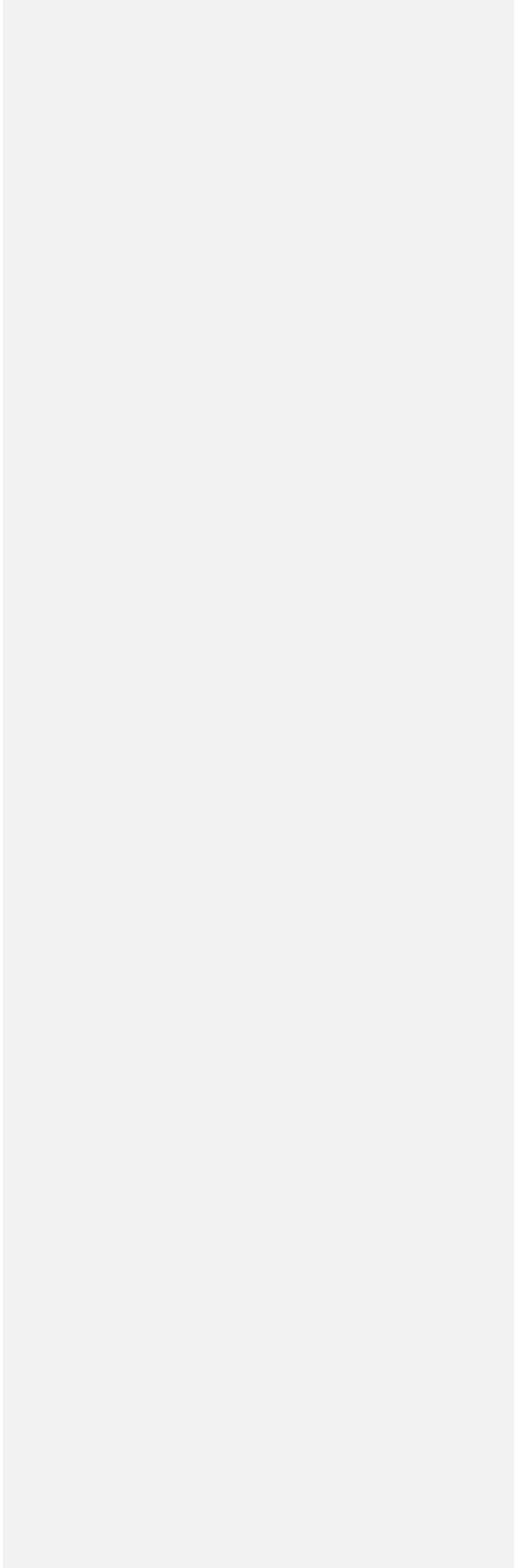


**Appendix C – Design and Maintenance Criteria for  
BMPs/Facilities not included in the KCSWDM**





**Appendix D – Flow Control and Water Quality Applications Maps**





### **12.10.010 King County Surface Water Design Manual adopted by reference.**

The ~~2021-2016~~ King County Surface Water Design Manual (KCSWDM) and the City of SeaTac Addendum to the KCSWDM are hereby adopted by reference. They are collectively referred to in this title as the Surface Water Design Manual (SWDM). The above stormwater standards are adopted in compliance with the ~~2013-2019~~ Western Washington (NPDES) Phase II Municipal Stormwater Permit. Where more than one (1) part of the code applies to the same aspect of a proposed use or development, the requirements of the 2021 SWDM shall apply. (Ord. 16-1021 § 1 (Appx. A) (part); Ord. 16-1006 § 1; Ord. 09-1042 § 1; Ord. 05-1012 § 1; Ord. 98-1054 § 1; Ord. 90-1046 § 1).

# ADOPTION OF THE 2021 KING COUNTY SURFACE WATER DESIGN MANUAL—*INFORMATIONAL BRIEFING*

December 16, 2021 Transportation & Public Works Committee



# PRESENTATION OVERVIEW

## PURPOSE OF PRESENTATION

Staff to provide an informational briefing regarding adoption of the 2021 King County Surface Water Design Manual (KCSWDM).

## WHY IS THIS ISSUE IMPORTANT?

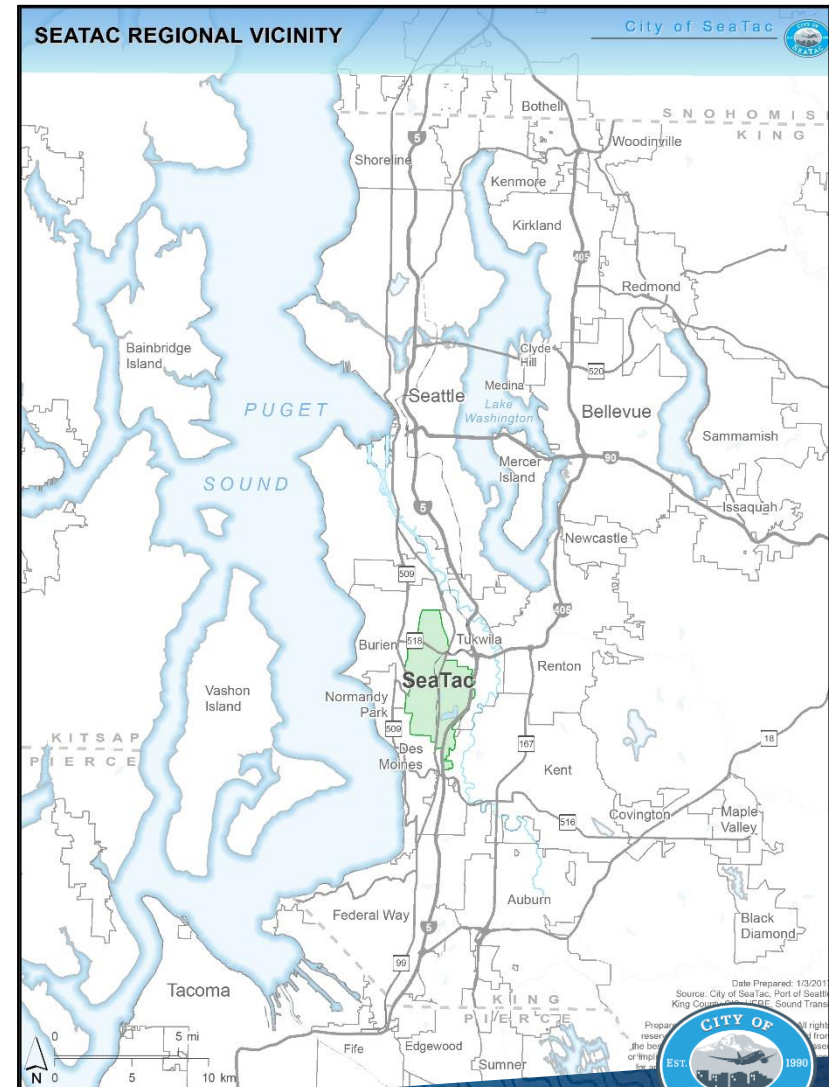
1. Adoption of the KCSWDM is required to comply with the City's National Pollutant Discharge Elimination System (NPDES) Western Washington Municipal Stormwater Permit (Permit).
2. The KCSWDM directs how the City addresses stormwater runoff from new development, redevelopment and construction activity; and provides standards for long-term maintenance of public and private water quality facilities.





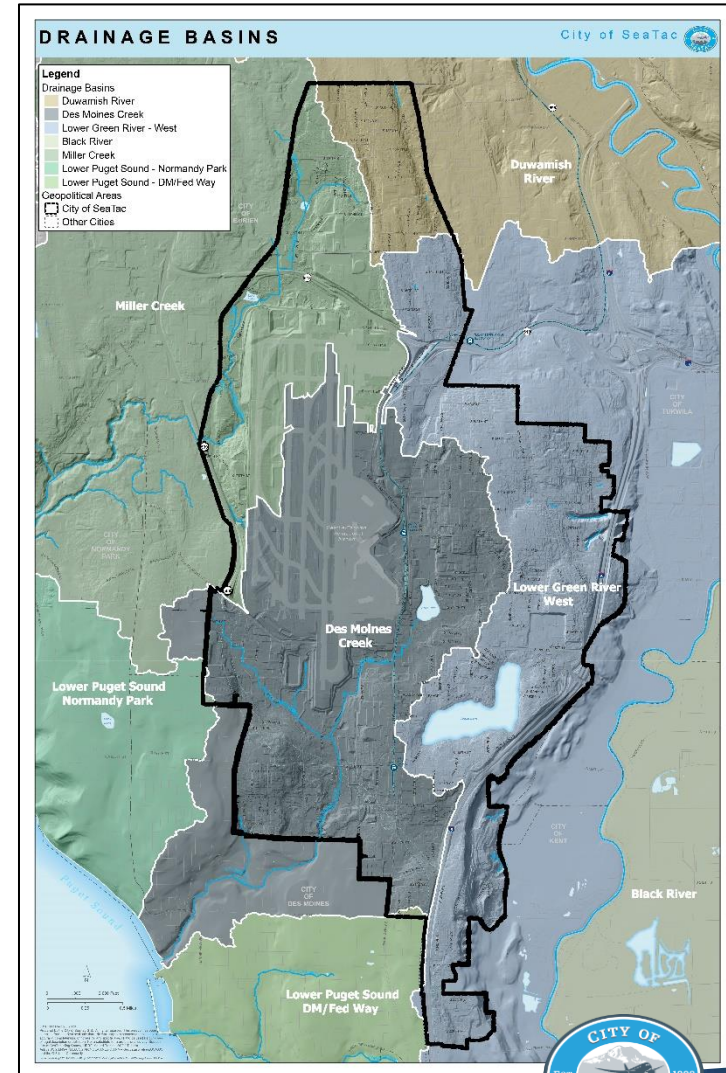
# NPDES PERMIT BACKGROUND

- Municipal NPDES Permits are federally mandated under the Clean Water Act with enforcement authority delegated to the State of Washington.
- Municipal NPDES Stormwater Permits are issued by WA Department of Ecology.
- Permit coverage is required for all regulated cities and towns.
- SeaTac's Permit was first issued in 2007.
- Current 5-year Permit term is 2019-2024.



# SEATAC COMPLIANCE RESPONSIBILITIES

- The City's NPDES Stormwater Permit authorizes the discharge of municipal stormwater to water bodies and groundwaters.
- To comply with the Permit, SeaTac develops and implements a Stormwater Management Program.
- Program components are designed to reduce the discharge of pollutants to the maximum extent practicable using all known, available, and reasonable methods of control and treatment.





# CITY-WIDE STORMWATER MANAGEMENT PROGRAM

## Main Program Components:

- Stormwater Planning
- Public Education
- Public Involvement
- Mapping
- Illicit Discharge, Detection & Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Operations & Maintenance
- Source Control
- Monitoring

Issuance Date: July 1, 2019  
Effective Date: August 1, 2019  
Expiration Date: July 31, 2024


## Western Washington Phase II Municipal Stormwater Permit

National Pollutant Discharge Elimination System and  
State Waste Discharge General Permit for discharges from  
Small Municipal Separate Storm Sewers  
In Western Washington

State of Washington  
Department of Ecology  
Olympia, WA 98504-7600

In compliance with the provisions of  
The State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 *et seq.*

Until this Permit expires, is modified, or revoked, Permittees that have properly obtained coverage under this Permit are authorized to discharge to waters of the State in accordance with the special and general conditions which follow.

  
Heather R. Bartlett  
Water Quality Program Manager  
Department of Ecology



# CITY ORDINANCE AND SMC 12.10.010

- The Permit requires that the City develop a program (ordinance or enforceable mechanism) by **June 30, 2022**.
- Local requirements (permit review and inspection standards).
- Legal authority to inspect and enforce.
- Result: SeaTac Municipal Code 12.10.010 is amended, adopting the KCSWDM by reference, per the 2019 Permit.

**ORDINANCE NO.** 16-1006

AN ORDINANCE of the City Council of the City of SeaTac, Washington, amending section 12.10.010 to the SeaTac Municipal Code, related to adoption of stormwater standards.

**WHEREAS**, King County has adopted the 2016 King County Surface Water Design Surface Water Design Manual (2016 KCSWDM), as its stormwater standards for new and redevelopment projects; and

**WHEREAS**, Washington State Department of Ecology has determined that the 2016 KCSWDM is equivalent to the NPDES Western Washington Phase I & II Municipal Stormwater Permits required stormwater standards – the 2102 Stormwater Management Manual for Western Washington, as amended in December 2014; and

**WHEREAS**, the City of SeaTac must update the City of SeaTac Addendum to the King County Surface Water Design Manual, before City staff can effectively implement the 2016 KCSWDM; and

**WHEREAS**, the current NPDES Western Washington Phase II Municipal Stormwater Permit does not require implementation of the new equivalent stormwater standards until January 1, 2017; and

**WHEREAS**, the City of SeaTac desires to use the 2009 KCSWDM as the City's stormwater standards until the 2016 KCSWDM and the revised City of SeaTac Addendum are formally adopted;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SEATAC, WASHINGTON, DO ORDAIN** as follows:

**Section 1.** Section 12.10.010 of the SeaTac Municipal Code is hereby amended to read as follows:

**12.10.010 King County Surface Water Design Manual adopted by reference.**



# KING COUNTY SURFACE WATER DESIGN MANUAL

**Provides for water quality protection and ensures the discharge of pollutants are reduced to the maximum extent practicable**

## **Used for local requirements:**

- Permitting process
- Drainage Plan review
- Hydrologic Analysis
- Conveyance system analysis
- Flow control design
- Water quality design
- Site plan review
- Inspection standards (pre- and post-construction)



**KING COUNTY, WASHINGTON  
SURFACE WATER  
DESIGN MANUAL**

# KCSWDM CHANGES FOR 2021



## KING COUNTY, WASHINGTON **SURFACE WATER DESIGN MANUAL**

- A limited number of new drainage standards provide additional clarity or corrections.
- No new major requirements or sections were added or amended.
- A full summary of changes will be added to the City's Surface Water Management web page.



# THE KCSWDM PERMITTING

## PERMIT AND LAND USE PROCESS and APPROVAL

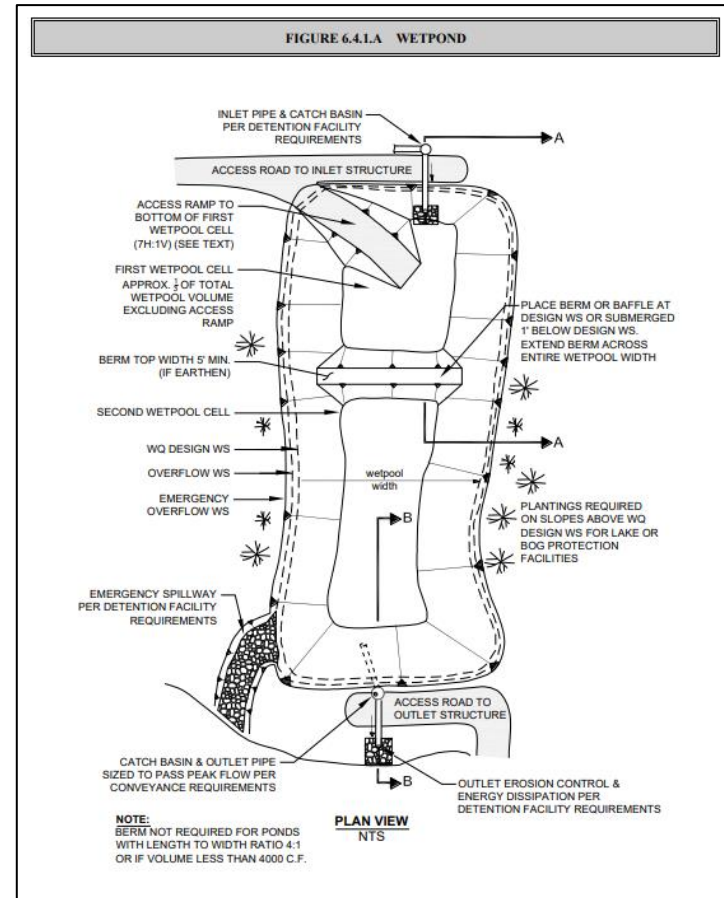
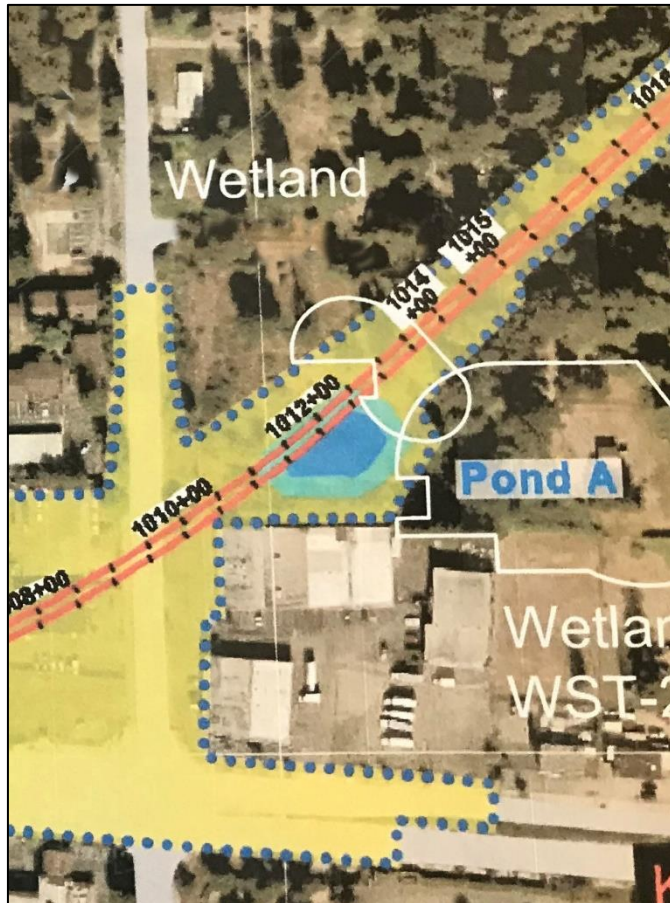
- Engineering Review Division
  - Paving, Grading, and Drainage Plans

Example: Light Rail Extension Project



# ENGINEERING DESIGN REVIEW – KCSDWM STANDARDS

## WATER QUALITY AND FLOW CONTROL





# CONSTRUCTION – KCSDWM STANDARDS

## INSPECTION AND ENFORCEMENT



# CONTROLLING RUNOFF: CONSTRUCTION PHASE

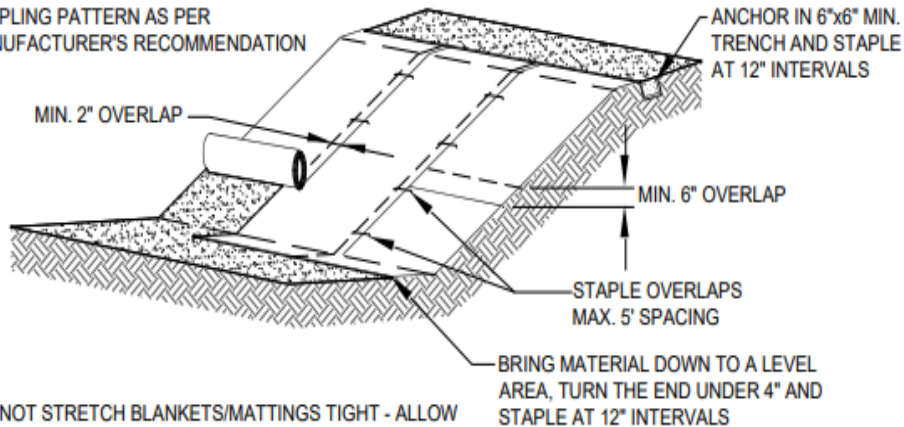
## SEDIMENT & EROSION CONTROL STORMWATER POLLUTION PREVENTION

FIGURE D.2.1.2.C SLOPE INSTALLATION

SLOPE SURFACE SHALL BE SMOOTH BEFORE  
PLACEMENT FOR PROPER SOIL CONTACT

STAPLING PATTERN AS PER  
MANUFACTURER'S RECOMMENDATION

MIN. 2" OVERLAP



IF THERE IS A BERM AT THE  
TOP OF SLOPE, ANCHOR  
UPSLOPE OF THE BERM

ANCHOR IN 6"x6" MIN.  
TRENCH AND STAPLE  
AT 12" INTERVALS

MIN. 6" OVERLAP

STAPLE OVERLAPS  
MAX. 5' SPACING

BRING MATERIAL DOWN TO A LEVEL  
AREA, TURN THE END UNDER 4" AND  
STAPLE AT 12" INTERVALS

DO NOT STRETCH BLANKETS/MATTINGS TIGHT - ALLOW  
THE ROLLS TO MOLD TO ANY IRREGULARITIES

FOR SLOPES LESS THAN 3H:1V, ROLLS MAY BE PLACED  
IN HORIZONTAL STRIPS

LIME, FERTILIZE AND SEED BEFORE  
INSTALLATION. PLANTING OF SHRUBS, TREES,  
ETC. SHOULD OCCUR AFTER INSTALLATION

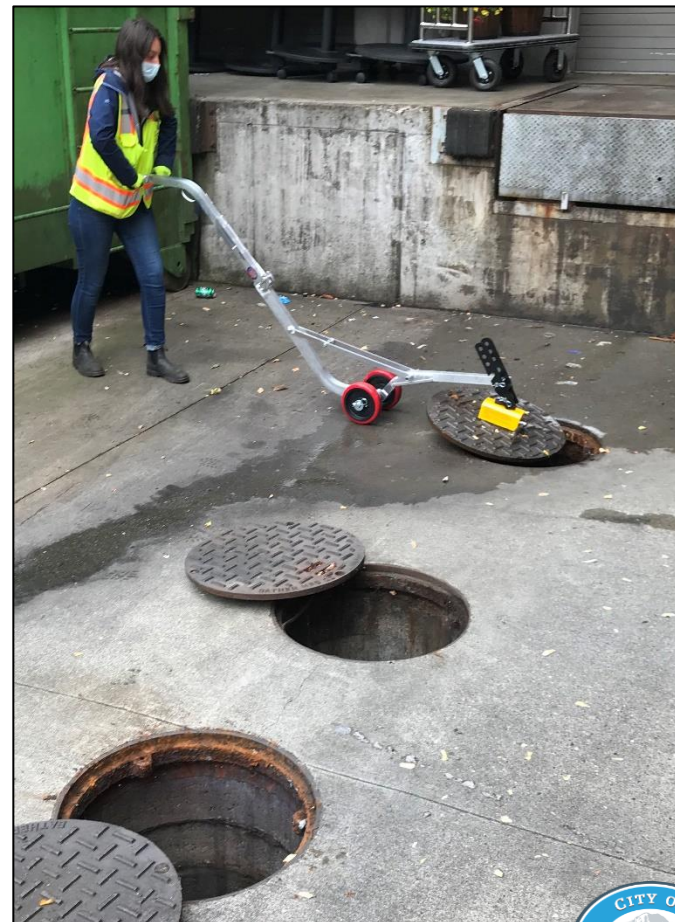
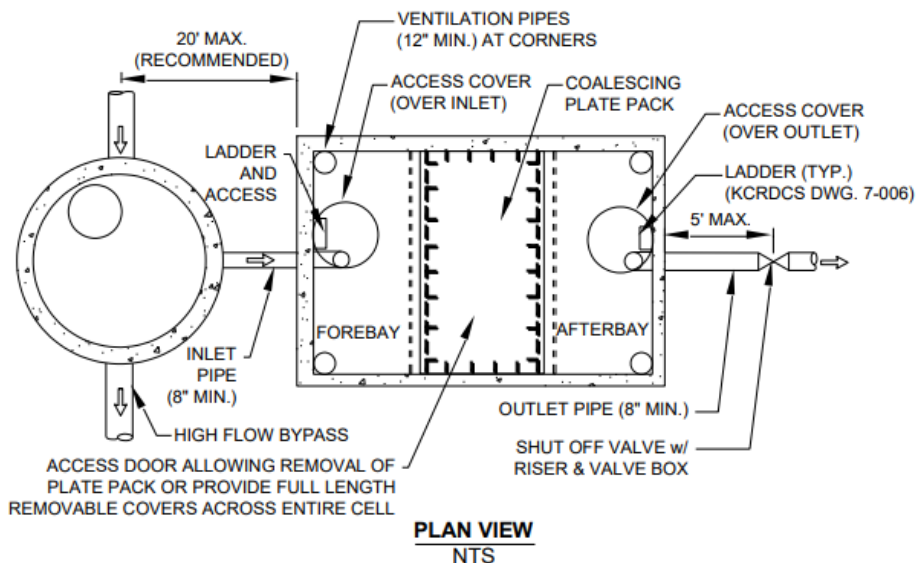




# POST-CONSTRUCTION: OPERATIONS AND MAINTENANCE

## INSPECTION AND ENFORCEMENT

FIGURE 6.6.2.E COALESCING PLATE OIL/WATER SEPARATOR



# COMMITTEE ACTION

## NO COMMITTEE ACTION REQUESTED AT THIS TIME

- Currently, this topic is informational only.
- The topic will be brought back before T&PW Committee after future Planning Commission briefing and Public Hearing.

