

Enforceable Document Updates to Match Ecology's Required Changes

	Required Change Being Addressed	Enforceable Document Section Being Updated	Section and/or Text as Written in 2016 Enforceable Document	Proposed Text
	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.1 Minimum Computational Standards</p>	<p>(see Track Changes version for original text)</p>	<p>Added "- For the purpose of designing flow-based Runoff Treatment BMPs, an Ecology approved continuous simulation hydrologic model based on the EPA's HSPF (Hydrologic Simulation Program-Fortran) program, or an approved equivalent model, must be used to calculate runoff and determine the water quality design flow rate.</p> <ul style="list-style-type: none"> • For the purpose of designing volume-based Runoff Treatment BMPs (i.e. Wet pool BMPs), there are two acceptable methods to calculate the water quality design storm volume: <ul style="list-style-type: none"> o An Ecology approved continuous simulation hydrologic model based on the EPA's HSPF program, or an approved equivalent model. (See Continuous Simulation Models) o The single event hydrograph method, using precipitation depth from the 6-month 24-hour storm and NRCS curve number equations. (See Single Event Hydrograph Method) • For the purpose of designing flow control BMPs, an Ecology approved continuous simulation hydrologic model, based on the U.S. EPA's HSPF program, or an approved equivalent model, must be used. Flow Control BMP criteria are discussed in Volume 1, Chapter 4. Circumstances where different methodologies apply are summarized in Table 2.1 Summary of Applicable Hydrologic Design Methodologies for Design of Stormwater Best Management Practices in Thurston County. • If a basin plan is being prepared, then a hydrologic analysis shall be performed using a continuous simulation runoff model such as the U.S. EPA's HSPF model, the U.S. EPA's Stormwater Management Model (SWMM), or an equivalent model as approved by Thurston County. <p>For large, master-planned developments, the County may require a basin-specific calibration of HSPF program, rather than the use of the default parameters from Ecology approved continuous simulation hydrologic models based on the EPA's HSPF program. Basin-specific calibrations may be required for projects that encompass more than 320 acres."</p>

	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.1 Minimum Computational Standards</p>	<p>(see Track Changes version for original text)</p>	<p>Add verbatim: III-2.1 An Overview of Hydrologic Analysis, Continuous Simulation Modeling Vs. Single Event Hydrograph Method from Ecology's 2019 SWMMWW.</p>
	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.2 Continuous Simulation Models</p>	<p>(Not previously included)</p>	<p>Add verbatim: III-2.2 Continuous Simulation Models, Continuous Simulation Model Approval Status from Ecology's 2019 SWMMWW.</p>
	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.3 Western Washington Hydrology Model</p>	<p>(see Track Changes version for original text)</p>	<p>Add verbatim: III-2.2 Continuous Simulation Models, Using WWHM to Model Flow-Related Standards, Limitations to WWHM, and Assumptions Made in Creating WWHM from Ecology's 2019 SWMMWW.</p>
	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.3 Western Washington Hydrology Model, Hydrologic Analysis of LID and Flow Control BMPs</p>	<p>(see Track Changes version for original text)</p>	<p>Added "The LID performance and flow control standards (Core Requirements #5 and #7) must be met using an approved continuous runoff model. The compliance options for the project depend on the amount of improvement proposed, the location of the project, the size of the parcel the project is on, and whether or not the project is flow control exempt. See Volume I, Sections 2.4.6 Core Requirement # 5: Onsite Stormwater Management and 2.4.8 Core Requirement #7: Flow Control, and 2.4.9 Core Requirement #8: Wetlands Protection for determining LID and flow control requirements."</p>

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	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.3 Western Washington Hydrology Model, Water Quality Design Flow Rate for On-Line and Off-Line Runoff Treatment BMPs</p>	<p>(see Track Changes version for original text)</p>	<p>Add verbatim: III-2.6 Sizing Your Runoff Treatment BMPs, Water Quality Design Flow Rate for On-Line and Off-Line Runoff Treatment BMPs from Ecology's 2019 SWMMWW.</p>

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	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.4 Single Event Storms - Hydrograph, Water Quality Design Storm, Curve Numbers, and Calculating the Water Quality Design Storm Volume Using the NRCS Curve Number Equations.</p>	<p>(see Track Changes version for original text)</p>	<p>Add verbatim: III-2.3 Single Event Hydrograph Method, Water Quality Design Storm, Curve Numbers, and Calculating the Water Quality Design Storm Volume Using the NRCS Curve Number Equations from Ecology's 2019 SWMMWW.</p>
	<p>1. Continuous Simulation Modeling: *The ability to directly model BMPs that may be used in LID application, such as bioretention, permeable pavement, and green roofs. *15-minute time steps *Incorporation of the van Genuchten algorithm to model bioretention.</p>	<p>Volume III, Chapter 2, 2.5 Flow Bypass and Additional Area Inflow</p>	<p>(Not previously included)</p>	<p>Add verbatim: III-2.4 Flow Bypass and Additional Area Inflow from Ecology's 2019 SWMMWW.</p>
	<p>2. Replaced Hard Surfaces Redevelopment Threshold: The Minimum Requirement Thresholds for non-road related commercial or industrial redevelopment projects have been updated to require the project proponent to compare the value of the proposed improvements to the value of the Project Site (the limits of disturbance) improvements, rather than the Site (the entire parcel) improvements.</p>	<p>Volume 1, Chapter 2, 2.3, Figure 2.1 - Flow Chart for Determining Requirements for New Development</p>	<p>"Does the project have 35% or more of existing impervious surface coverage?" "Does the project have 2,000 square feet or more of new hard surfaces?" "In rural areas only, is the area of the total hard surfaces less than 5% of the parcel AND is all the stormwater infiltrated on site?"</p>	<p>"Does the project have 35% or more of existing hard surface coverage?" "Does the project have 2,000 square feet or more of new plus replaced hard surface area?" "In rural areas only, is the area of the total hard surfaces less than 5% of the parcel AND is all the stormwater infiltrated on site?"</p>

	<p>2. Replaced Hard Surfaces Redevelopment Threshold: The Minimum Requirement Thresholds for non-road related commercial or industrial redevelopment projects have been updated to require the project proponent to compare the value of the proposed improvements to the value of the Project Site (the limits of disturbance) improvements, rather than the Site (the entire parcel) improvements.</p>	<p>Volume 1, Chapter 2, 2.3, Figure 2.2 - Flow Chart for Determining Requirements for Redevelopment</p>	<p>"Apply Core Requirements #2 and #4" "Core Requirements #1 through #11 apply to the new hard surfaces and converted impervious surfaces." "Is the total of the new plus replaced hard surfaces 5,000 square feet or more, AND does the value of the proposed improvements – including the interior improvements – exceed 50% of the assessed value (or replacement value) of the existing site improvements?"</p>	<p>"Apply Core Requirement #2, Construction Pollution Prevention" "All Core Requirements apply to the new hard surfaces and the converted vegetation areas." "... assessed value (or replacement value) of the: Existing Project Site Improvements (for commercial or industrial projects) OR Existing Site Improvements (for all other projects)</p>
	<p>3. Equivalent Areas: The Redevelopment Project Thresholds have been updated to allow a project proponent to provide Stormwater Management BMPs for an equivalent area. The equivalent area may be on-site, or off-site if the area drains to the same receiving water and the guidance for in-basin transfers is followed.</p>	<p>Volume 1, Chapter 2, 2.3.2 Redevelopment Thurston County's DDECM already includes language similar to Ecology's equivalent area change.</p>	<p>"If runoff from new hard surfaces and converted pervious surfaces is not separated from other surface runoff on the project site, stormwater treatment facilities must be sized for the entire flow directed to them. The Thurston County Drainage Manual Administrator may allow the Core Requirement to be met for an equivalent area within the same site and the same threshold discharge area. For public roadway projects, the equivalent area does not have to be within the project limits, but must drain to the same receiving water (public roadway projects performed by Thurston County may use the most recent version of WSDOT's Highway Runoff Manual, for redevelopment guidance.)"</p>	

<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #3: Control Flow Rates (see Track Changes version for original text)</p>	<p>Added " • Even gently sloped areas need flow controls such as BMP C235: Straw Wattles or other energy dissipation/filtration structures. Place dissipation facilities closer together on steeper slopes. These methods prevent water from building higher velocities as it flows downstream within the construction site.</p> <ul style="list-style-type: none"> • Velocity of water leaving the site should not exceed 3 feet/second if the discharge is to a stream or ditch. Install velocity dissipation, such as BMP C207: Check Dams or BMP C202: Riprap Channel Lining to ensure reduction of the flow velocity to a non-erosive level. • If the discharge from a project site is to the County's municipal storm drainage system, the allowable discharge rate may be limited by the capacity of the public system. It may be necessary to clean the municipal drainage system prior to the start of the discharge to prevent scouring solids from the drainage system. Obtain permission from the County before discharging to it. Ensure that no downstream pipes are surcharged as a result of increased flows from the project site. • If the discharge from a project site is directly to a flow control exempt receiving water or to an infiltration system, there is no discharge flow limit."
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #4: Install Sediment Controls (see Track Changes version for original text)</p>	<p>Added " • Design, install, and maintain effective erosion and sediment controls to minimize the discharge of pollutants.</p> <ul style="list-style-type: none"> • Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible. • Outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column are for the construction period only. If installing a floating pump structure, include a stopper to prevent the pump basket from hitting the bottom of the pond."
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #6: Protect Slopes (see Track Changes version for original text)</p>	<p>Added " • At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion. Temporary pipe slope drains must be sized to convey the flow rate calculated by one of the following methods:</p> <ul style="list-style-type: none"> • Single Event Hydrograph Method: The peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm. <p>OR</p> <ul style="list-style-type: none"> • Continuous Simulation Method: The 10-year peak flow rate, as determined by an approved continuous runoff model with a 15-minute time step.

<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #8: Stabilize Channels and Outlets (see Track Changes version for original text)</p>	<p>Added "• Design, construct, and stabilize all on-site conveyance channels to prevent erosion from the flow rate calculated by one of the following methods: •Single Event Hydrograph Method: The peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm. OR •Continuous Simulation Method: The 10-year peak flow rate, as determined by an approved continuous runoff model with a 15-minute time step."</p>
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #9: Control Pollutants (see Track Changes version for original text)</p>	<p>Added "• Wheel wash and/or tire bath wastewater can be combined with wastewater from concrete washout areas if the wastewaters will be properly disposed of at an offsite location or treatment facility. • Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until the pH is in the range of 6.5 to 8.5 (su)."</p>
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #9: Control Pollutants (see Track Changes version for original text)</p>	<p>Revised "BMP C252: BMP C252: Treating and Disposing of High pH Water" "BMP C253: pH Control for High pH Water"</p>
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #10: Control De-Watering (see Track Changes version for original text)</p>	<p>Added "• Dewatering water form contaminated sites must be handled separately from stormwater. Direct contaminated stormwater to a sanitary sewer where allowed by the local sewer authority, or to other approved treatment."</p>
<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #11: Maintain BMPs (see Track Changes version for original text)</p>	<p>Added: "• Some temporary erosion and sediment control BMPs are biodegradable and designed to remain in place following construction. BMP C122: Nets and Blankets is an example of a BMP with biodegradable options. "</p>

<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #12: Manage the Project</p>	<p>Added " • Phase projects to the maximum degree practicable and take into account seasonal work limitations.</p> <ul style="list-style-type: none"> • Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Projects regulated under the Construction Stormwater General Permit (CSWGP) must conduct site inspections and monitoring in accordance with Special Condition S4 of the CSWGP. • Maintain, update, and implement the Construction SWPPP. • Projects that disturb one or more acres must have site inspections conducted by Certified Erosion and Sediment Control Lead (CESCL). Project sites disturbing less than one acre may have a CESCL or a person without CESCL certification conduct inspections. B the initiation of construction, the Construction SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. • The project manager must ensure that the project is built in such a way to comply with all Construction SWPPP Elements, as detailed in this section. Considerations for the project manager include, but are not limited to: <ul style="list-style-type: none"> • Construction phasing • Seasonal work limitations • Coordination with utilities and other contractors • Inspection • Monitoring • Maintaining and updated construction SWPPP • Projects that disturb one or more acres must have site inspections conducted by Certified Erosion and Sediment Control Lead (CESCL). <p>Project sites disturbing less than one acre may have a CESCL or a person without CESCL certification conduct inspections. B the initiation of construction, the Construction SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times.</p> <ul style="list-style-type: none"> • The project manager must ensure that the project is built in such a way to comply with all Construction SWPPP Elements, as detailed in this section. Considerations for the project manager include, but are not limited to: <ul style="list-style-type: none"> • Construction phasing • Seasonal work limitations • Coordination with utilities and other contractors • Inspection • Monitoring • Maintaining and updated construction SWPPP"
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<p>4. Minimum Requirement 2: The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction General Permit.</p>	<p>Volume II, Chapter 2, 2.3.2</p>	<p>2.3.2 Step 2 - Select and Design BMPs, Element #12: Manage the Project, Inspection and Monitoring (see Track Changes version for original text)</p>	<p>Added "• The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one inspection is required that week.) The CESCL or inspector may reduce the inspection frequency for temporary stabilized, inactive sites to once every calendar month."</p>
<p>5. Minimum Requirement 5: Minimum Requirement 5 (On-Site Stormwater Management) has been updated to require BMP T5.13 (Soil Quality and Depth) when choosing to use the LID Performance Standard to meet Minimum Requirement 5 for Minimum Requirement 1-5 projects.</p>	<p>Volume 1, Chapter 2, 2.4.6.1 Low Impact Development Performance Standard and 2.4.6.2 The List Approach.</p>	<p>2.4.6.2 The List Approach Table 2-2 The List Approach for Core Requirement #5 Compliance (see Track Changes version for original text)</p>	<p>Revised table matches Ecology's Table I-3.2: The List Approach for MR5 Compliance</p>
<p>6. Minimum Requirement 7: Minimum Requirement 7 (Flow Control) has been updated to ensure that a TDA discharging to a marine waterbody meets all exemption requirements before it can be determined to be Flow Control exempt.</p>	<p>Volume 1, Chapter 2, 2.4.8.1 and 2.4.8.2</p>	<p>2.4.8.1 Applicability 2.4.8.2 Thresholds (see Track Changes version for original text)</p>	<p>Changed "project site" to "TDA" Added "Note that it is possible for a project tat requires Core Requirement #7 with multiple TDAs to not need Flow Control BMP(s) in one or more individual TDAs. If a TDA does not trigger the TDA thresholds for Flow Control BMPs, then the designer must document the areas within the TDA used to determine that the TDA thresholds were not met. This documentation will demonstrate compliance with Core Requirement #7 for the TDA."</p>

<p>6. Minimum Requirement 7: Minimum Requirement 7 (Flow Control) has been updated to ensure that a TDA discharging to a marine waterbody meets all exemption requirements before it can be determined to be Flow Control exempt.</p>	<p>Volume 1, Chapter 2, 2.4.8.1 and 2.4.8.2</p>	<ul style="list-style-type: none"> •Flow splitting devices or drainage BMPs shall be applied to route the natural runoff volumes from the project site to any downstream Type 5 stream or Category IV wetland •Design of flow splitting devices or drainage BMPs will be based on continuous hydrologic modeling analysis. The design will assure that flows delivered to Type 5 stream reaches will approximate, but in no case exceed, durations ranging from 50 percent of the 2 year to the 50 year peak flow. •Flow splitting devices or drainage BMPs that deliver flow to Category IV wetlands will also be designed using continuous simulation hydrologic modeling to preserve pre-project wetland hydrologic conditions unless specifically waived or exempted by Thurston County 	<ul style="list-style-type: none"> •If flow splitters or conveyance elements are applied to route the natural runoff volumes from the project site to any downstream Type 5 stream or Category IV wetland, then: •Design of flow splitters or conveyance elements must be based on approved continuous simulation modeling analysis. The design must assure that flows delivered to Type 5 stream reaches will approximate, but in no case exceed, durations ranging from 50 percent of the 2 year to the 50 year peak flow. •Flow splitters or conveyance elements that deliver flow to Category IV wetlands must also be designed using approved continuous simulation modeling to preserve pre-project wetland hydrologic conditions unless specifically waived or exempted by Thurston County; and.
<p>7. Concrete Washout BMP: BMP C154 (Concrete Washout Area) has been updated to clarify that auxiliary concrete truck components and small concrete handling equipment may be washed into formed areas awaiting concrete pour, while concrete truck drums must be washed either off-site or into a concrete washout area.</p>	<p>Volume II, Chapter 3, 3.1, BMP C154: Concrete Washout Area</p>	<p>See Track Changes version for original text.</p>	<p>"Note that auxiliary concrete truck components (e.g. chutes and hoses) and small concrete handling equipment (e.g. hand tools, screeds, shovels, rakes, floats, trowels, and wheelbarrows) may be washed into formed areas awaiting concrete pour. At no time shall concrete be washed off into the footprint of an area where an infiltration feature will be installed."</p> <p>" • Wash equipment difficult to move, such as concrete paving machines, in areas that do not directly drain to natural or constructed stormwater conveyance or potential infiltration areas."</p>
<p>8. Source Control BMPs: S434 BMPs for Dock Washing</p>	<p>Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities</p>	<p>(Not previously included)</p>	<p>Add verbatim: S434 BMPs for Dock Washing from Ecology's 2019 SWMMWW.</p>

	8. Source Control BMPs: S441 BMPs for Potable Water Line Flushing, Water Tank Maintenance, and Hydrant Testing	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities		
	8. Source Control BMPs: S435 BMPs Pesticides and an Integrated Pest Management Program	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(see Track Changes version for original text)	Add verbatim: S435 BMPs for Pesticides and an Integrated Pest Management Program from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S444 BMPs for the Storage of Dry Pesticides and Fertilizers	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(see Track Changes version for original text)	Revised to include all requirements for S444 BMPs for Storage of Dry Pesticides and Fertilizers in Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S449 BMPs for Nurseries and Greenhouses	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S449 BMPs for Nurseries and Greenhouse from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S450 BMPs for Irrigation	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S450 BMPs for Irrigation from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S445 BMPs for Temporary Fruit Storage	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(see Track Changes version for original text)	Revised to include all requirements for S445 BMPs for Temporary Fruit Storage in Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S439 BMPs for In-Water and Over-Water Fueling	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S439 BMPs for In-Water and Over-Water Fueling from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S436 BMPs for Color Events	Volume IV, Chapter 5 - General Source Control Best Management Practices	(Not previously included)	Add verbatim: S436 BMPs for Color Events from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S438 BMPs for Construction Demolition	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(see Track Changes version for original text)	Revised to include all requirements for S438 BMPs for Construction Demolition in Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S440 BMPs for Pet Waste	Volume IV, Chapter 6 - Best Management Practices for Single-Family Residences	(see Track Changes version for original text)	Revised to include all requirements for S440 BMPs for Pet Waste from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S442 BMPs for Labeling Storm Drain Inlets On Your Property	Volume IV, Chapter 5 - General Source Control Best Management Practices	(Not previously included)	Add verbatim: S442 BMPs for Labeling Storm Drain Inlets On Your Property from Ecology's 2019 SWMMWW.

	8. Source Control BMPs: S443 BMPs for Fertilizer Application	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S443 BMPs for Fertilizer Application from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S446 BMPs for Well, Utility, Directional, and Geotechnical Drilling	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S446 BMPs for Well, Utility, Directional and Geotechnical Drilling from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S447 BMPs for Roof Vents	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(Not previously included)	Add verbatim: S447 BMPs for Roof Vents from Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S451 BMPs for Building, Repair, Remodeling, Painting, and Construction	Volume IV, Chapter 4 - Best Management Practices for Commercial and Industrial Activities	(see Track Changes version for original text)	Revised to include all requirements for S451 BMPs for Building, Repair, Remodeling, Painting, and Construction in Ecology's 2019 SWMMWW.
	8. Source Control BMPs: S452 BMPs for Goose Waste	Volume IV, Chapter 5 - General Source Control Best Management Practices	(Not previously included)	Add verbatim: S452 BMPs for Goose Waste from Ecology's 2019 SWMMWW.
	9. Wetland Guidance: Appendix I-C (Wetland Protection Guidelines) and Minimum Requirement 8 (Wetlands Protection) have been updated to require monitoring and modeling of high value wetlands, if the project proponent has legal access to them. The 2014 wetland guidance is retained, but refined, for modeling requirements for lower value wetlands (and high value wetlands that the project proponent does not have legal access to).	Volume 1, Chapter 2, 2.4.9	2.4.9.2 Thresholds 2.4.9.3 Standard Requirement 2.4.9.4 Additional Requirements 2.4.9.5 Objective 2.4.9.6 Supplemental Guidelines	Added verbatim: I-3.4.8 MR8: Wetlands Protection, TDA Thresholds from Ecology's 2019 SWMMWW. Added verbatim: Figure I-3.5: Flow Chart for Determining Wetland Protection Level Requirements (Revised May 2019) from Ecology's 2019 SWMMWW. Added language to follow Appendix I-C: Wetland Protection Guidelines of Ecology's 2019 SWMMWW. Added verbatim: I-3.4.8 MR8: Wetlands Protection, Supplemental Guidelines, How Do I Reconcile the Flow Control Performance Standard from MR7 with MR8?