

Clark County  
 NPDES Phase I Municipal Stormwater Permit  
 Equivalent Programs for Runoff Controls from New Development, Redevelopment and Construction Sites  
 Functional Equivalence Determination Submittal to Ecology

Enforceable Document Significant Updates Beyond Ecology's List  
 Appendix 10, Table 10.2  
 June 2025

Item No.	Brief Description of the Change	Rationale for the Change (attach supporting documents if necessary)	Enforceable Document	Section	Text as Written in the 2019 Functionally Equivalent Enforceable Document	Proposed Text for Ecology Review and Approval
86	Insert the precise language of the definition of "converted vegetation (areas)" into the text describing applicability of the minimum requirements to new development sites rather than relying on a separate definition of the term.	<p>The 2021 CCSM defines the term "converted vegetation (areas)" as "the surfaces on a project site where native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation (e.g. Himalayan blackberry, scotch broom) are converted to lawn or landscaped areas, or where native vegetation is converted to pasture" on page 11 of Book 1. The term is used in Section 1.4.1, New Development, which describes the applicability of the Minimum Requirements to new development sites. Manual users have found the lack of precision in Section 1.4.1 to be confusing.</p> <p>The update improves clarity but does not change applicability of the Minimum Requirements. Clark County is submitting this change to Ecology as a significant change for review because it modifies applicability language.</p>	Book 1	1.4.1	<p>All new development shall comply with Minimum Requirement #2.</p> <p>The following new development shall comply with Minimum Requirements #1 - #5 for the new and replaced hard surfaces and the land disturbed:</p> <ul style="list-style-type: none"> <li>• Results in 2,000 square feet, or greater, of new, replaced, or new plus replaced hard surface area, or</li> <li>• Has land disturbing activity of 7,000 square feet or greater.</li> </ul> <p>The following new development shall comply with Minimum Requirements #1 – #9 for the new and replaced hard surfaces and the converted vegetation areas:</p> <ul style="list-style-type: none"> <li>•Results in 5,000 square feet, or greater, of new plus replaced hard surface area, or</li> <li>•Converts ¾ acres, or more, of vegetation to lawn, or landscaped areas, or</li> <li>•Converts 1 acre or more of vegetation to stabilized soil on projects lacking an approved Final Engineering Plan, or</li> <li>•Converts 2.5 acres, or more, of native vegetation to pasture.</li> </ul>	<p>All new development shall comply with Minimum Requirement #2.</p> <p>The following new development shall comply with Minimum Requirements #1 - #5 for the new and replaced hard surfaces and the land disturbed:</p> <ul style="list-style-type: none"> <li>• Results in 2,000 square feet, or greater, of new, replaced, or new plus replaced hard surface area, or</li> <li>• Has land disturbing activity of 7,000 square feet or greater.</li> </ul> <p>The following new development shall comply with Minimum Requirements #1 – #9 for the new and replaced hard surfaces and the converted vegetation areas:</p> <ul style="list-style-type: none"> <li>•Results in 5,000 square feet, or greater, of new plus replaced hard surface area, or</li> <li>•Converts ¾ acres, or more, of native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation to lawn, or landscaped areas, or</li> <li>•Converts 1 acre or more of vegetation to stabilized soil on projects lacking an approved Final Engineering Plan, or</li> <li>•Converts 2.5 acres, or more, of native vegetation to pasture.</li> </ul>
105	Replace "converted pervious areas" with "converted vegetation areas" in the redevelopment thresholds.	<p>The redevelopment thresholds for MR #1-9 use the term "converted pervious areas" which is not defined in CCSM and is not used in SWMMWW.</p> <p>The update improves clarity but does not change applicability of the Minimum Requirements. Clark County is submitting this change to Ecology as a significant change for review because it modifies applicability language.</p>	Book 1	1.4.2	The following redevelopment shall comply with Minimum Requirements #1 – #9 for the new hard surfaces and converted pervious areas:	The following redevelopment shall comply with Minimum Requirements #1 – #9 for the new hard surfaces and converted vegetation areas:

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87	Insert the precise language of the definition of "converted vegetation (areas)" into the text describing thresholds for applying Minimum Requirement #7, Flow Control, rather than relying on a separate definition of the term.	<p>The 2021 CCSM defines the term "converted vegetation (areas)" as "the surfaces on a project site where native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation (e.g. Himalayan blackberry, scotch broom) are converted to lawn or landscaped areas, or where native vegetation is converted to pasture" on page 11 of Book 1. The term is used in the TDA Threshold for MR #7 in the CCSM. Users have found this to be confusing, especially when comparing the TDA threshold to the Stormwater Management Manual for Western Washington.</p> <p>The update improves clarity but does not change applicability of MR #7 within a TDA. Clark County is submitting this change to Ecology as a significant change for review because it modifies the language of a Minimum Requirement.</p>	Book 1	1.5.7.2, second bullet item	<ul style="list-style-type: none"> <li>Projects that convert ¾ acres or more of vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site, or</li> </ul>	<ul style="list-style-type: none"> <li>Projects that convert ¾ acres or more of native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site, or</li> </ul>
35a	Increase required soils log from 4 feet to 10 feet in depth from the proposed grade at the locations of proposed downspout infiltration systems.	<p>The current soils log depth of 4 feet allows project proponents to investigate feasibility of downspout infiltration trenches without investigating feasibility of downspout drywells. The County would like to require more thorough investigation of soil conditions before allowing project proponents to find that downspout full infiltration is infeasible.</p> <p>The change may result in the use of downspout full infiltration for meeting MR #5 more often.</p>	Book 1	2.3.2	Where downspout infiltration systems are proposed, the soils description must demonstrate that soils suitable for infiltration are present on the site. Prepare at least one soils log at the location of each downspout infiltration system, a minimum of 4 feet in depth from the proposed grade and at least 1 foot below the expected bottom elevation of the infiltration trench or drywell. Identify the NRCS series of the soil, the hydrologic soil group per Appendix 2-A, and the USDA textural class of the soil horizon through the depth of the log. Note any evidence of high groundwater level, such as mottling.	Where downspout infiltration systems are proposed, the soils description must demonstrate that soils suitable for infiltration are present on the site. Prepare at least one soils log at the location of each downspout infiltration system, a minimum of 10 feet in depth from the proposed grade and at least 1 foot below the expected bottom elevation of the infiltration trench or drywell. Identify the NRCS series of the soil, the hydrologic soil group per Appendix 2-A, and the USDA textural class of the soil horizon through the depth of the log. Note any evidence of high groundwater level, such as mottling.
35b	Clarify that project proponents are expected to characterize subgrade soils at depths capable of characterizing the infiltration capacity of the site.	<p>The current language does not specify that soil conditions must be characterized at likely depths where infiltration BMPs may be used.</p> <p>The change may result in the use of infiltration for meeting MR #7 more often.</p>	Book 1	2.3.4	Determine the measured infiltration rate for subgrade soil profile (existing soils) beneath areas proposed to have bioretention, rain gardens and permeable pavement. Conduct infiltration tests using one of the methods in Section 4.3.1.3. Conduct tests in locations and at adequate frequency capable of producing a soil profile characterization that fully represents the infiltration capability where the LID infiltration BMPs are proposed.	Determine the measured infiltration rate for subgrade soil profile (existing soils) beneath areas proposed to have bioretention, rain gardens and permeable pavement. Conduct infiltration tests using one of the methods in Section 4.3.1.3. Conduct tests in locations, depths, and at adequate frequency capable of producing a soil profile characterization that fully represents the infiltration capability where the LID infiltration BMPs are proposed.
46	Prohibit use of underground infiltration facilities (infiltration trench) and UIC wells for runoff treatment (MR #6). Continue to allow use of aboveground infiltration facilities for runoff treatment when design and soil conditions are appropriate.	<p>County staff have been concerned that pretreatment does not provide enough protection from sediment to avoid clogging underground infiltration facilities and UIC wells. Once clogged, underground facilities are difficult to rehabilitate and repair. Aboveground infiltration facilities such as infiltration ponds will remain as allowable BMPs for meeting runoff treatment requirements (MR #6). Underground infiltration facilities will remain as options for meeting flow control requirements (MR #7).</p>	Book 1	3.2.1, Figure 3.1 and Step 3	<p>Step 3: Determine if Infiltration for Pollutant Removal is Practicable</p> <p>Infiltration can be effective at treating stormwater runoff, but soil properties must be appropriate to achieve effective treatment. This effectiveness is discussed in Section 3.2.2.1, Soil Type.</p>	<p>Step 3: Determine if Infiltration for Pollutant Removal is Practicable</p> <p>Infiltration can be effective at treating stormwater runoff, but soil properties must be appropriate to achieve effective treatment. This effectiveness is discussed in Section 3.2.2.1, Soil Type. Due to the risk of clogging, Clark County does not allow the use of underground infiltration facilities or UIC wells for runoff treatment.</p> <p><i>Also see updated Figure 3.1, attached.</i></p>

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74a	Update infeasibility criteria for full dispersion BMP to be consistent with County policies for use of the BMP in critical areas and critical area buffers and update cross references.	<p>After adoption of the 2015 CCSM, the County developed numerous management procedures to assist in implementing it, including Procedure #2015-003, "Full Dispersion to Critical Areas Feasibility Clarification". This procedure is outdated. Those setbacks that are both consistent with the County's current Critical Areas code and feasible from an engineering perspective can be incorporated into the CCSM at this time.</p> <p>The proposed clarifications for use of the BMP in critical areas and critical area buffers do not change the position of full dispersion as a preferred method for managing stormwater runoff on large lots. This BMP is applicable when rural single family residential developments can minimize effective impervious surfaces to less than 10% of the development site and when other types of development can retain 65% of the site or a TDA in a forested or native condition. When using the List Approach to demonstrating compliance with MR #5, applicants will still demonstrate infeasibility of this BMP before moving on to evaluate other BMPs.</p>	Book 1	2.5.3.3	Text is too lengthy to fit in this table. See the proposed <del>strikeout and underline of the full text of Book 1, Section 2.5.3.3, in attached Issue Paper, "Item 74, Feasibility Criteria for BMP T5.30A, Full Dispersion".</del>	Text is too lengthy to fit in this table. See the proposed <del>strikeout and underline of the full text of Book 1, Section 2.5.3.3, in attached Issue Paper, "Item 74, Feasibility Criteria for BMP T5.30A, Full Dispersion".</del>
35c	Require project proponent to evaluate infiltration as the first step of selecting a flow control best management practice. State that infiltration is the preferred approach to meeting Minimum Requirement #7.	<p>The proposed language more clearly states the County's existing policy of preferring infiltration.</p> <p>The change may result in the use of infiltration for meeting MR #7 more often.</p>	Book 1	4.2, Step A	A. Determine whether the site is suitable for infiltration Perform the site characterization study per Section 4.3.1.2 and infiltration testing per Section 4.3.1.3 to determine if infiltration is feasible to meet Minimum Requirement #7.	A: Determine whether the site is suitable for infiltration. The Applicant shall evaluate infiltration first. Infiltration is the preferred approach to meeting Minimum Requirement #7. Perform the site characterization study per Section 4.3.1.2 and infiltration testing per Section 4.3.1.3 to determine if infiltration is feasible to meet Minimum Requirement #7.
41a	Disallow use of deep drywells.	All of the valley floor in Clark County is both a federally designated sole source aquifer and a critical aquifer recharge area for both public supply wells and domestic wells. The use of deep infiltration should not be allowed.	Book 1	4.3.1.1, Regulatory Requirements, WSDOE UIC	<p>Below-surface stormwater infiltration facilities, such as drywells and perforated pipes, are classified by Ecology as Underground Injection Control (UIC) wells (See Underground Injection Control Program, Chapter 173-218 WAC). The two major requirements of Ecology's UIC regulations are to register UIC wells with the Washington State Department of Ecology prior to their installation and to make sure that underground sources of groundwater are not endangered by pollutants in the discharge (Non-Endangerment Standard). These regulations have requirements on minimum depth to groundwater (5 feet), as well as siting and installation requirements. They also list development activities that are prohibited from using UICs. Ecology's UIC guidelines, as found in Stormwater Management Manual for Western Washington (2019), Chapter I-4, provides information on what is classified as a UIC, provides design information that must be followed for UIC installation, and provides information on requirements to meet the Non-endangerment Standard.</p> <p>Clark County requires verification of UIC registration before approval of final plans. Where UIC regulations conflict with County code, the more stringent of the two regulations shall apply, as determined by the Responsible Official.</p>	<p>Below-surface stormwater infiltration facilities, such as drywells and perforated pipes, are classified by Ecology as Underground Injection Control (UIC) wells (See Underground Injection Control Program, Chapter 173-218 WAC). The two major requirements of Ecology's UIC regulations are to register UIC wells with the Washington State Department of Ecology prior to their installation and to make sure that underground sources of groundwater are not endangered by pollutants in the discharge (Non-Endangerment Standard). These regulations have requirements on minimum depth to groundwater (5 feet), as well as siting and installation requirements. They also list development activities that are prohibited from using UICs. Ecology's UIC guidelines, as found in Stormwater Management Manual for Western Washington (2019), Chapter I-4, provides information on what is classified as a UIC, provides design information that must be followed for UIC installation, and provides information on requirements to meet the Non-endangerment Standard.</p> <p>Clark County requires verification of UIC registration before approval of final plans. Where UIC regulations conflict with County code, the more stringent of the two regulations shall apply, as determined by the Responsible Official. Clark County prohibits the use of Deep UIC wells, as defined in Stormwater Management Manual for Western Washington (2024), Section I-4.15.</p>

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41b	Disallow use of deep drywells.	All of the valley floor in Clark County is both a federally designated sole source aquifer and a critical aquifer recharge area for both public supply wells and domestic wells. The use of deep infiltration should not be allowed.	Book 2	5.2, Infiltration BMPs, BMP R5.10 Infiltration Drywells, Description	A drywell is an underground structure used for infiltrating stormwater runoff by dissipating it into the ground. The drywell discharges the runoff through small diameter holes in the sides of and bottom of the well. A drywell may be either a structural chamber and/or an excavated pit filled with aggregate. Drywells are typically installed similar to manholes with the exception that rounded aggregate is placed beneath around the drywell. Ecology's UIC guidelines, as found in Stormwater Management Manual for Western Washington (2019), Chapter I-4, provides information on what is classified as a UIC, provides design information that must be followed for UIC installation, and provides information on requirements to meet the Non-endangerment Standard.	A drywell is an underground structure used for infiltrating stormwater runoff by dissipating it into the ground. The drywell discharges the runoff through small diameter holes in the sides of and bottom of the well. A drywell may be either a structural chamber and/or an excavated pit filled with aggregate. Drywells are typically installed similar to manholes with the exception that rounded aggregate is placed beneath around the drywell.  Ecology's UIC guidelines, as found in Stormwater Management Manual for Western Washington (2019), Chapter I-4, provides information on what is classified as a UIC, provides design information that must be followed for UIC installation, and provides information on requirements to meet the Non-endangerment Standard.  Clark County prohibits the use of Deep UIC wells, as defined in Stormwater Management Manual for Western Washington (2024), Section I-4.15.
74b	Update design criteria for BMP T5.30A, Full Dispersion. Updates improve clarity of existing text and improve consistency with County policies for use of the BMP in critical areas and critical area buffers.	After adoption of the 2015 CCSM, the County developed numerous management procedures to assist in implementing it, including Procedure #2015-003, "Full Dispersion to Critical Areas Feasibility Clarification". This procedure is outdated. Those setbacks that are both consistent with the County's current Critical Areas code and feasible from an engineering perspective can be incorporated into the CCSM at this time.  The proposed clarifications for use of the BMP in critical areas and critical area buffers do not change the position of full dispersion as a preferred method for managing stormwater runoff on large lots. This BMP is applicable when rural single family residential developments can minimize effective impervious surfaces to less than 10% of the development site and when other types of development can retain 65% of the site or a TDA in a forested or native condition. When using the List Approach to demonstrating compliance with MR #5, applicants will still demonstrate infeasibility of this BMP before moving on to evaluate other BMPs.	Book 2	BMP T5.30A, Full Dispersion	Text is too lengthy to fit in this table. See the proposed <del>strikeout</del> and underline of the full text of Book 1, Section 2.5.3.3, in attached Issue Paper, "Item 74, Feasibility Criteria for BMP T5.30A, Full Dispersion".	Text is too lengthy to fit in this table. See the proposed <del>strikeout</del> and underline of the full text of Book 1, Section 2.5.3.3, in attached Issue Paper, "Item 74, Feasibility Criteria for BMP T5.30A, Full Dispersion".