

Clark County Stormwater Code and Manual
County and Community Requested Changes, Batch 3
Ecology Submittal
June 2025

| <i>Item No.</i> | <i>Requested Change / Reason for Update</i> | <i>Book or Code</i> | <i>Section</i> | <i>Manual or Code Language 2021</i> | <i>Proposed Replacement Language Showing Strikeout, Underline</i> | <i>Explanation</i> |
|-----------------|---|---------------------|---|---|--|---|
| 35a | 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. | 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. | Proposed changes to Book 1, Section 2.3.2, Soils Description: 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 (four) <u>10 (ten)</u> 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. | This change applies to lots that are using the List Approach to satisfy Minimum Requirement #5, Onsite Stormwater Management, and are evaluating the feasibility of downspout full infiltration. |
| 35b | The current language does not specify that soil conditions must be characterized at likely depths where LID infiltration BMPs may be used. | 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. | Proposed changes to Book 1, Section 2.3.4, Infiltration Rate (Coefficient of Permeability): 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, <u>depths</u> , and at adequate frequency capable of producing a soil profile characterization that fully represents the infiltration capability where the LID infiltration BMPs are proposed. | This change applies to sites that are evaluating bioretention, rain gardens, and permeable pavement. It clarifies that infiltration rate testing must be performed at the depth of the proposed facility bottom. |
| 35c | The proposed language more clearly states the County's policy of preferring infiltration. | 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. | Proposed changes to Book 1, Section 4.2, Flow Control BMP Selection, Step A: A: Determine whether the site is suitable for infiltration. <u>The Applicant shall evaluate infiltration first. Infiltration is the preferred approach to meeting Minimum Requirement #7.</u> 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. | The County's existing preference for the use of infiltration in meeting the requirements of Minimum Requirement #7, Flow Control, is stated clearly. This change makes the County's policy more apparent to manual users. |
| 41a | 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 | 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. 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. | 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 (2024), 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 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. <u>Clark County prohibits the use of Deep UIC wells, as defined in Stormwater Management Manual for Western Washington (2024), Section I-4.15.</u> | All of the valley floor in Clark County is both a federally designaterd 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. |

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| 41b | 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. | Book 2 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 (<u>2024</u>), 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. <u>Clark County prohibits the use of Deep UIC wells, as defined in Stormwater Management Manual for Western Washington (2024), Section I.4.15.</u> | All of the valley floor in Clark County is both a federally designaterd 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. |
| 74a | 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 procuedure 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. | Book 1 | 2.5.3.3 | See the proposed 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 T5.30, Full Dispersion". | Full dispersion is the preferred method for managing stormwater runoff when large lots are subject to development of less than 35% of the site, and the proposed updates to the infeasibility criteria ensure protection of critical areas when this BMP is used. | After adoption of the 2015 manual, the County developed numerous management procedures to assist in implementing it. Some of these are outdated and the setbacks that are consistent with the County's critical areas code are being incorporated into the manual at this time. The separate policy will be removed from circulation. |
| 74b | 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 procuedure 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. | Book 2 | BMP T5.30A, Full Dispersion | See the proposed strikeout and underline of the full text of BMPT5.30A, in attached Issue Paper, "Item 74, Feasibility Criteria for BMP T5.30A, Full Dispersion". | Replacement language is too long to present in a table. See issue paper at this link: https://otakinc.sharepoint.com/:w:/r/sites/21823ClarkCountyStormwaterCode/Shared%20Documents/General/Summary%20documents/Issue%20Papers/Item%2075%20BMP%20T5-30%20Proposed%20Feasibility%20Edits%20DRAFT%202025-04-04.docx?d=wa82049426191448a87f42e6daadc3473&csf=1&web=1&e=sPBvaR | After adoption of the 2015 manual, the County developed numerous management procedures to assist in implementing it. Some of these are outdated and the setbacks that are consistent with the County's critical areas code are being incorporated into the manual at this time. The separate policy will be removed from circulation. |
| 86 | 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. | Book 1 | 1.4.1 | All new development shall comply with Minimum Requirement #2. The following new development shall comply with Minimum Requirements #1 - #5 for the new and replaced hard surfaces and the land disturbed: • Results in 2,000 square feet, or greater, of new, replaced, or new plus replaced hard surface area, or • Has land disturbing activity of 7,000 square feet or greater. The following new development shall comply with Minimum Requirements #1 – #9 for the new and replaced hard surfaces and the converted vegetation areas: •Results in 5,000 square feet, or greater, of new plus replaced hard surface area, or •Converts ¾ acres, or more, of vegetation to lawn, or landscaped areas, or •Converts 1 acre or more of vegetation to stabilized soil on projects lacking an approved Final Engineering Plan, or •Converts 2.5 acres, or more, of native vegetation to pasture. | The following new development shall comply with Minimum Requirements #1 – #9 for the new and replaced hard surfaces and the converted vegetation areas: •Results in 5,000 square feet, or greater, of new plus replaced hard surface area, or •Converts ¾ acres, or more, of <u>native</u> vegetation, <u>pasture, scrub/shrub, or unmaintained non-native vegetation</u> to lawn, or landscaped areas, or •Converts 1 acre or more of vegetation to stabilized soil on projects lacking an approved Final Engineering Plan, or •Converts 2.5 acres, or more, of native vegetation to pasture. | This comment/request came in via DEAB as a request to change the definition of vegetation or change the thresholds for applicability of the Minimum Requirements with respect to conversion of vegetation to diferent land covers. This update changes neither definitions nor applicability of the Minimum Requirements. Instead, it clarifies the applicability of the Minimum Requirements by inserting the definition of "converted vegetation areas" into the applicability language. |

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| 87 | 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. | Book 1 | 1.5.7.2, second bullet item | • 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 | - Projects that convert ¾ acres or more of <u>native</u> vegetation, <u>pasture</u> , <u>scrub/shrub</u> , or <u>unmaintained non-native vegetation</u> 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 | This comment/request came in via DEAB as a request to change the definition of vegetation or change the threshold discharge area (TDA) applicability of Minimum Requirement #7, Flow Control, with respect to conversion of vegetation to diferent land covers. This update changes neither definitions nor applicability of the Minimum Requirements. Instead, it clarifies the TDA threshold for applicability of Minimum Requirment #7 by inserting the definition of "converted vegetation areas" into the threshold language. |
| 105 | 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. | 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 <u>vegetation</u> pervious areas: | The update adds clarity but does not change applicability of the Minimum Requirements. |