

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

This table was created to document significant changes made to the Crum Creek Watershed Generic Stormwater Management Model Ordinance which previously served as the informal Delaware County-wide Ordinance. The Ordinance has been updated to for consistency with the Pennsylvania Department of Environmental Protection’s (PA DEP) 2022 Model Stormwater Management (SWM) Ordinance, as well as general updates for clarity. This table summarizes the changes and does not include minor administrative updates. For complete documentation of the updates, please reference the Model Ordinance document itself. The Ordinance has been renamed the Delaware County-wide Model Stormwater Management Ordinance.

| No. | Topic   | Change   | Reason for Update     | Location Reference        | Comments  |
|-----|---|--|-----------------------|---------------------------|---|
| 1   | Title   | Revised ordinance title from “Crum Creek Watershed Stormwater Management Model Ordinance” to “Delaware County-wide Model Stormwater Management Ordinance.” | General Update        | Cover Page                | Update to Cover Page.   |
| 2   | Table of Contents                               | Added new sections that were inserted into the ordinance to the table of contents: Erroneous Permit, Waivers, and Riparian Buffers.                        | 2022 MS4 Requirements | Table of Contents         | Update to Table of Contents.  |
| 3   | Notes to Municipal Editor                       | Added this section as instructions to whomever is editing the ordinance and customizing for the municipality.  | General Update        | Notes to Municipal Editor | Added to provide additional instruction to editor.                      |
| 4   | Green Infrastructure and Low Impact Development | Added statement regarding the intentions of Green Infrastructure (GI) and Low Impact Development (LID) use.  | 2022 MS4 Requirement  | Subsection 102.I          | Inserted language directly from PA DEP 2022 Model SWM Ordinance.        |
| 5   | TMDLs   | Added statement regarding the implementation of Total Maximum Daily Load (TMDL) requirements.  | General Update        | Subsection 103.S          | Added for consistency with state and federal regulations.               |
| 6   | Statutory Authority                             | Added reference to the Third Class City Code.  | General Update        | Subsection 104.E          | Added language for clarification.                                       |
| 7   | Exemptions                                      | Added High Tunnels language.   | Act 167 Requirement   | Subsection 106.A.3        | Inserted language directly from Act 167 amendment.                      |
| 8   | Erroneous Permit                                | Added this section for consistency with the PA DEP 2022 Model Ordinance.   | 2022 MS4 Requirement  | Section 110               | Inserted language directly from PA DEP 2022 Model SWM Ordinance         |
| 9   | Waivers   | Added this section as required by the PA DEP 2022 Model SWM Ordinance.   | 2022 MS4 Requirement  | Section 111               | Inserted language directly from PA DEP 2022 Model SWM Ordinance         |
| 10  | Conservation District                           | Updated from the Crum Creek Model Ordinance to specify Delaware County.  | General Update        | Section 202               | Inserted Delaware County.   |
| 11  | Conveyance                                      | Updated to be specific to stormwater.  | General Update        | Section 202               | Updated language of definition to be specific to stormwater management. |
| 12  | Department                                      | Added references to DEP, PA DEP, and PADEP.  | General Update        | Section 202               | Inserted references to DEP, PA DEP, and PADEP.                          |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic                  | Change  | Reason for Update                       | Location Reference | Comments  |
|-----|------------------------|---|---|--------------------|---|
| 13  | Designee               | Updated from the Crum Creek Model Ordinance to be specific to Delaware County.  | General Update                          | Section 202        | Inserted Delaware County Planning Department and Delaware County Conservation District.   |
| 14  | Developer              | Modified definition of developer to include “company or organization”   | General Update                          | Section 202        | Definition for Developer was “A person who seeks to undertake any Regulated Activity” Modified this to include company and organization.  |
| 15  | Evapotranspiration     | A definition for “evapotranspiration” was added to the model ordinance.   | General Update                          | Section 202        | Added for consistency with New PA DEP BMP Manual and current guidance from PA DEP   |
| 16  | Floodplain             | Updated language to reference FEMA.   | General Update                          | Section 202        | Inserted Federal Emergency Management Administration. Removed Federal Insurance Administration.   |
| 17  | Floodway               | Updated Floodway definition.  | General Update                          | Section 202        | Added references to the base flood and 1% annual chance flood.  |
| 18  | Green Infrastructure   | Added Green Infrastructure definition.  | 2022 MS4 Requirement/<br>Public Comment | Section 202        | Inserted language directly from PA DEP 2022 Model SWM Ordinance and added cross-reference to the term “Green Stormwater Infrastructure (GSI)” per public comment.   |
| 19  | High Tunnels           | Added High Tunnel definition.   | Act 167 Requirement                     | Section 202        | Inserted language directly from Act 167 amendment.  |
| 20  | Impervious Surface     | Updated the definition of Impervious Surface to include clarification on whether gravel areas, pavers, porous pavement, and solar collectors should be considered impervious. | General Update                          | Section 202        | Uncompacted gravel areas with no vehicular traffic are to be considered pervious per review by the Municipal Engineer. Surfaces that were designed to allow infiltration (i.e., areas of porous pavement) are to be considered pervious if designed to function as a BMP per review by the Municipal Engineer. Additionally, the definition was updated to clarify that solar collectors should be considered pervious if the Municipal Engineer determines that the area under the solar collectors is maintained as a vegetated pervious surface. |
| 21  | Impervious Surface     | Added Note to Editor for Impervious Surface definition.   | General Update                          | Section 202        | This was updated to provide additional guidance regarding consistency with definitions included in other sections of the Municipality’s Code and the option to include or delete decks and swimming pools.  |
| 22  | Low Impact Development | Added definition for Low Impact Development.  | 2022 MS4 Requirement                    | Section 202        | Inserted language directly from PA DEP 2022 Model SWM Ordinance   |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic   | Change  | Reason for Update                | Location Reference | Comments   |
|-----|---|---|----------------------------------|--------------------|--|
| 23  | Managed Release Concept (MRC)                               | Added definition.   | General Update                   | Section 202        | Language inserted from PA DEP MRC guidance document.   |
| 24  | Municipality  | Updated from the Crum Creek Model Ordinance to be specific to Delaware County.  | General Update                   | Section 202        | Inserted Delaware County.  |
| 25  | PA BMP Manual   | Added “and as subsequently amended” to ensure applicability of future versions of the Manual.   | General Update                   | Section 202        | Inserted “and as subsequently amended” to ensure applicability of future versions of the Manual, as a new/updated Manual is anticipated in the next year.  |
| 26  | Pet   | A definition for “Pet” was added to the model ordinance.  | 2022 MS4 Requirement             | Section 202        | Added for additional clarity for the new Section 803.  |
| 27  | Regulated Impervious Surface                                | A definition for “Regulated Impervious Surface” was added to the model ordinance. The term was also included throughout the entire model ordinance as applicable.   | General Update                   | Section 202        | The term includes proposed impervious surface as part of a current proposed project and all existing impervious surfaces installed as part of previous project(s) after the date the municipality first began regulating impervious surface. |
| 28  | Stormwater Control Measure (SCM)                            | A definition for “Stormwater Control Measure” was added to the model ordinance.   | New PA DEP Stormwater BMP Manual | Section 202        | This term is anticipated to replace “BMP” in the new PA DEP Stormwater BMP Manual and has been included in the updated Countywide Model Stormwater Ordinance in anticipation of this.  |
| 29  | BMP, Stormwater Management Facility, SCM                    | Definitions for “Best Management Practice,” “Stormwater Management Facility,” “Stormwater Control Measure” were updated. Terminology was updated throughout the ordinance for consistency with definitions. | General Update                   | Section 202        | These definitions were updated to cross-reference each other. Added reference to Conservation Design and clarification for non-structural BMPs in the definition of BMP.   |
| 30  | Stormwater Management Facility                              | The definition for “Stormwater Management Facility” was updated. Terminology was updated throughout the ordinance for consistency with this definition.   | General Update                   | Section 202        | Updated to include references to Best Management Practices and Stormwater Control Measures   |
| 31  | Stormwater Management Requirements for Regulated Activities | Removed the Note to Editor with optional language allowing for measures other than those specified in the Ordinance to be used if minimum standards are impracticable.                                      | General Update                   | Subsection 301.B   | This Note to Editor was removed for consistency with the remainder of the Ordinance and because a Waivers section was added (Section 111).   |
| 32  | Stormwater Discharges onto Adjacent Properties              | Updated for clarity and consistency with PA DEP Chapter 102 requirements.   | General Update                   | Subsection 301.F   | Language modified for clarification.   |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic   | Change   | Reason for Update      | Location Reference      | Comments   |
|-----|---|--|------------------------|-------------------------|--|
| 33  | BMP Design Standards                            | Updated to reference the PA BMP Manual, as amended and to specify that where conflicts exist, the most restrictive standard should apply.  | General Update         | Subsection 301.L        | Inserted reference to the PA BMP Manual, as amended.   |
| 34  | Stormwater Discharges onto Adjacent Properties  | Added language for clarity and consistency with PA DEP Chapter 102 requirements.   | General Update         | Subsection 301.U        | Added “adjacent” properties in addition to “downstream.” Clarified language regarding new concentrated discharge amounts.                                  |
| 35  | Infiltration Volume Requirements                | Added reference to the PA BMP Manual and clarified language that financial hardship is not acceptable to avoid proposing infiltration facilities. Added reference to alternative methods acceptable such as Managed Release Concept. | General Update         | Section 305             | Added language for clarification.  |
| 36  | Infiltration Testing                            | Added reference to the PA BMP Manual for consistency and clarity regarding infiltration testing requirements.  | General Update         | Subsection 305.B.2      | Added language for clarification.  |
| 37  | Green Infrastructure and Low Impact Development | Added language encouraging the use of GI and LID for all regulated activities where possible.  | 2022 MS4 Requirement   | Section 306             | Inserted language directly from PA DEP 2022 Model SWM Ordinance.   |
| 38  | Water Quality and Runoff Volume Requirements    | Updated the requirement for runoff volume to include the Small Storm Hydrology Method for consistency with Section 306 and the PA Stormwater BMP Manual.   | General Update         | Subsection 306.A        | Runoff volume is to be managed through the Runoff Curve Method or the Small Storm Hydrology Method, whichever results in the greater volume to be managed. |
| 39  | Riparian Buffers                                | Relocated the riparian buffer requirements from Subsection 306.C to a new Section 311.   | General Update         | Subsection 306.C        | Update to organization of ordinance.   |
| 40  | Evapotranspiration                              | Added language allowing for the crediting of evapotranspiration toward meeting volume requirements per the most recent guidance from PA DEP.   | General Update         | Subsection 305.L        | Added for consistency with updated PA BMP Manual and current guidance from PA DEP.   |
| 41  | Peak Rate Control                               | Added Note to Editor to provide instruction on what peak rate table(s) to include. Removed sentence between Tables 308.2 and 308.3 to provide clarity.   | General Update/Act 167 | Section 308             | Added Note to Editor for clarification.  |
| 42  | Peak Rate Control                               | Reformatted optional provisions Subsection 308.F and 308.G as a Note to Editor. Added clarifications to be determined by the Municipal   | General Update         | Subsection 301.F. and G | Added language for clarification.  |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic   | Change   | Reason for Update          | Location Reference | Comments   |
|-----|---|--|----------------------------|--------------------|--|
|     |   | Engineer. Inserted “earth” where “disturbance” was referenced for added clarification.   |                            |                    |  |
| 43  | Peak Rate Control                               | Added “predevelopment” as clarification to the impervious surface required to be reduced under Alternative Criteria.   | General Update             | Subsection 301.J.2 | Added language for clarification.  |
| 44  | Calculation Methodology                         | Added clarification that the Municipal Engineer can allow that the Rational Method can be permitted to estimate peak discharges for drainage areas greater than 5 acres.   | General Update             | Subsection 309.A   | Added language for clarification.  |
| 45  | Calculation Methodology                         | Added clarification that times of concentration for channel and pipe flow calculations should be a minimum of 5 minutes.   | General Update             | Subsection 309.D   | Removed general reference to the Manning’s equation and added reference to the time of concentration of 5 minutes per industry standard. |
| 46  | Other Requirements                              | Added clarification that conveyance facilities to detention basin or other stormwater management facilities should be designed to convey the 100-year frequency storm.   | General Update             | Subsection 310.D   | Added language for clarification.  |
| 47  | Riparian Buffers                                | Relocated the riparian buffer requirements from Subsection 306.C to a new Section 311. Added language indicated that Chapter 102 Riparian Buffer requirements supersede those required in the municipal ordinance consistent with the PA DEP 2022 Model SWM Ordinance optional Riparian Buffer provisions. | General Update             | Section 311        | Updated riparian buffer requirements with no changes to stringency. Buffer widths are still at the discretion of municipalities.         |
| 48  | Riparian Buffers                                | Added a Note to Editor at the beginning of this section instructing municipalities to review the Riparian Buffer provisions in their Subdivision and Land Development Ordinance, Zoning Ordinance, or other parts of the Municipality’s Code and edit for consistency.                                     | General Update             | Section 311        | Added Note to Editor to provide instruction to municipalities.   |
| 49  | Riparian Buffers                                | Added a Note to Editor with additional optional Riparian Buffer provisions from the PA DEP 2022 Model SWM Ordinance.   | 2022 MS4 - <b>OPTIONAL</b> | Subsection 311.C-H | Added Note to Editor to provide instruction to municipalities.   |
| 50  | Green Infrastructure and Low Impact Development | Added statement requiring justification in SWM Site Plan if BMPs other than GI and LID are proposed to achieve requirements.   | 2022 MS4 - <b>OPTIONAL</b> | Subsection 402.A.6 | This is optional for each municipality.  |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic  | Change  | Reason for Update          | Location Reference  | Comments   |
|-----|--|---|----------------------------|---------------------|--|
| 51  | SWM Site Plan Requirements                               | Updated from the Crum Creek Model Ordinance to be specific to Delaware County. Also added reference to plan sheets in addition to maps.   | General Update             | Subsection 402.B    | Inserted Delaware County and reference to plan sheets.   |
| 52  | SWM Site Plan Requirements                               | Added clarification that the signature block by the licensed professional should include a signature and a professional seal.   | General Update             | Subsection 402.B.23 | This change was made as a clarification.   |
| 53  | SWM Site Plan Requirements                               | Added the requirement to include a signature block for the municipality to acknowledge that the SWM Site Plan meets all design standards and criteria of the Ordinance.   | General Update             | Subsection 402.B.24 | This change was made to be consistent with the requirements of the PA BMP Manual.  |
| 54  | SWM Site Plan Requirements                               | Removed “When infiltration measures such as seepage pits, beds, or trenches are used.”  | General Update             | Subsection 402.D.2  | The locations of existing and proposed septic tank infiltration areas and well should be shown on all SWM plans.   |
| 55  | Green Infrastructure and Low Impact Development          | Added statement indicating that the municipality will not approve the SWM Site Plan unless it determines that GI and LID practices are not practicable.   | 2022 MS4 - <b>OPTIONAL</b> | Subsection 404.I    | This is optional for each municipality.  |
| 56  | As-Built Plans   | Added specification that latitude and longitude coordinates of all SWM BMPs are required. Removed the word “structures.”  | 2022 MS4 Requirement       | Subsection 502.B    | Added this requirement for consistency with PA DEP 2022 Model SWM Ordinance and NPDES Permit requirements.   |
| 57  | NPDES Permit Notice of Termination (NOT)                 | Added requirement that NOT approval for NPDES permits must be obtained prior to final approval by the municipality.   | General Update             | Subsection 502.E    | This language was added as developers/applicants are not getting NOTs which can create a potential issue with the transfer of responsibility of stormwater BMPs. |
| 58  | Fees and Expenses  | Added “Attendance at meeting” to expenses covered by fees.  | General Update             | Subsection 602.E    | Added language for clarification.  |
| 59  | Responsibilities for O&M of Stormwater Controls and BMPs | Updated from the Crum Creek Model Ordinance to be specific to Delaware County.  | General Update             | Subsection 702.D.1  | Inserted Delaware County.  |
| 60  | Operations and Maintenance                               | Updated this section to include Landowner Inspection language as required in the PA DEP 2022 Model Ordinance as <i>Option 2</i> . Previously <i>optional</i> Municipal Inspection and O&M Fund language updated to serve as alternative <i>Option 1</i> . Municipalities should select one of the two | 2022 MS4 Requirement       | Section 708         | Inserted language from PA DEP 2022 Model SWM Ordinance as Option 2. Added Note to Editor with additional instruction and options.                                |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic                      | Change  | Reason for Update    | Location Reference  | Comments   |
|-----|----------------------------|---|----------------------|---------------------|--|
|     |                            | options or develop an acceptable Option 3 per the added Note to Editor.   |                      |                     |  |
| 61  | Operations and Maintenance | Removed the previously included section “Municipal Stormwater Control and BMP Operation and Maintenance Fund.”  | General Update       | Section 708         | Removed the previously included section and incorporated into the section listed above.  |
| 62  | Authorized Discharges      | Added more detailed language for the fire hydrant flushings authorized discharges [authorized, <i>if</i> do not contain Total Residual Chlorine (TRC)].                                       | 2022 MS4 Requirement | Subsection 801.C.2  | Inserted language directly from PA DEP 2022 Model SWM Ordinance  |
| 63  | Authorized Discharges      | Revised “irrigation drainage” to be specified as “non-contaminated irrigation drainage water” as an authorized discharge, to be more consistent with the PA DEP 2022 Model Ordinance language | 2022 MS4 Requirement | Subsection 801.C.3  | Inserted language directly from PA DEP 2022 Model SWM Ordinance  |
| 64  | Authorized Discharges      | Added more detailed language for HVAC condensation authorized discharges (authorized if non-contaminated).  | 2022 MS4 Requirement | Subsection 801.C.5  | Inserted language directly from PA DEP 2022 Model SWM Ordinance  |
| 65  | Authorized Discharges      | Revised the language on residential car wash water to be consistent with PA DEP 2022 Model Ordinance  | 2022 MS4 Requirement | Subsection 801.C.6  | Inserted language directly from PA DEP 2022 Model SWM Ordinance.   |
| 66  | Authorized Discharges      | Added non-contaminated hydrostatic test water discharges to authorized discharges.  | 2022 MS4 Requirement | Subsection 801.C.15 | Inserted language directly from PA DEP 2022 Model SWM Ordinance  |
| 67  | Authorized Discharges      | Removed dechlorinated pool discharges from authorized discharges and added diverted stream flows.   | 2022 MS4 Requirement | Subsection 801.C.12 | Inserted language directly from PA DEP 2022 Model SWM Ordinance  |
| 68  | Prohibited Connections     | Added language stating that any drain or Conveyance that delivers discharges into wetlands, riparian buffers, or other Waters of the Commonwealth is prohibited.                              | General update       | Subsection 802.A    | Added language to be consistent with Section 801.A.  |
| 69  | Pet Waste                  | Added new optional Section and Note to Editor regarding requirements for properly disposing of pet waste.   | 2022 MS4             | Section 803 (new)   | This section is required (or a stand-alone Pet Waste Ordinance) if the Municipality has an NPDES MS4 Appendix permit requirement for Pollutant Control Measures for outfalls that discharge to waters impaired due to pathogens. This Section is optional for Municipalities who do not have this requirement. |

## Delaware County-wide Model Stormwater Management Ordinance Updates – Summary of Changes

| No. | Topic          | Change  | Reason for Update | Location Reference | Comments  |
|-----|----------------|---|-------------------|--------------------|---|
| 70  | Right-of-Entry | Added language to include right-of-entry for erosion and sediment controls and permanent conveyances both during and after completion of a Regulated Activity.      | General Update    | Subsection 901.A   | Added language for clarification.               |
| 71  | O&M Agreement  | Updated for consistency with Ordinance updates, including: the definition of BMP, addition of a definition for conveyance, and updated O&M inspection requirements. | General Update    | Appendix I         | Updated for consistency with Ordinance updates. |