



Drainage Code Enhanced Factsheet

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SUMMARY

Ensuring effective stormwater management is a critical component of the health, safety, and welfare in our communities. Proposed legislation will update the New Castle County Code, Chapter 12, concerning stormwater conveyance to provide consistency with Chapter 40 (Unified Development Code) concerning Green Technology Best Management Practices, the new Delaware Sediment and Stormwater Regulations concerning stormwater quantity and the County's NPDES MS4 Permit concerning stormwater quality. In addition to improving water quality, these amendments are intended help extend the life of infrastructure and result in long-term cost savings.

DEFINITIONS

New provisions are intended to closely align definitions in the Unified Development Code with the Delaware Sediment and Stormwater Regulations, as follows:

Applicant means a person, firm or governmental agency who executes the necessary forms to obtain approval or a permit for any zoning, subdivision, land development, building, land disturbance, or other activity regulated by this Chapter.

Building means a structure built on a lot, having a roof, and intended to shelter people, animals, property or business activity. Any structure used or intended to be used for supporting or sheltering any use or occupancy. The word "building" shall be construed as if followed by the words "or part or parts thereof and all equipment therein."

Building Code means Chapter 6 New Castle County Code

Closed channel means a conveyance system not open to the atmosphere and subject to pressure flow (i.e., pipe).

Conveyance Mitigation Area means a practice to mitigate the flow of stormwater runoff on a residential lot.

Design Engineer means registered professional in State of Delaware who signed, dated and sealed the approved construction plans.

Developer means a person or persons seeking to build or develop as defined in this Chapter and Chapter 40 of the New Castle County Code.

Development means any manmade change to improved or unimproved real estate, including but not limited to, buildings or other structures, placement of manufactured homes, mining,

dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. Includes any action covered under Chapter 40 of the New Castle County Code.

Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters and/or the unusual and rapid accumulation of surface runoff

Freeboard means the vertical elevation between the design high water level and the top of bank or lowest floor.

Hydric Soils means soils having characteristics of an abundance of moisture.

Hydrologic characteristics means local atmospheric and land surface characteristics impacting the volume and rates of stormwater runoff.

Land disturbing activities means a land change or construction activity for residential, commercial, industrial and institutional land development which may result in soil erosion from wind or water, or the movement of sediments or pollutants into state waters or onto lands; or which may result in accelerated stormwater runoff, including, but not limited to, clearing, grading, excavated, transporting and filling of land.

Maintenance organization means an organization approved by the County that is legally responsible for owning, maintaining, and/or managing open space. A maintenance organization may be a condominium association, a third-party conservancy or a maintenance corporation.

Municipal Separate Storm Sewer System (MS4) means a conveyance or system of conveyances that is owned by a state, city, town or other public entity that discharges stormwater (e.g. storm drains, pipes or ditches) to waters of the United States.

National Pollutant Discharge Elimination System (NPDES) means a provision under the Clean Water Act that prohibits discharge of pollutants into waters of the U.S. unless a special permit is issued by the EPA, a State or a tribal government.

Open space means parcels of land within a residential subdivision, exclusive of streets and lots, generally preserved in as natural state or improved to provide common amenities for the residents of the subdivision. Open space shall be categorized as either natural resource area or community area. Open space is intended to preserve environmentally sensitive areas and protected resources, provide active and passive recreation facilities, establish greenways, provide wildlife habitats, facilitate stormwater management functions, and landscaped buffer-yards. Both natural resource area open space and community area open space can be public or private and would be annotated as such on the development record plan and/or deed.

Right-of-way means an area of land dedicated for public or private use to accommodate a transportation system,

Sanitary sewage means any liquid discharge from a structure or animal containment area, except roof drains.

Sediment and stormwater plan means a plan for the control of soil erosion, sedimentation, stormwater quantity, and water quality impact resulting from any land disturbing activity as defined by DSSR.

Structural Component means a portion of a stormwater management facility such as an inlet, outfall, pipe, outlet structure, low flow device, orifice, trash rack, or other physical feature of the stormwater management facility.

Swale means a linear shallow open channel with gently sloping sides in the land's surface, natural or man-made, in which sheet flow collects and forms a temporary watercourse to manage water runoff.

Watercourse means a stream channel (perennial, intermittent, mapped or unmapped) with banks and a bed within which concentrated surface water flows continuously or intermittently.

Water Quality Improvement Plan means a planning mechanism to work toward meeting applicable water quality standards and TMDL requirements.

LAND GRADING ON RESIDENTIAL LOTS

- The ground on which structures are located shall be graded to carry stormwater runoff away from buildings and dispose of it without causing water to pond on a private lot. Land grading on residential lots shall comply with the following specific standards:
 - *Minimum slopes.* The minimum slope on a residential lot shall be (1/2) percent on impervious surfaces, two (2) percent on all other pervious surfaces. When acceptable to the Department of Land Use, the grade on pervious surfaces may be reduced to one (1) percent, providing soil testing and assessment by a qualified professional are provided to ensure adequate infiltration potential is available through all layers of the soil horizon and that the local water table characteristics are amenable to such practices. It must be demonstrated that the lesser gradient is adequate to drain the lot without detrimental effect upon buildings or upon essential uses, including an individual sewage disposal system. Graded areas that result in standing water after a rain event in excess of forty-eight (48) hours are not acceptable.
 - *Vegetative stabilization.* All lots must be top-soiled to a minimum depth of four (4) inches. Seeding, soil amendments, and mulching must be applied according to

- "Standards and Specifications for Vegetative Stabilization with Permanent Seeding" section of the Delaware Erosion and Sediment Control Handbook. The certificate of occupancy for a dwelling shall be withheld pending satisfactory completion of these items. These requirements may be postponed to a specific date, in writing by the Department.
- *Postponement or waiver of final grading and vegetative stabilization requirements.* A postponement or waiver of final grading and vegetative stabilization requirements may be approved by the Department, upon presentation of a form prescribed by the Department of Land Use and signed by the builder, the prospective homeowner(s), and the County pursuant to the regulations permitting such postponement or waiver.
 - *Poor drainage soils.* Buildings and their foundations placed in areas having poor drainage characteristics that result in a seasonal high-water table (SHWT) (within thirty-six (36) inches of the lowest floor elevation) shall be waterproofed by an approved method. No lowest floor shall be constructed within 2 feet of the SHWT.

GRADING IN RESIDENTIAL AND NONRESIDENTIAL COMMON AREAS

- *Minimum open area slope.*
 - Pervious areas: two (2) percent
- *Drainage easements.*
 - Open channels that convey runoff from a drainage area greater than ten (10) acres shall be located within a drainage easement designated for private maintenance. The width shall be constant and accommodate the limits of inundation during a one hundred (100) year storm event plus one (1) foot of freeboard, but in no case be less than twenty (20) feet wide. No building nor any blockage shall be placed within the easement.
 - Wherever closed conveyance systems are proposed within common areas, landscape areas or open space, a drainage easement shall be provided. Suitable allowance for channel grading over the closed system must be made. The easement width shall be constant and accommodate the limits of inundation during a one hundred (100) year storm event, but in no case be less than twenty (20) feet wide
- *Vegetative stabilization.* All graded areas must be top-soiled to a minimum depth of four (4) inches. Seeding, soil amendments, and mulching must be applied according to "Standards and Specifications for Vegetative Stabilization with Permanent Seeding" section of the Delaware Erosion and Sediment Control Handbook. The certificate of occupancy for a structure shall be withheld pending satisfactory completion of these items. These requirements may be postponed to a specific date, in writing by the Department.

ENVIRONMENTALLY SENSITIVE GRADING

- For the protection of natural resource areas designated to remain undisturbed, not including the riparian buffer area, a minimum ten (10) foot wide buffer must be provided between the sediment control practice and the natural resource area(s).
- Where stockpiling is necessary to complete the earth work for a project, all stockpiles shall be located in open space. Temporary vegetative stabilization shall be completed within seven (7) calendar days of the formation of the stockpile. For any period of inactivity longer than thirty (30) calendar days, the stockpile shall be stabilized with permanent vegetation and maintained in such a manner so that the stockpile is mowable (maximum slope 3:1). Stockpiles shall be no taller than twenty (20) feet at any point as measured from lowest toe of slope of any pile to the tallest point on the stockpile.

LAND GRADING DESIGN

Before issuance of a certificate of occupancy, the Department shall receive a grading as-built plan certifying that the residential lot was graded in accordance the approved grading plan and inspect final grading around a building for conformance to requirements of this Chapter.

CONVEYANCE SYSTEMS

- Closed channel (i.e., pipe networks). As most closed (i.e., piped) drainage conveyance systems become the maintenance responsibility of the State of Delaware or a Maintenance Corporation, New Castle County requires that all closed drainage conveyance systems be designed and constructed according to DelDOT's Development Coordination Manual Effective April 2016, as amended.
- Development sites shall be graded and stormwater management facilities located in a way that ensures that no buildings will be flooded by a one hundred (100) year storm event and that all runoff from areas designed to drain to a stormwater management facility shall reach the facility, even in the event that the runoff rate exceeds the capacity of the conveyance system or the conveyance system fails. The following guidelines shall be used to verify this requirement:
 - For building protection, the overall site drainage system shall be evaluated using the SCS method one hundred (100) year frequency storm. The water surface elevation at catch basin sumps, flat areas, and other hydraulically critical areas shall be assessed by a topographic appraisal indicating the maximum limits of flooding. At locations where the topographic appraisal indicates limited conveyance possibilities, the

water surface elevation shall be computed by Manning's Equation or backwater analysis as appropriate. A minimum distance of ten (10) feet shall be maintained between the computed limits of inundation and any occupiable existing or proposed building. A minimum one (1) foot freeboard shall be maintained between the computed water surface elevation and the lowest adjacent grade of any occupiable structure.

- The drainage system shall be designed so that parcels over which the surface waters are conveyed from the development site to existing watercourses or pipe systems are not adversely affected. The following criteria shall be used for verifying that a property is not adversely affected and that the developed property may continue to discharge runoff without off-site modification:
 - For projects generating a post-development discharge rate of one (1) cubic feet per second, or greater in a one (1) year storm event, the post-development discharge is not concentrated in a location where the predevelopment runoff was not concentrated.
 - The stormwater management design shall comply with the Water Quality Improvement Plan, Watershed, Sub-Watershed and/or an EPA TMDL Strategy for the watershed in which the project is located.

ESTIMATION OF PEAK FLOW FOR DRAINAGE CONVEYANCE

The criteria for selecting a storm frequency for conveyance system design is provided below:

| Function | Open Channels | Storm Pipes | Culverts and Bridges |
|---|---------------|-------------|----------------------|
| Stormwater that is captured and managed in a facility | 25 | 10* | 25 |
| Stormwater that is conveyed through the site without management | 25 | 25 | 25 |
| Watercourse | 100 | 100 | 100 |

* Use twenty-five (25) year frequency for sumps drained by a storm pipe.

HYDRAULIC DESIGN STANDARDS

- *Generally.* All drainage systems, including culverts and bridges, shall be designed and constructed in a manner to achieve the following:
 - To account for both on-site and off-site surface runoff;
 - Drainage systems shall conform to DelDOT standards; and
 - To retain or improve the character of the surrounding area as much as practical.

- *Closed conveyance systems.*
 - Drainage structures shall have a minimum of 0.2-ft of fall between the inlet and outlet inverts to achieve good hydraulic performance.

DESIGN FOR MAINTENANCE

New or improved drainage conveyance systems shall be designed and constructed to require economical maintenance. Conveyance materials used shall have a service life of 50-years or more. Adequate rights-of-way must be provided for access during construction and afterwards for maintenance.

DRAINAGE EASEMENTS

The developer shall provide a permanent recorded access easement to all on-site easements. This easement shall be at least fifteen (15) feet in width, with no slope greater than four (4) feet horizontal to one (1) foot vertical for vehicular access. Access easements shall be created and maintained free of all structures, blockages and encumbrances.

AS-BUILTS

- Stormwater management facility as-builts shall contain sufficient information to complete the documentation required by the U.S. Department of Agriculture, Soil Conservation Service, Pond Code 378 (April, 2003) as amended. Stormwater management facility as-builts shall conform to the latest version of the applicable stormwater as-built checklist.
- All conveyance systems (open channels, ditches, swales or pipes) located in open space shall be as-built. Conveyance system as-builts shall conform to the latest version of the conveyance system as-built checklist.

SEDIMENT AND STORMWATER MANAGEMENT

Certain documents on file with the Clerk of the County Council, being marked and designated as the Delaware Sediment and Stormwater Regulations, as amended, having an effective date of February 11, 2019, promulgated by the DNREC, are hereby adopted as the sediment and stormwater regulations of the County. All the sections, penalties, conditions, and terms of the Delaware Sediment and Stormwater Regulations are hereby referred to, adopted, and made part of this Chapter as if fully set out in this Section.

SEDIMENT AND STORMWATER PERMIT FEES

- New Castle County shall collect, at the time a sediment and stormwater management application is submitted, a fee calculated in accordance with Appendix 2 of the Unified Development Code.
- At the discretion of the General Manager of the Department of Land Use or his/her designee, an additional review fee may be charged if the original plan submission has not been found acceptable for approval after the second submission. This fee shall be one hundred (100) percent of the original review fee.

PROHIBITED LAND DISTURBING ACTIVITIES

Except as provided in the Delaware Sediment and Stormwater Regulations, no person or entity may engage in any land disturbing activity until such person or entity has obtained a sediment and stormwater permit in the form of an approved plan pursuant to this Chapter. Lines and grades plans will not be approved for a parcel of land before approval of a sediment and stormwater plan, except as exempted by the Delaware Sediment and Stormwater Regulations. These requirements are in addition to all other provisions of law relating to the issuance of such permits and are not intended to otherwise affect the requirements for such permits.

REGULATIONS GOVERNING THE USE OF APPROVED SEDIMENT AND STORMWATER PLANS

- Implementation of the approved plan may only be altered as approved by the Department of Land Use. Such changes may be directed where:
 - The sequence of construction does not adequately address construction and completion of the project.
 - Material standards or construction techniques have changed that would result in a more economical design for construction and maintenance.
- No building, grading or other permits for a site shall be granted by the Department, nor shall any sediment and stormwater permit be approved by the New Castle County, where:
 - The site has not completed an inspection for the release of permits.
 - A DeIDOT entrance permit has not been obtained.
 - All other applicable local, State and Federal permits have not been obtained.
- The Department may, in its sole discretion under appropriate circumstances, restrict or prohibit the use of Standard Plans. Such a decision shall result in the applicant being

obligated to submit a detailed sediment and stormwater plan in accordance with this Chapter.

SEDIMENT AND STORMWATER REGULATIONS AND DESIGN STANDARDS

- The sediment and stormwater submission shall conform to the latest version of the sediment and stormwater and drainage design checklist. The following design standards apply:
 - Design Standards. All projects not exempt from the Delaware Sediment and Stormwater Regulations shall treat a minimum of 50% of the pre-developed impervious cover for the Resource Protection Event (RPv). Greater emphasis shall be placed on treating runoff from paved surfaces rather than building roof surfaces for the purposes of obtaining the greatest water quality benefit. In addition, non-residential plans, not exempt from the Delaware Sediment and Stormwater Regulations, shall treat a minimum of 50% of the pre-developed impervious cover for the RPv regardless of the applicability of any Standard Plan recognized by the Delaware Sediment and Stormwater Regulations.
 - Design Standards. If the watershed within which the project is situated is subject to NPDES permit requirements and/or a Water Quality Improvement Plan (WQIP), the project shall be designed to meet or exceed these permit or plan requirements in addition to all requirements in this Chapter.
 - Waivers. Only the standards of sediment and stormwater management established by the Drainage Code that exceed the requirements of the Delaware Sediment and Stormwater Regulations may be considered by the Department.
 - Acceptability of proposed techniques. The following criteria must be submitted in order to determine acceptability of the proposed techniques for stormwater quality control:
 - An investigation regarding the feasibility of the preferred practices, as set forth in the Delaware Sediment and Stormwater Regulations, prior to considering other alternatives. All other options shall be exhausted prior to utilizing 48-hour detention or dead storage techniques.
 - Sufficient evidence supporting the unfeasibility of a preferred practice must be approved by the Department before utilizing an alternate practice. The evidence must relate to the following areas, at a minimum: soil types and characteristics, seasonally highwater table elevation and anticipated type of pollutant loading.
 - Documentation of a proposed practice's ability to meet the pollution treatment standards, as set forth in the Delaware Sediment and Stormwater Regulations, NPDES permit or WQIP.
 - Stormwater management design.

- Bio-retention facilities shall be sized for the maximum ponding depth of the RPv to provide for economical design and maintenance
- All outlets shall be maintained in good working order for all stormwater management facilities.
- Stormwater management facilities that require confined space certification for inspection and maintenance are not permitted in residential communities.
- The developer is responsible to maintain all stormwater management facilities through site construction until open space turnover or completion of project.
- All proposed plan phases shall be independent unless the previous phase is constructed, inspected and approved.
- Size of stormwater management area and required easements.
 - Sediment disposal area sized in accordance with the Delaware Sediment and Stormwater Regulations. The area shall be accessible from a public street or easement and not encumbered by landscaping that would limit access.
 - An easement of appropriate width, not less than ten (10) feet on both sides of the centerline of the pipe of the principal spillway, must be provided. The easement must encompass the riprap apron. An easement shall also be provided along the flow path from the emergency spillway to a point of positive outfall. The Department must be provided all relevant information, including proposed grading if required, in order to determine where the positive outfall is located. The width of this easement shall be from top of bank to top of bank plus fifteen (15) feet on both sides for maintenance access.
 - Easements of appropriate widths, not less than fifteen (15) feet, must be provided for legal access to the stormwater management area from a public street for maintenance. The longitudinal and transverse slopes of this access strip shall not exceed ten (10) percent. In residential communities, a turf trail shall be designed to provide stabilized access to the stormwater management facility if it cannot be accessed from a paved surface. The access easement to stormwater facilities in residential communities shall be in open space.
 - An easement of appropriate width, but not less than fifteen (15) feet, shall allow for maintenance of the entire facility. The longitudinal and transverse slopes of this access strip shall not exceed ten (10) percent.
- Landscaping in the stormwater management area.
 - Vegetation designed by a Landscape architect shall be proposed within the area inundated by a one (1) year frequency storm. Vegetation shall also comply with the standards set forth with the Delaware Sediment and Stormwater Regulations.
 - A copy of the landscape plan must be provided to the Department of Land Use for review during the construction stage and at the time a record plan /Open Space inspection is requested. A certified landscape plan shall be dated and provided within 5 days of the requested inspection.

- Maintenance of the stormwater management area. Maintenance requirements for all stormwater management facilities must be established by the designer and submitted to the Department of Land Use for review and approval. A cost estimate shall be prepared at time of construction plan submission for all costs associated with stormwater and open space maintenance in residential communities to verify proposed designs do not place an undue maintenance burden on the community or County.
- At the time of the post bulk inspection, all easements shall be field delineated to verify all stormwater facilities and conveyance systems are constructed within the easements and that access for maintenance is maintained.

CONSTRUCTION REVIEW AND ENFORCEMENT

- Prior to a pre-construction meeting, a meeting to discuss land disturbance phasing and the balancing of cut and fill materials shall be scheduled with the County. The site contractor, developer and design engineer shall be in attendance. Meeting minutes shall be prepared and distributed by the design professional.
- In accordance with the provisions of the Delaware Sediment and Stormwater Regulations, New Castle County, as a delegated enforcement agency, will periodically inspect the sites of land disturbing activities for which permits have been issued to determine if the activities are being conducted in accordance with the plan and if the measures required in the plan are effectively controlling erosion and sedimentation. At the discretion of the Department of Land Use, the developer may be required to provide a certified construction reviewer (see the Delaware Sediment and Stormwater Regulations) on the site.
 - A Certified Construction Reviewer (CCR) is required to be present to document the construction of all stormwater management facilities and record all findings in CCR reports. Documentation shall include dated photographs.
 - All CCR's performing work within New Castle County shall be licensed by New Castle County to perform the work. Failure to comply with required CCR requirements may result in the revocation of the license.
- All site contractors shall be licensed to perform work within New Castle County.
- On lot controls are required to be designed to contain sediment within the perimeter of the lot.
- The Design Professional shall provide written documentation verifying that the constructed site is in accordance with their design and that it functions accordingly.
- The Department may require an as-built survey, paid for by the applicant, of any area that does not appear properly graded or to resolve a complaint.
- An as-built survey of all conveyance systems discharging to a stormwater facility on-site or off site or discharging on-site or off-site shall be provided.

STORMWATER MANAGEMENT FACILITY AND WATERCOURSE MAINTENANCE

- Stormwater management facilities shall be inspected and maintained by the property owner(s) on a routine basis and in accordance with the natural resource area open space management plan, open space management plan, landscape plan, sediment and stormwater management plan, operation and maintenance plan, or post construction verification documents. Stormwater management facilities shall be maintained pursuant to the general maintenance requirements provided herein to the extent that they do not contradict any other specific plan requirement. If there is any contradiction between the general maintenance requirements and the specific plan requirements, the plan requirements shall govern.
 - General maintenance requirements for stormwater management facilities, including but not limited to, ponds, created wetlands, and infiltration basins shall be maintained in accordance with the Delaware Sediment and Stormwater Program Regulatory Guidance Documents, Post Construction Stormwater BMP Standards and Specifications as well as Standard Guidelines for Operation and Maintenance of Stormwater BMPs. In addition, the following conditions shall be met.
 - *Grass mowing and trimming.* All grass within the limits of the stormwater management facility that is not under water shall be mowed and trimmed to a minimum height of four (4) inches and a maximum height of eight (8) inches, unless stated otherwise by a specific plan requirement. Clippings shall be either reduced to a fine mulch and distributed over the grassed area or disposed of in an appropriate location, but never within the vicinity of the stormwater management facility. A fifteen (15) foot-wide access path must be maintained around the perimeter of the facility and to all structural components. When appropriate, on a case-by-case basis, a ten (10) foot-wide a native vegetated buffer along the water edge of a stormwater practice shall be maintained.
 - *Debris removal.* Debris consisting of leaves, paper, trash, branches, dead vegetation and other material may accumulate within the limits of the stormwater management facility and around all structural components must be removed promptly. The debris shall be disposed of in an appropriate location, but never within the vicinity of the stormwater management facility.
 - *Sediment removal.* The outlet structure, low flow channels, headwall aprons, stone rip-rap, and structural devices must be kept clear of sediment at all times. Where a forebay is provided, sediment shall be removed when 50% of the forebay capacity has been lost. All sediment collected from the stormwater management facility area shall be disposed of in an appropriate location, usually designated on the record plan, but never within the vicinity of the stormwater management facility.

- General maintenance requirements for green technology stormwater best management practices (GTBMPs).
 - *Sediment removal.* All visible sediment collected in the facility must be removed quarterly every year and after each rainfall greater than one (1) inch. Where a forebay is provided, sediment shall not be permitted to accumulate to where the forebay is more than half full of sediment. Removed sediment must be disposed of in an appropriate location, usually designated on the record plan, but never within the vicinity of the stormwater management facility.
 - *Grass mowing and trimming.* Grass must be mowed regularly and kept to a height of a minimum of four (4) and a maximum of eight (8) inches at all times, except for vegetated channels, which shall be kept no lower than six (6) inches in height and no higher than eight (8) inches in height, unless stated otherwise by a specific plan requirement.
 - *Plant materials.* Where other plant materials are used, stalks shall be trimmed to no lower than twelve (12) inches in mid-March before new growth emerges. Appropriate herbicides shall be applied when needed. Any bare areas shall be re-seeded or replanted as required based upon inspection findings.
 - *Dams.* Where check dams are used, materials collected on the upstream face must be removed quarterly of every year and after each rainfall event greater than one (1) inch. All vegetation with roots that extend within the check dam shall be removed and herbicides shall be applied as necessary.
 - *Mulch.* Triple shredded hardwood mulch, non-dyed, aged for a minimum of six (6) months must be added to bioretention facilities with mulch topdressing every spring in order to maintain a three (3) inch mulch depth.
- Inspections. All stormwater management facilities shall be inspected by the property owner(s) in the spring and fall of every year and after each rainfall event greater than one (1) inch. These inspections shall be documented on a stormwater management facility maintenance log and provided upon request or as directed by the Department of Public Works.
- Underground stormwater management facilities shall be inspected two to four times every year, unless specified by any other plan requirement. Once annually an inspection by a qualified third-party inspector with background and knowledge of the facility shall be performed. The third-party inspection shall document, with written and visual results, the current condition of the facility, any maintenance items needed, and any maintenance or repairs made in accordance with manufacturer's instructions and recommendations. All inspections shall be documented on an annual subsurface maintenance log and provided upon request or as directed by the Department of Public Works.
- Maintenance log. A stormwater management facility inspection and maintenance log ("maintenance log") shall be maintained by the property owner(s) on a form obtainable from the Department of Public Works.
 - The property owner(s) must submit the maintenance log to the Department of Public Works on an annual basis, no later than April 1st of the following year. The

maintenance log must be certified with acknowledgement that required maintenance has been performed.

- Maintenance logs shall be maintained by the property owner(s) for a period of ten (10) years.
- It is the responsibility of the County to keep all non-tidal streams in New Castle County, which are not under the jurisdiction of the U.S. Army Corps of Engineers, State of Delaware, DeIDOT, a tax ditch organization, municipality, or any maintenance organization, open and free flowing. "Open and free flowing" shall mean that the non-tidal stream has a natural flow that is free of any objects or matter that create a significant substantial blockage of flow, which results in serious personal harm or significant property damage and/or structural damage. The County's obligation shall not mean the County is obligated to perform the following activities unless these objects or matter have created a significant and substantial blockage of flow, which may result in serious personal harm or significant property damage and/or structural damage:
 - Removal if any object or matter for aesthetic purposes;
 - Removal of vegetation, rocks, or boulders, rock outcrops or debris from trees, vegetation or another similar natural source in a non-tidal stream.
 - Removal of sediment or other alteration of a non-tidal stream in areas with a highwater table and wet soils that is naturally prone to wet pockets; or
 - Alteration, reduction or enhancement of the rate of flow or water levels for a non-tidal stream.
- Only if affirmatively accepted in writing by the County and if adequate right-of-way exists or can be acquired, the County will assume the responsibility for maintaining an open and free flowing condition in all non-tidal streams, communal watercourses and drainage systems [which are necessary for proper drainage] that in the discretion of the County, without maintenance would result in serious personal harm or significant property damage, and financial loss to New Castle County, and which are not already maintained by another public agency, tax ditch association, or maintenance organization if adequate right-of-way exists or can be acquired. The County will undertake this responsibility provided that such watercourses, and drainage systems, newly constructed or approved, meet County design criteria and are affirmatively accepted by the County.
- Maintenance of "on-street" drainage facilities for publicly dedicated or owned streets and roads to the point of open discharge is the responsibility of DeIDOT once inspected and accepted by that agency. Maintenance of "on-street" drainage facilities for privately-owned streets and roads to the point of open discharge and any stormwater management facility is the responsibility of the owner, maintenance corporation, or maintenance association. New Castle County is not responsible for drainage systems or stormwater management facilities in private roadways.
- Maintenance of drainage facilities or watercourses and the control of the contribution of pollutants originating on and entirely on private and/or public property are the

responsibility of the property owner(s) to their point of open discharge at the property line or at a communal watercourse within the property or to their point of piped discharge into a communal system, unless otherwise dedicated by a record plan. Private and/or public owners shall comply with this ordinance. The clean-up and maintenance of private and/or public property adjacent to watercourses is the responsibility of the property owner. In addition, a property owner responsible for any groundwater and springs that surface on their property.

- Resolution of drainage concerns created by a change in grade, or placing objects within the limits of the drainage facility and/or impacting the drainage in any way, by a property owner to the detriment of an adjacent property owner is not the responsibility of New Castle County.

PROHIBITIONS, ENFORCEMENT, AND PENALTIES

For a period of one (1) year after the issuance of a certificate of occupancy or release of the performance guarantee for the project, the County may require, subject to notice requirements, that applicants redress any conditions that arise from any failure to comply with the requirements of this Code regardless of whether or not it can be demonstrated that the development complied with plans approved by the County or redress any conditions that arise from any failure to comply with the requirements of the approved plan and not identified by the County at time of issuance or release.

NOTICE OF VIOLATION

- At the discretion of the Department, whenever the Department determines that there has been a violation of this Code or has grounds to believe that a violation has occurred, notice shall be given to the owner or the person(s) responsible for the structure, facility or premises.
 - Form. Such notice shall:
 - Be in writing;
 - Include a description of the real estate sufficient for identification (i.e. address or tax parcel identification);
 - Include a statement of the violation or violations and why the notice is being issued; and
 - Include a directive indicating a reasonable time to bring the structure, facility, or premises in compliance with the provisions of this Chapter.
 - Method of service. Such notice shall be deemed to be properly served if a copy is:
 - Delivered personally to the owner or person responsible for the property; or
 - Sent by certified or first-class mail addressed to the last known address: or
 - Posting a copy of the notice in a conspicuous place in or about the structure or

premise affected by such notice. In no case shall the Department be required by this Section to provide a violation notice within a twelve (12) month period to any owner or person responsible previously provided notice pursuant to this Section or under any former Code provision where the same Code violation is alleged by the Department to exist.

ABATEMENT OF VIOLATION

Stop work orders. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable under the allowable enforcement actions of this Chapter.

ENFORCEMENT

Administrative fines. Administrative fines imposed pursuant to this section shall be a lien on the parcel of real property that is the subject of the violation. Upon certification of the lien by the Department of Land Use, the amount of such lien shall be recorded and collected in the same manner as other county real estate taxes, and paid to New Castle County, when collected. 25 Del. C. Ch. 29. (“Liens of the State and/or its Political Subdivisions”).

MEANS OF APPEAL

Administrative decisions. Any person aggrieved by a decision of any Code Official shall have the right to an appeal to the Board of License, Inspection and Review as prescribed in Sections 2.05.104 and 2.05.105. An application for appeal shall be based on a claim that the decision of the Code Official was arbitrary or capricious or was not taken pursuant to law.