

***Revisions to the
Delaware Sediment & Stormwater Regulations***

Regulatory Advisory Committee Meeting

June 8, 2011

DeIDOT Felton-Farmington Room

Meeting Topics

- Federal Initiatives
- Overview
 - Reg revisions – Final Draft
 - Technical Document
- Steps to Promulgation
 - Timeline
 - Regulatory Flexibility Act
 - Training / Outreach

Overview of Federal Initiatives

- Chesapeake Initiatives
- National Post Construction Stormwater Rulemaking
- Federal Construction General Permit



Chesapeake WIP

Delaware Stormwater Phase I

High Level Commitments

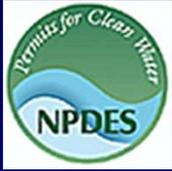


- Promulgate new statewide stormwater rules with performance standards for new and redevelopment
- Develop a system for tracking inspections and compliance information
- Implement voluntary programs or regulatory tools to limit turfgrass fertilizer use



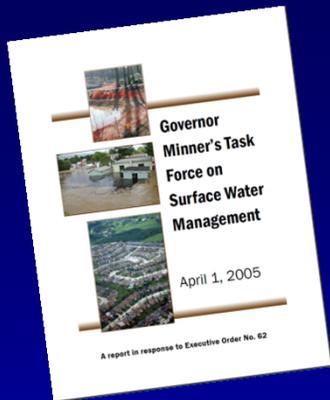
National Post Construction Stormwater Rulemaking

- Dec 2009 – Federal Register Notice
- Nov - Dec 2010 – Chesapeake Stakeholder Input
- Sept 2011 - Proposed Rule
- Nov 2012 – Final Rule
- “Functional Equivalency”



Federal Construction General Permit

- Only applies to Federal sites in Delaware
- Window to what may be in next Delaware CGP Regs
- Placeholder for numeric turbidity limit
- Heightened requirements in TMDL watersheds
 - Stabilization within 7 days
 - Site inspections after 0.25" rainfall



History of Reg Revisions

- Governor's Task Force – April 2005
- RAC first meeting – October 2007
- Reg Revisions Outline – January 2008
- First Working Draft – February 2009
- Second Draft – May 2010
- Draft Technical Document – Sept 2010
- Final Draft – June 2011

Revisions to the
*Delaware Sediment and
Stormwater Regulations*

Final Draft
June 2011

Section 1.0

General Provisions

1.3 Applicability

- Promulgated under 7 Delaware Code
Ch. 40 & Ch. 60
 - Increases enforcement options
 - Ties to NPDES permitting

1.3.2 Plans Approved Prior to Effective Date

- Construction has not commenced:
 - After 3 years plans will expire.
New plan subject to revised regulations.
- Construction has commenced:
 - Expired plans may be extended under previous requirements
 - Extension granted no more than 90 days prior to expiration
 - Project expiration follows local sunset provisions

1.3.2.3 Commencement of Construction

- Construction of the approved Plan is visible
 - Structure and/or Infrastructure
 - Roads, Utilities, Stormwater Management
 - General earth moving is NOT considered commencement of construction



1.4 Exemptions

- “Parking lot creep”
 - *Individual disturbances of less than 5,000 square feet that accumulate to exceed 5,000 square feet are not exempt and may be subject to the provisions of these regulations as determined by the Department or Delegated Agency on a case-by-case basis.*

1.5 Variances

- Earlier drafts used 7 Del. C. Ch. 60 procedure
- 7 Del. C. Ch. 40 allows us to develop our own procedure
- Working with Deputy Attorney General for reg variance language

1.7 Offset Provisions

- Formerly 1.6.3 Offset and Mitigation Programs
- Substitute for compliance with RPv
- Offset Program requirements developed locally subject to public notice
- DNREC developing fee-in-lieu offset to have in place

1.14 Technical Document

- Follow Department policy, procedures & guidelines
- Technical Document subject to public notice requirements

Drainage & Stormwater Section 

Sediment & Stormwater Technical Document

This series of articles has been assembled as a technical document to support the revisions to the Delaware Sediment and Stormwater Regulations. The articles and appendices contain information, policies, procedures, checklists and examples to assist the regulated community in complying with the Delaware Sediment and Stormwater Regulations.

DRAFT - Documents for review only

Article 1. Sediment and Stormwater Program Background

- 1.01 Executive Summary
- 1.02 Federal Clean Water Act Requirements
 - [Appx. 1.02.1 Construction General Permit Program Delegation](#)
 - [Appx. 1.02.2 NPDES Construction General Permit Guidance](#)
- 1.03 State Responsibilities

Article 2. Policies and Procedures

- 2.01 Delegated Agencies
- 2.02 Plan Policies and Procedures
- 2.03 Fees and Financial Guarantees
- 2.04 Offsets Provisions
 - [Appx. 2.04.1 In-Lieu Fee Proposal for On-Site Stormwater Management](#)
 - [Appx. 2.04.2 Fee-In-Lieu Example](#)
- 2.05 Regulatory Interpretation and Variances

Article 3. Plan Review and Approval

- 3.01 Goals and Objectives
- 3.02 Plan Review Process - Detailed Plans



Section 2.0

Definitions

2.0 Definitions

- Adequate Conveyance
 - Clarified “design storm” to be runoff generated by RPv, Cv, and Fv events
- Added “Agricultural Structure”
- O&M Plan
 - Plan which identifies required maintenance
 - Removed owner acknowledgement of requirement to maintain

Owner Definition

- “Owner” means a person who has a *legal interest in lands of this State, or who has an equitable interest in lands of this State, except when a person holds an interest in such lands as a security interest, unless through foreclosure or other such action the holder has taken possession of such lands, and who undertakes*, or for whose benefit, activities subject to these regulations are commenced and/or carried out on those lands, and/or the person responsible for maintenance of permanent stormwater management systems constructed to comply with these regulations on those lands.

Redevelopment Definition

- “Redevelopment”, including brownfield development, means *any construction, alteration or improvement, including but not limited to the demolition or building of structures, filling, grading, paving, or excavating, where existing land use is residential, commercial, industrial, or institutional.* Ordinary maintenance activities, remodeling of existing buildings, resurfacing of paved areas, and exterior changes or improvements are typically not considered redevelopment activities for the purposes of these regulations.

Definitions Removed

- Exemption
- Grading
- Inactive

Section 3.0

Plan Approval Procedures and Requirements

3.1 Plan Approval Procedures and Requirements

- 3-Step approval process
 - Step 1: project application meeting
 - Step 2: preliminary Sediment & Stormwater Management Plan
 - Step 3: final Sediment & Stormwater Management Plan
- Delegated Agencies may seek approval of a “functionally equivalent” process (9.1.2)

3.2 Project Application Meeting

- Submit Stormwater Assessment Study
- May be waived
 - Case-by-case basis
 - Waiver documented in writing
- Discussion & Agreement Items
 - “Concurred” by all attendees
 - Does not need to be signed before leaving the meeting
- Stormwater Assessment Report

3.3 Preliminary Sediment & Stormwater Management Plan

- Elements:
 - Preliminary Plans
 - Supporting hydrologic & hydraulic calculations
 - Schematic erosion & sediment control plan

3.4 Sediment and Stormwater Management Plan

- Elements
 - Construction Site SWM Plan
 - Post Construction SWM Plan
 - Final H&H computations
 - O & M Plan
 - Preliminary Record Plan

3.5 Review Procedures

- 3.5.6 - Projects in process when regs become effective
 - Subject to requirements in place when an administratively complete plan was first submitted
 - One year to gain approval under previous regulations
 - Policy document for first submittal step

3.6 Expiration of Plan Approval

- 3 years
- 3.6.3: Plans approved under previous regulations shall only be extended when construction has commenced prior to expiration of the plan approval.



3.7 Standard Plans

- Project Types:
 - Individual parcel construction
 - <1.0 acre disturbance
 - Tax Ditch maintenance
 - Minor linear disturbances
 - SWM facility maintenance
 - Agricultural structures



3.10 Operation & Maintenance Plans

- Preliminary O & M developed with original plan set
- Final O & M Plan prior to project completion
- O & M Plans do not expire

3.11 Post Construction Verification Documents

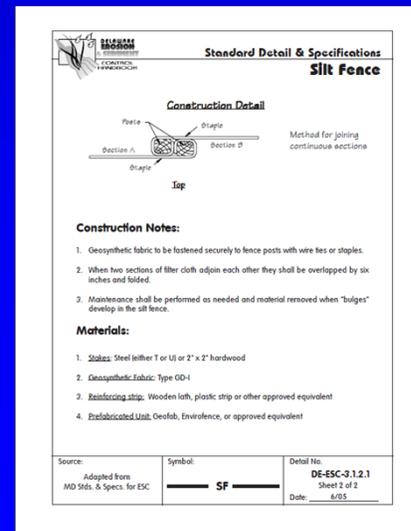
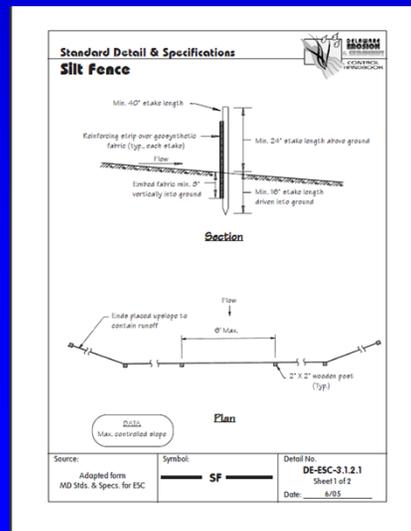
- “As-Builts”
- Submit within 60 days of completion
- Department or Delegated Agency policy

Section 4.0

Performance Criteria for Construction Site Stormwater Management

4.4 Limits on Land Disturbance

- <10 acres = Standard Details
- >10 acres = Supporting computations
- 20 acre max disturbance to a discharge point



4.5 Stabilization

- 4.5.3 If within 60 calendar days permanent or temporary stabilization applied to a disturbed area results in insufficient stabilization as determined by the Department or delegated agency, additional soil testing, revisions to seeding specifications, and/or plan revisions may be required. Permanent or temporary stabilization shall be re-applied to the disturbed area in accordance with the soil test results and the plan requirements within 14 calendar days following the 60-calendar day threshold. The Department or delegated agency shall have the discretion to require additional soil testing and reapplication of permanent or temporary stabilization sooner than 60 calendar days if evidence exists that the permanent or temporary stabilization measures were not applied in accordance with the specification provided in the Delaware Erosion and Sediment Control Handbook.

4.5 Stabilization

- ~~4.5.3 If within 60 calendar days permanent or temporary stabilization applied to a disturbed area results in insufficient stabilization as determined by the Department or delegated agency, additional soil testing, revisions to seeding specifications, and/or plan revisions may be required. Permanent or temporary stabilization shall be re-applied to the disturbed area in accordance with the soil test results and the plan requirements within 14 calendar days following the 60-calendar day threshold.~~ The Department or delegated agency shall have the discretion to require additional soil testing and reapplication of permanent or temporary stabilization **sooner than 60 calendar days if evidence exists that the permanent or temporary stabilization measures were not applied** in accordance with the specification provided in the Delaware Erosion and Sediment Control Handbook.

Section 5.0

Performance Criteria for Post-Construction Stormwater Management

5.2 Resource Protection Event Criteria

- *5.2.3.2.2 An offset shall be provided for the portion of the RPr that does not meet the minimum runoff reduction requirements.*

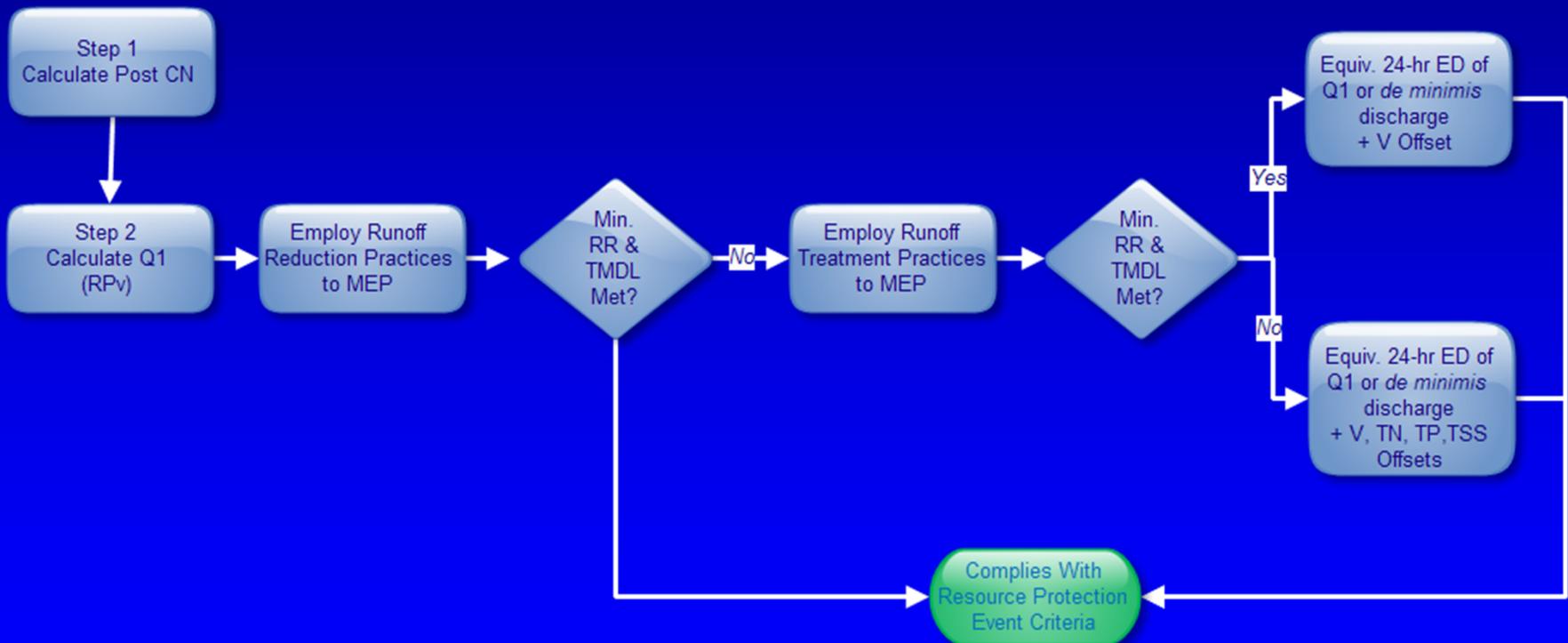
5.2 Resource Protection Event Criteria

- 5.2.3.3 Additional water quality treatment BMPs shall be provided if the runoff reduction requirements of this section are not sufficient to meet Total Maximum Daily Load (TMDL) requirements for the receiving water. An offset shall be provided for any portion of the RPs that does not meet TMDL requirements.

5.2 Resource Protection Event Criteria

- *5.2.4 Projects that qualify for and meet standard plan criteria developed by the Department shall be considered in compliance with the Resource Protection Event criteria.*

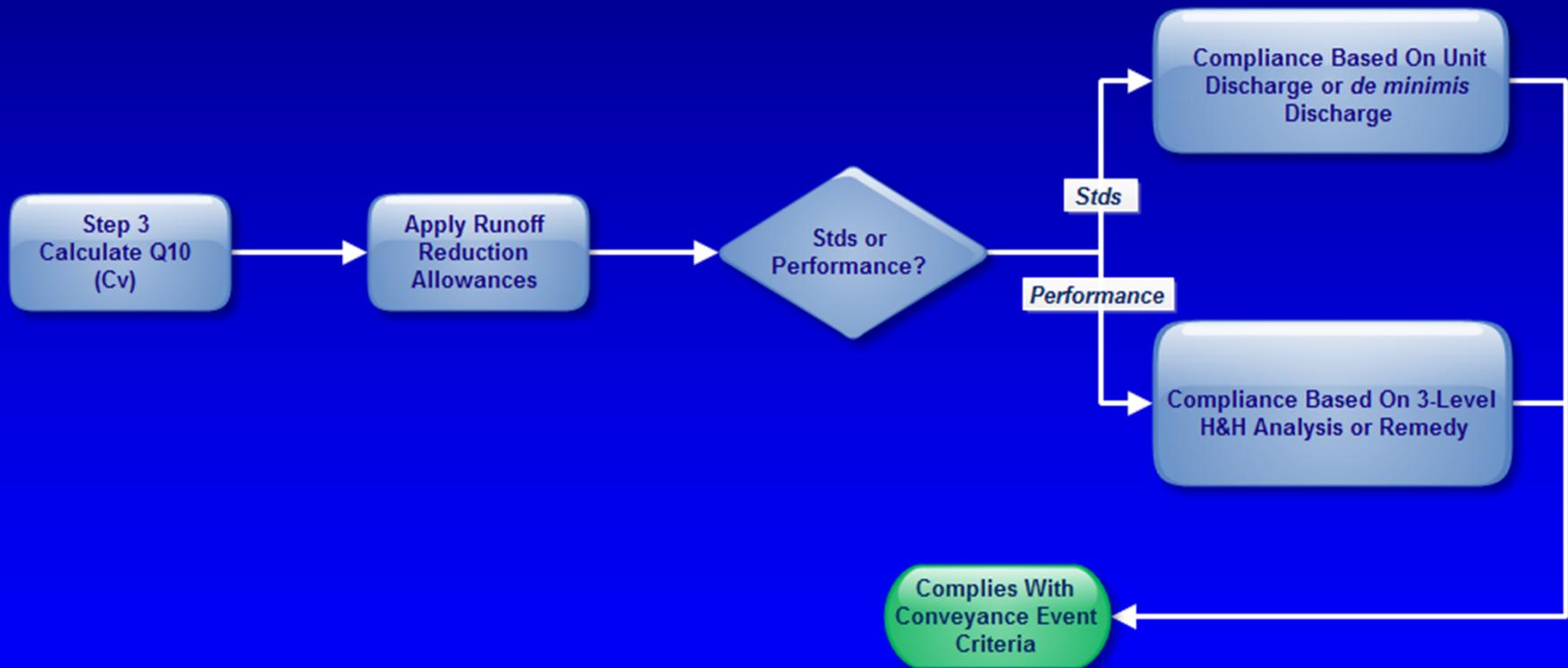
5.2 Resource Protection Event Criteria



5.3 Conveyance Event Criteria

- *5.3.4 Projects that qualify for and meet standard plan criteria developed by the Department shall be considered in compliance with the Conveyance Event criteria.*

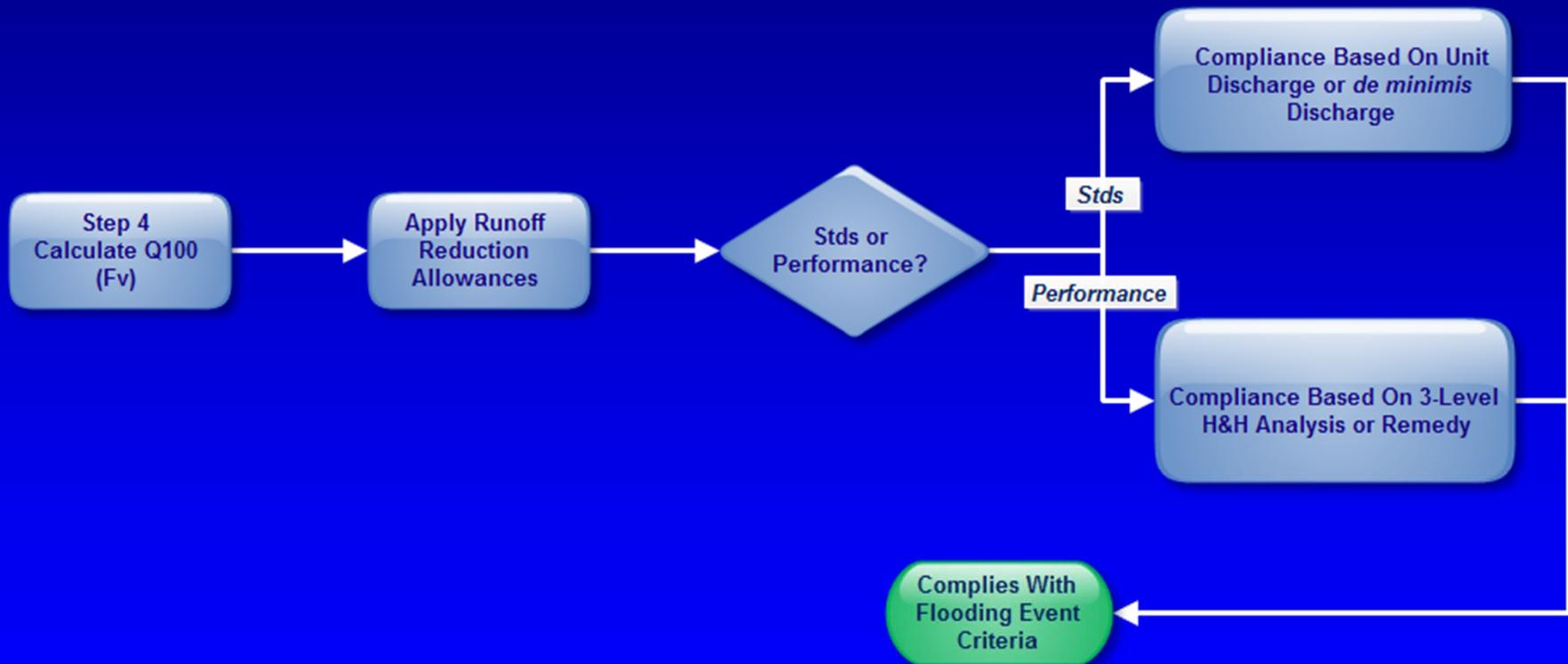
5.3 Conveyance Event Criteria



5.4 Flooding Event Criteria

- *5.4.4 Projects that qualify for and meet standard plan criteria developed by the Department shall be considered in compliance with the Flooding Event criteria.*

5.4 Flooding Event Criteria



5.6 Redevelopment Criteria

- 5.6.3.2 All remaining redeveloped areas shall employ runoff reduction practices to achieve a ~~20%~~ 50% reduction in the effective imperviousness based on the pre-developed condition. *For those cases in which the minimum runoff reduction requirements are not met:*

5.6 Redevelopment Criteria

- *5.6.3.2.1 The allowable discharge for any remaining runoff shall not exceed the equivalent 24-hr detention time of the RPv, and*
- *5.6.3.2.2 An offset shall be provided for any portion of the RPv that does not meet the minimum runoff reduction requirements.*

5.6 Redevelopment Criteria

- *5.6.4 Any redevelopment project that increases the rate, volume or duration of flow to a new or existing point of discharge during the **Conveyance Event** shall comply with the requirements of **Section 5.3.***

5.6 Redevelopment Criteria

- *5.6.5 Any redevelopment project that increases the rate, volume or duration of flow to a new or existing point of discharge during the **Flooding Event** shall comply with the requirements of **Section 5.4.***

Section 6.0

Construction Review of Sediment and Stormwater Management Plan

6.1 Owner Responsibilities

- Implement approved plan
- NPDES responsibilities for monitoring
- Responsible personnel (Blue Card holder) required on site daily while any land disturbing activity is taking place
- Projects >20 acres requires a CCR

6.0 Construction Review

- Few changes from current regs:
 - 6.2 : Contractor Training Program
 - 6.3 : CCR Requirements
 - 6.4 : Dept or Delegated Agency Reviews

6.5 Required Construction Reviews and Notification Steps

- Pre-Construction Meeting
 - Required
 - Held on site
 - Another location may be approved on case-by-case basis
 - Dept. or Delegated Agency to determine when Standard Plans require pre con mtg

6.5.6 Notice of Completion

- Criteria
 - All items and conditions of S&S Plan are satisfied
 - Post construction verification documents
 - Operation and Maintenance Plan
 - Final Stabilization
 - Approved Record Plan showing easements and/or maintenance notes

Section 7.0

Post Construction Maintenance of Permanent SWM Systems

7.1 Maintenance Responsibility

- Owner is responsible for maintenance
- SMW system “proper function” defined within 7.1.2:
 - in accordance with the approved engineered design,
 - within the tolerances of the accepted post construction verification documents, and
 - in compliance with the regulations

7.2 Owner Responsibilities

- Frequency of regular maintenance reviews will be on O & M Plan
- Maintain in accordance with
 - Approved plan
 - O&M plan
 - Standard Guidelines
 - Delegated Agency directions
- Maintenance responsibilities may be shared

8.0 Enforcement and Penalties

- Enforcement through 7 Del. C. Ch. 40 and Ch. 60.
- Delegated Agency referral to DNREC
 - Internal Compliance Assistance Policy
- Failure to comply
 - Criminal and civil penalties
 - Cease & desist order
 - Request no release of building permits

9.0 Delegation of Program Elements

- Delegation request to DNREC
- Three-year delegation
- Functional equivalency
- Alternative requirements
- 3rd party assistance

9.0 Delegation of Program Elements

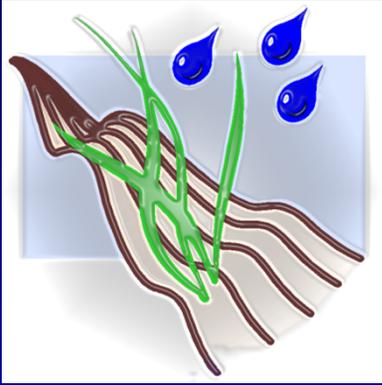
- Required Public Notice
 - Alternative requirements
 - Offset program
 - New and revised fee schedules
- Public Notice Procedures
 - Local procedures or
 - Dept procedures in absence of local methods
 - Technical Document

10.0 Stormwater Utility

- Local ordinance
- Each user contributes based on the user's share of runoff
- Program components to be defined:
 - Program administration
 - Planning & engineering
 - Maintenance operations
 - Regulation & enforcement
 - Capital Construction

Questions?





***Revisions to the
Delaware Sediment & Stormwater Regulations***

Technical Document Overview

June 8, 2011

Regulations = WHAT

Technical Document = HOW

Technical Document

- Information supports regulation language
- Public process with regulations
- Future changes will also go through public review process
- Completed portions posted on [DNREC Technical Document website](#)

Technical Document Articles

- **Article 1.** Sediment and Stormwater Program Background
- **Article 2.** Policies and Procedures
- **Article 3.** Plan Review & Approval
- **Article 4.** Construction Review & Compliance
- **Article 5.** Maintenance of Permanent Stormwater Management Systems

Article 1. Sediment and Stormwater Program Background

- Executive Summary
- Federal CWA requirements
 - CGP Program Delegation
 - NPDES CGP Guidance Document
- State Responsibilities
 - Interaction with other agencies

Article 2.

Policies and Procedures

2.01 Delegated Agencies

- Responsibilities
- Requests for Delegation and Delegation Review
- Program Changes
 - Public Notice requirements
 - Approval of the Department
- Failure to Implement Program
 - Process for removal of delegation

2.02 Plan Policies and Procedures

- Plan life – what happens after 3 years
- Plan revisions
 - Original approval date stands unless entire site is re-evaluated
- Grandfathering & Sunsetting
 - Interim condition policy being developed
- Tech Doc revisions require public notice
 - Process included

2.03 Fees & Financial Guarantees

- Delegated Agency has authority to
 - Charge fees to support program
 - Establish procedures to require a financial guarantee
- Public notice
 - Procedures included

2.04 Offset Provisions

- Types of Offsets
- CWP In-Lieu Fee Proposal
- Fee-In-Lieu Example
- Offset program subject to Department review and public notice

Proposed Revisions to Delaware Sediment & Stormwater Regulations

- **2.0** As used in these regulations, the following terms shall have the meanings indicated below:

“**Offset**” means an alternate to strict adherence to the regulations including, but not limited to trading, banking, fee-in-lieu, or other similar program that serves as compensation when the requirements of these regulations cannot be reasonably met on an individual project basis.

Proposed Revisions to Delaware Sediment & Stormwater Regulations

- **2.0** As used in these regulations, the following terms shall have the meanings indicated below:

“**Offset**” means an alternate to strict adherence to the regulations including, but not limited to trading, banking, fee-in-lieu, or other similar program that serves as compensation when the requirements of these regulations cannot be reasonably met on an individual project basis.

Proposed Revisions to Delaware Sediment & Stormwater Regulations: Fee-In-Lieu Options

- Option 1
 - Common “currency” for all shortfalls
- Option 2
 - Different currencies for runoff volume, TN, TP, and TSS shortfalls

Proposed Revisions to Delaware Sediment & Stormwater Regulations: Fee-In-Lieu Options

- Option 1
 - Common “currency” for all shortfalls
 - Equivalent to cost to treat runoff volume not managed
 - Based on land acquisition, construction, and maintenance costs for bioretention
 - Analysis was performed by Center for Watershed Protection using regional data
 - Fee = **\$23/cu.ft.** runoff volume

Proposed Revisions to Delaware Sediment & Stormwater Regulations

Technical Document Article 2.04 - Offsets

- The fee-in-lieu would be applied in cases where a project has a shortfall in meeting the runoff reduction requirements for the Resource Protection Event under the Regulations.
- If there is also a shortfall in meeting a Total Maximum Daily Load (TMDL), an equivalent runoff volume based on the shortfall will be determined for each pollutant.
- The fee-in-lieu would then be based on whichever shortfall is greatest between the runoff reduction shortfall and the pollutant reduction shortfall(s).

2.05 Regulatory Interpretation & Variances

- Local Review & Interpretation
- Department Review & Interpretation
- Professional Judgment Disputes
- Alternative Compliance Review Requests
- Variances & Appeals

Article 3. Plan Review & Approval

- 3.01 Goals & Objectives
- 3.02 Plan Review Process
- 3.03 Construction Site SWM
- 3.04 Post Construction SWM
- 3.05 General Plan Requirements
- 3.06 Sediment & Stormwater BMP Standards & Specifications

3.01 Goals & Objectives

- Project type considerations
 - Residential
 - Commercial
 - Industrial
 - Transportation
- Standard Plans
 - Criteria & Conditions
 - Applications
 - Templates

3.02 Plan Review Process

- Step 1 – Project Application Meeting
 - SAS Checklist
 - Project Application Meeting Discussion and Agreement Items
 - Stormwater Assessment Report
 - Workflow for Site Hydrologic Analysis
 - Example Project Application Package

3.02 Plan Review Process

- Step 2 – Preliminary S&S Plan
 - Preliminary S&S Plan Checklist
 - H&H analysis procedure
 - Workflow & Template for Level 1 analysis
 - Workflow for Level 2 analysis
 - Level 3 analysis to be added later
 - Example Schematic Plan
 - Example Unit Discharge comps

3.02 Plan Review Process (cont.)

- Step 2 – Preliminary S&S Plan
 - Example Preliminary S&S Plan Submittal
 - Residential
 - Commercial
 - Institutional
 - Redevelopment

3.02 Plan Review Process

- Step 3 – Sediment and Stormwater Plan
 - Sediment & Stormwater Plan Checklist
 - Common Look & Feel to be developed

3.03 Construction Site SWM

- BAT Policy
 - Turbid Discharges, use of PAM
 - Effluent Limitation Guidelines

3.04 Post Construction SWM

- Compliance Flow Chart
- Runoff Reduction Guidance
- Adjusted CN Methodology
- DURMM v.2 spreadsheet, Quick-Start Guide & User's Guide
- Approved H&H software
- Infiltration testing procedures
- Brownfields policy

3.05 General Plan Requirements

- Standard Notes
- Standard Details & Symbols
- Typical construction sequence
- Example Sediment and Stormwater Plan cover sheet

3.06 BMP Standards & Specs

- E & S Handbook (under revision)

Erosion & Sediment Control Handbook Revisions

- Design requirements for details limited to 10 acres of contributing area. If greater, supporting calculations need to be submitted.
- Eliminated Detail: Silt Fence Culvert Inlet Protection
- Revised Details: Temporary and Permanent Seeding Types and Methods

Erosion & Sediment Control Handbook Revisions

- New Details:
 - Compost Logs for Perimeter Control, Inlet Protection and Slope/Channel Interruption
 - Compost Blankets
 - Compost Sediment Basins
 - Flocculants and Soil Additives
 - Concrete Washout
 - Small Batch Plant
 - Stockpile
 - Limit of Disturbance

3.06 BMP Standards & Specs

- E & S Handbook (to be edited)
- Pond Code 378
- Sand Filter Background & Detail
- Updated GTBMP Stds & Specs (under development by DNREC/CWP)

Article 4. Construction Review & Compliance

- Construction Review Guidelines
 - Pre construction meeting checklist
 - BMP Construction Checklists
 - Post construction verification document checklist
- Enforcement & Penalties
- Contractor Training Program
- Certified Construction Reviewer
- Project Completion
 - Project closeout procedure & checklist

Article 5. Maintenance of Permanent Stormwater Management Systems

- Standard Guidelines for Operation and Maintenance of Stormwater BMPs
- O&M Plan Review Checklist

Questions?



Timeline

- Written comments
 - Technical Document
 - Appendicies
- Submit by June 30, 2011
- E-mail to Elaine.Webb@state.de.us

Timeline

- Public Workshop
 - June 16, 2011
 - 6pm
 - DNREC Auditorium

Timeline

- Summer 2011 – Technical Training workshop for Delegated Agencies; followed by training for consultants
 - Overview of DURMM v.2
 - Overview of new GTBMP Stds & Specs
- August 2011 – publish proposed reg in State Register
- September 8, 2011 – Public Hearing (date tentative)
- January 2012 - Effective

Regulatory Flexibility Act

- Purpose of 29 Del. C. Ch. 104 is:
 - “to establish . . . that fewer, simpler requirements be made of individuals and small businesses and that to achieve these ends agencies be empowered and encouraged to issue regulations which apply differently to individuals and small businesses than to larger businesses.”

Training and Outreach

- Contract with Center for Watershed Protection
- Training offered to Delegated Agencies first
- Example plans being developed
- Circuit Rider Trainer for DURMMv.2

Public Comment and Questions

