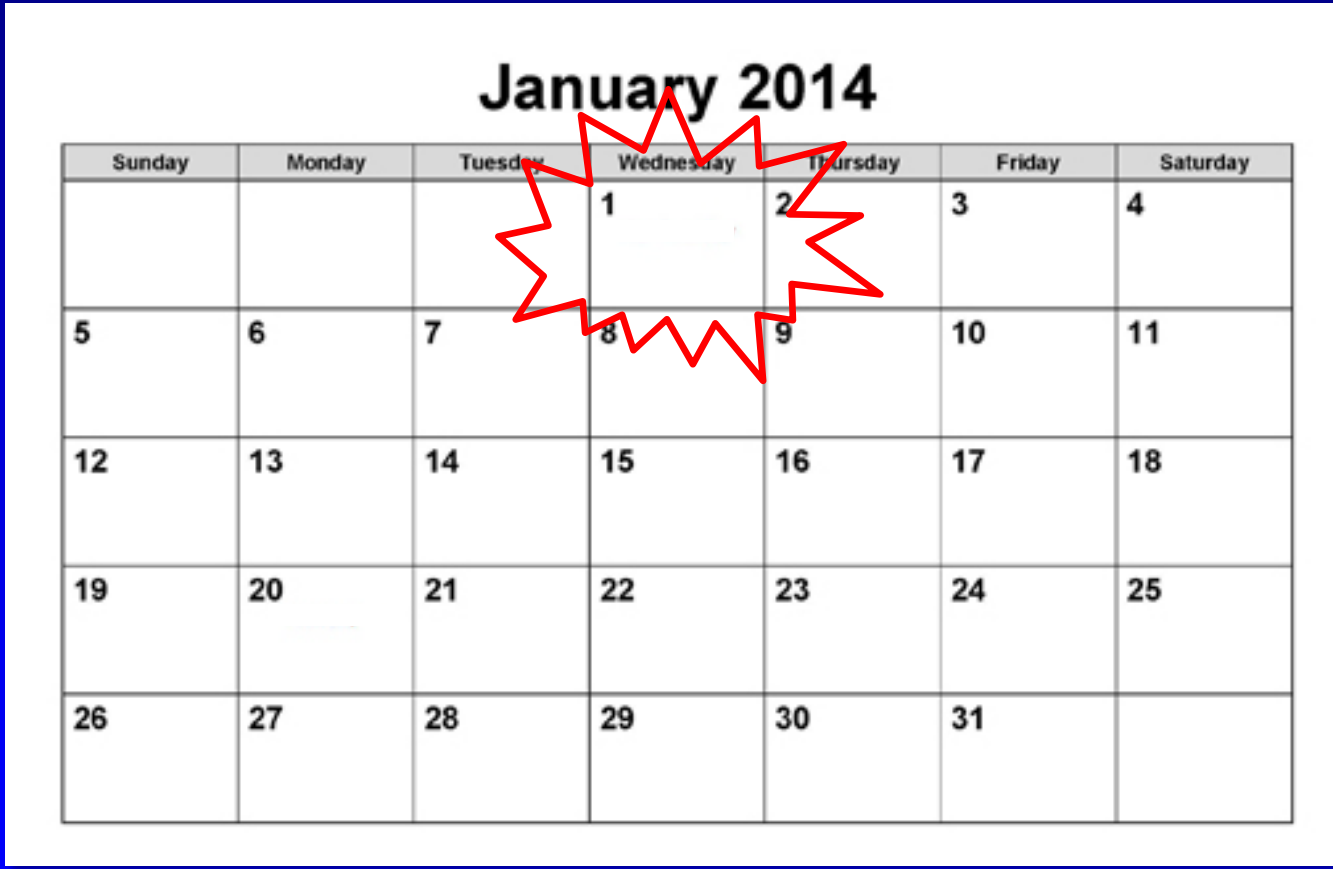
Revisions to the Delaware Sediment & Stormwater Regulations

Training Session 1:

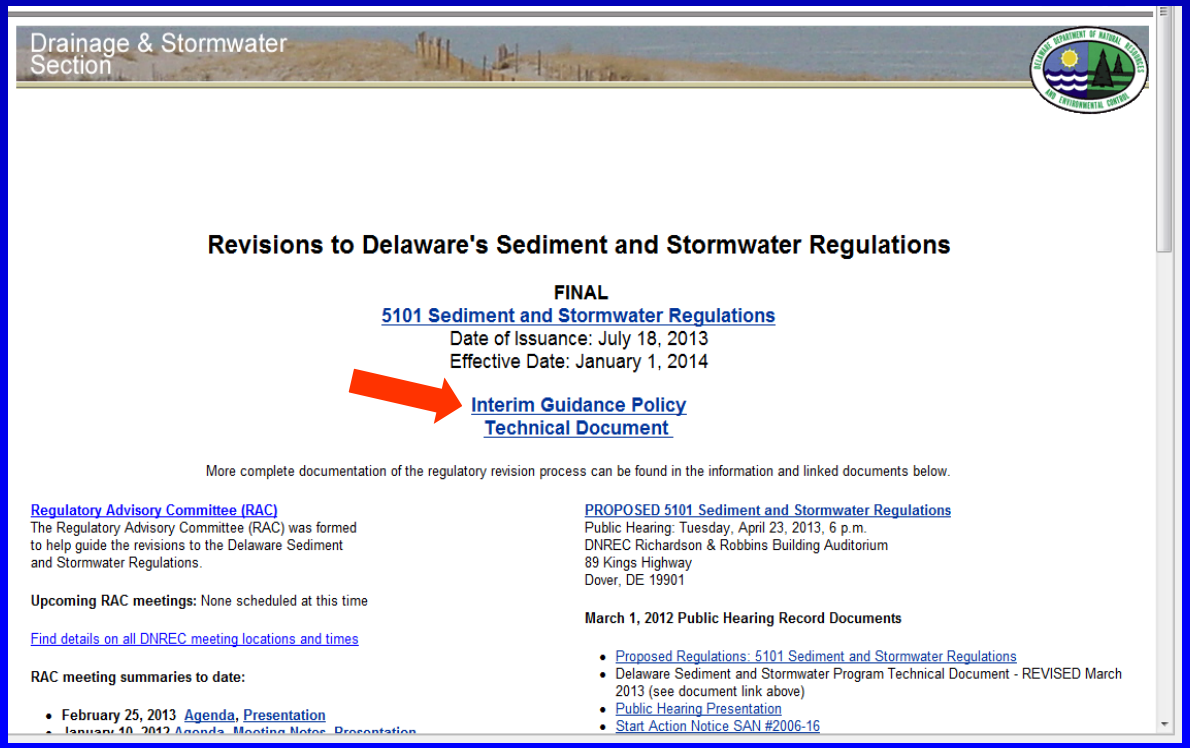
Regulation Overview

Effective Date



Grandfathering

- Interim Guidance Document
  - Updated March 2013



Drainage & Stormwater Section

Revisions to Delaware's Sediment and Stormwater Regulations

FINAL
5101 Sediment and Stormwater Regulations
Date of Issuance: July 18, 2013
Effective Date: January 1, 2014

Interim Guidance Policy
Technical Document

More complete documentation of the regulatory revision process can be found in the information and linked documents below.

Regulatory Advisory Committee (RAC)
The Regulatory Advisory Committee (RAC) was formed to help guide the revisions to the Delaware Sediment and Stormwater Regulations.

Upcoming RAC meetings: None scheduled at this time

Find details on all DNREC meeting locations and times

RAC meeting summaries to date:

- **February 25, 2013** Agenda, Presentation
- January 10, 2012 Agenda, Meeting Notes, Presentation

PROPOSED 5101 Sediment and Stormwater Regulations
Public Hearing: Tuesday, April 23, 2013, 6 p.m.
DNREC Richardson & Robbins Building Auditorium
89 Kings Highway
Dover, DE 19901

March 1, 2012 Public Hearing Record Documents

- Proposed Regulations: 5101 Sediment and Stormwater Regulations
- Delaware Sediment and Stormwater Program Technical Document - REVISED March 2013 (see document link above)
- Public Hearing Presentation
- Start Action Notice SAN #2006-16

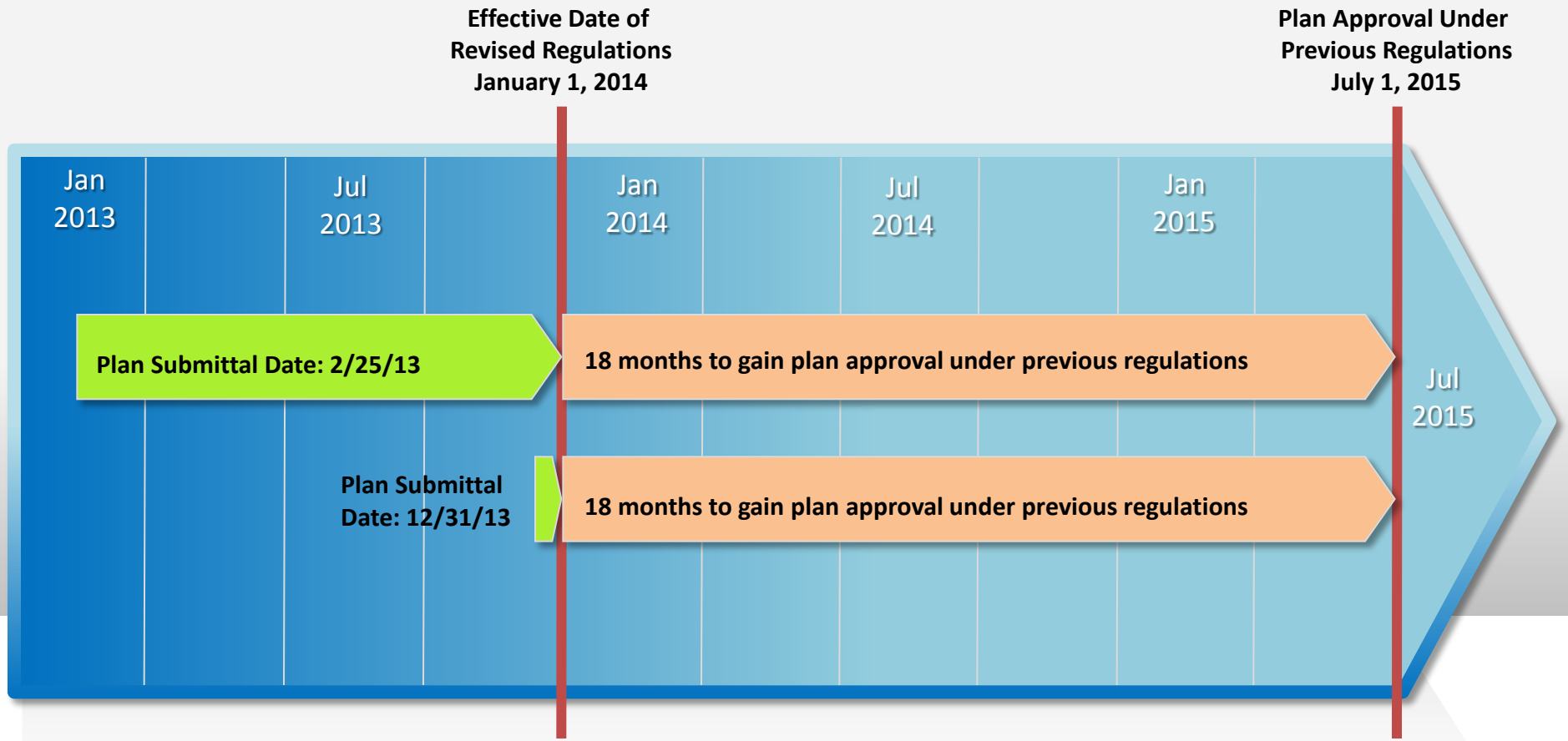
Interim Guidance Document

- Grandfathering Determination
  - by Delegated Agency
- Design Review
- Approval Extensions
  - Including phased plans
- Plan revisions

Grandfathering – Design Review

- Eighteen months from effective date to gain approval
  - In Regulatory language (3.5.6)

Projects Under Design Review
When Revised *Regulations* Become Effective



Plan submittal meets approval agency grandfathering determination criteria as defined in:
Interim Guidance Policy – March 2013

Figure 1

Grandfathering – Approval Extensions

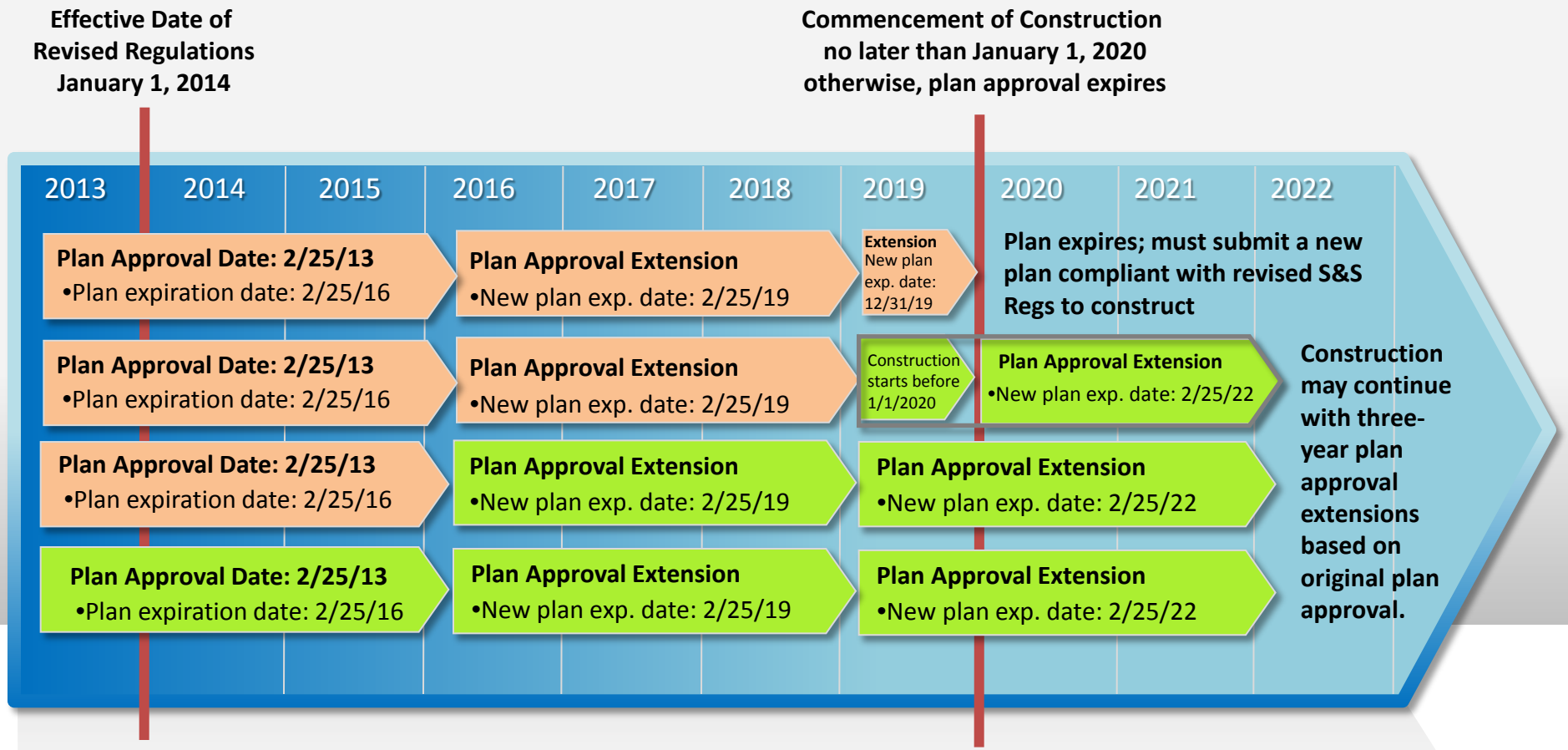
- Approved plan can be extended in 3-year approval periods
- Construction commences
  - Unlimited 3-year extensions
- Construction does not commence
  - Construction must commence within **6 years** of effective date otherwise plan expires

Commencement of Construction

- Utilities
- Roadways
- Stormwater management facilities
- General earthmoving alone does not qualify

Plans Approved to Comply with Previous Regulations

(Regulations in Place Prior to Revisions)



Construction ongoing

No commencement of construction

Figure 2

Extensions to Expired Plans

- Construction or not
- Plans may be resubmitted prior to January 1, 2014 for re-approval within 18 months

Phased Sites Approvals

- Approved phases can be extended
  - Some portion of the project must commence construction
- Unapproved phases cannot be extended

Grandfathering – Plan Revisions

- Minor revisions
  - Comply with previous regs
- Major revisions
  - Change to Record Plan
  - MAY be required to comply with revised regs

Compliance Criteria

New Development

Current Regulations

- 4 Regulatory Storm Events
  - Water Quality (2” rainfall)
  - 2-Year
  - 10-Year
  - 100-Year

Revised Regulations

- 3 Regulatory Storm Events
  - Resource Protection Event
    - 1-year
  - Conveyance Event
    - 10-year
  - Flooding Event
    - 100-year

Quality: Current Regulations

- 2” Rainfall event
- Preferential hierarchy based on Green Technology BMPs and extended detention
- 80% TSS reduction goal

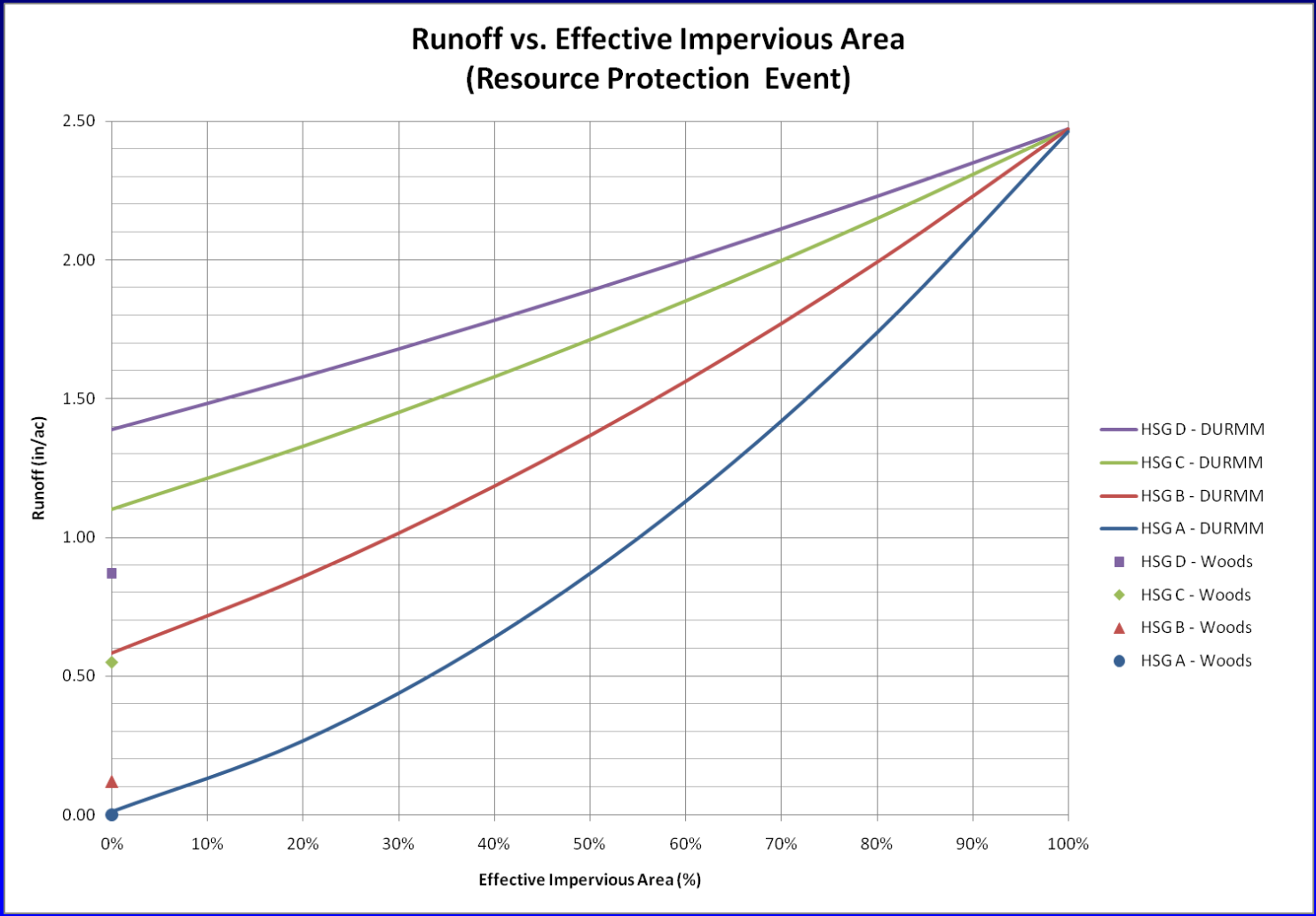
Quality: Revised Regulations

- 1-YR Storm event (~2.7” rainfall)
- Optimize for runoff reduction

Resource Protection Event Criteria

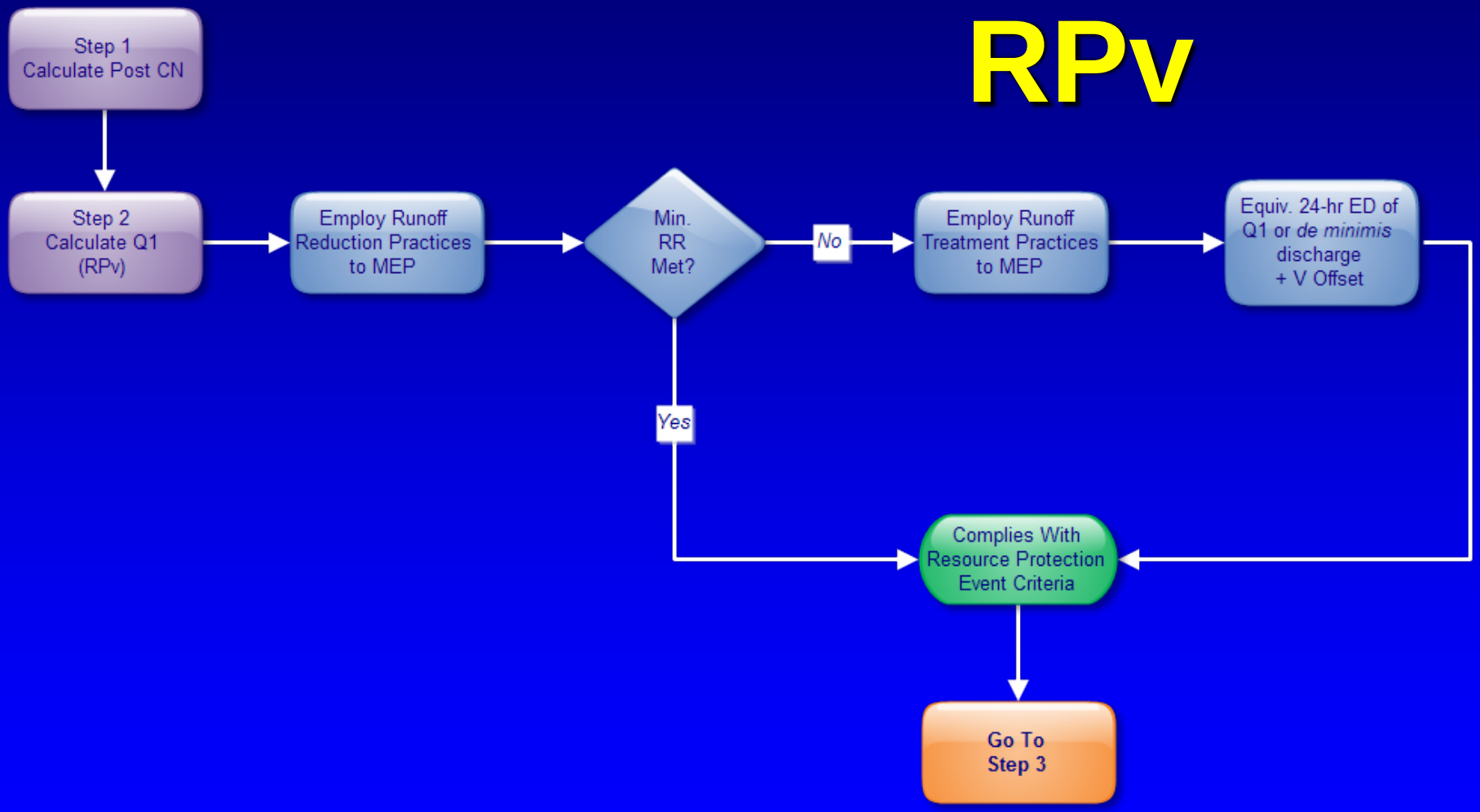
- Regs Section 5.2.3
- Pre wooded or meadow condition
  - Post equivalent wooded condition
- Remaining disturbed areas
  - Achieve 0% effective impervious

0% Effective Imperviousness



Resource Protection Event Compliance

RPv



RPv Compliance

- BMP designs based on Standards and Specifications
- Use DURMMv2 to verify runoff reduction goal has been met
- TMDLs do not need to be met
  - Adaptive management as necessary
- DURMMv2 <u>is not</u> a BMP sizing tool

Quantity: Current Regulations

- 2-YR, 10-YR, 100-YR (above C&D Canal)
- Analyze pre and post conditions
- Match post peak discharge to pre peak discharge
- Same management strategy for all sites

Quantity: Revised Regulations

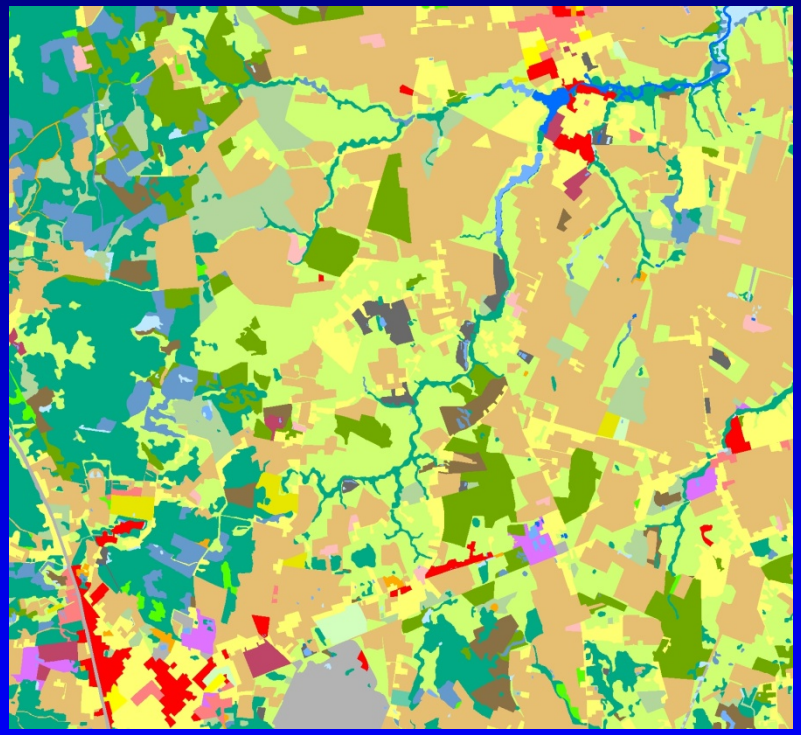
- 10-YR, 100-YR (State-wide)
- Analyze post condition only
- Optimize for “no adverse impact”

Quantity Management Strategy Options

- Based on:
  - Stormwater Assessment Study results
  - Location within watershed
- Options:
  - Standards-based approach
  - Performance-based approach

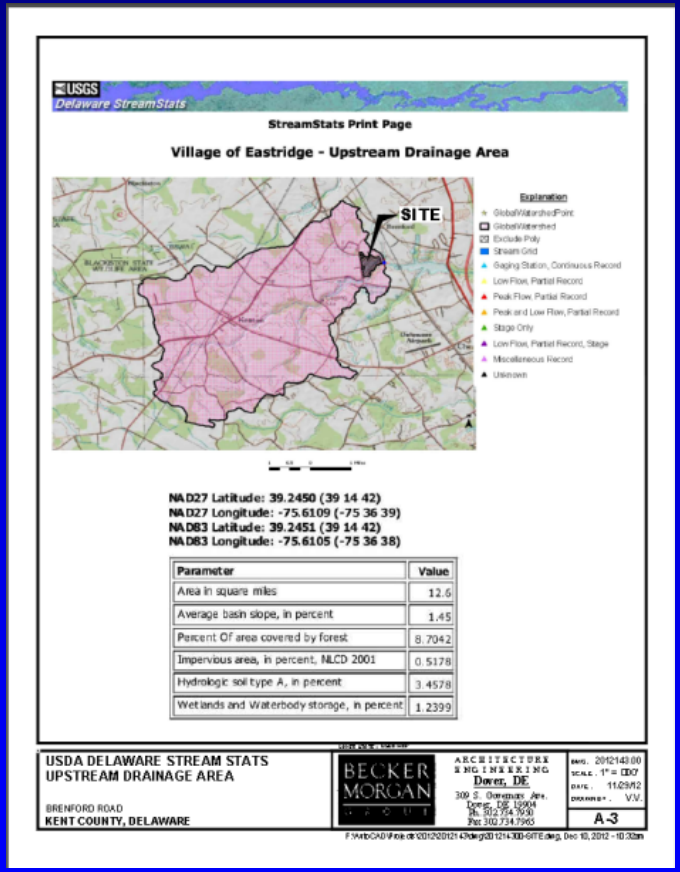
Standards-Based Approach

- Unit Discharge
  - cfs/acre
- Available only to projects with “Minor” SAS ratings
- Simple, straighforward, conservative



Performance-Based Approach

- Criteria based on:
  - hydrograph timing
  - channel stability
  - system capacity
- H&H analysis required
  - 3 levels of increasing detail
  - “No Adverse Impact”

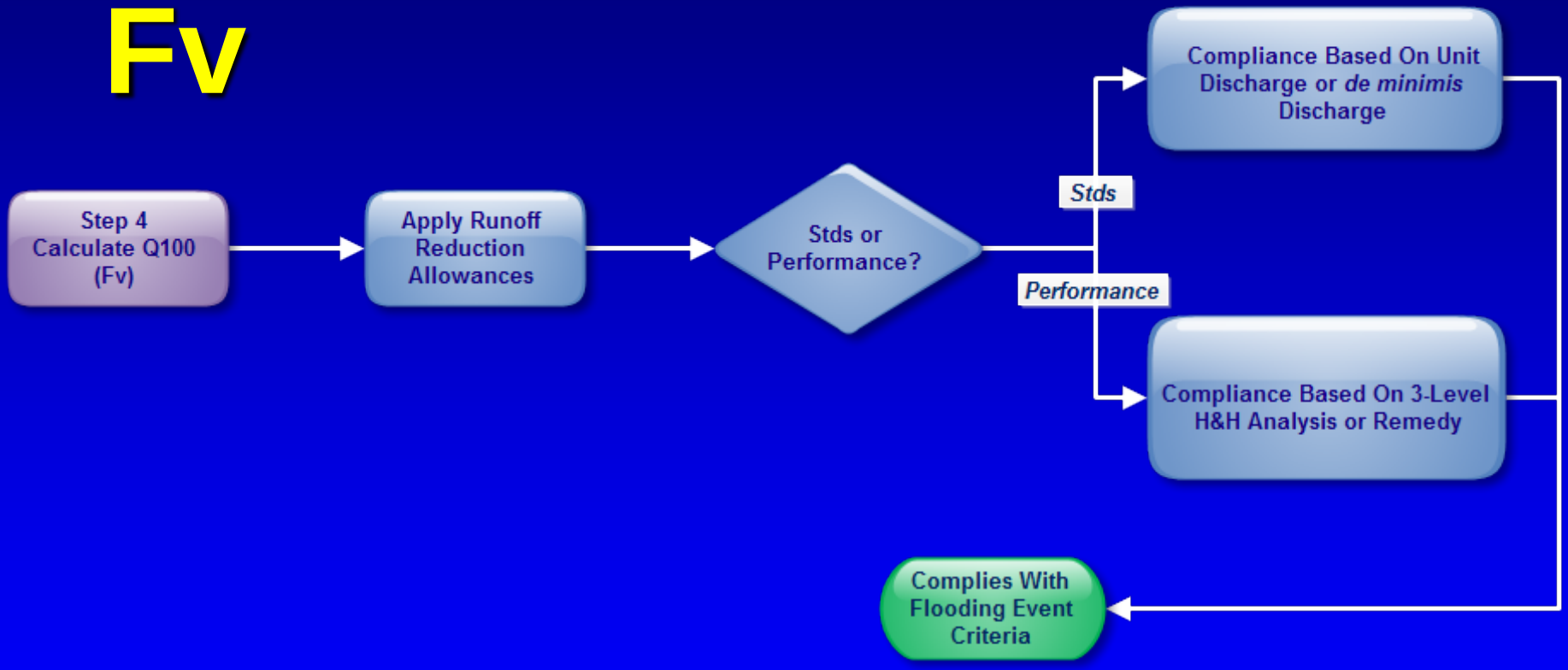


Conveyance Event Compliance

Cv

Flooding Event Compliance

Fv



Compliance Criteria

Redevelopment
and Brownfields

Redevelopment

- Section 5.6 in Regs
- Intent is to encourage redevelopment
- Brownfields – remediation plan <u>may</u> meet stormwater goals

Redevelopment Criteria

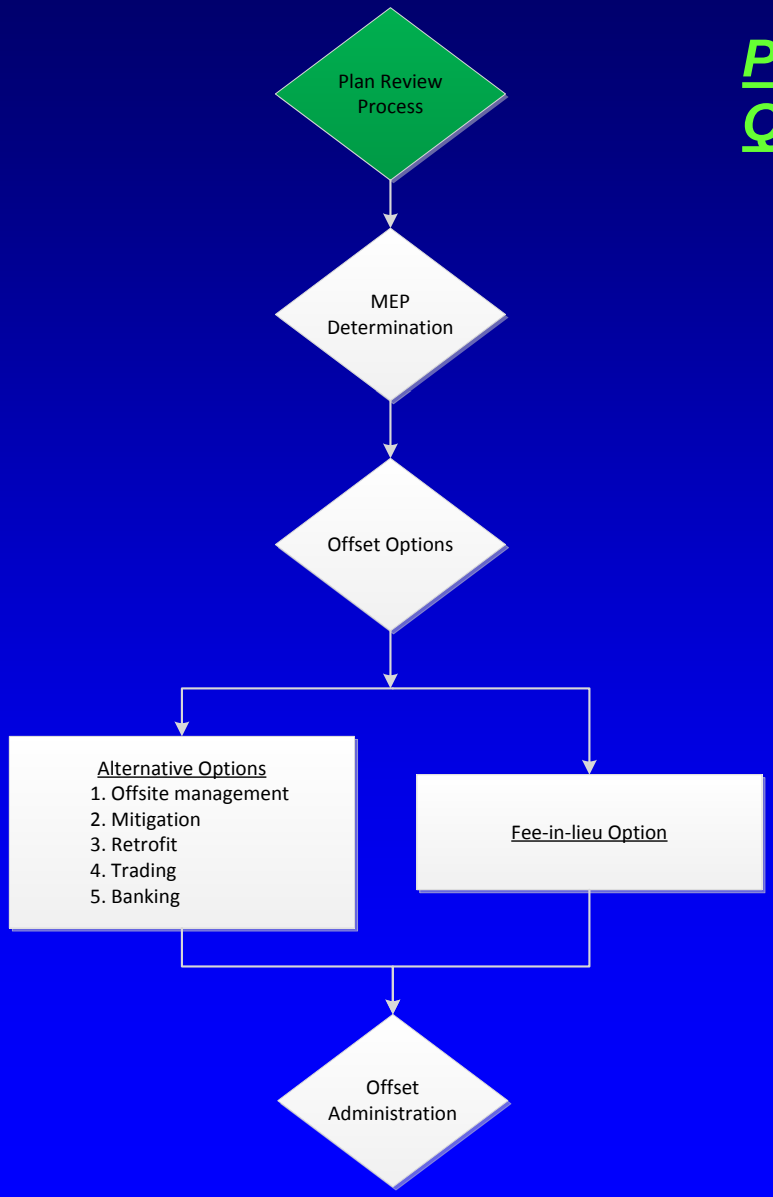
- Resource Protection Event
  - Previously developed areas within LOD
    - 30% reduction in effective imperviousness
  - Previously undeveloped areas within LOD
    - Full runoff reduction requirements
- Conveyance and Flooding Events
  - Full compliance

Offsets

Technical Document

Article 2.04 Offsets & Mitigation

Offset Process



Plan Review Process Indicates Site May Qualify for Offset

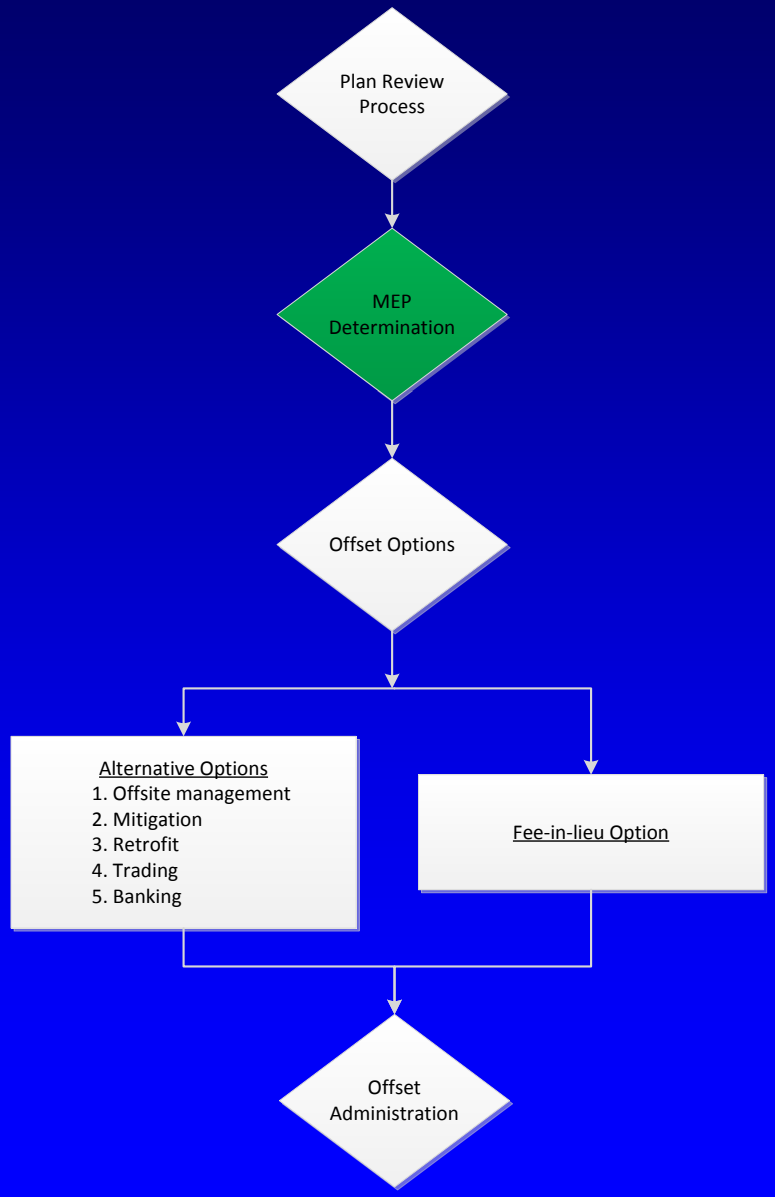
- Stormwater Assessment Report (SAR) contains multiple “Significant” ratings
- Analysis indicates on-site compliance may be an inferior solution
- Preliminary Sediment & Stormwater Plan (H&H study) indicates on-site compliance costs may exceed Maximum Extent Practicable (MEP)

“Maximum Extent Practicable”

- SWM measures, techniques, methods
  - Available and capable of being implemented
  - Considering
    - Cost
    - Available Technology
    - Project site constraints

Ref: Proposed revisions to the Delaware Sediment & Stormwater Regulations
Sect 2.0 Definitions

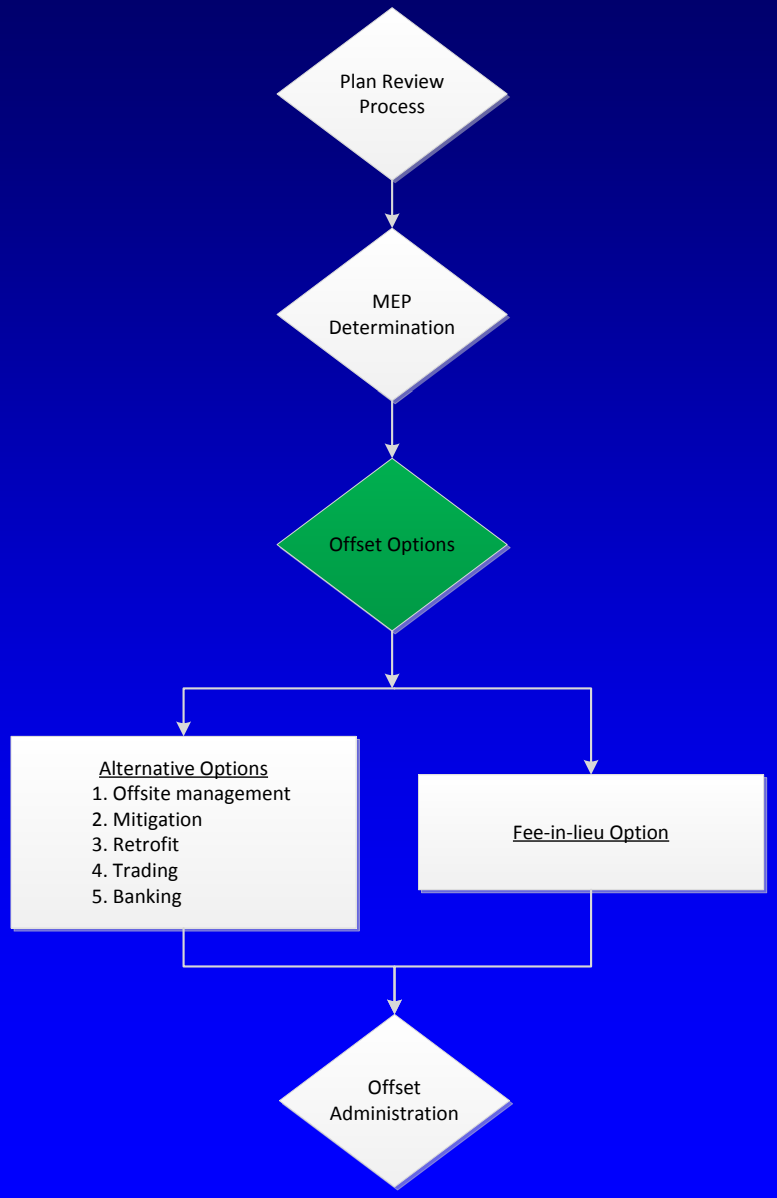
Offset Process



MEP Determinaton

MEP defined as estimated **construction costs** to meet RPv volume reduction requirements **> $10/cu. ft.**

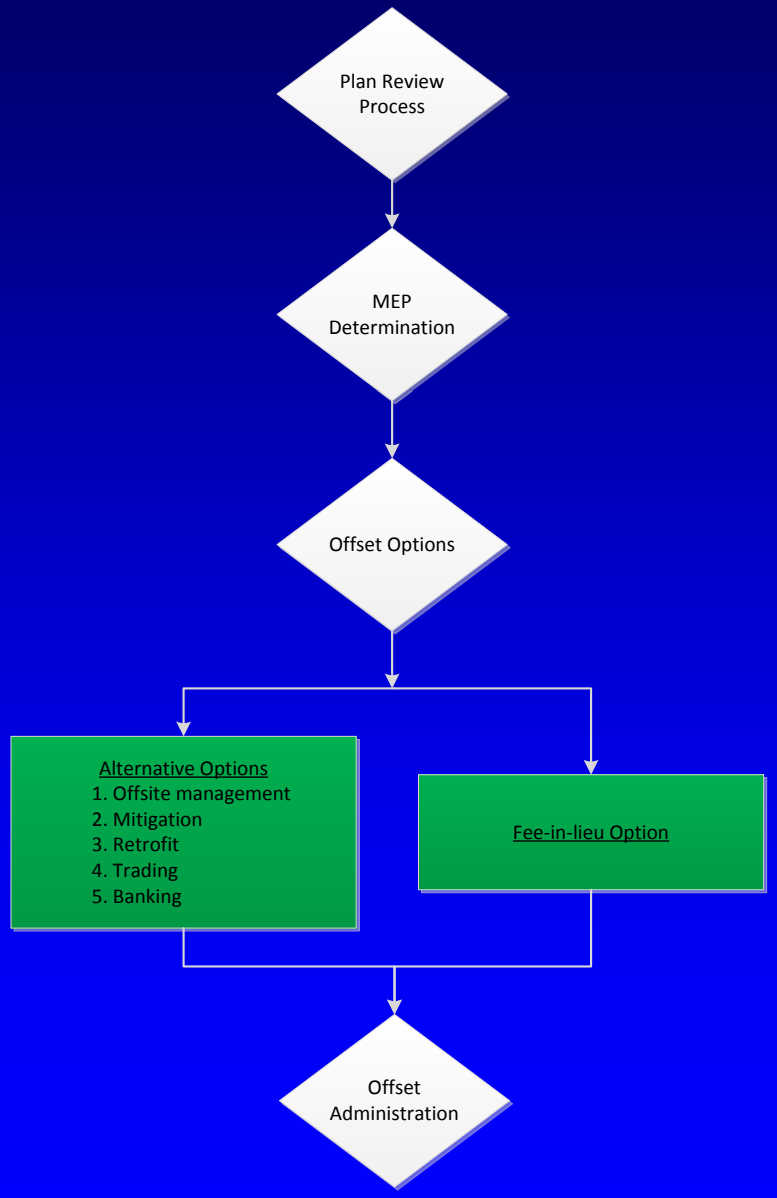
Offset Process



Offset Options

- Applicant proposes offset option

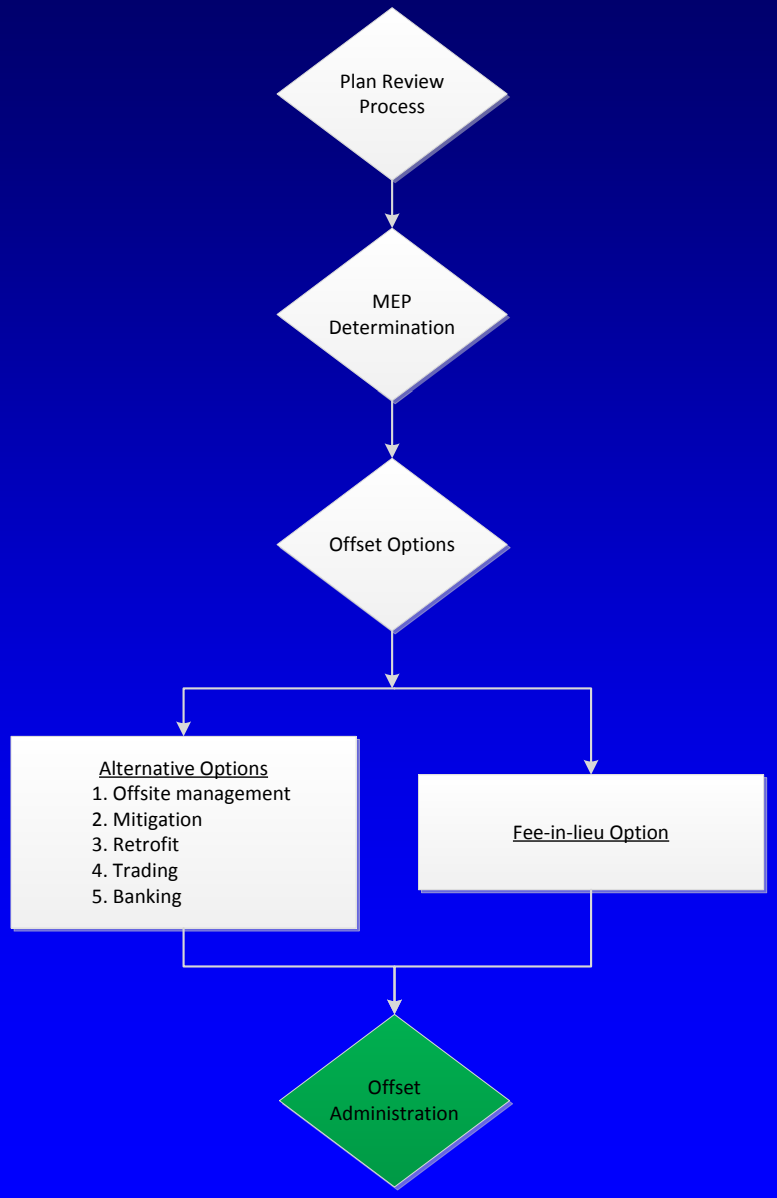
Offset Process



DNREC Fee-in-Lieu Option

- Use cu.ft. of runoff as "common currency"
- Alternative practices may be considered using an "exchange rate" with the "common currency"
- Based on **$18/cu.ft.**
- Collect fee-in-lieu prior to start of construction as default for all offset options and then refund the fee when an alternative option is implemented within a prescribed time frame

Offset Process



Offset Administration

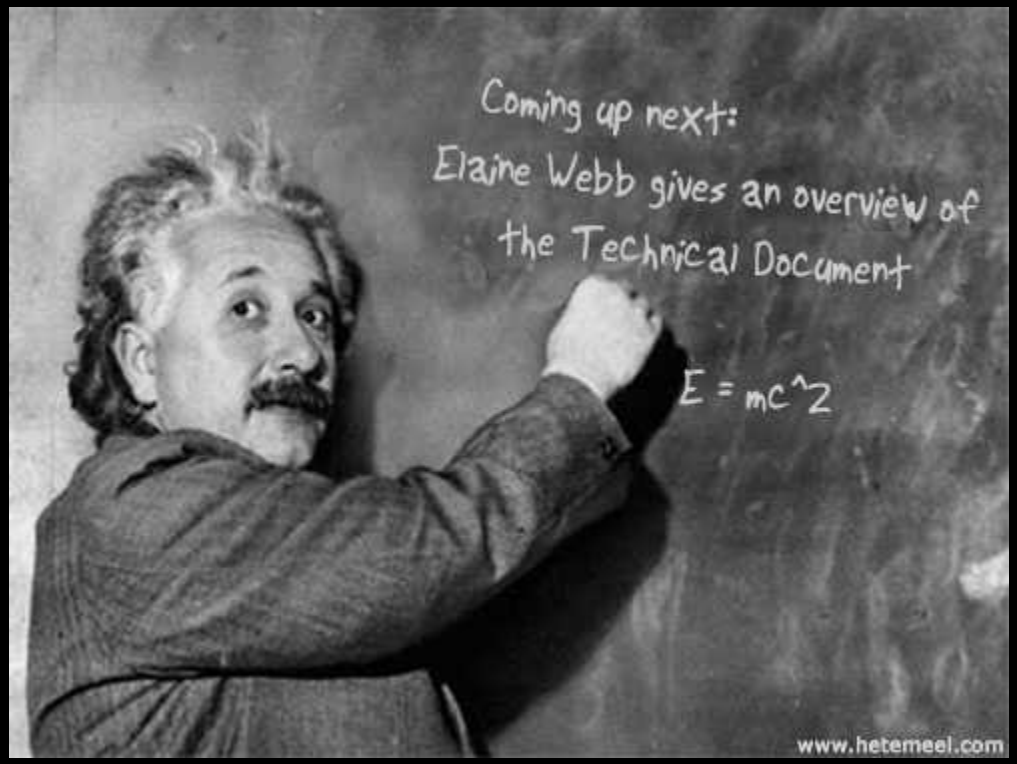
- Initially DNREC/CWAC function

Overall Objectives for Fee-In-Lieu

- Mitigate negative impacts of urban runoff at the watershed level
- Fee use prioritized based on benefit at the watershed level

Potential Uses of Fee-In-Lieu

- Implement recommendations of Watershed Management Plans
- Stormwater BMP retrofit projects
- Stream restoration projects
- Regional facilities
- Volume management from other sources
- Others????


Coming up next:
Elaine Webb gives an overview of
the Technical Document
E = mc^2
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