Regulatory Changes that will Impact Development and New Construction in Maryland

Presentation to the MD-DC Utilities Association
Current Regulatory Landscape

- Chesapeake Bay TMDL – WIP
- Wetland Permitting/MDSPGP 4
- EPA’s Stormwater Rule
- Effluent Limit Guidelines for Construction
- Maryland’s Erosion & Sediment Control Specifications
- Tier II Protection
Chesapeake Bay TMDL

Maryland TMDL Segmentshed

Data Sources:
- CBP P5.2 WQ Segments: CBP
- CBP P5.2 TMDL Segment-Sheds: CBP

Map Production Date: 1/13/10

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Shari Wilson, Secretary
Robert Summers, Deputy Secretary
BAY TMDL PROCESS - WHAT’S NEW

• Federal “Accountability Framework”
  – Clean Water Act: Bay TMDLs and generally greater regulatory influence
  – Watershed Implementation Plans
  – 2-Year Implementation Milestones
  – Tracking & Evaluating Progress
  – Federal “Consequences”
Federal Consequences

• Possible Consequences:
  – Object to NPDES permits to require additional reductions from point sources;
  – Expand NPDES permit coverage to currently unregulated sources;
  – Increase and target federal enforcement and compliance assurance;
  – Condition or redirect EPA grants; and
  – Federal promulgation of local nutrient water quality standards.
Watershed Implementation Plans

Three-Phased Planning Process:

• Phase I Plans - 2010
  - Nutrient and sediment target loads by sector and impaired segment
  - Statewide strategies for reducing loads in each source sector
  - Starting Point for Phase II Plans

• Phase II Plans – 2011/12
  - Refined EPA Watershed Model Results
  - Divide loads by smaller geographic areas
  - More detailed strategy to meet 2017 Interim Target - 70% reduction
  - 2-Year Milestone actions for 2012-2013

• Phase III Plans – 2017
  - Modification of TMDL and allocations, if necessary
  - Identify changes needed to meet Final Target loads
MDE Wetland Permitting Changes

- New Permit Streamlining Procedures Effective August 1, 2011
- The new process provides only one opportunity for an applicant to supplement an application with additional information.
- 45-day letter” will include a deadline for the submission of requested information
- MDE will deny the permit application due to insufficient information
- Criteria for requiring additional time for review
  - scientific study requested by MDE
  - resolution of legal or local governmental matters
  - other factors beyond the control of the applicant

- Pre-application Meeting
• New General Permit in Effect October 1, 2011

• Grandfathering Provision:
  - 2. All activities that have received written project specific verification under the MDSPGP-3, based on applications made prior to the effective date of the MDSPGP-4, but that have not been completed, have until December 31, 2013 to complete the work under the terms and conditions of the MDSPGP-3. The project must receive written reauthorization under the MDSPGP-4 or alternate Corps permit review procedures if the authorized work cannot be completed by December 31, 2013. Requests for modifications of previously authorized work under the MDSPGP-3 and/or special conditions are not grandfathered, and must be submitted in writing for written reauthorization under the MDSPGP-4 or alternate Corps permit review procedures.
• A new maximum total stream length impact threshold of 2,000 linear feet, in addition to the area impact threshold of one acre to all waters of the United States, to qualify for MDSPGP-4 authorization;

• Stream mitigation requirements when total stream length losses exceed 200 linear feet;

• Clarification of wetland mitigation requirements;

• Replacement of Category I and Category III with Category A (Corps review not required) and Category B (Corps review required);

• Elimination of Category II by including these current activities under the new Category B;

• Specific acreage limits designated for each activity under both Category A and Category B; and

• A reduction of impact limits for some Category A activities; and two new activities.
EPA’S Stormwater Rule

Impacts of urbanization on stormwater runoff

- Natural Ground Cover: 40% evapotranspiration, 25% shallow infiltration, 25% deep infiltration
- 10%-20% Impervious Surface: 38% evapotranspiration, 21% shallow infiltration, 21% deep infiltration
- 30%-50% Impervious Surface: 35% evapotranspiration, 30% shallow infiltration, 15% deep infiltration
- 75%-100% Impervious Surface: 30% evapotranspiration, 10% shallow infiltration, 5% deep infiltration

Changes in land use, stream corridor use, hydrology, geomorphology, system hydraulics, and changes in function such as habitat, sediment transport, and storage.
Stormwater Rule Schedule

- Fall 2011: Report to Congress
  - Areas outside the program
  - Types of pollutants
  - Programmatic recommendations

- December 2011: Proposed Rule
  - Expanding definition of MS4
  - Performance standard for discharge from new sites
  - Performance standard for discharge from redeveloped sites
  - Performance standard for retrofits
  - Green infrastructure
Current Issues in Discussion

- Post construction performance standard? (restore pre-development hydrology)
- How to expand MS4?
  - Jurisdictional boundary?
  - Exemptions?
  - Census? Watershed Boundaries?
  - Urban Clusters?

- Define redevelopment?
  - Addressing pre-existing uses (industrial, multi-family, government, commercial)
- Green infrastructure and LID
- Bay specific provisions
- Retrofit plans?
  - When?

How To?
Construction ELG

- December 1, 2009 - EPA published effluent limitations guidelines to control the discharge of pollutants from construction sites.

- February 1, 2010. – ELG In Effect. EPA expected state permitting authorities to bring these ELGs into their general permits on the next renewal.

- January 4, 2011, EPA stayed the numeric limitation of 280 NTU that was published in the December 1, 2009.

- mid-2011 - EPA decided to withdraw its revised numerical turbidity limit and instead seek more data on turbidity treatment system performance before coming out with a new numerical turbidity limit.
MDE is unsure on EPA's schedule for the new limit, but collection and analysis of new data will likely take time.

The non-numerical portions of EPA's 2009 ELGs remain in effect, and MDE intends to implement them in its next general permit, which is scheduled to take effect in 2014.

The non-numerical ELG provisions include a number of requirements, such as installing appropriate concrete washout controls.

The public participation process for the next MDE general permit will likely begin in late 2012 or early 2013.
Erosion & Sediment Control Update

- Public Informational Meeting – Thursday, October 29th at MDE
- Complete Promulgation – May 2010
What’s New?

• ESD to the MEP!
• Planning and Design Section
• Stabilization Requirements
• Grading Unit
• TMDLs and Tier II, Etc.
• Revised Standard Practices
• New Standard Practices
# Table of ESC Practices

## Table A.4: Erosion and Sediment Control Practices Matrix

<table>
<thead>
<tr>
<th>Practice</th>
<th>Primary Purpose</th>
<th>Design Criteria</th>
<th>Associated Practices</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stabilized Construction Entrance</td>
<td>Stabilize soil</td>
<td>Access points</td>
<td>Mountable Berms, Silt Fence, Super Silt Fence</td>
<td>All Ingress/Egress Points</td>
</tr>
<tr>
<td>Stabilized Construction Entrance with Wash Rack</td>
<td>Stabilize soil; prevent tracking of mud</td>
<td>Access points</td>
<td>Sediment Traps, Mountable Berms, Silt Fence, Super Silt Fence</td>
<td>All Ingress/Egress Points</td>
</tr>
<tr>
<td>Serrated Slopes</td>
<td>Stabilize extreme grade changes</td>
<td>Site specific</td>
<td>Temporary and Permanent Stabilization</td>
<td>Divert overland flow from top of slope</td>
</tr>
<tr>
<td>Benching</td>
<td>Minimize erosion</td>
<td>20 ft cut/fill- 2:1 slopes; 30 ft cut/fill- 3:1 slopes; 40 ft cut/fill- 4:1 slopes</td>
<td>Temporary and Permanent Stabilization, Pipe Slope Drain</td>
<td>Can apply to stockpiles</td>
</tr>
<tr>
<td>Temporary Stabilization</td>
<td>Stabilize soil</td>
<td>Site specific</td>
<td>Soil Stabilization Matting</td>
<td>Maximum six month duration, Soil Testing</td>
</tr>
<tr>
<td>Permanent Stabilization</td>
<td>Stabilize soil</td>
<td>Site specific</td>
<td>Soil Stabilization Matting</td>
<td>Soil Testing</td>
</tr>
<tr>
<td>Heavy Use Area Protection</td>
<td>Stabilize Soil</td>
<td>Construction routes, staging and material storage areas</td>
<td>Dust Control, Temporary Swales, Temporary or Permanent Seeding</td>
<td>SCE, Soil Stabilization</td>
</tr>
<tr>
<td>Earth Dike</td>
<td>Convey runoff</td>
<td>Drainage area ≤ 10 ac; slope ≤ 10%</td>
<td>Sediment Trap, TSOS, TGOS, Outlet Protection</td>
<td>Engineering Design if &gt; 10 ac or slope &gt; 10%</td>
</tr>
<tr>
<td>Temporary Swale</td>
<td>Convey runoff</td>
<td>Drainage area ≤ 10 ac; slope ≤ 10%</td>
<td>Sediment Trap, TSOS, TGOS, Outlet Protection</td>
<td>Engineering Design if &gt; 10 ac or slope &gt; 10%</td>
</tr>
<tr>
<td>Perimeter Dike/ Swale</td>
<td>Convey runoff</td>
<td>Drainage area ≤ 2 ac; slope ≤ 10%</td>
<td>Sediment Trap, Temporary Stabilization</td>
<td>Smaller footprint than ED and TS</td>
</tr>
<tr>
<td>Storm Drain System</td>
<td>Convey runoff</td>
<td>Site specific</td>
<td>Sediment Trap or Basin, Outlet Protection,</td>
<td></td>
</tr>
<tr>
<td>Temporary Diversion</td>
<td>Convey runoff on paved areas</td>
<td>Site specific</td>
<td>Earth Dikes, TSOS, TGOS, Outlet Protection</td>
<td></td>
</tr>
<tr>
<td>Clear Water Diversion Pipe</td>
<td>Convey channel flow around construction area</td>
<td>Design storm = Qc, 1 ft freeboard at inlet</td>
<td>Dewatering Practices, Outlet Protection</td>
<td>Possible review by Wetlands and Waterways Program</td>
</tr>
<tr>
<td>Temporary Barrier Diversion</td>
<td>Convey stream flow around construction</td>
<td>Design storm = Qc, 1 ft freeboard at inlet</td>
<td>Dewatering Practices, Outlet Protection</td>
<td></td>
</tr>
</tbody>
</table>
Following initial soil disturbance or redisturbance, permanent or temporary stabilization is required within [seven (7)] three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); and [fourteen (14)] seven (7) days as to all other disturbed areas on the project site.
“Grading Unit” means the maximum contiguous area allowed to be graded at given time. For the purpose of proposed regulation change, a grading unit is 20 acres or less.
Revised Standard Practices

DETAIL C-I EARTH DIKE

<table>
<thead>
<tr>
<th>STANDARD SYMBOL</th>
<th>A-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLACE DESIGNATION (X-Y-2, Y or A)</td>
<td></td>
</tr>
<tr>
<td>ON FLOW CHANNEL SIDE OF DIKE</td>
<td></td>
</tr>
</tbody>
</table>

2/slope or flatter

EXISTING GROUND

GRADE TO PROVIDE REQUIRED FLOW WIDTH AND FLOW DEPTH

CROSS SECTION

CONTINUOUS GRADE
0.5% MIN. TO 10X MAX. SLOPE

PLAN VIEW

DIKE TYPE

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a - DIKE HEIGHT</td>
<td>18 IN. MIN. 30 IN. MIN.</td>
</tr>
<tr>
<td>b - DIKE WIDTH</td>
<td>24 IN. MIN. 36 IN. MIN.</td>
</tr>
<tr>
<td>c - FLOW WIDTH</td>
<td>4 FT. MIN. 6 FT. MIN.</td>
</tr>
<tr>
<td>d - FLOW DEPTH</td>
<td>12 IN. MIN. 24 IN. MIN.</td>
</tr>
</tbody>
</table>

FLOW CHANNEL STABILIZATION

A-1 SEED WITH STRAW MULCH AND TACK.
A-2/B-2 SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.
A-3/B-3 4 TO 6 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL FLUSH WITH GROUND 1 INCH MINIMUM.

CONSTRUCTION SPECIFICATIONS

1. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION AND HEIGHT AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
2. PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN.
3. REMOVE AND DISPOSE OF ALL TREES, GRUB, STUMPS, OBSTRUCTIONS, AND OTHER DISTURBING MATERIAL, SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTH DIKE.
4. EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRRIRULARITIES THAT IMPED FLOW ARE NOT ALLOWED.
5. COMPACT FILL.
6. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIKE WITHIN 24 HOURS OF INSTALLATION.
7. INSPECT AND PROVIDE NECESSARY MAINTENANCE PERIODICALLY AND AFTER EACH RAIN EVENT.
8. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND AND STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED WITHIN 24 HOURS OF REMOVAL.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE
NATIONAL RESOURCES CONSERVATION SERVICE
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
### TABLE B.1: Temporary Seeding for Site Stabilization

<table>
<thead>
<tr>
<th>Plant Species</th>
<th>Seeding Rate $^1$</th>
<th>Seeding Depth (inches) $^2$</th>
<th>Recommended Seeding Dates by Plant Hardiness Zone $^3$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lbs./ac.</td>
<td>lbs./1,000 sq.ft.</td>
<td></td>
</tr>
<tr>
<td>Cool-Season Grasses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Ryegrass (Lolium perenne ssp. multiflorum)</td>
<td>40</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Barley (Hordeum vulgare)</td>
<td>96</td>
<td>2.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Oats (Avena sativa)</td>
<td>72</td>
<td>1.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Wheat (Triticum aestivum)</td>
<td>120</td>
<td>2.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Cereal Rye (Secale cereale)</td>
<td>112</td>
<td>2.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Warm-Season Grasses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foxtail Millet (Setaria italica)</td>
<td>30</td>
<td>0.7</td>
<td>0.5</td>
</tr>
<tr>
<td>Pearl Millet (Pennisetum glaucum)</td>
<td>20</td>
<td>0.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.
   
   Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

2. Oats are the recommended nurse crop for warm-season grasses.

3. For sandy soils, plant seeds at twice the depth listed above.

4. The planting dates listed are averages for each Zone, and may require adjustment to reflect local conditions, especially near the boundaries of the zone.
Anti-Degradation

- New requirements for projects impacting Tier II (high quality waters)
- No new discharges
- Analytical approach – monitoring and assessment
- Technical guidance under development.
- Protective standards not established at the project/site scale.
- Enhanced SW Management
- Should be captured at the planning level (WRE)
Other Considerations

• FastTrack Process: Maryland Made Easy
• Forest Conservation.
• Environmental Justice impacts.
• Sustainability
• Green Energy
• Plan Maryland
THANKS - Questions?