

NACWA 2017 LAW SEMINAR

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STORMWATER PRIMER

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AQUALAW

The background of the slide is a photograph of a storm drain on a paved surface. The drain is filled with a thick layer of grey sludge and contains several pieces of debris, including sticks and small pieces of trash. The text is overlaid on this image.

Presentation Overview

I. Statutory & Regulatory Foundation

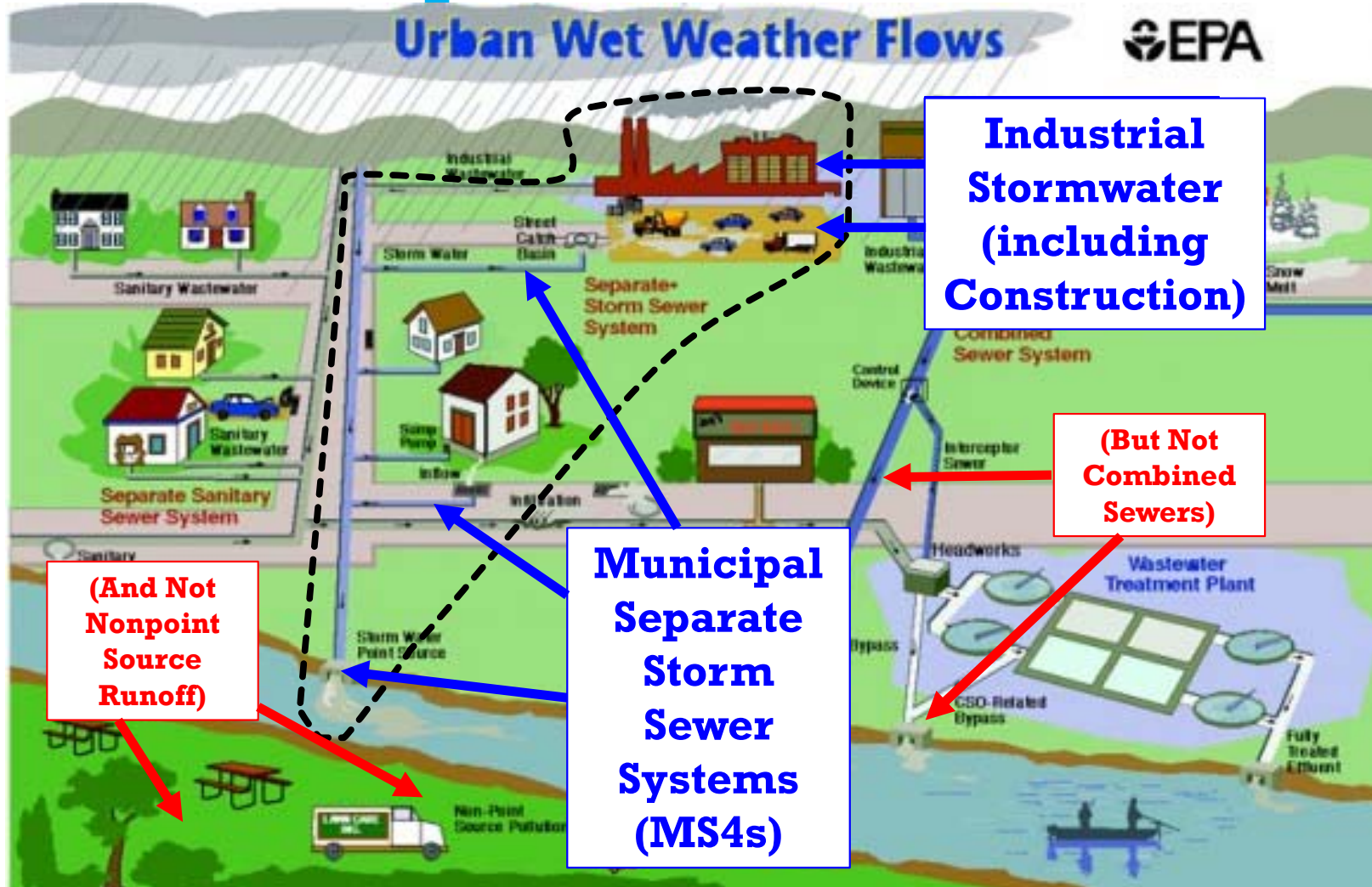
II. Industrial & Construction Stormwater

**III. Municipal Separate Storm Sewer
Systems (Not CSOs)**

IV. Practice Tips for NACWA Legal Elite

Scope of Presentation

Urban Wet Weather Flows



PART I

Introduction:

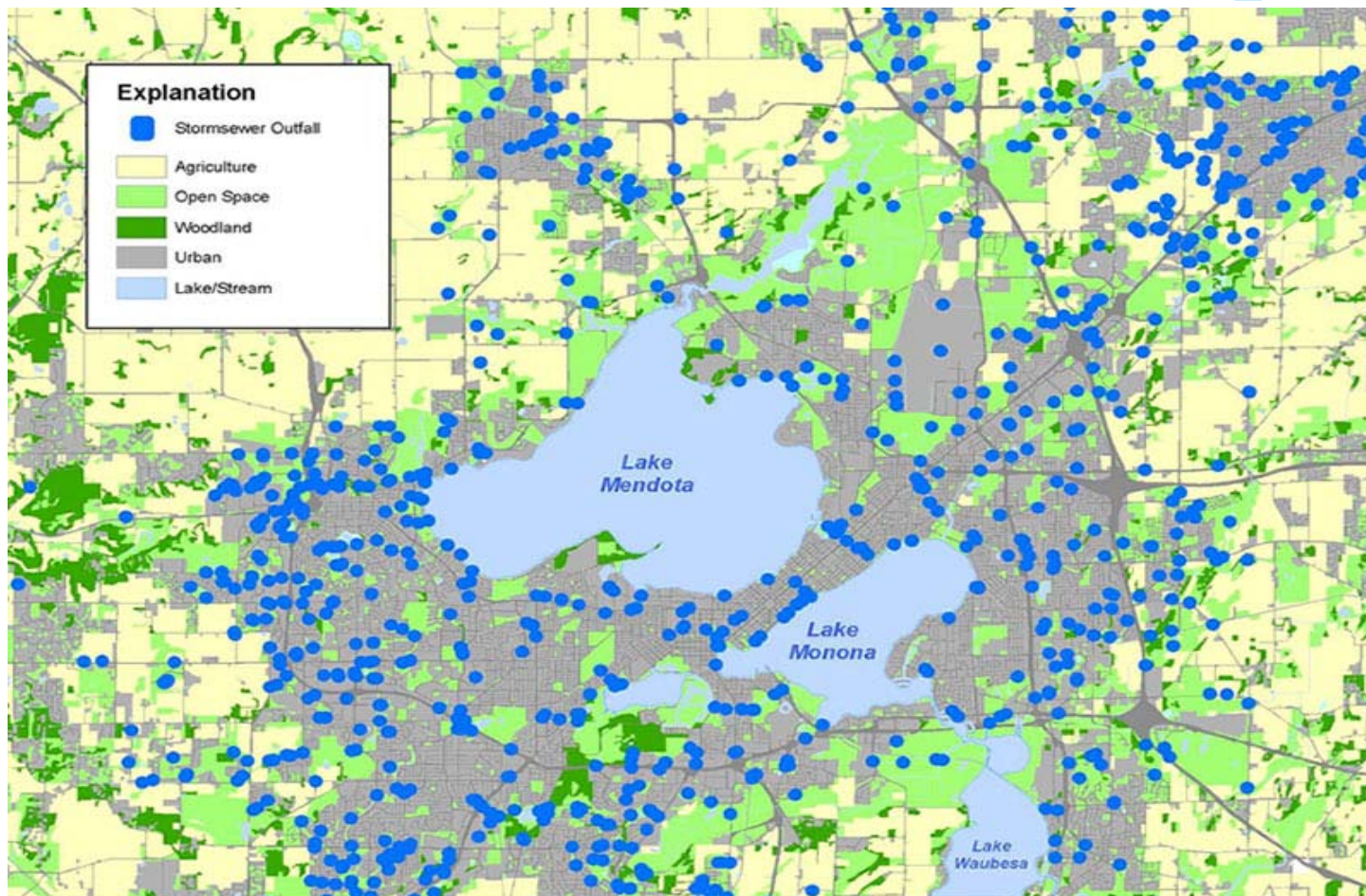
**Statutory and Regulatory
Foundation for Federal
Regulation of Stormwater**

EPA's 1973 NPDES Permit Regulation Exempted Stormwater

EPA considered regulation of stormwater under NPDES Program to be an “impossibility” because

- Owner has no control over stormwater flow
- Intensity and duration of storms are unpredictable
- Too many uncontrollable factors re pollutants present
- Effluent limits that are not numeric are not effective
 - EPA Brief in *NRDC v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977)
 - *See also* 1973 NPDES Rulemaking (38 Fed. Reg. 13528)

Ex: Storm Sewer Outfall Map



Madison, WI

D.C. Circuit Ordered EPA to Regulate Stormwater

CWA § 301(a)

“Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.”

33 USC § 1311(a)

Costle Court’s Opinion

“We find a plain Congressional intent to require permits in any situation of pollution from point sources....

Imagination conjoined with determination will likely give EPA a capability for practicable administration.”

Key Statutory Provision Today: CWA § 402(p) Added by 1987 WQA

(p) Municipal and industrial stormwater discharges

(1) General rule

Prior to October 1, 1994, the Administrator or the State (in the case of a permit program approved under this section) shall not require a permit under this section for discharges composed entirely of stormwater.

(2) Exceptions

Paragraph (1) shall not apply with respect to the following stormwater discharges: ...

(B) A discharge associated with industrial activity.

(C) A discharge from a [MS4] serving a pop. of 250,000 or more.

(D) A discharge from a [MS4] serving a pop. of 100,000 [to] 250,000....

Basis for Phase I Rule Covering Industry Plus Lg. & Med. MS4s

CWA § 402(p) (cont.)

(p) Municipal and industrial stormwater discharges

...

(5) Studies

[EPA required to identify more classes of discharges not regulated under (1) and (2), determine nature / extent of pollutants, and issue a report by 10/88]

(6) Regulations

[EPA shall issue regs, based on study results, designating more stormwater discharges to be regulated “to protect water quality” and EPA “shall establish a comprehensive program to regulate” such designated sources]

Basis for Phase 2 Rule Covering Small MS4s & Small Construction

CWA § 402(p) (cont.)

Back to subsection (p)(3)...

(3) Permit requirements

(A) Industrial discharges

Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 1311 of this title.

(B) Municipal discharge

Permits for discharges from municipal storm sewers—

(i) may be issued on a system- or jurisdiction-wide basis;

(ii) shall ... effectively prohibit non-[SW] discharges into [MS4]; and

(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants....

Distinct Compliance Standards for Industrial Stormwater and MS4s

Key Stormwater §402(p) Rulemakings

- **1990 Phase I Rule (55 Fed. Reg. 47990)**
 - Large & Med. Municipal Separate Storm Sewer Systems (MS4s)
 - Industrial Stormwater including Large Construction (> 5 acres)
- **1999 Phase II Rule (64 Fed. Reg. 68722)**
 - Small MS4s
 - Small Construction Sites (1 to 5 acres of disturbance)
- **Failed Post-Construction Stormwater Rule**
 - December 2009 Notice (74 Fed. Reg. 68617)
 - September 2010 Information Collection Request
 - March 2014 Statement Deferring Rulemaking

Activities Exempt from Stormwater Permit Requirement by § 402(1)

- **Oil, Gas, and Mining Operations**

- Stormwater must be uncontaminated by overburden, byproducts, etc.
- Covered activities may include, for example:
 - Active mines
 - Oil and gas drilling and production well sites
 - Oil and gas pipelines
- Scope of exclusion uncertain
 - *NRDC v. EPA*, 526 F.3d 591 (9th Cir. 2008) (vacating 2006 EPA rule implementing §402(1)(2) exclusion)

- **Silviculture Activities**

- Covered activities include reforestation, forest thinning, prescribed burning, timber harvesting, and access road construction
- Exemption (§402(1)(3)) added to CWA in 2014

PART II

Industrial Stormwater (Including Construction)



Stormwater Associated with Industrial Activity

- **NPDES Covers Certain Industrial SW Sources**
 - CWA § 402(p)(2)(B), 33 USC § 1342(p)(2)(B)
- **Industrial Stormwater Typically Permitted by GP**
 - EPA Construction General Permit (or State equivalent)
 - EPA Multi-Sector General Permit (or State equivalent)
- **Most NACWA Member POTWs Are Regulated**
 - Under Multi-Sector GP
 - If design flow > 1 MGD or req'd to have Pretreatment Program
 - 40 CFR § 122.26(b)(14)(ix)

Industrial Categories Subject to Stormwater Permitting

11 Listed Categories of Industries (40 CFR 122.26(b)(14))

- Facilities subject to stormwater ELGs, NSPS, or toxic pollutants effluent standards
- Certain heavy manufacturing (e.g., paper mills, chemical plants)
- Certain mining, oil & gas, and quarrying operations
- Hazardous waste treatment, storage, or disposal facilities
- Certain landfills
- Certain recycling operations
- Steam electric power generating facilities
- Certain transportation facilities (e.g., railroads, airports)
- POTWs > 1 MGD or req'd to have pretreatment program
- Certain construction activities
- Certain light manufacturing (e.g., food processing, printing)

Jurisdictional Issues for Industrial Stormwater

- **Key Provision**
 - Only regulated if have “conveyance... used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant” (40 CFR §122.26(b)(14))
- **Applies Only to Regulated Industrial Area of Site**
 - Ex: Shipping, receiving, processing areas ARE regulated
 - Ex: Office buildings and parking lots NOT regulated, unless drainage mixes with covered industrial areas
- **Triggered by Point Source Discharge**
 - If only “sheet flow” (nonpoint source) from the regulated area, no permit required

“No Exposure” Exception

- **Opportunity to Avoid Industrial SW Permitting**
 - If facility can certify discharges are not contaminated by exposure to industrial materials and activities
- **Permittee Requirements to Qualify**
 - Storm resistant shelter for industrial materials / activities
 - Recertify every 5 years
 - Permit-issuing authority may inspect to confirm no exposure
 - Allow public to access inspection reports
 - Submit info on status to MS4, if discharge through an MS4
 - 40 CFR § 122.26(g)

Increasingly Valuable Exception (Ex: TMDL Liability)

Linkage: Growing Connection Between Industrial Permits & TMDLs

- **Industrial Facilities Can Be Subject to TMDLs**
 - Stormwater discharge may be identified in TMDL with individual WLA or included in aggregate WLA
- **More Recent Industrial Permits Address TMDLs**
 - **Ex: EPA Multi-Sector General Permit, Part 1.1.4.8(c)**
 - Demonstrate before submitting NOI for new discharges to TMDL water that (1) TMDL WLAs are adequate for this discharge; and (2) Other dischargers are subject to compliance schedules
 - **Ex: Maryland Industrial Stormwater General Permit**
 - Subset of permittees must “restore” 20% of untreated impervious surface area at facility (treatment concept)

Linkage: Phase I MS4s Must Address Industrial Facilities Too

- Demonstrate adequate legal authority to control discharges from industrial sites into MS4
 - 40 CFR § 122.26(d)(2)(i)(A)
- Monitor pollutants discharged from the MS4 that originate from operating or closed municipal landfills and other municipal waste facilities
 - 40 CFR § 122.26(d)(2)(iv)(A)(5)
- Monitor and control pollutants discharged to the MS4 from specified industrial facilities
 - 40 CFR § 122.26(d)(2)(iv)(C)

Large & Small Construction Sites

- **Large Construction = Regulated Industrial Activity**
 - Includes clearing, grading, excavation
 - Excludes land disturbance < 5 acres (unless parcel is part of common plan of development or sale disturbing > 5 acres)
 - 40 CFR 122.26(b)(14)(x)
- **Small Construction Added by Phase II Rule (1999)**
 - Covers land disturbance of 1 to 5 Acres
 - Excludes routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of facility
 - 40 CFR 122.26(b)(15)
- **Typically Covered by Construction General Permit**
 - EPA Construction General Permit (CGP), or
 - State Equivalent

Construction General Permit Requirements (40 CFR §450.21)

- Design, install, and maintain erosion and sediment controls
- Stabilize soil in disturbed area when activities temporarily or permanently cease
- Control discharges from dewatering trenches and excavations
- Pollution prevention measures to minimize discharges from equipment and vehicle washing, building materials and construction wastes, and spills and leaks
- Prohibition on certain discharges (e.g., concrete and paint washout, fuels and oils, soaps, solvents)
- Discharges from basins and impoundments must be drawn from the surface of the water if feasible

Linkage: MS4s Have Permit Obligations Related to Construction Sites Too

- **Phase I MS4s: Program for BMP implementation and maintenance to reduce pollutants into MS4**
 - Procedures for consideration of WQ during site planning
 - Requirements for BMPs
 - Procedures to inspect and enforce on sites
 - Appropriate education and training for site operators
 - 40 CFR 122.26(d)(2)(iv)(D)
- **Phase II MS4s: Minimum Control Measure 4**
 - Requirements for erosion and sediment control (E&S)
 - Requirements for operators to control waste
 - Procedures for site plan review, consideration of public information, and site inspection and enforcement
 - 40 CFR §122.34(b)(4)

Construction – MS4 Permit Linkage (cont.)

- **Liability for Noncompliance at Construction Sites**
 - In EPA’s eyes, many construction site deficiencies are dual violations by (1) Site Operator under CGP, and (2) MS4 Owner under MS4 Permit with obligation to oversee CGP
- **Post-Construction Stormwater Management Is Another Regulatory Growth Area**
 - Trend of increasing linkages between Construction Permit requirements and MS4 Permit Post-Construction Stormwater Management requirements
 - See Post-Construction Stormwater Management in Part III

PART III

Municipal Separate Storm Sewer Systems (MS4s)



The MS4 Permits Universe

EPA estimates “regulated area” represents

- Only 4% of U.S. land area
- But >80% of U.S. population



Phase I (Lg/Med)

858 MS4s

(dark green)

Phase II (Small)

6,700 MS4s

(6,560 traditional)

(light green)

Breakdown of Individual & General MS4 Permits

- **350 Individual Permits (More Customizable)**
 - 250 covering approx. 855 Phase I MS4s
 - 100 covering 106 Phase II MS4s
- **54 General Permits (Less Customizable)**
 - Covering approx. 6,700 Phase II MS4s
- **3 Watershed Permits**
 - 3 permits covering approx. 3 Phase I & 40 Phase II MS4s

Key Municipal Stormwater Definitions

- **“Municipal Separate Storm Sewer”**
 - A “conveyance or system of conveyances (incl. roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)”
 - Owned/operated by public body (State, City, County, etc.)
 - Designed or used for collecting and conveying stormwater
 - That is not a combined sewer or part of a POTW
 - 40 CFR § 122.26(b)(8)
- **“Municipal Separate Storm Sewer Systems” (MS4)**
 - Phase I Large/Medium MS4 (40 CFR § 122.26(b)(4), (7))
 - Phase II Small MS4 (40 CFR § 122.26(16) and .32)

Small MS4 Definition

- Any municipal separate storm sewer owned or operated by a federal, state, or local government body (e.g., flood control district, state DOT, prison complex, military base) that is not a large or medium MS4
- Note: Generally includes all government entity-owned storm sewers that are not Phase I MS4s
- Does not include storm sewers in “very discrete areas” such as individual buildings that are not part of municipal system
- 40 CFR § 122.26(b)(16)

Key Jurisdictional Issue: Only Certain Small MS4s or Parts Thereof Are Regulated

- Any small MS4 within a census-designated “urbanized area” as of the latest Decennial Census is regulated
- Ex: County that is partly urbanized will have its MS4 within the UA regulated, but the part outside is not
 - For some aspects of permit, this makes little difference (e.g., public education; or already impose E&S for all constr. sites)
 - But for other aspects, this is a high value issue (e.g., TMDL implementation liability)
- Note: Unlike Phase I MS4 universe, the number of Phase II MS4s grows with each census

Only Certain Small MS4s Are Regulated (cont.)

- **Waivers**
 - There is also a limited opportunity for Small MS4s to avoid regulation by obtaining a waiver from State/EPA
 - Ex: UA expanded in 2010 in CSO community; total area served by MS4 within the UA is 1.4 acres
 - 40 CFR § 122.32(c)
- **Designation**
 - More likely, however, additional MS4s (outside of an urbanized area) may be designated by State/EPA for regulation
 - 40 CFR § 122.32

Phase II MS4 Permits

- **Typically Implemented through General Permit**
 - Permittee files Notice of Intent (“NOI”) to be covered
- **BMP-Based Management Program**
 - Program developed by permittee to meet goals of permit or detailed by permitting authority in GP (Phase II Remand Rule)
 - Based on 6 minimum control measures
 - Identify **BMPs** with “measureable goals” for each
 - (40 CFR § 122.34(d)(1))

2017 Phase II Remand Rule

- ***Envtl. Def. Ctr. v. EPA*, 344 F.3d 832 (9th Cir. 2003)**
 - Environmental groups successfully challenged Ph II rule
 - No Agency review of GP NOI (SWMP) for MEP compliance
 - Failure to make NOIs available to the public for comment and hearing on individualized NOIs (SWMP)
- **Groups Petition Court Dec. 2014 to Force Action**
 - As of 2014, EPA had not acted on court's remand order
 - EPA has also agreed to issue Final Rule by Nov. 17, 2016
- **General Permit Remand Rule Issued**
 - Issued Dec. 9, 2016 (81 Fed. Reg. 89320); effective Jan. 9, 2017
 - Gives permit authorities two options for issuing Phase II GPs

EPA Remand Rule

Option 1: Comprehensive GP Approach

- **Comprehensive General Permits**
 - All conditions necessary to meet MEP standard stated in GP
 - More details, frequencies, deadlines, numbers, etc.
 - Permitting agency will review permit req's with each renewal
- **Process**
 - Public comment on the draft Comprehensive GP only
 - Permittee submits simple Notice of Intent
 - Permitting authority authorizes coverage
 - MS4 complies with substantive req's of GP

EPA Remand Rule

Option 2: Two-Step GP Approach

- **Base General Permit**
 - Base GP expresses general requirements/goals
 - GP may include some specific req's (i.e., hybrid approach)
- **Process**
 - Public comment on the draft GP
 - Permittee submits detailed NOI outlining specific BMPs, milestones, and schedules to meet MEP standard
 - Public comment/hearing on plan in NOI
 - Permitting authority authorizes coverage
 - MS4 complies with plan in NOI and any other specific requirements express in Base GP

BMP-Based Programs

- **“Best Management Practice” Definition (§122.2)**
 - “... activities, prohibitions ..., maintenance procedures, and other management practices to prevent or reduce...”
- **BMPs Play Different Roles / Arise Different Ways**
 - Ex: Stated directly in permit as effluent limitation (“Do X”)
 - Ex: Prgm in SWMP to meet Permit reqmnt to address Y
 - Ex: Structural controls (treatment) to reduce pollutants
- **BMPs Are Increasingly Specific and Numeric**
 - Ex: Host 3 public meetings; sweep streets 12 times/year
 - Ex: Retrofit 10% of untreated impervious surface area

Examples of BMPs

Structural

- *Structure* intended to collect, treat, or convey stormwater
- Examples:
 - Retention ponds
 - Rain gardens
 - Green roofs
 - Constructed wetland
 - Pervious pavement



Nonstructural

- *Practice* intended to reduce stormwater pollution
- Examples:
 - Public education and outreach
 - Street sweeping program
 - Ordinance prohibiting non-stormwater discharges to MS4
 - Catch basin maint. schedule



Primary Small MS4 Permit Requirements: Six Minimum Control Measures (40 CFR § 122.34(b))

- ① *Public Education and Outreach***
Distributing educational materials and performing outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.

- ② *Public Participation/Involvement***
Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel.

- ③ *Illicit Discharge Detection and Elimination***
Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system (includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

Six Minimum Control Measures (cont.)

- ④** *Construction Site Runoff Control*
Developing, implementing, and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land (controls could include silt fences and temporary stormwater detention ponds).
- ⑤** *Post-Construction Runoff Control*
Developing, implementing, and enforcing a program to address discharges of post-construction stormwater runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas (e.g., wetlands) or the use of structural BMPs such as grassed swales or porous pavement.
- ⑥** *Pollution Prevention/Good Housekeeping*
Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques (e.g., regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch-basin cleaning).

Other Phase II Permit Requirements

- Program compliance evaluation, recordkeeping, and reporting
 - (40 CFR § 122.34(g))
- Any “more stringent effluent limitations” beyond 6 minimum control measures based on TMDLs
 - (40 CFR § 122.34(e))
 - *More on this later!*

Phase I Permits: Universe of MS4s Set in Stone

- **MS4s in Incorporated Places with Population of**
 - 250,000+ (Large MS4) (40 CFR Part 122 App. F)
 - 100,000 to 249,999 (Medium MS4) (Part 122 App. G)
 - Determined based on 1990 Decennial Census (no updates!)
- **Plus Specifically Listed Counties**
 - 40 CFR Part 122 App. H & I
 - Note: MD court held county's Phase I Medium MS4 classification unlawful because county not listed in App. I (Carroll County Circuit Court, June 27, 2017)
- **Other Areas Designated**
 - Based on interconnection, discharge location, water quality, etc.
- 40 CFR § 122.26(b)

Phase I MS4 Stormwater Management Program (SWMP) Elements (40 CFR § 122.26(d))

- **Structural & Source Control Measures for Commercial & Residential Areas Including**
 - Maintenance program for structural controls
 - Planning procedures re post-construction pollutant loads from new development and significant redevelopment
 - O&M plan for public roads (including deicing)
 - Flood mgmt project WQ impact analysis and retrofit potential
 - Pesticides, herbicides, and fertilizer use reduction
 - Program to inspect and monitor runoff from waste disposal facilities and significant industrial facilities (Issue: How determined?)

Phase I MS4 SWMP Elements (cont.)

- **Illicit Discharge Detection and Elimination (IDDE)**
 - Field screening, inspection, and enforcement program for non-stormwater discharges into MS4
 - Public education re illicit discharges and handling of used oil and toxic materials
 - Limit seepage from sanitary into storm sewers (Caution: Minimize and coordinate with Wastewater Utility)
- **Construction Site Runoff Program (Linkage to CGP)**
 - Enforceable BMP requirements for construction sites
 - Inspection and enforcement program
 - Education and training program for construction site operators (Ex: Who's burden to train?)

Other Phase I Requirements

- Adequate legal authority for your program (Dillon Rule issue)
- Discharge characterization
- Mapping of system and known major stormwater outfalls
- Fiscal analysis of permittee's ability to implement plans
- Description of roles / responsibilities of all co-permittees
 - 40 CFR § 122.26(d))

Annual Reporting

Phase I MS4 Requirements

1. Status of implementing the SWMP
2. Proposed changes to SWMP
3. Any revisions to assessment of controls and fiscal analysis
4. Summary of monitoring and other collected data
5. Annual expenditures and budget for upcoming year
6. Summary of any enforcement actions, inspections, and public education programs
7. Discussion of water quality improvement or degradation

40 C.F.R. § 122.42(c)

Phase II MS4 Requirements

1. Status of compliance with permit terms, assessment of BMPs, and progress toward each of the six minimum controls
2. Summary of monitoring and other collected data
3. Summary of planned activities
4. Any change in identified BMPs or measurable goals
5. Notice of reliance on another government entity to comply with any permit conditions, if any

40 C.F.R. 122.34(g)(3)

Post-Construction Stormwater Management

- **No National Standard for Post-Construction**
 - EPA National Rule proposed 2009, abandoned 2014
- **Phase I and II MS4 Regulations Very General**
 - Generic req't for local post-construction SW management
 - Phase I: 40 CFR §122.26(d)(1)-(2)
 - Phase II: 40 CFR §122.34(b)(5) (Minimum Control Measure 5)
- **Important Trend**
 - MS4s increasingly being required to do more to regulate post-construction stormwater

Post-Construction Stormwater Management: Recent Examples

- **MA Phase II MS4 General Permit (EPA-Issued)**
 - New Development must retain first 1” of rainfall “and/or” 90% of TSS and 60% of TP
- **MD Phase I Permits**
 - Development/redevelopment must implement environmental site design to the maximum extent practicable
- **VA Phase II MS4 General Permit**
 - Detailed water quality and water quantity requirements for development and new development
- **MT Phase II MS4 General Permit**
 - Development/redevelopment must capture first 0.5” rainfall

EPA Enforcement & Trends

- **MS4s Remain Enforcement Priority**
 - “Keeping Contaminated Stormwater Out of Our Nation’s Waters” is Nat’l Enforcement Initiative carried over to FY17-19
 - No activity level distinction based on size of MS4
 - EPA pursuing small, medium and large MS4s equally
- **EPA Also Hitting Other Stormwater Sources**
 - Ensuring facilities have Industrial Stormwater GP coverage
 - Recent EPA Consent Agreement examples
 - CA plastic bag manufacturer fined \$25,000 (June 2017)
 - NC beef packing facility fined \$48,000 (June 2017)

Stormwater Is the New Wastewater

EPA Enforcement (cont.)

- **EPA Pursuing More Traditional Enforcement**
 - As compared to many state regulators
 - Sending report, then initiating enforcement
 - Typically resolved by negotiated penalty and order
- **Review is Narrower, Less (or Un?)Forgiving**
 - Generally unwilling to forgo enforcement, even if issue resolved before inspection
 - “Strict compliance”/no excuses view of compliance
 - Sending a message/deterrence

Common Enforcement Issues

MCM 3 (IDDE)

- Failure to properly enforce against illicit dischargers
- No outreach program
- No “hotline” for citizens to report illegal dumping or spills
- MS4 map is too old; not field verified

MCM 4 (Construction)

- Failure or delay in following up on earlier identified E&S violations on a construction site (ex., storm drains not protected, unstabilized soil stockpiles, vehicular tracking of sediment on paved surfaces)
- MS4 inspector did not identify violations during inspection (i.e., contractor’s violation becomes the MS4’s violation)
- Not inspecting at required intervals

MCM 5 (Post-Construction)

- Failure to develop written procedures for routine maintenance inspections
- Failure to enforce against BMP owners who failed to maintain structural controls
- Missing O&M agreements for permanent BMPs

MCM 6 (Good Housekeeping)

- Failure to develop SWPPP
- Poor housekeeping (ex., oil staining, uncovered dumpsters, open paint drums, trash all over site)
- No employee training program on good housekeeping

PART IV

Practice Tips for the NACWA Legal Elite:

A. Minimizing Risk in Adaptive/Iterative MEP-Based Programs

Maximum Extent Practicable (MEP) Standard

MS4s “shall require controls to reduce the discharge of pollutants to the *maximum extent practicable*, including management practices, control techniques and system, engineering and design methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

– CWA § 402(p)(3)(B)(iii), 33 USC § 1342(p)(3)(B)(iii)

What Is “MEP”?

- **EPA Has Not Defined MEP**
 - Intent is for each MS4 to review on case-by-case basis
 - For Phase II MS4s: Implementation of 6 minimum controls “constitutes compliance” with MEP standard (§122.34(a))
- **Considerations In Determining Your MEP**
 - Condition of receiving waters
 - Specific local concerns
 - Other aspects of comprehensive watershed plan
 - MS4 size
 - Implementation schedules
 - Ability to finance
 - Capacity to perform O&M
 - Hydrology/geology

“Adaptive / Iterative” MEP Can Be Hard to Do in Practice

- Expectations are always increasing in iterative program
- New demands are always emerging
- One person’s adaptation is another’s “backsliding”
- And permits, plans and BMPs are community-specific
- Underlying MS4 regs & even most permits = inherently vague

Example Language on Adaptive Management

Source control and non-structural BMPs will be identified and implemented to the extent practical during the first permit cycle. Stormwater retrofits will be tied to re-development plans and will focus on opportunities to get the greatest reduction in pollutant loading per unit cost of implementing the BMPs. Selection of BMPs and the BMP strategy may be modified as BMP research results become available.

The Wild West of Permit Negotiation

Living With the MEP Compliance Standard Safely

- **MS4s Need a Strategy for Managing Vagueness**
 - “BMPs to the MEP” is Subjective Standard
 - Leaves MS4 open to allegations that program is not MEP
- **MEP Litigation Requires Court to Determine Facts**
 - No early decisions (e.g., summary judgment)
 - Generally means expensive, burdensome process for MS4
- **Best Practice: Define MEP Up Front**
 - Submit complete MEP Analysis with permit re-application
 - Begin discussing with regulator early in negotiation stage
- **Trade-Off Some Flexibility for Certainty**
 - Up front MEP determination sets MS4’s obligations
 - Minimizes risk of enforcement-based second guessing

Also Use Your Plans & Reports to Define & Protect Your Program

- **Stormwater Management Plan (SWMP)**
 - Details BMPs and other measures permittee intends to use to achieve permit requirements
 - Opportunity to clarify vague or unclear permit conditions, especially by virtue of regulator approving your SWMP
 - Be sure to include adaptive management / flexibility
 - Phase I (§122.26(d)(2)(iv)); Phase II (§122.34(a))
- **Annual Reports**
 - Your report of SWMP implementation / compliance status
 - Your opportunity to adjust your SWMP
 - Your documentation for future inspections or enforcement
 - 40 C.F.R. § 122.42(c); 40 C.F.R. 122.34(g)(3)

PART IV

Practice Tips for the NACWA Legal Elite:

B. WQS & TMDL Permit Provisions

Where Do WQS & TMDLs Fit In?

- **Law Is Still Developing**

- Challenges by certain groups that MS4 permits must mandate compliance with WQS & TMDLs uniformly rejected by courts
- Few challenges by MS4 permittees arguing that permits cannot include impracticable conditions to comply with WQS & TMDLs

- **Important Note**

- To our knowledge no “beyond MEP” level of effort has ever been imposed based on CWA over permittee’s objection that was pursued to completion through appeal process

Leading Case: *Defenders*

- ***Defenders of Wildlife vs. Browner***
 - 191 F.3d 1159 (9th Cir. 1999)
- ***Defenders' Holding***
 - CWA 402(p)(3)(B)(iii) “replaces the requirements of § 1311 with the requirement that municipal storm-sewer dischargers ‘reduce the discharge of pollutants to the maximum extent practicable.’”
 - “Congress did not require municipal storm-sewer discharges to comply strictly with 33 U.S.C. § 1311(b)(1)(C) [WQS].”

Leading Case: *Defenders (cont.)*

- **Unclear Dicta**

- “Although Congress did not require municipal storm-sewer discharges to comply strictly with [WQS], [CWA 402](p)(3)(B)(iii) states that ‘[p]ermits for discharges from municipal storm sewers . . . shall require . . . such other provisions as the Administrator . . . determines appropriate for the control of such pollutants.’ That provision gives the EPA discretion to determine what pollution controls are appropriate.”
- “Under that discretionary provision, the EPA has the authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants.”

- **What Does This Mean?**

- EPA/Enviro Groups: Permitting authorities have discretion to impose beyond-MEP requirements (e.g., strict compliance w/WQS in single 5yr permit term)
- Better reading: Permitting authorities have discretion to mandate any appropriate pollution controls, including compliance with WQS, so long as the terms of compliance are practicable for the MS4

EPA Guidance Excerpts (2014)

- “Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a [WQS] excursion, EPA recommends that the NPDES permitting authority exercise its discretion to include clear, specific, and measurable permit requirements and, where feasible, numeric effluent limitations as necessary to meet [WQS].”
- “[W]here a State or EPA has established a TMDL, NPDES permits must contain effluent limits and conditions consistent with the assumptions and requirements of the WLAs in the TMDL.... Where the TMDL includes WLAs for stormwater sources that provide numeric pollutant loads, the WLA should, where feasible, be translated into effective, measurable WQBELs that will achieve this objective.”

Dealing With WQS & TMDLs in MS4 Permits

- **Gold Star: MEP Is Overarching Compliance Standard**
 - Ex: “Permittee shall develop and implement management programs designed to reduce pollutants discharged from the MS4 to the maximum extent practicable (MEP)”
- **Must Litigate: “Strict WQS Compliance” Requirement**
 - Ex: “Discharges from [MS4] that cause or contribute to the violation of [WQS] ... are prohibited.” (2001 Regional MS4 Permit, San Diego County, CA)
 - An absolute compliance trap / easy citizen suit fodder
- **The Current Trend: Phased Progress**
 - A hybrid approaches that start MS4s down TMDL implementation path under adaptive / iterative program

Putting “Adequate Progress” Into Practice: TMDL Planning & Implementation Requirements

- “Next gen” MS4 permits often call for TMDL implementation
- Recognize expressly that multiple permit cycles reqd (at min.)
- Typically must identify BMPs and milestones for this 5yr term
- But may also require BMPs & schedules for future terms
- Some even require estimated end-date for achieving WLAs
- **EXTREME CAUTION:** Watch out for any draft reqmnts that exceed term of permit or level of effort doable under your MEP

Need to Get Reasonable 5-Year Scope of Work

PART IV

Practice Tips for the NACWA Legal Elite:

C. Right-Sizing by MEP Analysis

Right-Sizing by MEP Analysis If Necessary

- **Regulatory Tool for Managing Scope of Permit or TMDL Implementation Requirements**
 - Method for managing the ever-growing regulatory to-do list driven by EPA and special interests
 - Announce your MEP and negotiate it with regulators in lieu of a “bigger” permit or plan you cannot reasonably meet
- **Create a Framework for Decision**
 - Must speak up during negotiations if can't comply with draft
 - MEPA gives basis for reasoned discussion with regulator informed by facts
 - MEPA show your citizens you tried even if request denied
 - MEPA provides basis for appeal if needed

Approaches to MEP Analysis

- **Analyze Practicability of Draft Permit**
 - Provision-by-provision
- **Example Practicability Issue: Timing Challenges**
 - Ex: Management program ramp-up demanded too fast
 - Ex: Retrofit throughput demand beyond reasonable from staffing, procurement or execution standpoint
- **Example Practicability Issue: Unreasonable Cost**
 - Excessive increase in tax or rate revenue needed
 - Continued...

MEP Analysis Cost Example

- **Estimate Cost of Draft Permit**
 - Many unknowns, but make reas. assumptions and do it
 - Need to charge regulator with info on cost & rate impacts
- **Determine MEP Level of Public Investment**
 - For developing MS4 Program, plan reasonable increases
- **Propose Best Use of Available Funds**
 - Tailor / scale back appropriately
 - Optimize water quality benefits / eliminate wasteful items (e.g., excessive monitoring)

Same Concepts Can Be Used in TMDL Plans If Needed

“Adequate Progress” Concept

- **Ultimate Goals**
 - MS4 permit recognizes WQS and TMDLs but only as long-term (i.e., multi-permit) goals
- **Interim Goal**
 - In each 5-year permit, make reasonable further progress
- **Compliance Standard**
 - MEP standard sets MS4’s level of effort for each permit term

Compliance with all the conditions contained in PARTs IV through VII of this permit shall constitute compliance with §402(p)(3)(B)(iii) of the CWA and adequate progress toward compliance with Maryland’s receiving water quality standards and any EPA approved stormwater WLAs for this permit term.

Ex: MD Phase I MS4 Permit Template

After Negotiating Safe Permit Language, Make Your TMDL Plan Safe

- **Top Tier Regulatory Issue for the MS4 Locality**
 - Potentially most costly part of next permit(s)
- **These are Regulatory Documents**
 - Depending on Permit, part of permit and binding
 - More “contract” than “plan”
- **Plan Drafting Goals**
 - Maintain local control over Plan to maximum extent
 - Build in maximum flexibility for adapt w/o more approvals
 - Manage the scope, force and effect of the Plan

Sample Issues for MS4 TMDL Plans

- MEP as Compliance Standard Preservation
- MEP-Like Terminology (Ex: Estimates, Not Hard #s)
- Site Access Risks / Private Property Issues
- Treatment Efficiency Assumptions for Investments
- Option for Water Quality Trading option (more later)
- MS4 Service Area Jurisdiction (next slides...)

Latest MEP Battlegrounds: MD Medium MS4 Permit Appeals

- **Background**
 - Permittees filed “MEP Analysis” defining their maximum practicable levels of effort in response to State’s heavy draft
 - Agency claimed authority to impose “beyond MEP” reqmnts
 - 4 counties challenged permits in 2015
- **Permittee Objections**
 - All MS4 permit requirements (incl. WQS/TMDL) subject to MEP level of effort as a ceiling
 - Even if agency can go beyond MEP, it cannot impose **impossible** conditions (arbitrary and capricious)
- **Status**
 - 2 cases pending in county circuit courts
 - 2 cases pending in Maryland Court of Special Appeals

MD Medium MS4 Permit Appeals (cont.)

- **Carroll County, Maryland Circuit Court (June 27, 2017)**
 - “[The state] concludes that the requirements . . . are precisely the type of ‘more stringent’ effluent limitation authorized by both federal and state law. Noting that doing something which is ‘more stringent’ than the maximum extent practicable is practically impossible, the Court nevertheless continues its analysis of this contention.”
 - Court ultimately remanded the permit on other grounds
 - *But see* opinion of Frederick County, MD Circuit Court (July 18, 2017)

Latest MEP Battlegrounds: Mass. & NH Phase II MS4 GPs

- **EPA Region 1-Issued Phase II General Permits**
 - Mass issued April 2016
 - NH issued January 2017
- **Permittee Objections**
 - EPA cannot mandate strict compliance with WQS and TMDL schedules that exceed the MEP standard
 - EPA has no authority to regulate flow (*Va. DOT v. EPA*, No. 1:12-cv-775 (EDVA Jan. 3, 2013), but the permit does by regulating post-construction stormwater **quantity**)
- **Status**
 - Challenges filed in D.C. Cir. and First Cir.
 - EPA postponed effective date of both permits until July 1, 2018
 - Will EPA defend permits or revise them?

PART IV

Practice Tips for the NACWA Legal Elite:

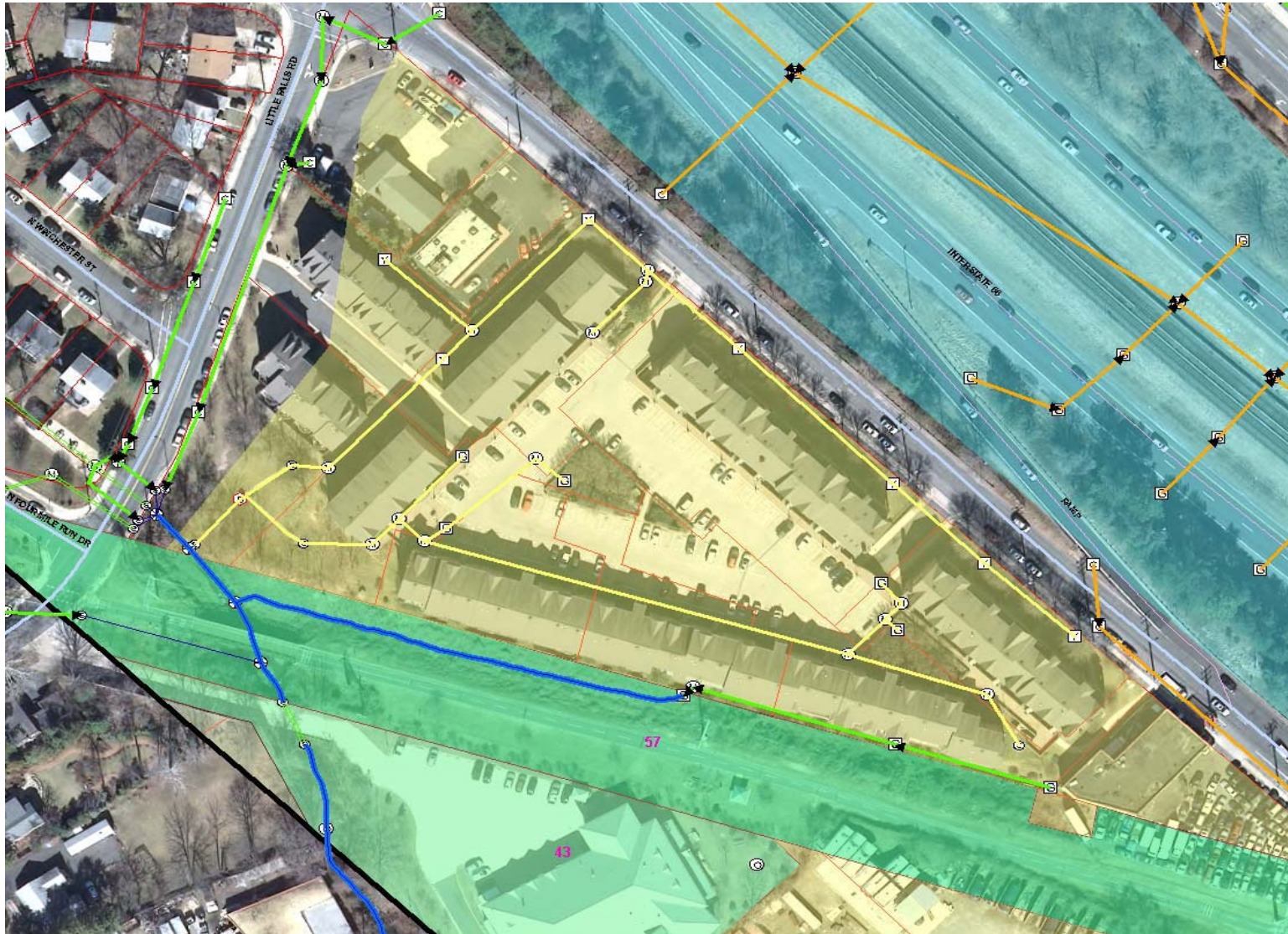
D. MS4 Service Area and the “Map-to-Minimize” Strategy for TMDL Liability

Key TMDL Liability Issue: Service Area

- **Area Is Key Determinant of Compliance Cost**
 - Particularly for defining TMDL liability under MS4 permits
 - Most TMDLs addressing stormwater-based pollutant loads tie pollutant reduction obligations to land area
- **Go Back to Jurisdiction Basics to Get This Right**
 - As NPDES permit, jurisdiction is limited to “point source” discharges that permittee owns/operates
 - Include the MS4 actually owned / operated by the permittee and its drainage area within the local jurisdiction
 - Exclude area for which you are not responsible, which also tend to be things you do not control and cannot fix anyway (“compliance trap” if you do not successfully exclude)

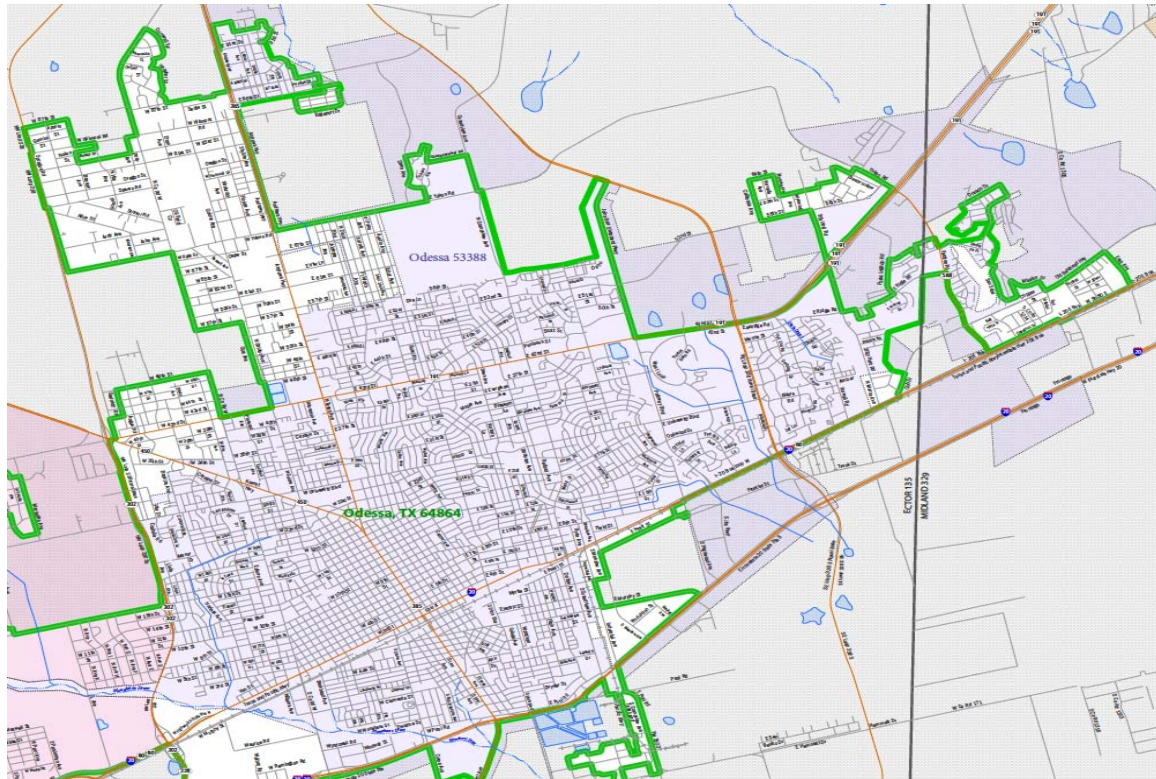
MS4 Exclusion: Private System

(Yellow Triangle
with Private
Sewers Directly
Draining to
Stream)



More Potential Service Area Exclusions

- **Separately Regulated Systems & Sites**
 - Other MS4s, incl. DOTs and non-traditional MS4s (e.g., universities, military bases)
 - Industrial stormwater permitted facilities
- **Large Unpermitted Federal or State Land**
 - Fed/State govts should not shift responsibility to Locality
 - Address in TMDL, TMDL IP, MS4 Permit, MS4 TMDL Plan
- **Sewer Sheds for Combined Sewer Systems**
 - Excluded by rule (40 CFR 122.26(a)(7)); CSS provide conveyance and treatment for most stormwater pollutants
- **Areas Outside Phase 2 MS4 “Urbanized Area”**
 - “If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated” (40 CFR § 122.32(a)(1))



2010 Census
Urbanized Area
Reference Map
for Odessa, TX
(Phase II MS4)

Urbanized Area
Outlined Green

Small MS4 General Permit TPDES General Permit TXR040000

Part II, Section B

4. Regulated Portion of Small MS4

The portion of the small MS4 that is required to meet the conditions of this general permit are those portions that are located within the UA as defined and used by the U.S. Census Bureau in the 2000 or 2010 census, as well as any portion of the small MS4 that is designated by TCEQ.

“Jurisdiction-Wide” Misapplied in MD

Additionally, in the November 16, 1990 preamble to the NPDES stormwater regulations, EPA suggested that permit coverage may include areas where jurisdictions have control over land use decisions. MDE agrees and believes that the amount and quality of stormwater entering an MS4 are affected by planning and zoning decisions made by a jurisdiction. Accordingly, it is reasonable to base the scope of the permit on the entire jurisdiction.

The argument to limit regulated permit area takes a myopic view of the MS4 system and ignores the language set forth in 40 CFR § 122.26(a)(1)(v). This section states that MDE may require an NPDES stormwater permit for discharges that “...contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.” Section 40 CFR § 122.26(a)(1)(v) further provides that MDE may “...designate discharges from municipal separate storm sewer systems on a system-wide or jurisdiction-wide basis.” Therefore, MDE will continue to define the regulated permit area as jurisdiction-wide and considers all provisions of this permit to apply to the geographic area of Howard County.

MD Dep't of the Env't, Basis for Final Det' for Howard County, MD MS4 Permit (Dec. 2014)

Permit includes “jurisdiction-wide” requirements to:

- “Treat” (e.g., retrofit) 20% of the untreated impervious area
- Develop plans to achieve compliance with stormwater WLAs

“Back to Basics” Lesson Needed

MD Phase I MS4 Permits Make Permittees Responsible for . . .

. . . direct SW discharges by third parties.



. . . rural nonpoint source runoff not subject to CWA jurisdiction.

One Court (So Far) Gets It

- **Carroll County, Maryland Circuit Court (June 27, 2017)**
 - “As MS4 permits are a subset of NPDES permits, determining the scope of the latter will aid in determining the scope of the former.”
 - “[T]he plain language makes clear that a jurisdiction-wide MS4 permit is limited in its scope to the regulation of discharges from MS4s owned or operated by the permittee municipality that are within the geographic area over which the permittee-municipality may exercise its jurisdiction. Because discharges from a MS4 can only originate from stormwater in areas served by that MS4, MS4 permits can only be applied to those areas served by the MS4(s) for which the permit is issued.”
 - *But see* opinion of Frederick County, MD Circuit Court (July 18, 2017)

PART IV

Practice Tips for the NACWA Legal Elite:

E. Getting TMDL “Credit”

Get More Partners (More Permittees)

- **Designation of Unregulated Discharger if**
 - Contributes to a WQS violation; or
 - Is a “significant contributor” of pollutants
 - See 33 USC § 1342(p)(2); 40 CFR §122.26(a)
- **MS4 Operator Can Petition EPA**
 - To require separate NPDES permit for any discharge into the MS4 system (40 CFR §122.26(f)(1))
- **Any Person Can Petition EPA**
 - To require permit for any discharge that contributes to WQS violation or is significant contributor of pollutants (40 CFR §122.26(f)(2))
 - To designate large, medium, or small MS4 (40 CFR §122.26(f)(4))

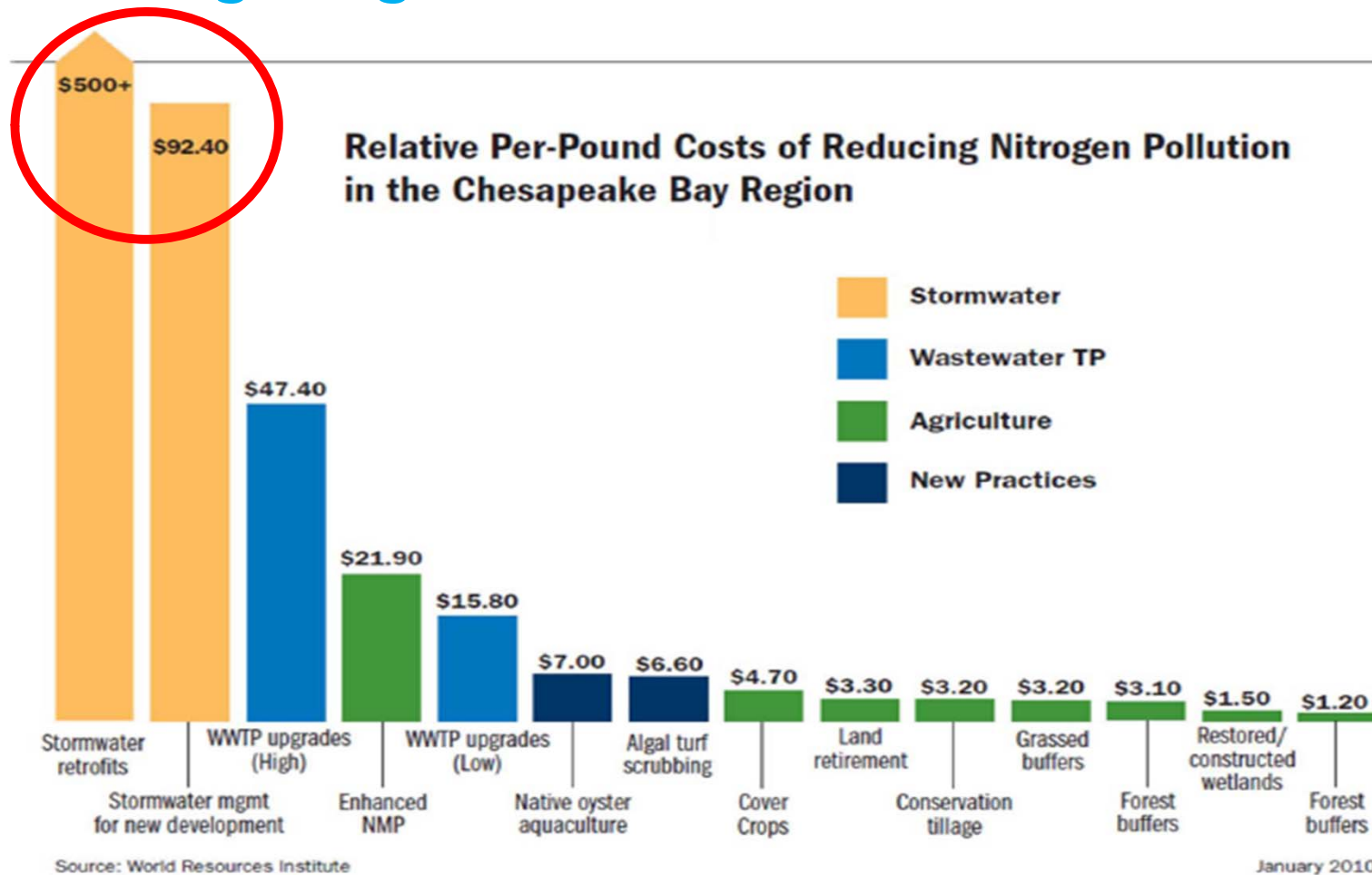
Residual Designation Authority Challenges

- **Parallel Cases Pending in California and Maryland**
 - Middle District of California and Ninth Circuit
 - Challenging EPA's declination to designate sites in Dominguez Channel and Los Cerritos watersheds in Los Angeles
 - District of Maryland and Fourth Circuit
 - Challenging EPA's declination to designate sites in Back River and Army Creek watersheds in Baltimore
- **Common Legal Questions**
 - When presented with RDA petition, must EPA make determination whether subject's SW discharges are causing or contributing to water quality violations?
 - If so, must EPA designate the subject for permitting?
 - Procedurally, must this challenges be filed in federal district courts or courts of appeal?

TMDL Implementation Credit for Projects Outside MS4 Service Area

- **Once Service Area Defined to Minimize Liability, May Want to Site Structural Projects Outside of Service Area**
 - To get most cost-effective pollutant reductions wherever located, have your permit include authorizing language
- **Example Authorizing Language**
 - “As part of required MS4 TMDL Plan, permittee may elect to implement BMPs on unregulated (i.e., non-MS4) lands”
 - Optional: “Reductions above and beyond such baseline shall be fully credited toward meeting the required pollutant reduction in this permit”

Trading Can Be Highly Advantageous for Mitigating Urban Nutrient Control Costs



Trading Credit With Other Sources

- **Express Authorization Required**
 - MS4 acquires credit for reductions made by third parties
 - More so than other examples, want express authorization
- **Options**
 - Policy level: State laws or regulations
 - TMDL level: As a stated assumption of the TMDL
 - Permit level: Express authorization in permit

Trading Authorization Examples (Virginia Chesapeake Bay TMDL Package)

- **EPA Chesapeake Bay TMDL Acknowledgment**
 - Trading is an assumption of the TMDL
- **State Legislative Authorization**
 - “An MS4 permittee may acquire, use, and transfer nutrient credits for purposes of compliance with any WLAs ... in an MS4 permit....” Va. Code §62.1-44.19:21
- **Phase II MS4 General Permit**
 - As part of development of ... TMDL Action Plan, the operator may consider ... Utilization of any pollutant trading or offset program....”

Questions & Discussion

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