

NPDES STORMWATER PERMIT PROGRAM FUTURE

Stormwater News

EPA approved (Nov 30) a set of nutrient pollution limits developed by the Florida Department of Environmental Protection which will cover a fraction of the waters in the state – about 15 percent. The other 85 percent of the state’s waters will be subject to the numeric federal standards.

Both sets of rules would apply numeric standards for such pollutants as nitrogen and phosphorus, replacing present criteria that set no specific limits.

They differ, though, in how they would be applied. The state version adds additional biological and chemical indicators that would have to be present before the numeric limits could be triggered.

Most states have vague standards regulating contamination from the inadequately treated sewage, manure and fertilizer that runs off into lakes and streams. The big issue is the application of the EPA numerical standards for nitrogen and phosphorus.

The U.S. Supreme Court will hear two stormwater permit cases in December. The first case concerns logging roads actively used to haul timber. The second case is Los Angeles County Flood Control District vs. Natural Resources Defense Council. This case is where to measure stormwater when it enters the river.

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Expect a More Aggressive EPA

Ken Kopocis will be the new Assistant Administrator for Water. He has worked on water issues in Congress for over 25 years and most recently has been Senior Counsel on the House Committee on Transportation and Infrastructure.

His problem will be to redirect the NPDES water program. The problem is that stormwater permitting has not resulted in clean water. The Congress amended the Clean Water Act in 1987 because 40 % of the Nation’s water was impaired. The percent of impaired water has not improved.

He must get the EPA Office of Enforcement to enforce all stormwater permits with a focus on permit compliance of discharges to impaired waters.

The cleanup of impaired water is done by identifying the Total Maximum Daily Load (TMDL) and then allocating a portion of the load to all dischargers, not just point sources. That includes agriculture!

Forty-Two Thousand TMDLs are ready to be applied to permits, and then enforced.

EPA must insist on numerical allocations where practical. Numbers are easy to enforce compared to narratives requiring management practices. *

Stormwater Permitting Makes Progress But Not Considered Successful

CLEAN WATER ACT: 1972 - 2012

On October 17, the federal Clean Water Act turned 40 years old. Until recently, environmental laws have enjoyed bi-partisan political support. At that time, two-thirds of the waterways were unsafe for swimming or fishing. Now, almost two-thirds meet water quality standards.

The Act sets wastewater standards and regulates the discharge of pollutants into the nation's oceans, rivers and lakes. But, Congress exempted agriculture except for large animal feedlots.

Mining, septic systems and the timber industry are still largely unregulated, and they are causing problems such as dead zones, hypoxic waters and harmful algal blooms in the nation's waters.

Read the article on the next page about the water database. Apparently 81 percent of U.S. coastal waters, 69 percent of lakes and 84 percent of wetlands are impaired.

Congress in 1987, directed EPA to implement a specific permit stormwater program. That program is fully developed.

Industrial stormwater dischargers (123,000) are generally in compliance. Although there remain many nonfilers, they do not appear to be a significant source of water pollution.

The construction industry, estimated to be 400,000 permittees, are generally non-compliant. This is attributed to a culture of independence and contributions to politicians.

Municipal permittees (7,000) complain about the costs and difficulties of complying with EPA's regulations, especially because there is no specific CWA grant or other type of assistance program to help pay for developing and implementing local stormwater programs.

EPA has been slow to demand enforceable nutrient water standards. It took litigation by environmental groups to force EPA to promulgate numerical nutrient standards in Florida.

The EPA estimates that 10 trillion gallons of untreated stormwater makes its way to rivers, lakes and oceans each year. This is because most storm drains lead directly to waterways without being treated.

Last year America's beaches saw the third-highest number of closing and advisory days in more than two decades, confirming the nation's seashores continue to suffer from stormwater runoff and sewage pollution that can make people sick and harm coastal economies, according to the 22nd annual beachwater quality report released by the Natural Resources Defense Council.

Republican opposition to the stormwater permit program began in 1994 when they gained control of the House of Representatives. They passed a bill amending the Act to make the stormwater program voluntary. The bill died because the Democrats, who controlled the Senate, did not vote on the bill.

The Republican party (including tea party representatives) continue to oppose environmental regulations. This gives cover to all of the Washington based lobbyist representing industry, particularly the construction industry.

This is not a good report on 40 years of effort. But, the Act has repelled all of the attackers. It will continue to be the law of the land because the Washington lobbyists are not very good at what they try to do. The Clean Water Act has support of the public. *

HOW'S MY WATERWAY?

NOT SO GOOD!

The public now has a new database that explains the quality of all streams, lakes, estuaries and wetlands in the Nation. However only 27 percent of rivers and streams and only 1 percent of wetlands have been properly assessed and figures do not include new chemicals that do not have set pollution standards.

The database finds 81 percent of U.S. coastal waters, 69 percent of lakes and 84 percent of wetlands to be “impaired,” or “unable to support their designated uses.”

The Clean Water Act requires states, territories and authorized tribes to monitor water pollution and report to EPA every two years on the waters they have evaluated. The new database includes these reports. This process is deciding which waters do not meet water quality standards because they are too polluted.

Technical users may want to obtain the national or statewide mapped data, upon which *How's My Waterway* is based, at the following website: [Water Program Geospatial Data Downloads](#).

This database is the source of the impaired waters list and the cause of impairment shown on pages 5 and 6.

The web site - Watershed Assessment, Tracking & Environmental Results (WATERS) provides access to information describing all waters using Google Earth. Google Earth zooms in or out to fit the new features into the map window.

Users of this system will include state regulators who must implement the TMDL process by determining the allocations to dischargers to the water body. Another user will be environmental groups to evaluate the progress of the state regulators. *

Stormwater News

(Continued From Page 1)

Kentucky State regulators, International Coal Group, and environmental groups filed an agreement that assesses \$575,000 in penalties and directs the money to environmental improvement projects for clean-water violations at dozens of mining operations in Eastern Kentucky.

International Coal Group is part of Arch Coal

Chesapeake Energy pleaded guilty in federal court in West Virginia to three misdemeanor counts of violating the Clean Water Act and agreed to pay a \$600,000 fine.

Apparently Chesapeake Appalachia used 60 tons of crushed stone and gravel in West Virginia's Blake Fork to create a roadway for improving access to natural gas well sites, without a permit.

The plea agreement also requires Chesapeake to be placed on probation and be under the supervision of the court for two years. Chesapeake said it has removed the gravel and restored the site.

A Washington State developer, Bryan Stowe was sentenced to six months in prison, one year of supervised release, and a \$300,000 fine for knowingly violating his construction stormwater general permit.

In addition, Stowe will make a \$100,000 payment to the National Fish and Wildlife Foundation for environmental projects targeting resources impacted by the illegal discharges.

A Grafton, Ohio couple has been indicted for dumping a drum of liquid cyanide into a storm drain that flowed into the Rocky River, killing more than 30,000 fish and other wildlife.

On April 16, 2012, they punched a hole near the bottom of a drum and discharged liquid cyanide into the storm drain and eventually into the Rocky River. Then they hid the punctured drum in their home.

Ohio EPA personnel inspected the site. The couple denied knowledge of the location of the punctured drum. *

The Next 40 Years

The **intent** of the Clean Water Act (ACT) remains unrealized after four decades. The intent (found in the first sentence of the Act) is *to restore and maintain the Nation's waters*. Section 305 of the Act lays out the path with a program Congress labeled *Total Maximum Daily Load (TMDL)*.

The way to measure progress in water quality is to identify every impaired water body and fix each one. The TMDL program has identified all of them, now it's time to fix each one.

EPA tracks the number of TMDLs and progress in removing the TMDL when the waters are no longer impaired. See http://iaspub.epa.gov/waters10/attains_nation.cy.control?p_report_type=T

The state list of impaired waters is on the next page.

Some of the 49,314 TMDLs have been resolved. The current number of TMDLs is 41,289. That's 16% over 15 years. The current trend is about 3,000 removals a year, but the hard work is ahead.

So it would be reasonable to assume 1,000 a year, taking the next 40 years. That would be 20 years beyond the 2024 date for achievement of the Chesapeake Bay TMDL.

Time Line

Congress, in passing the Act in 1972, set a goal of 1983 for achievement of the interim goal of water quality for protection of fish, shellfish, wildlife and recreation. The other goal of the Act is to eliminate the discharge of pollutants by 1985.

Post Construction Rule

EPA will propose a post-construction rule for the Chesapeake Bay watershed in June 2013 and issue a final rule by December 2014. The rule will include costs and benefits of its proposal and ways to incorporate flexibility, such as possibly including lengthy implementation plans for retrofit projects and allowing states with equivalent stormwater programs to regulate in lieu of EPA

Afterwards, the Agency will establish national post-construction requirements for stormwater discharges from new development and redevelopment. Cost considerations will require a rule with state flexibility rather than minimum standards.

Municipal Stormwater Permits

The EPA is considering revision to municipal stormwater permitting to replace Phase 1 and Phase 2 with a single Phase 3. This rule would expand MS4s regulatory area from the urbanized area to the full jurisdiction of the municipality.

This will be done to control discharges from developing areas outside of the urbanized areas, and to require MS4s to address stormwater discharges in areas of existing development through retrofit practices.

Citizen Participation

Two of the municipal permit requirements apply to citizens. First, permittees must provide stormwater information and guidance. Secondly, permittees must seek public participation in the program.

Where municipalities are serious about working with citizens they can avoid citizen lawsuits.

See Compliance on page 6

Number of Listed Impaired Water Bodies

Alabama	209
Alaska	35
American Samoa	44
Arizona	79
Arkansas	225
California	691
Colorado	244
Connecticut	425
Delaware	101
District Of Columbia	36
Florida	2292
Georgia	215
Guam	47
Hawaii	309
Idaho	916
Illinois	1057
Indiana	1836
Iowa	474
Kansas	1387
Kentucky	1300
Louisiana	274
Maine	114
Maryland	184
Massachusetts	710
Michigan	2352
Minnesota	1144
Mississippi	180
Missouri	245
Montana	604

N. Mariana Islands	24
Nebraska	331
Nevada	181
New Hampshire	1449
New Jersey	716
New Mexico	196
New York	528
North Carolina	1270
North Dakota	214
Ohio	267
Oklahoma	723
Oregon	1397
Pennsylvania	6957
Puerto Rico	165
Rhode Island	162
South Carolina	961
South Dakota	159
Tennessee	1028
Texas	719
Utah	156
Vermont	126
Virgin Islands	87
Virginia	1523
Washington	2420
West Virginia	1097
Wisconsin	593
Wyoming	111
Total TMDL	41289

Cause and Number of Impairments

Pathogens	10,451
Metals (other than Mercury)	7,489
Nutrients	6,895
Organic Enrichment/Oxygen Depletion	6,365
Sediment	6,164
Polychlorinated Biphenyls (PCBs)	5,579
Mercury	4,703
pH/Acidity/Caustic Conditions	4,156
Cause Unknown - Impaired Biota	3,541
Turbidity	3,109
Temperature	3,095
Salinity/Total Dissolved Solids/Chlorides/Sulfates	1,915
Pesticides	1,825
Cause Unknown	1,204
Algal Growth	1,073
Habitat Alterations	799
Dioxins	625
Toxic Organics	403
Ammonia	377
Toxic Inorganics	368
Total Toxics	286
Other Cause	277
Noxious Aquatic Plants	162
Flow Alteration(s)	136
Oil and Grease	131
Taste, Color and Odor	122
Fish Consumption Advisory	98
Cause Unknown - Fish Kills	83
Biotoxins	77
Trash	59
Radiation	45
Chlorine	41
Nuisance Exotic Species	31
Nuisance Native Species	3

COMPLIANCE IN THREE STEPS

First, states with the greatest number of TMDLs should be targeted for compliance. Pennsylvania has a huge number of impaired waters and almost 7,000 TMDLs. Michigan, Washington and Florida have over 2,000 TMDLs. The EPA must apply significant compliance pressure on these states.

Second, apply the required load allocations to both point and nonpoint dischargers.

The most common pollutants coming from stormwater sources include sediment, pathogens, nutrients, and metals. TMDL implementation plans include best management practices, and methods for translating TMDL allocations into NPDES stormwater permit requirements.

Implementing TMDL compliance in stormwater permits is established in a EPA memo named *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, dated November 22, 2002.

The memo requires WLAs be expressed in numeric form. However, WLAs may be expressed in the form of best management practices (BMPs).

The need for numeric allocation is to attack the cause of the impairment. The table shows the number and cause of impairments. It make no sense to apply BMPs that do not measure progress to remove the impairment.

The use of BMPs instead of numeric load allocations will further delay the TMDL removals, but that is where we are today.

Third, the current practice of states to send notices of violation without penalties must be abandoned. Credit EPA Region 4 for a current series of penalties, but the learning curve is over. Time to get serious or else polluters will continue polluting. *

Lots of Rain, People, Clay and Developers: All Obstacles to Clean Water

A Look at EPA Region 4

Start with soil having a high clay content, add millions of polluting people, and 50 inches of rain a year, you have a water quality problem.

Where sediment is the cause of water quality impairment, look at the construction industry as the source.



Where pesticides are the cause of water quality impairment and jeopardize aquatic life, look to agricultural activity as the likely source. A North Carolina cotton farmer ground sprayed his fields the morning of August 9 with Bifenthrin, which was subjected to a “rain deluge” of 1 ½ inches that afternoon. The field drains to a ditch which drains to a canal at the mouth of St. Clair’s Creek which drains to the Pamlico River. The next day a neighboring fisherman discovered his catch of blue crabs “acting funny.” The crabs were flipping continuously and their claws, and sometimes their entire legs, fell off.

The North Carolina Coastal Federation cites a combination of government budget cuts, entangled bureaucratic regulations, and lack of oversight authority as the reasons no one seems to know how these pesticides impact water quality and its aquatic life.

The Department of Agriculture inspected the site and took samples, but declined to comment further as the matter is still under investigation.

For a positive impact on water quality, awards

from Tennessee’s Green Development Grant Program, which requires a 20% match, include:

> \$28,000 to Knoxville to separate stormwater from sewage, remove pollution from runoff and to help it infiltrate the ground

> \$28,000 to Chattanooga to fund its Low Impact Development Excellence Award program to recognize projects using green technologies

> \$28,000 to Athens to test experimental cleaning technologies on roads, trails and parking lots, and,

> \$18,000 to Southeast Tennessee Development District to help 15 municipalities and 5 counties develop land use regulations to improve runoff quality.

A stormwater compliance conference of Region 4 MS4s met in Panama City Beach in November. The focus on the stormwater permit requirements (Minimum Control Measures) provided sharing of solutions by local governments.

The 3rd Region 4 Municipal Stormwater Permit Compliance will be on November 5-7, 2013 in Hilton Head, SC.

EPA Region 4 Enforcement in November 2012

South Carolina Department of Transportation, for violations at its U.S. Highway 17A road widening in Berkeley County (\$21,000).

GSR Jedburg LLC, for violations at its Strathmore PD in Summerville (\$19,000).

JOCO Construction LLC, for violations at its Liberty/Palmetto Point subdivision in Port Royal (\$1,500).

Walton Construction-A Core Company LLC, for violations at its Third Recruit Training Battalion Complex-MCRD in Parris Island (\$7,500).

Hyundai Power Transformers USA Inc., for violations at its Hyundai Heavy Industries in Montgomery, Ala. (\$43,000). *

John Whitescarver
Executive Director
National Stormwater Center



» Served on team that organized US EPA and wrote Clean Water Act rules; national expert, Municipal Permitting Policy; Awarded EPA Bronze Medal 1970-1979
 » Appointed to EPA Advisory Committee on Compliance Assistance
 » Appointed by Small Business Administration to EPA committee for streamlining Phase II stormwater rules.
 » Instructor for Florida DEP Erosion & Sedimentation Control Inspector Course
 » *Qualified Environmental Professional* by the Institute of Professional Environmental Practice

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2013 Training Schedule:

On-Line MS4 Employee Training

January 17 - Public Outreach
 February 14 - Illicit Discharge Detection
 March 14 - Construction Inspections
 April 11 - Pollution Prevention
 May 16 - Industrial Inspections
 June 13 - Commercial Inspections
 July 18 - Post-Construction

2013 Certified Stormwater Inspector Training Schedule

Jan 15-16 Little Rock
 Jan 29-30 San Diego, CA
 Feb 12-13 Baton Rouge, LA
 Feb 19-20 Dallas, TX
 Mar 4-5 Atlanta, GA
 Mar 7-8 Chattanooga, TN

Special Events Schedule

2013 Stormwater Compliance Conferences

May 7-9, Region 3, Philadelphia, PA
 Nov 5-7, Region 4, Hilton Head, SC

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