# THE STORMWATER QUARTERLY

National Stormwater Center

Our 15th year

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# A PLAN TO FIX NPDES WITHIN SIX YEARS

#### Stormwater News

Lisa Jackson, New Jersey's former Environmental Protection Commissioner, will be the new U.S. EPA Administrator. During her 16 years at the EPA, Jackson worked in the federal Superfund site remediation program, overseeing hazardous waste cleanup projects throughout central New Jersey. She later served as deputy director and acting director of the region's enforcement division.

John Rapanos has agreed to pay a \$150,000 civil penalty and will spend an estimated \$750,000 to mitigate for 54 acres of wetlands that were filled without authorization under the Clean Water Act. Rapanos has also agreed to preserve an additional 134 acres of wetlands that were unaffected by the unauthorized activity. The case drew national attention after the Supreme Court sent it back to the U.S. District Court for further proceedings.

**EPA** raised the maximum civil penalty for violation of the National Pollutant Discharge Elimination System (NPDES) regulations from \$32,500 to \$37,500. EPA issued a final rule adjusting for inflation to its civil monetary penalties for violations of regulations that EPA enforces. The changes come into effect on January 12, 2009. (See 73 Fed. Reg. 75340 December 11, 2008).

**EPA released a new guidance document defining waters under the jurisdiction of the Clean Water Act.** http://www.epa.gov/wetlands/guidance/CWAwaters.html

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## **Stormwater Permits A Failure?**

How can the public measure success and failure? Look at water quality, litigation and specific studies.

There has been no water quality improvement in the past 20 years. Forty percent of our waters remain impaired. The Chesapeake Bay Foundation, with 200,000 members, is suing EPA for failure to enforce the Clean Water Act. The National Science Foundation completed a two-year study of the EPA stormwater program and called the program a failure.

Here's how that will change.

The next Congress will amend the Clean Water Act to assure federal jurisdiction over all of the Nation's Waters and make several significant amendments.

The new EPA industrial Multi-Sector General Permit and the proposed national discharge limitations on construction activity signal a change in EPA policy. Both now focus on compliance with effluent limitations.

EPA's new vessel and animal feedlot permits now regulate major polluters, who were not previously controlled.

The times - they are a-changing. \*

# <u>EPA Proposes 13 Turbidly Limits for Large, Wet, Clayey, Construction Sites</u> Construction Industry Compliance in Six Years

Builders and developers lost the end-of-pipe war but won six more years to continue their current practice.

EPA's proposal included an option for a turbidity limitation. The proposal has a ninety-day public comment period then the national standard will be final by December 2009.

State permitting authorities will be required to incorporate the effluent limitations into their permits. Permittees would be required to implement control measures to meet effluent limitations in discharges of stormwater from construction sites by the end of the permit period.

#### **Proposed Standards**

Option 1 is a non-numeric standard, based on the use of effective erosion and sediment control practices to minimize the discharge of pollutants in stormwater runoff. Sites disturbing 10 or more acres must install sediment basins.

<u>Option 2</u> is a discharge limit of 13 NTU (nephelometric turbidity units) in addition to the Option 1 requirements. Sites of 30 acres or more that are located in areas of the country with high rainfall and soils with high clay content would use advanced treatment systems (ATS).

<u>Option 3</u> applies the 13 NTU discharge limit for turbidity, in addition to the Option 1 requirements, to all sites with common drainage points serving 10 or more disturbed acres at one time.

The numeric effluent limit on the turbidity of stormwater discharges would apply for any site that meets all three of the following criteria: (1) average soil clay content of more than 10 percent; (2) annual R factor of 50 or more; and (3) has a size of 30 or more acres. The numeric turbidity standard would apply to discharges produced from rainfall events up to the local 2-year, 24-hour storm. Any volume in excess of the 2-year, 24-hour storm would be exempt from the turbidity standard.

Dischargers would be required to monitor stormwater discharges for turbidity by using automated instrumentation or with a portable, hand-held turbidity meter.

The proposed limit is 13 NTU as a daily maximum. Dischargers would sample prior to a discharge to be assured that the standard would not be violated. The technology basis for the turbidity limit is active treatment systems (ATS), which consists of polymer-assisted clarification followed by filtration.

All regulated sites will be required to implement the specific non-numeric erosion and sediment control measures identified in the rule and identified as the average of the best performance currently observed.

### Costs

EPA estimates that this proposed rule would cost \$1.9 billion dollars per year for the 82,000 firms that perform work falling within scope of Option 2.

### Time

Since EPA expects that the effluent guideline requirements will be implemented over time as states revise their general permits, EPA expects full implementation within five years of the effective date of the final rule.

### **Final Battle**

The National Association of Home Builders wants Option 1. They will argue the high cost of other options will prolong the recession. \*

# Oil and Gas NPDES Exemption Uncertainty

The NPDES exemption of runoff from oil and gas production is now uncertain. The new Congress and EPA need to decide what to do. Meanwhile, the discharge of contaminated sediment without an NPDES permit is illegal.

EPA's 2006 rule to broaden the exemption was vacated November 10, 2008, by the Ninth Circuit Court. Therefore, the effective law is the Clean Water Act amendment contained in the Energy Policy Act of 2005 and the prior EPA rule.

The Energy Policy Act of 2005 amended Section 502 of the Clean Water Act by changing the definition of oil and gas exploration and production to encompass field activities or operations associated with all facets of the industry "... including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities."

On May 23, 2008, the Ninth Circuit Court issued an opinion to vacate EPA's rule exempting the oil and gas industry's construction activities from needing storm water construction permits.

The Court was unable to conclude that Congress intended to exempt from NPDES permitting requirements discharges of stormwater runoff contaminated solely with sediment. They did conclude that Congress was silent on the issue.

The Court called the Agency's rule arbitrary and capricious because EPA changed position on what constitutes "contamination." The Court order can be downloaded at http://www.epa.gov/npdes/regulations/oila ndgas\_nrdc\_v\_epa.pdf \*

## **Stormwater News**

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Alaska now has NPDES authority. The State Department of Environmental Conservation (DEC) will accept the authority in phases, first being wastewater discharge permits for timber harvesting, seafood processing and domestic dischargers, such as municipalities. Existing permits from the EPA will turn into state permits.

Within three years, DEC will have permitting of federal facilities in Alaska, stormwater, mining, and finally oil and gas permits, and cooling water. The DEC wastewater permitting staffing is 43 people.

The Chesapeake Bay Foundation will sue the EPA to enforce the Clean Water Act. "It is time that EPA either step up to the plate, or be held legally accountable for its failure to comply with the law and fulfill the commitment to reduce pollution sufficiently to have the Bay removed from the federal dirty waters list by 2010," said William Baker, president of the Chesapeake Bay Foundation

The Foundation and five other parties are calling on EPA Administrator Stephen Johnson to establish a deadline of 2010 to have programs and funding in place to achieve the pollution reduction goal, to achieve 80 percent of the goal by 2012, and to complete the task by 2015.

**EPA is planning to develop a rulemaking on the control of NPDES permit information.** The decision was made to assure permit data is "available on a nationally consistent, timely, accurate, and complete basis." In October, EPA held a four hour conference call with NPDES state authorities to discuss the options being considered. Several states explained that resources were not available to provide EPA Headquarters with the data discussed.

NPDES rules for discharges from concentrated animal feeding operations (CAFOs) were issue on October 31. EPA is requiring nutrient management plans (NMPs) to be submitted as part of a CAFO's NPDES permit application. The plans will be reviewed by the permitting authority and conditions based on it will be incorporated as enforceable terms of the permit.

Operators who do not discharge or propose to discharge may obtain certification as zero dischargers. See the rule at http://www.epa.gov/npdes/caforule \*

## Good Analysis, Good Ideas, Wrong Conclusion Scientist: Overhaul EPA Stormwater Permitting

EPA asked the National Research Council (National Science Foundation) to analyze the EPA Stormwater Program and make recommendations. The report released in October calls the stormwater program a failure and recommends major changes.

The 513 page report recommends all NPDES permits be issued based on watershed boundaries instead of political boundaries. The report recommends stormwater be regulated through direct controls on land use. Such land use would limit both quantity and quality of stormwater runoff with monitoring of adjacent waterbodies.

Land use controls would include innovative zoning and development incentives. The committee would marry land use controls with stormwater control measures.

### The problem with the recommendation is that it is contrary to the law.

The Clean Water Act allows EPA to authorize only a state organization to administer NPDES. Also, the law does not give the federal government any control over land use.

The report titled "Urban Stormwater Management in the United States" is the product of a 2-year process undertaken by a 15-member committee of national scientists. A brief summary is available at: http://www.epa.gov/npdes/pubs/nrc stormw aterreport fs.pdf

#### Recommendations

A. The report acknowledged that watershed permitting can and does exist, but only under NPDES state authority, not municipal governments. They want that changed.

B. The industrial and construction permitting should be integrated under the jurisdiction of

their associated municipalities. NPDES permits issued to MS4s should require control over all stormwater discharges within their jurisdiction. The National Pretreatment Program industrial wastewater sources could serve as a model for integration.

C. EPA should issue guidance for MS4s in the following areas: (1) what constitutes a design for water quality purposes; (2) methods to identify high-risk industrial facilities for inspections; (3) collection of effluent data and related control methods of a national database; and (4) develop numerical expressions of the MS4 standard of "maximum extent practicable."

### Why the Study?

Prior to the implementation of the EPA Stormwater program, there were 100,000 NPDES permits issued to control point source discharges from industrial process wastewater and sanitary discharges from publicly owned treatment works (POTW).

Under the EPA Stormwater Program, 100,000 stormwater permits have been issued to industrial sources, 7,000 to municipalities and 400,000 permits/year to construction activities. Yet there is little evidence that water quality has improved.

### **Scope of Study**

The study objectives are summarized:

- A protocol linking runoff to water quality
  Effluent parameters, limits and benchmarks
  Relationship of plans to water quality
- Permit conditions to ensure water quality
- Stormwater permitting program design

It's clear that the objectives were not considered, much less achieved. The scientists doing the study failed to understand political science. But they do understand, and identified, the following specific problems.

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#### **Problems Identified**

1. <u>Most dischargers have no measurable,</u> <u>enforceable requirements.</u> Because of the absence of end-of-pipe monitoring, EPA is unable to develop enforceable requirements for stormwater dischargers.

Instead, the stormwater permits leave a great deal of discretion to the regulated community to set their own standards.

2. <u>Many of the benchmark monitoring</u> requirements and effluent guidelines for certain industrial subsectors are based on inaccurate and old information. Industry should monitor stormwater discharges so that permitting authorities can establish benchmarks and technology-based effluent guidelines.

The committee recommends flow-weighted sampling to replace the current use of grab samples. Grab sample data is too variable because of poor data-collection practices.

3. <u>There is limited information available on the</u> <u>effectiveness of the permits.</u>

4. <u>It is unclear whether these benchmark</u> exceedances are useful indicators of water guality problems.

5. <u>There is a lack of people at federal, state and</u> <u>local governments to conduct regular</u> <u>compliance inspections</u>. The federal government should provide more financial support to regulate stormwater.

The stormwater program receives much less funding than the wastewater program despite having many more permittees.

6. <u>Most states do not have an overriding water</u> <u>quality objective in their stormwater program.</u> They typically use engineering criteria to guide stormwater management. These criteria are erosion and sedimentation control, recharge/base flow, water quality, channel protection, and flooding events.

#### **Other Committee Ideas**

One idea is to focus the stormwater program less on chemical pollutants in stormwater and more on problems associated with increased volumes of water and the amount of impervious services as a proxy for stormwater pollutants.

Volume and surfaces are good stormwater management tools because they provide specific and measurable targets.

#### What We Know Now

The Phase I municipal permittees have sampled and analyzed monitoring data from municipal separate storm sewer systems nationwide. Much is known about the quality of stormwater from urbanized areas.

1. Residential land use has been shown to be a relatively smaller source of many pollutants, but it is the largest fraction of land use in most communities, typically making it the largest stormwater source on a mass pollutant discharge basis.

2. Freeway, industrial, and commercial areas can be very significant sources of heavy metals, and their discharge significance is usually much greater than their land area indicates.

3. Construction sites are usually the overwhelming source of sediment in urban areas, even though they make up very small areas of most communities.

#### Conclusion

EPA asked for recommendations they can use under the law. What EPA got was a recommendation to the Congress to amend the Clean Water Act.

However, the Committee's analysis is a welcome body of knowledge for water managers. \*

## **Congressional Committee Investigates Slow CWA Enforcement EPA Enforcement Stopped on 500 Pollution Cases**

Two senior congressmen charged the EPA with dropping hundreds of pollution cases. Most dropped cases were oil spills. Many cases became informal or had penalties reduced. Many inspections were stopped.

Henry Waxman, Chairman of the House Oversight and Government Reform Committee, and James Oberstar, Chairman of the Transportation and Infrastructure Committee, released internal documents on December 16, revealing that more than 500 Clean Water Act violations have not been pursued with enforcement actions.

The documents show that the Supreme Court's decision in *Rapanos* v. *United States* and the Administration's guidance implementing that decision have caused the dramatic decline in inspections, investigations, and enforcement.

The Committee Memo includes the following revelation:

"The documents also indicate that in one particular case involving the Santa Cruz River in Arizona, the Assistant Secretary of the Army for Civil Works disregarded a scientific determination of career staff that would prevent the reduction of Clean Water Act coverage.

Working in conjunction with corporate lobbyists and developers, this political appointee launched a campaign to overturn the scientific determination, although his efforts ultimately failed after direct intervention by EPA's Assistant Administrator for Water."

The Committee Memo refers to 20,000 pages of documents from EPA and the Army Corps of Engineers. According to Waxman and Oberstar, EPA withheld hundreds of documents from Congress. When documents were finally provided, the EPA deleted the identity of every corporation or individual accused of polluting waterways.

Both chairmen sent a letter to president-elect Obama urging him to support passage of the Clean Water Restoration Act to eliminate the word "navigable waters" from the Clean Water Act and clarify jurisdictional waters of the U.S.

During the Committee public hearings of the investigation, Chairman Henry Waxman and EPA Administrator Stephen Johnson shared unpleasantries. So it's understandable that the EPA Administrator was not eager to respond.

However, EPA's regional staff provided documents that support the Committee Memo. The Dallas regional office warned that the oil pollution enforcement program has been significantly impacted because "dozens of oil spill cases are on hold, and no follow-up for penalties or corrective action has been sought".

With respect to the *Santa Cruz River* determination, it was the EPA's Assistant Administrator for Water, Ben Grumbles, that intervened to prevent John Paul Woodley, Jr., Assistant Secretary of the Army, from declaring the Santa Crus River not subject to Clean Water Act permitting.

Putting this in perspective, every president has a record of appointing loyal people to carry-out the his agenda. President Bush's agenda is well documented.

However, career federal employees have always remained independent of politics, as they did in this investigation.

Ultimately, the failure is that of the Congress who could have resolved the uncertainty of the *Rapanos Decision* many years ago. **\*** 

## <u>Court Ordered EPA to Comply with the Clean Water Act - 35 Years Later</u> NPDES Permits Required for 69,000 Large Boats

Section 502 of the 1972 Clean Water Act defined "point source" subject to NPDES as "any discernible, confined and discrete conveyance including . . . a vessel or other floating craft from which pollutants are or may be discharged"

Why did it take a lawsuit to get EPA to minimize boat discharges? Consider the amount of pollution that has been dumped into the Nation's Waters by these boats in 35 years?

Finally, the Vessel General Permit (VGP) was issued by EPA on December 18, 2008. The permit regulates ballast water discharges and discharges incidental to the normal operation of vessels greater than 79 feet in length. The VGP does not cover vessels less than 79 feet or commercial fishing vessels, unless they have ballast water discharges.

EPA estimates that approximately 61,000 domestically flagged commercial vessels and approximately 8,000 foreign flagged vessels may be affected by this permit.

The permit covers vessel discharges into the waters of the U.S. in all states and territories, regardless of whether a state is authorized to implement other aspects of the NPDES permit program.

The VGP contains 43 pages of additional state and tribal permit requirements. These statespecific requirements must be examined closely because some impose different and more stringent regulatory requirements.

The VGP regulates 26 potential vessel discharge streams, including ballast water, deck runoff, bilgewater, and graywater discharges, by establishing effluent limits and best management practices (BMPs) to control the discharge. Each type of discharge has its own set of rules.

Discharges of garbage, trash, sewage, spent oil, solvents, medical waste, and photo processing waste are not covered, therefore; prohibited.

The general permit also has conditions applicable to specific classes of vessels, such as cruise ships, research vessels, large ferries, and barges.

For example, the additional permitting requirements for barges include: 1) preventing contamination of condensation; 2) requiring barges to have spill rails and to plug scuppers; and 3) prohibiting a discharge with a visible oil sheen. It also requires a visual inspection for a visual sheen every time water is pumped from below deck.

Finally, the general permit includes requirements for inspections (once per week and a comprehensive annual inspection), monitoring (depending on discharge type), record keeping (documentation of inspections in a log book), and reporting (noncompliance reporting, one-time permit reporting).

The permit requires inspections, training, record keeping and reporting after Feb. 19, 2009. The Vessels Electronic Notice of Intent (eNOI) system will be available in late Spring 2009. Vessel operators are not required to submit a Notice of Intent (NOI) until June 19, 2009.

Environmental groups, such as Friends of the Earth, are not satisfied with the permit. They say the new permit allows cruise ships to dump unlimited quantities of untreated gray water, which they call "a harmful pollutant" into the ocean one nautical mile from U.S. shores. This is allowed only if the vessel is traveling at speeds above six knots. **\*** 

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#### John Whitescarver, **Executive Director** National Stormwater Center



▶ Qualified Environmental Professional by the Institute of Professional **Environmental Practice** 

▶Team to Organize US EPA & Write Clean Water Act Rules; National Expert, Municipal Permitting Policy; Awarded EPA Bronze Medal by US EPA, 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

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|-------------------------------------|--------------------|---------------------|--------------|
| New Orleans                         | Jan 19, 20         | Dallas              | Apr 15, 16   |
| San Diego                           | Jan 26, 27         | Norfolk             | Apr 21, 22   |
| San Juan                            | Feb 10, 11         | San Jose            | May 11,12    |
| Sacramento                          | Feb 17, 18         | Concord             | May 13, 14   |
| San Rafael                          | Feb19, 20          | Lubbock             | May 19, 20   |
| Austin                              | Mar 10, 11         | Lowell, MA          | May 27, 28   |
| Burbank                             | Mar 16, 17         | Albuquerque         | Jun 1, 2     |
| Ontario                             | Mar 18, 19         | Long Beach          | Jun 15, 16   |
| Columbus                            | Mar 24, 25         | Burbank             | Jun 17, 18   |
| Little Rock                         | Apr 13, 14         | Houston             | Jun 21, 22   |
|                                     |                    | Denver              | Jun 29, 30   |
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|                                     |                    |                     |              |
| Miami                               | Jan 13             | Naples              | Apr 2        |
| San Juan                            | Feb 12             | Dallas              | Apr 17       |
| Tallahassee                         |                    | Stuart, FL          | May 7        |
| Tampa                               | Mar 5              | Concord             | May 15       |
| Austin                              | Mar 12             | Jacksonville        | Jun 10       |
| Ontario                             | Mar 20             |                     |              |
| Certified Erosion Control Inspector |                    |                     |              |
| New Orleans                         | Jan 21             | Charlotte           | Apr 8        |
| Sacramento                          | Feb 16             | Dallas              | May 21       |
| Ontario                             | Mar 20             | Albuquerque         |              |
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