National Stormwater Center
7000 SE Federal Hwy., Suite 303
Stuart, Florida 34997

Phone: (772) 288-6852
Fax: (772) 288-9914
Email: stormwater@aol.com
Web: www.NPDES.com

May 4, 2007

Ms. Song Her
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Delivered by Fax to (916) 341-5620 (fax) and by
Email to: commentletters@waterboards.ca.gov

Subject: Comment Letter – Draft Construction Permit

Attached are the comments of the Center for Environmental Compliance, DBA the National Stormwater Center. The Center is a not-for-profit corporation registered in Florida and authorized under Section 501(c)(3) of the IRS tax code. The Center provides professional certifications, training and informational services.

The draft stormwater construction fact sheet calls the current construction permit inadequate. I agree. The U.S. EPA Office of Water has commissioned a two-year study of the stormwater permit program by the National Research Council. The U.S. District Court of Central District of California has ordered EPA to develop effluent limitation for the construction industry. Both efforts have essentially the same mission and time line as California in the effort to fix the stormwater permit program.

The attached comments apply to all three efforts. Therefore, I encourage members of the California State Water Resources Control Board to coordinate with other organizations that have a similar mission and a similar time frame.

Respectively,

John Whitescarver
Executive Director
National Stormwater Center

Comments on the California Draft Construction Permit

Draft permit Date: March 2, 2007
Comment Date: May 4, 2007

Introduction

The request for comments directed attention to three major changes for the current permit. However, these comments will only address use of performance standards in permits including numeric and visual evidence. Also, comments are included on the proposed certified training program.

The clear reading of Section 402 of the Clean Water Act is an end-of-pipe permit program. Government has the responsibility to assure pollutants discharged from a regulated activity are acceptable. If that can be assured, government should not interfere with the permittees operations. The absence of end-of-pipe performance standards have required the use of best management practices (BMP) in discharge permits. As a result, permittees have focused on documenting BMPs, and have not focused on discharges of polluted runoff. BMP permits are difficult to enforce; end-of-pipe performance standards are not.

The stormwater permit program under Section 402 of the Act has failed to make a major contribution to restoring and maintaining the Nation's Waters as intended by the Act. The permit program can be fixed. Your effort is part of the fix.

These comments also support a stormwater educational program. The National Stormwater Center, a not-for-profit entity, has conducted such a program in California for five years. In addition, the Director of the Center is an instructor for the Florida Department of Environmental Protection (DEP) Erosion and Sediment Control Course.

Current Stormwater Permit Program Is Inadequate to Protect Water Quality

The Congress, in 1987, amended the Clean water Act (Act) adding Section 402(p) requiring a specific stormwater permit program. This action was the result of state 305(b) reports indicating that 40% of the Nation's waters failed to achieve the minimum water quality standards. Now, twenty years later there is no documented improvement in the quality of the Nation's waters.

Based on the 305(b) Reports to Congress in 2002, 42% of California's river miles were reported impaired.[1] This is consistent with the U. S. Environmental Protection Agency's (EPA) overall view of the Nation's waters.[2] Also, EPA's 2006 National Stream Report [3] shows that 42% of the nation's stream length is in poor biological condition, 25% is in fair biological condition, and 28% is in good biological condition. It's easy to conclude that the Nation's water quality has not improved in 20 years. Therefore the stormwater permit program has proven to be inadequate with respect to the goals of the Clean Water Act (CWA).

Stormwater permits issued to industrial sources, other than construction, may have achieved positive results due to industry cooperation. In the early 1990s, stormwater permits were issued to industrial groups based on their submission of best management practices. As a result, EPA issued a multi sector general permit and most states followed EPA's lead.

Stormwater runoff from industrial, other than construction, is so variable that regulatory agencies find it difficult to develop end-of-pipe effluent limitations. However, they have been developed for nine industrial categories and for coal pile runoff. The point is that end-of-pipe numerical standards can be developed for stormwater runoff

A difference between construction activity and other industrial activity is the retaliative ease in characterizing the runoff. Many chemicals are used on a construction site and the resultant release of the these chemicals can be controlled by preventing the release of sediment.

Current Stormwater Permit Program Is Inadequate for Enforcement

The current California Construction General Permit does not address post construction and has at least 50 permit conditions, many of which are non enforceable because the language is vague. Numeric effluent limitations (NEL) are not vague and are enforceable. Below are typical words in the current permit:

1. conducted in such a manner so as to minimize erosion
2. shall be kept to a minimum
3. to create the lowest practicable erosion potential
4. whenever feasible
5. shall be kept to a practicable minimum
6. as quickly as practicable
7. shall be installed as soon as practicable
8. to the extent necessary

Post construction requirements in MS4 permits are only enforceable against MS4s, not against owners or operators of the discharge structure. Most MS4 permits only require planning procedures, best management practices (BMPs) inspections and training for construction.

Numeric Performance Standards

There is no benefit to require numeric action levels (ALs). Numeric effluent limitations (NELs) serve the same purpose and are enforceable. A permittee can continuously exceed an AL and not have a permit violation as long as the required actions are performed. Exceeding an NEL is enforceable.

A turbidity level of 500 NTUs is extremely high compared to other state studies. A turbidity NEL of 50 NTUs is attainable.

A 2003-2005 study of 183 active construction sites in Washington State revealed that roughly one fourth of the sites (44/183, or 24%) were discharging stormwater off site. The mean turbidity levels of sites that used at least two out of three BMPs highlighted in the study (inlet controls, basins and erosion prevention measures) were in the range of 35 to 50 NTUs.[4]

Georgia has 25/10 in-stream NTU "shift" standard (for aquatic life protection for warm water and trout fisheries, respectively) as a regulatory backstop for BMP implementation at construction sites.

The New York State Attorney General's office cited EPA's Surface Water Treatment Rule limit of 5 NTUs at the intake of unfiltered drinking water supplies in its comments on a proposed large retail center in the New York City Watershed, as justification for its recommending downsizing, restricting, and further study of this proposed project.[5]

Another example is the Individual Construction Stormwater Permit issued to the Seattle Monorail Project in 2004 by the Washington State Department of Ecology, which references a 50 NTU limit.[6]

EPA proposed effluent guidelines for the construction and development industry in June 2002. The database they developed has been retained and is called "International Stormwater Best Management Practices (BMP) Database." [7] The following total suspended solids data is reported.

Treatment System	TSS Median of Avg. Effluent (95% Confidence Interval)
Detention Basin	40.72
Biofilter	37.99
Hydrodynamic Device	41.38
Media Filter	15.05
Retention Pond	19.77
Wetland Basin	22.29
Wetland Channel	24.18

The database prepared by GeoSyntec Consultants Wright Water Engineers, Inc. for the following organizations:
Water Environment Research Foundation
American Society of Civil Engineers
(Environmental and Water Resources Institute/Urban Water Resources Research Council)
U.S. Environmental Protection Agency
Federal Highway Administration
American Public Works Association

EPA has promulgated stormwater runoff Effluent Guidelines for nine industries. Those with end-of-pipe numerical standards for TSS are listed below:

Source	TSS mg/l Max	TSS mg/ 30-day Ave.
Crushed Stone		
Mine Dewatering	45	30
Steam electric	50	
Cement Manufacturing	50	
Asphalt Emulsion		
lb/ 1,000 gal of runoff	0.188	0.125
MSGP Coal Pile runoff	50	

Visual Performance Standards

Effluent limitation can be numerical, or narrative, or both. Many people are offended at the sight of dirt in the street as a result of bad construction management. Visual standards are easy to recognize and quickly rectified to prevent environmental harm.

The authority comes from Section 101 of the Clean Water Act. The goal of the Act is to "eliminate the discharge of pollutants." Congress named the discharge permit program, National Pollutant Discharge Elimination System. A visible discharge should be a clean permit violation.

The construction industry should recognize the value of such a visual performance standard. To achieve such a standard, construction operators would need to have a stormwater pollution prevention plan (SWPPP). In addition, they must train personnel and conduct frequent inspections. Their objection is having to document every single requirement.

Writing a SWPPP is not difficult, but marinating it in according to the permit is costly and often unnecessary. With almost 50 specific requirements, the SWPPP maintenance can be an unnecessary burden for activities without a visible discharge.

Without a discharge of pollutants, there is no NPDES violation. If there is no visible discharge, there can be no paper work violation. Keeping soil on the construction site is easier than doing all the paper work.

Fixing Stormwater

Currently there are two other efforts to fix the stormwater permit program. Each have a similar mission and time period. The U.S. EPA Office of Water has commissioned a two-year study by the National Research Council. Also, the U.S. District Court of Central District of California ordered EPA to develop effluent limitation for the construction and development industry.

EPA, recognizing that the stormwater permit program was ineffective, is sponsoring a 26-month study titled "*Reducing Stormwater Discharge Contributions to Water Pollution*." [8] The study by the National Research Council began in January 2007.

EPA expects to receive recommendations to modify the permit program to better protect water quality. The study objectives are summarized for clarity:

- 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

The fourteen national experts appointed study group includes two men from California:

- Dr. Xavier Swamikannu, California Environmental Protection Agency
- Dr. Stanley B. Grant, University of California, Irvine

The other similar activity is the development of national standards by EPA Headquarters for the construction and development industry. On December 1, 2006, the U.S. District Court of Central District of California ordered EPA to develop effluent limitation for discharges from the construction and development industry.

In 2002, the EPA proposed effluent limitation guidelines and new source performance standards for stormwater discharges but decided in 2004 not to promulgate any standards. The National Resources Defense Council (NRDC) sued EPA based on the nondiscretionary duty of EPA to promulgate effluent guidelines and new source performance standards. NRDC won the case.[9]

The court order requires all data be collected by Dec. 1, 2007, with the proposed rule by December, 2008. The judge made it clear that the date for the promulgated effluent guidelines and standards would not be extended beyond December 1, 2009.

It makes no sense for all three organization to develop different rules. You are advised and encouraged to contact both organization to coordinate activities. The National Stormwater Center will be pleased to assist with initial communications.

Post Construction

The stormwater general permit for construction should require the design and implementation of runoff controls that will result in no net increase in post-development stormwater discharges compared with pre-development discharge levels.

This standard is achievable using completely non-structural, completely structural, or hybrid approach. Controls would include conventional BMPs and/or low impact development (LID).

The standard should be to maintain pre-development hydrology, including peak flows, recharge rates and stormwater volumes discharged from the site. Both New Jersey and Maryland now have laws that require this approach for new development. The Maryland stormwater law further states that a "primary goal" of state and local stormwater management programs shall be "to maintain after development, as nearly as possible, the predevelopment runoff characteristics" of the site.[10]

Qualified SWPPP Developer

We support the requirement for trained and certified permittees. The EPA rules require the operators of construction activity take legal responsibility for site runoff by certifying their dependence on "qualified personnel." Writing the SWPPP is only a small part of permit responsibility. The large responsibility includes runoff management, monitoring and reporting. Therefore the certification course only begins with SWPPP development and continues through final stabilization and the notice of termination (NOT).

The National Stormwater Center (Center) has conducted such a certification program throughout the Nation for five years. All of the instructors have regulatory agency enforcement experience in NPDES. More than 200 stormwater inspectors have, after testing, qualified as a "Certified Stormwater Inspector" by the Center. [11]

In Florida, 14,000 inspectors have been trained and certified in erosion and sediment control. The course does not contain any instruction on NPDES permitting and reporting. It's a mistake not to tie the BMPs to the permit process. In addition to Washington, Georgia, Florida, Delaware, Maryland, and New Jersey, Michigan has a mandatory certification course.

As recommended above, if a permittee has a clean discharge, why are other mandatory controls necessary. We recommend the course be mandatory for those that exceed end-of-pipe numerical standards or visual releases of sediment. However, we do recommend state-approved courses like those identified in the draft rule and the courses offered by the National Stormwater Center. These are identified at **www.NPDES.com** and are (1) Certified Stormwater Inspector, Certified Sediment Control Inspector, and Certified Illicit Discharge Inspector.

The U.S. EPA has trained 28 people for illicit discharge instruction. Two of the principal inspectors of the National Stormwater Center received this training. [12]

END Notes:

1. EPA National Perspective on Comprehensive Water Quality Monitoring and Assessment, Janet Hashimoto, US EPA Region 9, November 1, 2005

2. http://www.epa.gov/owow/tmdl/overviewfs.html

3. Wadeable Streams Assessment: A Collaborative Survey of the Nation's Streams, EPA 841-B-06-002 December 2006

4. Stormwater Quality Survey of Western Washington Construction Sites, 2003-2005. www.ecy.wa.gov/biblio/0503028.html

5. James Tierney, Watershed Inspector General, Assistant Attorney General, State of New York. Comments to the Town of Patterson Planning Board concerning the Draft Environmental Impact Statement (DEIS) with respect to the proposed Patterson Crossing Retail Center. September 25, 2006

6. Fact Sheet for NPDES Permit WA-003202-6, Seattle Monorail Project. The final permit specifies the turbidity discharge limit for the project as no more than a 5 or 10 NTU shift above background ambient NTU levels depending on the receiving water. Permit available at www.ecy.wa.gov/programs/wq/permits/permit_pdfs/seattle_monorail/finals/seattle_monorail-permit.pdf .

7. http://www.bmpdatabase.org/

8. http://www8.nationalacademies.org/cp/projectview.aspx?key=48711

9. United States District Court for the Central District of California, Case Number CV 04-8307-GHK(RCx), Permanent Injunctionand Judgement, NRDC v. EPA December 1, 2006

10. See the Maryland General Assembly web site, House Bill 786 mlis.state.md.us/2007RS/bills/hb/hb0786t.pdf

11. Visit www.NPDES.com for course details.

12. “February 10, 2006 Illicit Discharge Detection and Elimination (IDDE) Trainers Preventing, finding, and fixing illicit discharges to municipal storm sewer systems presents unique and sometimes significant challenges for small and medium-sized communities. A small group of people have completed EPA's IDDE train-the-trainer course and are available to help train communities on how to implement the IDDE requirements of the Phase II stormwater program.” http://cfpub.epa.gov/npdes/stormwater/Trainer.cfm