

**BARTKIEWICZ, KRONICK & SHANAHAN**

PAUL M. BARTKIEWICZ  
STEPHEN A. KRONICK  
RICHARD P. SHANAHAN  
ALAN B. LILLY  
RYAN S. BEZERRA  
JOSHUA M. HOROWITZ  
KATRINA C. GONZALES

A PROFESSIONAL CORPORATION  
1011 TWENTY-SECOND STREET  
SACRAMENTO, CALIFORNIA 95816-4907  
(916) 446-4254  
FAX (916) 446-4018  
E-MAIL bks@bkslawfirm.com

JAMES M. BOYD, JR., Of Counsel

**MEMORANDUM**

**To: Richard P. Shanahan**

**From: Katrina C. Gonzales**

**Re: Mosquito and Vector Control Association of California – Regulation of Aquatic Pesticides under the Clean Water Act – Storm Water Drainage System as Water of the United States**

**Date: November 29, 2011**

---

**ISSUE PRESENTED:**

Does the application of larvicide or some other aquatic pesticide into the catch basin of a storm water drainage system constitute a discharge of a pollutant into “waters of the United States” requiring a National Pollutant Discharge Elimination System (“NPDES”) permit under the Clean Water Act (“Act”)?

**CONCLUSION:**

Whether the application of larvicide or some other aquatic pesticide into a catch basin or other storm water system facility (collectively “catch basin”) requires its own NPDES permit depends on whether the catch basin (1) is part of a storm drainage system that drains directly into the “waters of the United States,” or (2) is part of a system that discharges into a waste treatment system designed to meet the requirements of the Act or into a publicly-owned treatment work.

- If the catch basin is part of a storm water drainage system that connects to a waste treatment system designed to meet the requirements of the Act, or of a system that discharges to a publicly-owned treatment work, then the discharge of pollutants<sup>1</sup>

---

<sup>1</sup> This memorandum addresses the question of whether the application of larvicide or some other pesticide to a catch basin is a discharge into “waters of the United States.” A different analysis is required to determine whether a particular pesticide is considered a “pollutant” under the Act (i.e., whether the pesticide leaves excess residue that remains in the water after performing its intended purpose). (See *Nat.*

into the catch basin would not constitute a discharge into “waters of the United States” requiring a separate NPDES permit.

- If the catch basin is part of a storm water drainage system that discharges directly into the nation’s waters, then the application of pollutants to that catch basin would constitute a discharge into “waters of the United States” requiring an NPDES permit.
- For a storm drainage system regulated through a municipal separate storm sewer or ms4 NPDES permit, the ms4 permit would not cover the larvicide applications to the system’s catch basins. Rather, a discharge of pollutants into a catch basin that is part of a regulated ms4 system conveying only untreated storm water would constitute a discharge requiring a separate NPDES permit.

## **DISCUSSION:**

### **I. Overview of the Clean Water Act and the NPDES Program**

The Act is designed to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. (33 U.S.C. § 1251(a).) To this end, the Act prohibits the discharge of any “pollutant” into the waters of the U.S. from any “point source” unless the United States Environmental Protection Agency (“EPA”) or a state agency with an approved water quality program issues an NPDES permit. (33 U.S.C. §§ 1311(a), 1342.)

Under the NPDES Program, all facilities that discharge pollutants from any point source into “waters of the United States” are required to obtain an NPDES permit. (33 U.S.C. § 1252.) The “discharge of a pollutant” includes any addition of any pollutant or combination of pollutants to waters of the United States from any point source. (40 C.F.R. § 122.2.) A “point source” is defined broadly as “any discernible, confined, and discrete conveyance, including but not limited to, any . . . container . . . from which pollutants are or may be discharged.” (33 U.S.C. § 1362(14); 40 C.F.R. § 122.2.)

The Court of Appeals for the Sixth Circuit has determined that biological and chemical pesticides that leave waste or residue in the water after performing their intended purpose are “pollutants” within the meaning of the Act. (*Nat. Cotton Council of America v. U.S. Environmental Protection Agency* (2009) 553 F.3d 927.) In addition, a pesticide container from which larvicide or other aquatic pesticides are discharged clearly is within the definition of a “point source” for purposes of the Act. (See 40 C.F.R. §

---

*Cotton Council of America v. U.S. Environmental Protection Agency* (2009) 553 F.3d 927.) The “pollutant” analysis focuses on when the application of pesticide becomes a “discharge of a pollutant” for purposes of the Act and is outside the scope of this memorandum. Generally, for a storm water drainage system that does not connect to a waste treatment system or a publicly-owned treatment work, if there is remaining larvicide or larvicide residue that finds its way from the catch basin through the storm system to a water of U.S., then there has been a discharge of a pollutant to a water of the U.S. In contrast, if at the time drainage water flows through the catch basin and into a water of the U.S. there is no excess larvicide or residue from the larvicide that remains in the catch basin water, then there would not be a discharge of a pollutant. The analysis in this memo assumes that there is excess larvicide or residue from the larvicide remaining in the catch basin water.

122.2.) Consequently, whether the application of larvicide or some other aquatic pesticide to a catch basin<sup>2</sup> requires an NPDES permit under the Act depends on whether such application constitutes a discharge into “waters of the United States.”

## **II. Regulatory Definition of “Waters of the United States”**

Under the NPDES Program, the phrase “waters of the United States” is defined by EPA regulations to include:

“(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate water, including interstate ‘wetlands;’

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, ‘wetlands,’ sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken or sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identifies in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) ‘Wetlands’ adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of [the Act] (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.”

(40 C.F.R. § 122.2, underscoring added.) Courts have found that this expansive definition evinces Congress’s intent that the Act’s jurisdictional reach be applied to numerous situations. (See, e.g., *United States v. Phelps* (1975) 391 F.Supp. 1181

---

<sup>2</sup> Catch basins are chambers or sumps that allow surface water runoff to enter the storm water drainage system while preventing sediments and other solids from clogging storm sewers.

(normally dry arroyos covered by Act); *United States v. Holland* (1974) 373 F.Supp. 665 (man-made canals covered by Act).)

As stated above, waste treatment systems are not considered waters of the United States for purposes of the Act. Thus, it appears the application of larvicide into a catch basin would not constitute a discharge into “waters of the United States” if the catch basin is part of a storm water drainage system that conveys storm water runoff and pollutants into a waste treatment system.

### **III. The “Waste Treatment System” Exemption**

In determining the scope of the waste treatment system exemption from the definition of “waters of the United States,” the court in *Cal. Sportfishing Protection Alliance v. Cal. Ammonia Co.* focused on the significance of the phrase “designed to meet the requirements” of the Act. (*Cal. Sportfishing Protection Alliance v. Cal. Ammonia Co.* (E.D.Cal., Civ. No. S-05-0952, Jan. 29, 2007) 2007 U.S. Dist. Lexis 8845.) There, at issue was whether a municipally-owned and operated detention pond was a “waste treatment system” for purposes of the Act. (*Id.*, at \*4.) The Port of Stockton, California (“Port”) operated a storm sewer system under a valid NPDES permit that served the various facilities located on land leased from the Port. (*Id.*, at \*5.) The Port later added a detention pond to hold storm water runoff for some period of time to allow pollutants to settle or dissipate. (*Id.*) Once the Port was ready to discharge the storm water, water from the detention pond was discharged via a pipe to a separate pool. Water in the pool then flowed into the San Joaquin River. (*Id.*)

California Ammonia Company (“Company”) operated a facility on land leased from the Port and captured some of the storm water that fell onto its facility for reuse in its industrial processes. (*Cal. Sportfishing Protection Alliance v. Cal. Ammonia Co.*, *supra*, 2007 U.S. Dist. LEXIS at \*4.) The Company’s captured storm water runoff was discharged into the Port’s detention pond through a series of culverts and ditches that were part of the Port’s system. (*Id.*) Plaintiffs filed an action against the Company, arguing, among other things, that the Company discharged contaminated storm water without an NPDES permit in violation of the Act. (See *id.*, at \*7.) In response, the Company filed a motion for summary judgment, contending that the detention pond was a waste treatment system exempted from the regulatory definition of “waters of the United States” and, as such, that its discharges into the detention pond were not covered by the Act. (See *id.*)

The court noted that the waste treatment system exemption was intended to exempt either water systems that do not discharge into waters of the United States or waters that are incorporated in an NPDES permit as part of a treatment system. (*Cal. Sportfishing Protection Alliance v. Cal. Ammonia Co.*, *supra*, 2007 U.S. Dist. LEXIS at \*18 (quoting *N. Cal. River Watch v. City of Healdsburg* (2006) 457 F.3d 1023).) Accordingly, the court concluded that the key question was whether the detention pond was covered by the Port’s NPDES permit. (See *id.*, at \*19.) For the waste treatment exemption to apply, the detention pond must comply with the provisions of the Port’s NPDES permit. (*Id.*, at \*23.) The court found that the permit covered the detention

pond. However, since whether the pond complied with the NPDES permit remained a disputed question of material fact, the court denied the Company's motion for summary judgment. (*Id.*, at \*23 - \*24.)

Thus, applying the court's rationale in *Cal. Sportfishing Protection Alliance* to our present situation, whether the application of larvicide into a catch basin constitutes a discharge into "waters of the United States" seems to depend on whether the storm water drainage system, of which the catch basin is a part, is connected to a waste treatment system for which an NPDES permit already has been issued or, alternatively, on whether the storm water drainage system discharges directly into waters of the United States.

If the catch basin were part of a storm water drainage system that connects to a waste treatment system, and that waste treatment system already is permitted under the NPDES Program, then the application of larvicide or some other aquatic pesticide to the catch basin would not constitute a discharge of a pollutant into "waters of the United States" requiring a separate NPDES permit. However, the catch basin and the storm water drainage system must meet the requirements of the relevant NPDES permit in order for the permit's protection to extend to such application.

In contrast, if the catch basin were part of a storm water drainage system that discharges directly into the ocean, stream, lake, river, tributary, or some other intrastate or interstate body of water, then the application of larvicide or some other aquatic pesticide to that catch basin would constitute a discharge into "waters of the United States" requiring an NPDES permit.

#### **IV. Discharges into POTWs (Separate Sewer Systems and Combined Sewer Systems)**

Concluding that the discharge of pollutants into a waste treatment system, as opposed to a discharge that goes directly into the waters of the United States, is not covered by the Act comports with other regulations promulgated by the EPA. Specifically, section 122.3(c) of title 40 of the Code of Federal Regulations provides that the introduction of sewage, industrial wastes or other pollutants into publicly owned treatment works ("POTWs") by indirect dischargers<sup>3</sup> does not require an NPDES permit. (40 C.F.R. § 122.3(c).)

A POTW is a treatment works<sup>4</sup> that is owned by a state or municipality and includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage. (See 40 C.F.R. § 403.3(q).) It generally consists of a

---

<sup>3</sup> "Indirect dischargers" are nondomestic facilities that do not discharge waste directly into the waters of the United States, but instead discharge their wastewater to POTWs. (40 C.F.R. § 403.3(i).)

<sup>4</sup> "Treatment works" includes any devices and systems that are used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature or are necessary to recycle or reuse water, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment and their appurtenances. (33 U.S.C. § 1292(2)(a).) "Treatment works" also means any other method or system of preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff. (§ 1292(2)(b).)

wastewater treatment plant, which discharges treated wastewater into waters of the United States, and a collection system that transports domestic, municipal, and industrial waste into the treatment plant. (*Id.*) A POTW's collection system can either be one of two types: (1) a "sanitary sewer system" designed to convey only municipal sewage and industrial wastewater, or (2) a "combined sewer system" designed to convey storm water runoff in addition to municipal sewage and industrial wastewater. (§ 122.26(a)(7); see *Natural Resources Defense Council, Inc. v. County of Los Angeles* (9th Cir., No. 10-56017, Jul. 13, 2011) 2011 U.S. App. Lexis 14443.)

Under section 122.3(c), if a storm water drainage system is connected to a POTW, the discharge of pollutants into any part of that storm water drainage system would not require a separate NPDES permit. This is because the POTW operates under a NPDES permit allowing the discharge of pollutants into waters of the United States, and such a permit would cover all discharges into the POTW.

Note that section 122.3(c)'s exclusion does not apply to "other discharges through pipes, sewers, or other conveyances owned by a state, municipality or other party not leading to treatment works." (40 C.F.R. § 122.3(c).) Thus, if the storm water drainage system is not connected to a POTW and instead is part of a "municipal separate storm sewer" as defined under the Act, then a non-storm water discharge into that system would require its own NPDES permit. (See 40 C.F.R. § 122.26, subs. (a)(7), (b)(8).)

## **V. Discharges into MS4s**

A "municipal separate storm sewer" ("ms4") is defined as a conveyance or a system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains that is: (i) owned or operated by state, city, county, district, association or other public body having jurisdiction over the disposal of sewage, industrial wastes, storm water, or other wastes; (ii) designed or used for collecting or conveying storm water; (iii) not a combined sewer; and (iv) not part of a POTW. (40 C.F.R. § 122.26(b)(8).)

Unlike waste water treatment systems, ms4s convey only untreated storm water and discharge this untreated storm water directly into local bodies of water. As such, the EPA has promulgated regulations that deal exclusively with storm water discharges from ms4s. (See 40 C.F.R. § 122.26.) These regulations require ms4s to obtain NPDES permit coverage for their storm water discharges. They also require ms4 operators to, among other things, develop and implement a storm water management program to reduce the contamination of storm water runoff and prohibit illicit discharges. (*Id.*) An "illicit discharge" is any discharge to an ms4 that is not composed entirely of storm water. (§ 40 C.F.R. § 122.26(b)(2).) Pursuant to these regulations, the application of larvicide and other aquatic pesticides to a catch basin that conveys storm water and other pollutants to an ms4 would constitute an illicit discharge and would require its own separate NPDES permit, since the ms4's NPDES permit coverage for storm water would not extend to other types of discharges.

The standard ms4 permit prohibits the discharge of material other than storm water to waters of the U.S., except as allowed under the permit (e.g., water line flushing, groundwater infiltration, water from fire fighting) or as otherwise authorized by a separate NPDES permit. The ms4 permit exceptions do not include larvicide or larvicide residues.

In *Natural Resources Defense Council, Inc. v. County of Los Angeles*, the Court of Appeals for the Ninth Circuit held that under the Act, an ms4 operator may be liable for the discharge of standards-exceeding pollutants that are channeled through its ms4 even though such pollutants originated from other entities. (*Natural Resources Defense Council, Inc. v. County of Los Angeles* (9th Cir., No. 10-56017, Jul. 13, 2011) 2011 U.S. App. Lexis 14443.) The National Resources Defense Council (“NRDC”) alleged, among other things, that the County of Los Angeles (“County”) and the Los Angeles County Flood Control District (“District”) violated the Act by discharging polluted urban storm water runoff beyond the standards set forth in the applicable NPDES permit. (*Id.*, at \*2 - \*3.) By way of background, the District is comprised of 84 cities and some unincorporated areas. (*Natural Resources Defense Council, Inc. v. County of Los Angeles, supra*, 2011 U.S. App. Lexis at \*5.) Each municipality operates ms4s to collect and channel storm water, and the County also operates an ms4 for unincorporated areas. These municipal ms4s are highly interconnected because the District allows each municipality to connect its storm drains to the District’s extensive flood control and storm sewer infrastructure (the “MS4”).<sup>5</sup> (*Id.*, at \*6.) The District’s MS4 collects storm water runoff from across the County and channels it to various watercourses, including the Los Angeles River, the San Gabriel River, the Santa Clara River, and Malibu Creek, that drain into the Pacific Ocean. (*Id.*) The crux of NRDC’s action was that by allowing untreated and heavily polluted storm water to flow unabated from the MS4 into the rivers and eventually into the Pacific Ocean, the County and the District did not comply with the standards set forth in the NPDES permit. (*Id.*, at \*8.)

The relevant NPDES permit covers storm water discharges by the County, the District, and all the municipalities located within the District (collectively, the “permittees”). (*Natural Resources Defense Council, Inc. v. County of Los Angeles, supra*, 2011 U.S. App. Lexis at \*13.) Under the permit, permittees were required to ensure that discharges from the District’s MS4 “neither cause nor contribute to the exceedance of water quality standards and objectives nor create conditions of nuisance in the receiving waters, and that the discharge of non-storm water to the MS4 has been effectively prohibited.” (*Id.*, at \*15.) The permit also established the District as the “principal permittee” charged with monitoring the mass-emissions stations of the MS4, which stations measure all constituents present in the water to provide a cumulative picture of the pollutant load in the water. (*Id.*, at \*19.) Between 2002 and 2008, these stations identified hundreds of exceedances of the permit’s water quality standards. (*Id.*, at \*21.)

---

<sup>5</sup> The case references both “ms4” and “the MS4.” The former is a generic reference to a municipal separate storm sewer system without regard to its particular location, while the latter specifically refers to the flood control and storm sewer infrastructure controlled by the District.

In response to NRDC's claims, the County and the District contended there was no evidence establishing its responsibility for, or discharge of, the polluted storm water. (*Natural Resources Defense Council, Inc. v. County of Los Angeles, supra*, 2011 U.S. App. Lexis at \*3.) Specifically, they argued that since the polluted storm water was discharged not only by the District but also by thousands of other permitted dischargers, exceedances at the mass-emissions stations could not establish liability on behalf of any individual permittee. (*Id.*, at \*30.) They also argued that merely channeling pollutants created by other permittees should not create liability because the District was not an instrument of "addition" or "generation" of pollutants. (*Id.*, at \*53 - \*54.)

In rejecting the County's and the District's arguments, the Ninth Circuit found that the plain language of the NPDES permit supported the use of monitoring results at the mass-emissions stations to assess compliance with the requirements of the NPDES permit. (*Natural Resources Defense Council, Inc. v. County of Los Angeles, supra*, 2011 U.S. App. Lexis at \*42 - \*47.) Given such language, it was appropriate to conclude that an exceedance detected through mass-emissions monitoring is a permit violation that gave rise to liability for contributing dischargers. (*Id.*, at \*47.)

The Ninth Circuit also observed that the District controlled the polluted storm water at the time it was measured at the mass-emissions stations and caused the discharge of those waters into the rivers. (*Natural Resources Defense Council, Inc. v. County of Los Angeles, supra*, 2011 U.S. App. Lexis at \*52.) The Ninth Circuit noted that "the Act is indifferent to the originator of the water pollution," since it bans the discharge of any pollutant by any person regardless of whether that person was the root cause or merely "the current superintendent of the discharge." (*Id.*, at \*54 (quoting *West Virginia Highlands Conservancy, Inc. v. Huffman* (2010) 625 F.3d 159).) Further, EPA regulations specify that ms4 operators require permits for channeling, since the "discharge of a pollutant . . . includes additions of pollutants into waters of the United States from surface runoff which is collected or channeled by man (and) discharges through pipes, sewers, or other conveyances owned by a state or municipality." (*Id.*; see 40 C.F.R. § 122.2, underscoring added.) Since the definition of "discharge of a pollutant" included within its reach point sources that do not themselves generate pollutants, and there was evidence that polluted storm water came from the District's MS4, the Ninth Circuit concluded it was beyond dispute that the District was discharging pollutants in violation of the NPDES permit. (*Id.*, at \*56.)

Similar to the ms4 permit discussed above, the NPDES permit at issue in *Natural Resources Defense Council* prohibited the non-storm water discharges into the District's MS4, except where such discharges also were covered by a separate NPDES permit. (See Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles and the Incorporated Cities Therein, NPDES Permit No. CAS004001 (Dec. 13, 2001), available at [http://www.swrcb.ca.gov/rwqcb4/water\\_issues/programs/stormwater/municipal/los\\_angeles\\_ms4/2010-01-28/Permit.pdf](http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/stormwater/municipal/los_angeles_ms4/2010-01-28/Permit.pdf).) Thus, in applying the Ninth Circuit's rationale in *Natural Resources Defense Council, Inc.* to our present situation, we may conclude that the application of larvicide or some other pesticide to a catch basin of a storm water

drainage system that forms part of an ms4 would require its own NPDES permit. If such an application is covered by a separate NPDES permit, then the discharges may be conveyed into the ms4, and the ms4 operator would be held liable for any discharges that exceeded the water quality standards contained in the ms4's NPDES permit.

However, if no NPDES permit coverage exists for the discharge of larvicide or some other aquatic pesticide into the catch basin of a storm water drainage system that is part of an ms4, then any such discharge would constitute a violation of the Act.