



Pesticide Use and Water Quality: Are the Laws Complementary or in Conflict?

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Summary

This report provides background on the emerging conflict over interpretation and implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Clean Water Act (CWA). For the more than 30 years since they were enacted, there had been little apparent conflict between them. But their relationship has recently been challenged in several arenas, including the federal courts and regulatory proceedings of the Environmental Protection Agency (EPA). In this report, a brief discussion of the two laws is followed by a review of the major litigation of interest. EPA's efforts to clarify its policy in this area are discussed, including a regulation issued in 2006 that was subsequently vacated by a federal court, as well as possible options for EPA and Congress to address the issues further.

FIFRA governs the labeling, distribution, sale, and use of pesticides, including insecticides and herbicides. Its objective is to protect human health and the environment from unreasonable adverse effects of pesticides. It establishes a nationally uniform labeling system requiring the registration of all pesticides sold in the United States, and requiring users to comply with the national label. The CWA creates a comprehensive regulatory scheme to control the discharge of pollutants into the nation's waters; the discharge of pollutants without a permit violates the act.

Several federal court cases testing the relationship between FIFRA and the CWA have drawn attention since 2001. In two cases concerning pesticide applications by agriculture and natural resources managers, the U.S. Ninth Circuit Court of Appeals held that CWA permits are required for at least some discharges of FIFRA-regulated pesticides over, into, or near U.S. waters. It held in a third case that no permit was required for the specific pesticide in question. Most recently, the U.S. Second Circuit Court of Appeals ruled in 2010 that a CWA discharge permit for mosquito control activities is not required before April 2011.

Several of the rulings alarmed a range of stakeholders who fear that requiring CWA permits for pesticide application activities would present significant costs, operational difficulties, and delays. Pressed to clarify its long-standing principle that CWA permits are not required for using FIFRA-approved products, EPA in 2006 issued a rule to formalize that principle in regulations. Environmental activists strongly opposed EPA's actions, arguing that FIFRA does not protect water quality from harmful pollutant discharges, as the CWA is intended to do. Other stakeholders, such as pesticide applicators, endorsed the rule. The rule was challenged, and in 2009 a federal court vacated the regulation. The federal government asked the court to stay the order vacating the exemption for two years, to provide time for working with states to develop a general permit for pesticide applications covered by the decision. The court denied the request for rehearing and granted the requested delay, which was extended until October 31, 2011. On October 31, EPA issued the permit. Under the final permit, pesticide applicators will be covered automatically for discharges before January 12, 2012. However, despite the agency's efforts to minimize regulatory burdens and cost, the permit is controversial.

Some believe that the controversy will only be resolved by congressional action to clarify the intersecting scope of the Clean Water Act and FIFRA. In the 112th Congress, the House has passed legislation intended to nullify the 2009 federal court ruling (H.R. 872), but no legislation was enacted before EPA issued the pesticide general permit on October 31. The legislative language of H.R. 872 was included as a provision of the 2012 farm bill (H.R. 6083) approved by the House Agriculture Committee on July 11.

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Introduction

It has been noted that “[t]he potential for overlapping and potentially conflicting regulatory scope between federal statutes is common, especially in the heavily regulated area of environmental protection.”¹ This potential has received attention in connection with implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)² and the Federal Water Pollution Control Act (Clean Water Act, CWA).³ FIFRA requires the Environmental Protection Agency (EPA) to regulate the sale and use of pesticides in the United States through registration and labeling. The CWA is the principal federal law governing pollution in the nation’s surface waters.

Pesticides used to control weeds, insects, and other pests receive public attention because of potential impacts on humans and the environment. Depending on the chemical, possible health effects from overexposure to pesticides include cancer, reproductive or nervous-system disorders, and acute toxicity. Similar effects are possible in the aquatic environment. Recent studies suggest that some pesticides can disrupt endocrine systems and affect reproduction by interfering with natural hormones.⁴ However, many pesticides and their breakdown products do not have standards or guidelines, and current standards and guidelines do not yet account for exposure to mixtures and seasonal pulses of high concentrations. Effects of pesticides on aquatic life are a concern, because intensive surveys done by the U.S. Geological Survey found that more than one-half of streams sampled had concentrations of at least one pesticide that exceeded an EPA guideline for the protection of aquatic life. Whereas most toxicity and exposure assessments of pesticides are based on controlled experiments with a single contaminant, sampling by the U.S. Geological Survey found that most contamination of waterbodies occurs as pesticide mixtures.⁵

For the more than 30 years since Congress enacted FIFRA and the Clean Water Act, there had been little apparent direct conflict between them. EPA’s operating principle during that time had been that pesticides used according to the requirements of FIFRA do not require regulatory consideration under the CWA. EPA had never required CWA permits for use of FIFRA-approved materials, and EPA rules did not specifically address the issue. However, EPA’s interpretation and operating practice regarding the relationship between the two laws have recently been challenged in several arenas. Federal courts have been one of two battlegrounds so far where the potential conflict between the regulatory scope of these two laws has been waged. EPA regulatory proceedings have been the second battleground area. Congressional action adds a third testing of the issues.

At issue is how FIFRA-approved pesticides that are sprayed over or into waters are regulated and, specifically, whether the FIFRA regulatory regime is sufficient alone to ensure protection of water quality or whether such pesticide application requires approval under a CWA permit. The issue arose initially over challenges to some routine practices in the West (weed control in irrigation

¹ Randall S. Abate and Matthew T. Stanger, “Pesticides and Water Don’t Mix: Addressing the Need to Close a Regulatory Gap Between FIFRA and the CWA,” *Environmental Law Reporter News & Analysis*, January 2005, p. 10056.

² 7 U.S.C. §§136-136y.

³ 33 U.S.C. §§1251-1387.

⁴ For information, see CRS Report R40177, *Environmental Exposure to Endocrine Disruptors: What Are the Human Health Risks?*, by Linda-Jo Schierow and Eugene H. Buck.

⁵ U.S. Department of the Interior, U.S. Geological Survey, *The Quality of Our Nation’s Waters, Nutrients and Pesticides*, USGS Circular 1225, 1999, pp. 3-9.

ditches and spraying for silvicultural pest control on U.S. Forest Service lands). It subsequently drew more attention in connection with efforts by public health officials throughout the country to combat mosquito-borne illnesses such as West Nile virus. The litigation created uncertainty over whether application of pesticides and herbicides to waterbodies requires a water discharge permit. EPA tried to promulgate policy to clarify the relationship of the two laws and to address conflicts resulting from several judicial rulings, ultimately in a regulation issued in November 2006. That rule was challenged by multiple parties, and in January 2009, a federal appellate court vacated the rule. A related issue of interest to many pesticide applicators, but not yet addressed by EPA policy or rule, concerns pesticides that unintentionally impact waterbodies through drift or migration from nearby land, such as a field of crops.

This report provides background on the conflict over interpretation and implementation of FIFRA and the Clean Water Act. A brief discussion of the two laws is followed by a review of the major litigation of interest. EPA's efforts to clarify its policy in this area and the November 2006 rule and the 2009 federal court ruling are discussed, as well as possible options for EPA and Congress to further address the FIFRA-CWA issues. In June 2010 EPA proposed a draft general CWA permit in response to the court ruling. The permit has not been finalized, and as discussed below, the 112th Congress is considering legislation (H.R. 872) to nullify the court's ruling.

The Laws

FIFRA is a regulatory statute governing the licensing, distribution, sale, and use of pesticides, including insecticides, fungicides, rodenticides, and other designated classes of chemicals. Its objective is to protect human health and the environment from unreasonable adverse effects of pesticides. To that end, it establishes a nationally uniform pesticide labeling system requiring the registration of all pesticides and herbicides sold in the United States, and requiring users to comply with conditions of use included on the national label. A FIFRA label encompasses the terms on which a chemical is registered, and its requirements become part of FIFRA's regulatory scheme. In registering the chemical, EPA makes a finding that the chemical "when used in accordance with widespread and commonly recognized practice ... will not generally cause unreasonable adverse effects on the environment" (7 U.S.C. §136a(c)(5)(D)).

EPA reviews scientific data submitted by pesticide manufacturers on toxicity and behavior in the environment to evaluate risks and exposure associated with the pesticide product's use and takes into account the costs and benefits of various pesticide uses. If a registration is granted, the agency specifies the approved uses and conditions of use, which the registrant must explain on the product label. EPA may classify and register a pesticide product for general use or for restricted use (those judged to be more dangerous to the applicator or to the environment which can only be applied by or under the direct supervision of a person who has been trained and certified). FIFRA preempts state, local, and tribal regulations stricter than or different from EPA rules with respect to labeling requirements, but allows states and localities to adopt more restrictive conditions with regard to sale and use.

Use of a pesticide product in a manner not consistent with its label is prohibited, and the law provides civil and criminal penalties for violations. Under FIFRA, EPA generally enforces the law's requirements. However, the law also gives states with adequate enforcement procedures, laws, and regulations primary authority for enforcing FIFRA provisions related to pesticide use.

The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” To that end, it creates a comprehensive regulatory scheme to control the discharge of waste and pollutants; the discharge of pollutants into waters of the United States without a permit violates the act. The permit requirement is at the heart of the act’s compliance and enforcement strategy. Several aspects of these core requirements in the law are important to evaluating whether the CWA applies to specific activities, including whether there is a discharge from a point source (a discrete conveyance such as a pipe, ditch, container, vessel, or other floating craft), whether the discharge is made into waters of the United States, and whether the material discharged is a pollutant; all of these terms are defined in the act. Especially key in the current context is whether pesticides are pollutants under the act. This issue has been central to much of the judicial and regulatory debate over whether the two laws, CWA and FIFRA, are complementary or in conflict. CWA Section 502(6) (33 USC §1362(6)) defines pollutant thus:

The term ‘pollutant’ means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Section 402 of the act establishes the National Pollutant Discharge Elimination System (NPDES) permitting requirement, which regulates the lawful discharge of pollutants. The act defines “discharge of a pollutant” to mean “any addition of any pollutant to navigable waters from any point source” (CWA Section 502(12); 33 USC §1362(12)). Discharges are permitted if they are authorized under a NPDES permit that meets CWA requirements, including protecting the receiving waters. NPDES permits specify limits on what pollutants may be discharged and in what amounts. They also include monitoring and reporting requirements. They are either individual case-by-case permits or general permits applicable to similar categories of activities and similar waste discharges. Under the CWA, qualified states issue NPDES permits to regulated sources and enforce permits, and the law allows states to adopt water quality requirements more stringent than federal rules. As of 2012, 46 states have been delegated authority to administer the permit program; EPA issues discharge permits in the remaining states.

The NPDES permit is the act’s principal enforcement tool. EPA may issue a compliance order or bring a civil suit in U.S. district court against persons who violate the terms of a permit, and stiffer penalties are authorized for criminal violations of the act. As a practical matter, the majority of actions taken to enforce the law are undertaken by states, both because states issue the majority of permits to dischargers and because the federal government lacks the resources for day-to-day monitoring and enforcement. In addition, individuals may bring a citizen suit in U.S. district court against persons who violate the terms of a CWA-authorized permit or who discharge without a valid permit. FIFRA does not authorize citizen suits.

Throughout the United States, pesticides often are applied in, onto, or near waterbodies to control weeds and insects. Whether those pesticides are adversely affecting water quality has not been a disputed issue until recently. It has been EPA’s long-standing practice and interpretation of the laws that a CWA permit is not required when pesticide application is done in a manner consistent with FIFRA and its regulations. But that interpretation has been challenged in several lawsuits brought since the late 1990s that have been decided since 2001.

The Litigation

Five federal court cases testing the relationship between FIFRA and the CWA have drawn the most attention, three in the U.S. Court of Appeals for the Ninth Circuit in the West, concerning pesticide applications by agricultural and natural resource managers, and two in the Second Circuit Court of Appeals in the East, involving the use of pesticides by government and public health authorities for mosquito control. These cases have been brought principally under the citizen suit provisions of the CWA. Two of the Ninth Circuit decisions have held that CWA permits are required for at least some activity involving the point source discharge of FIFRA-regulated pesticides over or into waters of the United States, and the third held that a permit was not required because the specific pesticide was not a chemical waste. The Second Circuit ruled in two cases; most recently, it ruled that trucks and helicopters that discharge pesticides are point sources, but it deferred requiring permits until EPA issues a CWA general permit, which is discussed below.

The Ninth Circuit Cases

The first of the major cases on these issues involved application of herbicides in irrigation ditches. In the case, a major issue was whether the application of pesticides constitutes the discharge of a pollutant. Environmental groups challenged application of an aquatic herbicide called Magnicide H to kill weeds and algae and sought to require that the applicator, a municipal corporation that operates a system of irrigation canals in Oregon, obtain an NPDES permit.

The Ninth Circuit Court of Appeals endorsed the lower court's ruling that the pesticide was a pollutant under the CWA, and that the irrigation canals into which the pesticide was being sprayed are "waters of the United States."⁶ But it rejected the lower court's holding that a CWA permit was not required because the pesticide was properly regulated by FIFRA and had an EPA-approved FIFRA label. The appeals court ruled that FIFRA and CWA have different purposes and that, as such, neither could be controlling on the application of the other. The court said that FIFRA creates a comprehensive regulatory scheme for the labeling of pesticides, requiring that all insecticides and herbicides sold in the United States be registered with the EPA. It and the CWA have different, although complementary, purposes, the court said, and using a pesticide with a FIFRA-approved label does not obviate the need to obtain a CWA permit. The FIFRA label is the same nationwide. The CWA permit considers local environmental conditions, which the FIFRA label does not. Thus, a nationwide label on a FIFRA-regulated chemical could not be controlling on whether a CWA permit is required, because it does not account for location-specific requirements. The court reversed the district court's grant of summary judgment in favor of the defendants.⁷

Several of the states within the Ninth Circuit subsequently took actions to respond to this ruling. California and Washington amended their water quality program rules to require NPDES permits

⁶ In view of the Supreme Court's June 2006 decision in *Rapanos v. United States* (547 U.S. 715, 2006), coverage of irrigation canals as "waters of the United States" may depend on case-specific circumstances, because the Court's plurality opinion in this case made specific reference to *Headwaters, Inc. v. Talent Irrigation District*. For additional information, see CRS Report RL33263, *The Wetlands Coverage of the Clean Water Act (CWA) Is Revisited by the Supreme Court: Rapanos v. United States*, by Robert Meltz and Claudia Copeland.

⁷ *Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526 (9th Cir. 2001).

for pesticide applicators. Oregon did not mandate permits, but suggested that pesticide applicators obtain state-issued permits to protect against lawsuits. Other states outside of the Ninth Circuit have continued their long-standing practice of not issuing permits to persons who apply pesticides to waters of the United States.

The second major case in the West involved an annual U.S. Forest Service (USFS) aerial spray program over national forest lands in Oregon and Washington. Environmental groups filed a lawsuit challenging the spraying program, saying that the environmental impact statement (EIS) prepared by the USFS was inadequate and that the Forest Service had failed to obtain a CWA permit, which they argued is required for this type of aerial spraying. The appeals court reversed the district court's grant of summary judgment for the Forest Service and instructed the lower court to enter an injunction prohibiting the federal agency from further spraying until it acquires an NPDES permit and completes a revised EIS.⁸ The court disagreed with the argument of the Forest Service that the spraying is nonpoint source water pollution, which does not require an NPDES permit. The court held that the insecticides meet the CWA definition of "pollutant" and that the application came from an aircraft equipped with spraying apparatus, thus meeting all of the elements of the CWA's definition of point source pollution.

In September 2003, the EPA General Counsel issued a legal memorandum to officials in states located in the Ninth Circuit responding to the *Forsgren* case. The memorandum said that EPA disagreed with the court's holding in the case and that outside the Ninth Circuit, EPA would continue its long-standing interpretation of FIFRA and the CWA. Within the Ninth Circuit, the memo said, EPA would not acquiesce to the ruling in the case of materials other than pesticides (such as those used for fire control), or in circumstances where pesticides are not applied directly over and into waters of the United States.⁹

The third Ninth Circuit case involved an effort by the Montana Department of Fish, Wildlife and Parks to intentionally apply the pesticide antimycin to a river in order to remove non-native trout species and thus to allow re-introducing a threatened fish species into the river. The director of the department was sued under the citizen suit provision of the CWA by a citizen who sought to require the department to obtain an NPDES permit before applying the pesticide.

The court held in this instance that no NPDES permit was required, because the facts of the case demonstrated that, following application as intended, the antimycin dissipated rapidly, leaving no excess portions or residual chemical that should be characterized as chemical waste, and thus is not a pollutant under the act.¹⁰ Intentionally applied and properly performing pesticides are not pollutants, the court said.

The court distinguished this case from its ruling in *Headwaters*, saying that the factual scenarios differ, because "in that case the 'chemical waste' for which a NPDES permit was required was not a pesticide serving a beneficial purpose and intentionally applied to water, but was a chemical that remained in the water after the Magnicide H performed its intended, beneficial function."¹¹

⁸ League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Forsgren, 309 F.3d 1181 (9th Cir. 2002).

⁹ Robert Fabricant, EPA General Counsel, "Interpretive Statement and Guidance Addressing Effect of Ninth Circuit Decision in *League of Wilderness Defenders v. Forsgren* on Application of Pesticides and Fire Retardants," memorandum, September 3, 2003, 7 pp.

¹⁰ Fairhurst v. Hager, 422 F.3d 1146 (9th Cir. 2005).

¹¹ Ibid. at 1150.

Further, the court stated that its analysis accords with EPA's construction of the CWA's definition of "chemical waste" in the context of intentionally applied pesticides, and that the agency's 2003 Interim Statement and Guidance addressing the issue (discussed below) is entitled to some deference. EPA's interpretation as presented in that Interim Statement is reasonable and not in conflict with the expressed intent of Congress, the court said.

The Second Circuit Cases

Two cases in the Second Circuit involved the use of pesticides for mosquito control. In the first case, several residents of the Town of Amherst, NY, sought to halt aerial application of pesticides without a CWA permit. The district court initially dismissed the case, stating that spray drift is not chemical waste under the CWA and that the pesticide use was best regulated under FIFRA. But the appeals court remanded the case to the district court for further development of the record.¹² Although this ruling may not be cited as precedent, it is notable in that, while EPA had filed an *amicus curiae* brief providing its views on this particular case, the court invited EPA to offer its views broadly on the policy and legal questions. The court stated:

Until the EPA articulates a clear interpretation of current law—among other things, whether properly used pesticides released into or over waters of the United States can trigger the requirement for NPDES permits ...—the question of whether properly used pesticides can become pollutants that violate the CWA will remain open. Participation by the EPA in this litigation in any way that permits articulation of the EPA's interpretation of the law in this situation would be of great assistance to the courts.¹³

The second pertinent case in the Second Circuit also involved the use of pesticides for control of mosquitoes. Plaintiffs in the case, a citizens group, sought an injunction to halt the aerial and ground spraying, arguing that although the pesticides were properly regulated under FIFRA, the spraying program involved the discharge of a pollutant without a CWA permit, and thus was a violation of that law. A federal district court held that FIFRA-compliant spraying activity did not amount to the discharge of a pollutant into navigable waters from a point source, and thus did not violate the CWA. In March 2010, the Second Circuit Court of Appeals disagreed with the district court's finding that trucks and helicopters were not "point source," which are required to have CWA permits in order to discharge lawfully, but this court held that no permits would be required for the challenged activities until EPA issues a general permit, as it plans to do in 2011 (see discussion below, "Options for EPA").¹⁴

Other Litigation

Other lawsuits have followed these cases. For example, private citizens who operate an organic fruit farm in Gem County, Idaho, brought suit against the local mosquito abatement district there, seeking to require a CWA permit for pesticide spraying. Finding itself in the proverbial spot "between a rock and a hard place," the mosquito abatement district applied for a permit from EPA, which the agency declined to issue, based on its long-standing policy and legal interpretation. Thereafter, the mosquito abatement district filed a lawsuit against EPA in an

¹² *Altman v. Town of Amherst, N.Y.*, 47 Fed. Appx. 62 (2d Cir. 2002).

¹³ 47 Fed. Appx. at 67.

¹⁴ *Peconic Baykeeper Inc. v. Suffolk County*, 2d Cir., No. 09-97-cv, March 30, 2010.

attempt to obtain a declaration that a CWA permit is not needed and to avoid the citizen suit litigation, which is pending in federal court in Idaho. The mosquito abatement district asked the federal court either for a judgment saying that no permit is required or, if the court were to determine otherwise, an order directing EPA to process its CWA permit application. In January 2005, the federal district court in the District of Columbia dismissed the case because the mosquito abatement district and EPA were in agreement that no CWA permit is required for pesticide applications that are consistent with FIFRA.¹⁵

In other locations, citizen groups have given notice, as required by the CWA, of possible lawsuits to expand the precedent from the Ninth Circuit cases to other types of operations. For example, two actions were threatened in 2004 and 2005 against Maine blueberry farmers for failing to obtain a CWA permit for spraying pesticides that may drift off-target from land into waterbodies. In response to the litigation pressure, however, both farmers subsequently announced plans to cease aerial spraying and instead rely on ground spraying, until such time as government or the courts clarify the law.

EPA's Regulatory Responses: 2003-2006

The rulings by the Ninth Circuit in the *Talent* and *Forsgren* cases and possible endorsement by other courts greatly alarmed a range of stakeholders in the regulated community, including forestry, agriculture, and pesticide applicators, as well as municipal and public health officials concerned with the need to control mosquitoes and other vectors associated with diseases such as West Nile virus and malaria. They feared that CWA permit requirements would be extended to agricultural and other activities that have not traditionally been regulated under the CWA. They argue that if permits tailored to particular circumstances are deemed necessary, such requirements would present significant costs, operational difficulties, and delays to applicators. They also would put pressure on limited federal and state CWA permitting resources. In their view, requiring permits will not be environmentally helpful, but the expense and long delays of permitting proceedings will hamper programs that are needed for controlling pests that threaten public health and crops. In response, EPA issued two interpretive guidance documents (in 2003 and 2005) and in 2005 proposed a rulemaking to formalize its long-standing position on CWA-FIFRA issues. A final rule was promulgated in November 2006 but was vacated by a federal court in 2009, as discussed below.

EPA Guidance

After the *Altman v. Town of Amherst* ruling in 2002, industry, states, and others, including some in Congress, pressed EPA to clarify the emerging conflicts over the two laws. EPA responded in July 2003 with an interim guidance memorandum and a final guidance document in 2005.¹⁶ The agency's consistent position, expressed in both guidance documents, was that pesticides applied in a manner consistent with FIFRA do not constitute either chemical wastes or biological materials under the definition of pollutant in Section 502(6) of the CWA. The rationale for this position was that it is consistent with over 30 years of CWA administration. At the same time,

¹⁵ *Gem County Mosquito Abatement District v. EPA*, 398 F. Supp. 2d 1 (D.D.C. 2005)

¹⁶ U.S. Environmental Protection Agency, "Application of Pesticides to Waters of the United States in Compliance With FIFRA, proposed rulemaking and notice of interpretive statement," 70 *Federal Register* 5093, February 1, 2005.

EPA said that pesticide applications in violation of FIFRA, that is, when not used or applied according to applicable labeling requirements, would be subject to all relevant statutes, including the Clean Water Act.

Environmental activists strongly objected to EPA's position in the guidance, which they viewed as contrary to the judicial rulings. These groups reiterated points made by the Ninth Circuit court in the *Headwaters* and *Forsgren* rulings, namely that chemical and biological pesticides are pollutants within the meaning of the CWA, because the law defines pollutants broadly and includes, among other substances, chemical wastes, biological materials, and agricultural wastes. As that court has declared, environmentalists said, FIFRA does not override the CWA, and the two statutes must work in tandem to prevent injury to aquatic life. They also argued that EPA was wrongly deciding that materials with beneficial uses should not be construed as pollutants under the CWA.

Environmentalists' objections also went to the policy problems of relying on FIFRA to protect water quality from pesticide applications, as that would be the result of EPA's position. That position, critics said, turns on whether the pesticide application conforms procedurally with FIFRA requirements, not what is the water quality impact of that pesticide. Other concerns raised by critics included the fact that while the FIFRA registration process calls for ecological risk assessment that may be adequate for producing nationally applicable labels, it does not ensure that local water quality standards are maintained and does not account for additive or synergistic effects of multiple pollutants discharged to a particular waterbody. Environmentalists argued that the CWA provides the means to determine whether, and under what conditions, it is safe to discharge a particular pesticide into a particular body of water, and that FIFRA's nationally uniform labeling system cannot do that. FIFRA is not specifically charged with ensuring the chemical, physical, and biological integrity of U.S. waterways, and satisfaction of a pesticide's FIFRA labeling criteria does not automatically satisfy water quality concerns, as the NPDES permit process is intended to do. They also maintained that FIFRA fails to consider the lasting effects that pesticide residues have on a local ecosystem and that localized analysis of the environmental impact of pollutant discharges under the CWA is necessary, due to the toxic residues that remain after pesticide application, which FIFRA does not address.

Industry welcomed the thrust of the EPA guidance but also urged that it be broadened. Agricultural groups requested that EPA include other classes of applications under the guidance, such as aquaculture and crop production. Beyond the types of uses described in the guidance, some argued that EPA should additionally clarify that CWA permits are not required in the case of pesticides that are applied over land and then inadvertently impact waterbodies through drift and migration. Many requested that EPA address the issues definitively in a rulemaking, rather than in non-binding guidance. In their view, without clear regulatory language supporting EPA's interpretation, pesticide applicators would still face the prospect of citizen lawsuits and NPDES permit requirements.

Many states and local governments, including agriculture agencies, irrigation districts, and mosquito abatement districts, strongly endorsed EPA's proposed clarification of its interpretation of the two laws. However, a few—especially states located in the jurisdiction of the federal Ninth Circuit—expressed a different view. The Oregon Department of Environmental Quality and California State Water Resources Control Board commented that the Interim Statement conflicted with legal precedent in the *Headwaters* case. They urged EPA, if it wishes to create an exemption for pesticide applications conducted in compliance with FIFRA, to ask Congress to amend the Clean Water Act and FIFRA accordingly.

Regulatory Proposal

At the same time that it issued the 2005 guidance, EPA proposed a rulemaking to codify the substance of the guidance in CWA regulations, which it promulgated in November 2006.¹⁷ The final rule, which became effective January 26, 2007, added two specific circumstances that are excluded from NPDES permit requirements, when the application complies with relevant requirements of FIFRA:

- the application of pesticides directly to waters of the United States in order to control pests (e.g., to control mosquito larvae or aquatic weeds); and
- the application of pesticides to control pests that are present over waters of the United States, including near such waters, where a portion of the pesticides will unavoidably be deposited to waters of the United States in order to target the pests effectively.

In the final rule, EPA provided a lengthy discussion of its rationale that pesticides, when applied pursuant to FIFRA, are not chemical wastes or biological materials and thus are not what the CWA defines as “pollutants” (see discussion, page 3). However, EPA also acknowledged that application of pesticides may leave residual materials in U.S. waters after the product has served its beneficial purpose and that these residual materials may be “pollutants” under the act at that later time. Nonetheless, even in such cases, EPA said, the initial application of the pesticide does not require an NPDES permit because EPA does not consider it to be a pollutant *at the time of its discharge* into water.¹⁸ The agency also responded to some public comments that had criticized the adequacy of FIFRA’s registration process for consideration of water quality, local conditions, etc. EPA said that the “regulatory and non-regulatory tools under FIFRA provide means of addressing water quality problems arising from the use of pesticides,” particularly the registration and re-registration processes, which consider both human health and aquatic resource impacts.¹⁹

Judicial Challenge to the EPA Rule

The 2006 rule prompted multiple lawsuits by industry and environmental groups in almost every judicial circuit nationwide. The litigation was consolidated in the Sixth Circuit Court of Appeals. Industry’s challenge argued that the rule was arbitrary and capricious because it treats pesticides applied in violations of FIFRA as pollutants, while treating the same pesticides used in compliance with FIFRA as non-pollutants. It also sought to expand the rule to apply to all pesticides and all agricultural applications of pesticides, including applications to land that drift over or into water. Environmentalists’ challenge claimed that, by exempting FIFRA-compliant applications of pesticides from CWA requirements, EPA ignores its duties under the Clean Water Act.

The court’s ruling was issued January 7, 2009.²⁰ EPA had argued that at the time of discharge, a pesticide is a non-pollutant. Excess pesticide or pesticide residues do not exist until after the

¹⁷ U.S. Environmental Protection Agency, “Application of Pesticides to Waters of the United States in Compliance With FIFRA,” Final Rule, 71 *Federal Register* 68483, November 27, 2006.

¹⁸ *Id.* at 68487.

¹⁹ *Id.* at 68488-68489.

²⁰ *National Cotton Council of America v. U.S. Environmental Protection Agency*, 553 F.3d 927 (6th Cir. 2009).

discharge is complete, EPA said, and therefore should be treated as nonpoint source pollutants that do not require CWA permits. The court rejected EPA's attempt to "inject[] a temporal requirement to the 'discharge of a pollutant,'" and it said that such an interpretation is unsupported by the CWA, and is also contrary to the purpose of the permitting program. The court said, "If the EPA's interpretation were allowed to stand, discharges that are innocuous at the time they are made but extremely harmful at a later point would not be subject to the permitting program." It concluded that "there is no room for the EPA's argument that residual and excess pesticides do not require an NPDES permit," and the court thus vacated the rule. The vacatur was scheduled to take effect April 9, 2009, but subsequently the Sixth Circuit granted the government's request to delay the effective date of the ruling for two years, so that EPA could develop a regulatory response, as discussed below. In the meantime, the rule remains in effect.

In February 2010, the Supreme Court declined to review the Sixth Circuit's ruling.

Congressional Interest and Options

Congressional interest in these issues became apparent after the first federal appeals court ruling in the 2001 *Headwaters v. Talent* ruling. Two congressional hearings focused on implications of the cases for pesticide use generally and for local governments' efforts to control mosquito-borne illnesses such as West Nile Virus. Also, a hearing also was held on legislation introduced in the 109th Congress to clarify the scope of the CWA regarding the use of FIFRA-approved pesticides, fire retardants, and biological control organisms.

The first of these hearings was in October 2002, when a House Transportation and Infrastructure subcommittee held a fact-finding hearing on the issues.²¹ The subcommittee's particular concern derived in part from the fact that one of the key practices used to manage stormwater runoff, which is regulated under the Clean Water Act, is to collect and hold it in retention ponds, basins, drainage ditches, etc. Such practices can be at odds with the public health objective of controlling insect-breeding habitat by eliminating or draining sources of standing water. Stormwater management practices typically allow collected water to drain slowly, while public health efforts would prefer that it be removed quickly. Another way to address the public health concerns is to spray pesticides on stormwater management structures and other areas of standing waters. The question for this subcommittee was the uncertainty raised by the litigation over the CWA-FIFRA issues for communities, industries, and others needing to maintain stormwater control systems. An EPA official, while acknowledging that the issue of CWA jurisdiction over pesticide spraying is "new territory" for the agency, said that EPA believes there is no inherent conflict between protecting water quality and preventing mosquito-borne disease. At the hearing, some Members and public witnesses urged EPA to provide guidance to resolve uncertainties raised by the court rulings.

The second congressional hearing, held by a House Government Reform subcommittee in October 2004, examined challenges to controlling West Nile Virus.²² The hearing was an

²¹ U.S. Congress, House, Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, "West Nile Virus: The Clean Water Act and Mosquito Control," Hearing, October 10, 2002, 107th Cong., 2nd sess., unpublished.

²² U.S. Congress, House, Committee on Government Reform, Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, "Current Challenges in Controlling the West Nile Virus," Hearing, October 6, 2004, 108th Cong., 2nd sess. (Serial No. 108-274), 182 p.

opportunity for some Members and witnesses to express the view that EPA's July 2003 interim guidance, while helpful in clarifying EPA's position, failed to resolve all legal uncertainty, since it would not bind non-federal entities or bar citizen lawsuits. Witnesses said that EPA's guidance is a nonbinding legal document that would not deter filing of citizen lawsuits seeking to impose a permit requirement. Supporters of this view urged EPA to settle the legal questions through a formal rulemaking to revise CWA rules. An EPA official said that even if EPA were to promulgate a rule (as it subsequently did), states will still have the discretion to continue to require non-NPDES permits, and a formal rule would not preclude citizen lawsuits from seeking to force localities to file for permits. EPA acknowledged these same points in the 2005 guidance. Others at this hearing agreed on the need for a formal rulemaking, but recommended that in doing so, EPA should reverse the interpretation detailed in the guidance, not codify it.

In the 108th Congress, Senate appropriators included language in their report on EPA's FY2005 funding bill calling on EPA to finalize the interim guidance by December 2004 and to clarify the long-standing distinction between agriculture and silviculture activities that do and do not require CWA permits.²³

In 2003, a number of House and Senate Members urged the Bush Administration to support Supreme Court review of the *Forsgren* case, but ultimately the Administration did not endorse industry's request for a review, and the Court did not grant certiorari. Some Members of Congress also submitted comments in support of the July 2003 interim guidance document and the January 2005 regulatory proposal.

Options for EPA

As described above, in January 2009, the U.S. Sixth Circuit Court of Appeals rejected EPA's rationale for its 2006 rule that attempted to specify circumstances in which pesticides applied to waters of the United States do not require NPDES permits. The court appeared to leave little room for EPA to fashion a new rule consistent with the agency's long-standing view that FIFRA-compliant applications do not require CWA permits. Agriculture industry groups are fearful that the court's ruling will lead to permit requirements for each pesticide application, placing significant burdens on industry and EPA. Accordingly, several industry groups (the American Farm Bureau Federation, American Forest and Paper Association, and CropLife America, the trade organization for agriculture and pest management) petitioned for a rehearing of the case by the full Sixth Circuit court, but the rehearing request was rejected.

The federal government did not seek a rehearing of the case. Instead, the government petitioned the court for a two-year stay of the order vacating the exemption, to give EPA time to work with states and the regulated community to develop a general permit for pesticide applications covered by the decision. State water pollution agencies supported the government's request for the two-year delay, which the court granted.

²³ U.S. Senate, Committee on Appropriations, "Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Bill, 2005," report to accompany S. 2825, 108th Cong., 2nd sess., pp. 110-111.

EPA's Pesticide General Permit

The two basic types of NPDES permits are individual permits that are specifically tailored for an individual discharger, and general permits that cover categories of point sources having common elements and that discharge the same types of wastes. General permits allow the permitting authority to allocate resources efficiently, especially when there is potentially a large number of permittees, and to provide timely permit coverage. Both individual and general permits are enforceable by the permitting authority and by private citizens (in federal court).

EPA uses its authority to issue NPDES general permits frequently, most recently having issued a general permit to cover discharges incidental to the normal operation of vessels (Vessel General Permit, or VGP) that applies to approximately 69,000 vessels.²⁴ Typically, dischargers seeking coverage under a general permit are required to submit a notice of intent to be covered by the permit, but this can be modified. For example, in the VGP, EPA provided automatic coverage for about 20,000 of the covered vessels. Still, even with general permits, development and implementation issues arise, including how EPA specifies applicable discharge limits based on technology available to treat pollutant constituents found in the discharge (i.e., effluent limits), and limits that are protective of the designated uses of the impacted water (i.e., water quality-based effluent limits), as required by the CWA.

EPA issued the pesticide general permit on October 31, 2011, as required by the federal court.²⁵ EPA estimates that the universe of activities affected by the court's ruling is approximately 5.6 million applications annually, which are performed by 365,000 applicators, including mosquito and other flying insect pest control, aquatic weed and algae control, aquatic nuisance animal control, and forest canopy pest control. The permit covers about 500 different pesticide active ingredients that are contained in approximately 3,700 product labels.

The permit applies to a variety of entities, including agricultural interests involved in crop and timber tract production, forest nurseries, and operating irrigation systems; pesticide and agricultural chemical manufacturing; mosquito or other vector control districts and commercial applicators that service them; utilities (e.g., electric power, natural gas, water supply and wastewater); and government agencies and departments engaged in air and water resource management and conservation. It requires all operators to minimize pesticide discharges to waters by practices such as using the lowest effect amount of pesticide product that is optimal for controlling the target pest. It also requires operators to prepare pesticide discharge management plans to document their pest management practices. Permittees must monitor for observable adverse effects in the treatment area and where the pesticides are discharged to U.S. waters.

The permit does not cover agricultural stormwater runoff or irrigation return flow, as these discharges are statutorily exempt from CWA permitting, and it also will not cover terrestrial application to control pests on agricultural crops or forest floors (i.e., it would not apply to pesticide applications that do not result in a discharge to U.S. waters). The EPA general permit

²⁴ U.S. Environmental Protection Agency, "Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel," 73 *Federal Register* 79473-79481, December 29, 2008.

²⁵ U.S. Environmental Protection Agency, "Final National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit for Point Source Discharges From the Application of Pesticides; Notice of final permit," 76 *Federal Register* 68750-68756, November 7, 2011.

applies in states and areas where EPA is the NPDES permitting authority, but it is being used as a model for other states to develop their own general permits.²⁶

EPA had proposed a draft version of the permit in April 2010, and had expected to issue the final permit by December 2010. Issuance of the final permit was delayed several times and for several reasons: time needed to complete consultations with federal resource agencies under the Endangered Species Act (ESA); time needed for non-federal permitting authorities to review the final permit; and time needed by EPA to develop an electronic system on the Internet to accommodate permit applications.

In response to a number of commenters, EPA made certain changes in the final permit from the June 2010 proposal. While it covers the same pesticide use patterns as in the draft (mosquitoes and other flying insects, weed and algae control, animal pest control, and forest canopy pest control), the final permit increases the acreage threshold for requirements to submit a NOI to a permitting authority. For example, the draft stated that pesticides used to control mosquitoes or other flying insect pests would be subject to the NOI requirement if applied to 640 acres or more annually. Under the final permit, that threshold was increased to 6,400 acres per calendar year.

The final permit includes Endangered Species Act (ESA) provisions, following consultation with the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service. As a result, coverage under the permit is available only for discharges not likely to adversely affect species that are listed as endangered or threatened under the ESA.²⁷

Other EPA Options

One issue that EPA could address separately, in addition to developing a general NPDES permit, is pesticide drift, which many stakeholders had urged EPA to address in the final rule. The Federal Register Notice accompanying the rule noted that, at the time, EPA was awaiting advice from a workgroup of its Pesticide Program Dialogue Committee, which could recommend further actions. This committee was established in 1995 as a forum to provide feedback to EPA on various pesticide regulatory, policy, and program implementation issues. It is authorized pursuant to the Federal Advisory Committee Act (FACA), which details requirements for the management and oversight of federal advisory committees to ensure impartial and relevant expertise and advice to EPA and other agencies. In March 2006, the committee convened a Spray Drift Workgroup charged with studying the issue of pesticide drift across water and its accompanying impact on water quality and wildlife. The following year, the workgroup finalized a report that focused on issues related to product labeling, applicator training, and practices and equipment to mitigate drift and adverse effects. In November 2009, EPA proposed new pesticide labels to reduce the drifting of spray and dust from pesticide applications. The agency proposed guidance for pesticide labeling that is intended to describe scenarios when additional language would need

²⁶ The CWA authorizes EPA to delegate NPDES permitting authority to qualified states, and EPA has done so for the majority of states. For this permit, EPA is the permitting authority in Massachusetts, New Mexico, New Hampshire, Oklahoma, Alaska, Idaho, and the District of Columbia; Indian lands in a number of states; and all U.S. territories except the Virgin Islands.

²⁷ For information, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

to be added to a pesticide label to reduce drift from applications such as on golf courses or parks and noncommercial applications such as residential use on lawns and gardens.²⁸

Other options for EPA relate to implementation of FIFRA and procedures used to evaluate the risks of pesticides during the registration process. Environmentalists have argued for some time that EPA's risk review procedures are inadequate because they fail to account for synergistic and additive effects, as well as sub-lethal and indirect effects of pollutants on the environment. In 2003, EPA convened a task force of officials from its pesticide and water quality offices to explore, among other things, whether the agency's pesticide review processes are protective enough to meet water quality standard limits. One outcome of the task force's ongoing review could be changes to implementation of FIFRA in order to address some of these concerns. Thus, in April 2009, EPA officials announced plans to complete a series of white papers on how to harmonize methods used by the agency's Office of Water and the Office of Pesticide Programs for ecological assessment of pesticide chemicals' water quality risks. The white papers are intended to address what officials acknowledge is a gap between the way the CWA and FIFRA approach pesticide risk.

Congressional Activity

Prior to the 2009 federal court ruling that vacated EPA's rule, some environmental activists favored legislation to clarify that NPDES permits *are* required, since they contended that the rule was unlawful. However, no such legislation was introduced. Others argued during this time that legislation is not needed because, in their view, the CWA is clear enough that permits are required for discharge of pesticides from point sources. The federal court's review of the EPA rule supports that view. But, following the court's ruling, other stakeholders have come to favor legislation to support a narrow view of the CWA's jurisdiction on this issue, although many acknowledge that any such legislative effort would be controversial and could be seen as representing not clarification but, rather, an environmental rollback.

Legislation intended to clarify that permits are not required for some or all pesticide spraying activity was introduced in the 109th Congress (H.R. 1749 and S. 1269, the Pest Management and Fire Suppression Flexibility Act), but it was not enacted. These bills would have provided that NPDES permits are not required for the use of FIFRA-approved pesticides; chemicals, fire retardants, or water used for fire suppression; biological organisms used for plant pest or weed control; or silviculture activities such as timber harvesting that are not currently regulated as point source activities.

As discussed above, EPA's 2006 rule, subsequently vacated by a federal court, addressed situations in which pesticides are put directly in waters to control pests (e.g., controlling mosquito larvae or aquatic weeds) or cases of pesticides that are present over water and a portion of the pesticide is deposited in the water (e.g., aerial application to a forest canopy where waters of the United States may be present below the canopy). The proposed legislation in the 109th Congress, in addition to codifying these policies, also would have addressed other, broader circumstances that EPA had declined to include in the rule: applications over land areas that may drift over and

²⁸ U.S. Environmental Protection Agency, "Pesticides; Draft Guidance for Pesticide Registrants on Pesticide Drift Labeling," 74 *Federal Register* 57166-57168, November 4, 2009.

into waters of the United States, broad exemption of activities for preventing or controlling plant pests or noxious weeds, and use of fire retardants.²⁹

In September 2005, a House Transportation and Infrastructure subcommittee held a hearing on H.R. 1749.³⁰ Witnesses representing a number of sectors that are pesticide users (state foresters, western irrigation districts, and farmers) testified in support of the legislation, saying that it would resolve existing legal uncertainties about permitting. An EPA witness said that the agency's then-proposed rulemaking was intended to reduce uncertainty about the relationship between FIFRA and the CWA. The EPA official did not expressly endorse the legislation, but he said that EPA appreciated congressional efforts to reduce potential confusion over these issues. There was no further action on either H.R. 1749 or S. 1269 during the 109th Congress, and no similar legislation was introduced in the 110th Congress.

Legislation on this issue was introduced in the 111th Congress. One proposal was contained in identical bills, S. 3735 and H.R. 6087. The intention of these bills was similar to that of the earlier bills—to clarify permitting requirements under other laws and, effectively, to nullify the 2009 federal court ruling—but the 111th Congress legislation differed in several respects. First, it would have amended FIFRA, while the earlier bills would have amended the CWA. Second, the bills would not expressly have exempted chemicals, fire retardants, water used for fire suppression, or specified silviculture activities from permit requirements. Third, S. 3735 and H.R. 6087 were broader in their potential application. The earlier bills were limited to exempting FIFRA-authorized activities from CWA permits, but the 111th Congress legislation would have exempted FIFRA-authorized activities from permits required by other federal environmental laws (including the CWA), other federal non-environmental permits or licenses, as well as state or local laws and ordinances. Pursuant to authority in FIFRA, many state and local governments control pesticide application within their jurisdictions by employing permitting systems to restrict aerial application of pesticides, or by imposing notice-and-posting requirements.

Another bill in the 111th Congress was H.R. 6273. This bill also was intended to nullify the 2009 federal court ruling, but it was narrower in scope than the other two measures. It would have amended both FIFRA and the CWA to provide that a CWA permit shall not be required by EPA, nor shall EPA require a state to require a permit, for the application of any pesticide that is subject to FIFRA if it is applied in conformance with that act.

112th Congress

Attention to these issues has resumed in the 112th Congress, and EPA's issuance of the PGP has been controversial. Critics continue to argue that requirements of CWA and FIFRA are duplicative, although others disagree, saying that the purposes and approaches of the two laws differ greatly (see discussion of "The Laws" above). Even as they are beginning to implement permit requirements for pesticide discharges, water quality officials in some states have said that they see little water quality benefit from the permit. Despite EPA's contention that many farms are

²⁹ Reflecting a different approach, Rep. Goodlatte introduced a bill in the 107th Congress, H.R. 5329, that was intended to ease industry's ability to register pesticides for use in combating mosquito-borne illnesses. It would have amended FIFRA to expand the definition of what constitutes a "public health" pesticide.

³⁰ U.S. Congress, House, Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, "Hearing, 'H.R. 1749, Pest Management and Fire Suppression Flexibility Act,'" 109th Cong., 1st sess., September 29, 2005 (109-33), 110 pp.

not affected by the *National Cotton Council* ruling and do not need CWA permits for their pesticide applications,³¹ the PGP has been particularly controversial in the agriculture community.

At a joint hearing of subcommittees of the House Agriculture and Transportation and Infrastructure committees in February 2011, draft legislation to overturn the *National Cotton Council* ruling was discussed. Subsequently introduced as H.R. 872, the bill would amend FIFRA and the CWA to provide that neither EPA nor a state may require a CWA permit for discharge of a pesticide whose use has been authorized pursuant to FIFRA. The bill defines specified circumstances where a permit would be required (e.g., municipal or industrial treatment works effluent that contains pesticide or pesticide residue). At the hearing, some Members indicated that the bill had been drafted with EPA's technical assistance, but the Administration's official position on H.R. 872 is unknown.

The House passed H.R. 872 on March 31, 2011, by a vote of 292-130. The Senate Committee on Agriculture, Nutrition, and Forestry approved the bill without amendment in June 2011. The text of H.R. 872 also was included as a provision of H.R. 2584, a bill providing FY2012 appropriations for EPA, which the House debated in July 2011, without taking final action. Although legislation to overturn the 2009 federal court ruling was not enacted before EPA issued the final pesticide general permit on October 31, some legislators reportedly discussed compromise legislation that would provide for a temporary permit moratorium and an EPA study of impacts of pesticide discharges.

On July 11, the House Agriculture Committee ordered reported the 2012 farm bill (H.R. 6083, the Federal Agriculture Reform and Risk Management Act). A provision identical to House-passed H.R. 872 is included in the legislation. The Senate has previously passed its version of a 2012 farm bill (S. 3240); it does not include a similar provision.

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³¹ U.S. Environmental Protection Agency, "Information on the Pesticide General Permit for Agricultural Stakeholders," December 2011, http://www.epa.gov/npdes/pubs/pgp_agfactsheet.pdf.