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

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# CRS Report for Congress

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

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Prepared for Members and  
Committees of Congress

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

## 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 has 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, including a regulation issued in November 2006, are discussed, 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.

Five 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. Two other pending cases involve the use of pesticides for mosquito control. In these cases, the U.S. Second Circuit Court of Appeals has not yet addressed whether the application of FIFRA-approved pesticides requires a CWA discharge permit.

The judicial 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 by many to clarify its long-standing principle that CWA permits are not required for using FIFRA-approved products, EPA in November 2006 issued a rule to formalize that principle in regulations. Environmental activists strongly oppose 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, endorse the rule, although some would like to see its application broadened to include pesticide drift.

Some believe that the controversy will only be resolved by congressional action to clarify the intersecting scope of the Clean Water Act and FIFRA. Legislation intended to do so by codifying EPA's policy in law was introduced in the 109<sup>th</sup> Congress, but it was not enacted. Legislation to reverse the policy was not introduced. Whether these issues will receive attention in the 110<sup>th</sup> Congress is unclear for now.

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

## 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.”<sup>1</sup> This potential is receiving attention today in connection with implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)<sup>2</sup> and the Federal Water Pollution Control Act (Clean Water Act, CWA).<sup>3</sup> 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. 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, the U.S. Geological Survey sampling found that most contamination of waterbodies occurred as pesticide mixtures.<sup>4</sup>

For the more than 30 years since Congress enacted FIFRA and the Clean Water Act, there has been little apparent direct conflict between them. EPA’s operating principle during that time has been that pesticides used according to the requirements

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<sup>1</sup> 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.

<sup>2</sup> 7 U.S.C. §§136-136y.

<sup>3</sup> 33 U.S.C. §§1251-1387.

<sup>4</sup> 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.

of FIFRA do not require regulatory consideration under the CWA. EPA has never required CWA permits for use of FIFRA-approved materials, and EPA rules currently do 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 could add a third testing of the issues.

At issue is how FIFRA-approved pesticides that are sprayed over and 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 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 has 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. 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 final rule are discussed, as well as possible options for EPA and Congress to further address the FIFRA-CWA issues.

## **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 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) or for general use. 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 2006, 45 states had 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. So far, 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, while not yet holding that a permit is not required, appears to some observers to be less willing to interpret the CWA to require NPDES permits for application of FIFRA-regulated chemicals.<sup>5</sup> Thus far, this appeals court has remanded two cases to district courts for further proceedings involving related issues; it has not yet specifically addressed whether the application of FIFRA-approved pesticides requires a CWA discharge permit, as the Ninth Circuit has.

**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.

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<sup>5</sup> 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. 10055.



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."<sup>6</sup> 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 (*Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526 (9<sup>th</sup> Cir. 2001)).

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 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 not issued permits for these types of activities.

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

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<sup>6</sup> In view of the Supreme Court's June 2006 decision in *Rapanos v. United States* (126 S. Ct. 2008), 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 Is Revisited by the Supreme Court: Rapanos v. United States*, by Robert Meltz and Claudia Copeland.

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.<sup>7</sup>

The third and most recent 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 (*Fairhurst v. Hager*, 422 F.3d 1146 (9<sup>th</sup> Cir. 2005)). 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” (id. 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 involve the use of pesticides for mosquito control. In the first case, several residents of the Town of Amherst, N.Y., 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 (*Altman v. Town of Amherst, N.Y.*, 47 Fed. Appx. 62 (2d Cir. 2002)). 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

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<sup>7</sup> 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.

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.<sup>8</sup>

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. While the federal district court ruled that FIFRA's refusal to allow enforcement by citizen suit should prevail over the CWA's allowance of such suits unless the alleged violation of the CWA also constitutes a substantial violation of FIFRA, the appeals court disagreed. It held that the CWA authorizes any citizen to bring suit to enforce its requirements, regardless of whether the claimed CWA violation also violated FIFRA (*No Spray Coalition v. City of New York*, 351 F.3d 602 (2d Cir. 2003)). The Second Circuit remanded the case to the district court for further proceedings on the CWA claims. In June 2005 the district court rejected summary judgment motions by the parties, saying that disputed issues of material fact exist as to whether the city has discharged a pollutant into navigable waters without a permit (2005 Westlaw 1354041).

**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 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 (*Gem County Mosquito Abatement District v. EPA*, 398 F. Supp. 2d 1 (D.D.C. 2005)). The citizen suit litigation in federal court in Idaho is continuing.

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

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<sup>8</sup> 47 Fed. Appx. at 67.

types of operations. Two actions, in August 2004 and March 2005, were threatened 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

The rulings by the Ninth Circuit in the *Headwaters* 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 mosquitos 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 has 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.

**EPA's 2003 Interim Guidance.** Since the *Altman v. Town of Amherst* ruling in 2002, industry, states, and others, including some in Congress, have pressed EPA to clarify the emerging conflicts over the two laws. EPA responded in July 2003 with an Interim Statement and Guidance memorandum.<sup>9</sup> In it, EPA presented its interpretation of whether an NPDES permit is required for the application of pesticides that comply with FIFRA. EPA's position was that application of pesticides either directly in U.S. waters or aerially above or near the waters to control pests does not require a CWA permit, so long as the use is done in compliance with relevant FIFRA requirements. The memorandum acknowledged the federal court's holding to the contrary in the *Headwaters v. Talent* case, but then described why EPA concludes otherwise. Under the agency's evaluation, 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 is that it is consistent with over 30 years of CWA administration.<sup>10</sup> The memorandum noted 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. EPA invited public comments on the interim guidance statement through

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<sup>9</sup> U.S. Environmental Protection Agency, "Interim Statement and Guidance on Application of Pesticides to Waters of the United States in Compliance with FIFRA," 68 *Federal Register* 48385, August 13, 2003.

<sup>10</sup> *Ibid.*, p. 48387.

October 14, 2003, but the position stated in the memorandum took effect immediately and would apply until EPA issues a final position on the matter.

The Interim Statement addressed in detail the question of whether, in EPA's view, pesticides are pollutants, within the meaning of CWA Section 502(6), since the discharge of pollutants is regulated under the act. In the memorandum, EPA argued that chemical pesticides are not wastes, and therefore are not pollutants, because they are "EPA-evaluated products designed, purchased and applied to perform their intended purpose of controlling target organisms in the environment."<sup>11</sup> Neither does EPA believe that biological pesticides (e.g., products derived from plants, fungi, bacteria, or other non-man-made synthesis and which can be used for pest control that usually do not have toxic effects on animals and people, compared with many chemical pesticides) are pollutants. Both chemical and biological pesticides are intended to perform essentially similar functions, and it would be "nonsensical" to treat chemical and biological pesticides differently.<sup>12</sup>

**Responses to the 2003 Interim Guidance.** The 2003 guidance was issued in part to clarify the agency's interpretations of legal rulings on the issue and to remove any uncertainty regarding application of herbicides and pesticides to combat vector-borne diseases that are transported by mosquitoes. However, EPA's guidance satisfied few stakeholders, for differing reasons.

Environmental activists strongly objected to EPA's position, which they argue is contrary to the recent 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, as 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 is 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

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<sup>11</sup> Ibid., p. 48388.

<sup>12</sup> Ibid.

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.

Additionally, activists said, FIFRA has no provisions for publicly accessible compliance information and no means of citizen enforcement in case of violations, as does the CWA. FIFRA essentially assumes users' compliance with restrictions on a pesticide's label.

Industry welcomed the thrust of the 2003 Interim Statement 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 proposed rule, 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 of these commenters 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.

**Final Guidance and Proposed Rulemaking.** In January 2005, 18 months after issuing the Interim Guidance memorandum and considering public comments on it, EPA issued final guidance in the form of an Interpretive Statement and Guidance and simultaneously proposed a formal rulemaking to codify the substance of the guidance in CWA regulations.<sup>13</sup>

The 2005 Interpretive Statement closely mirrored the 2003 Interim Statement and Guidance. EPA modified the 2003 guidance in several minor ways, such as clarifying that compliance with “relevant requirements under FIFRA” refers to requirements relevant to protection of water quality and clarifying that the exclusion

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<sup>13</sup> 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.

from permit requirements applies to control of pests on or above U.S. waters and pests near water, as well. The final Interpretive Statement did not endorse the expansion sought by some to clarify that CWA permits also are not required for pesticide applications to land and crops that may drift to nearby waterbodies.

Press reports indicated that EPA termed the final policy an “interpretive statement” rather than “guidance” in an effort to get more deference from the courts when agency policies face legal challenge. EPA also hoped that, because the agency solicited public comments on the 2003 Interim Statement, courts would give deference to the final policy.<sup>14</sup>

In public comments on the 2003 interim guidance, a number of critics argued that EPA’s interpretation of the two laws represented a reversal of positions the agency had taken in the *Forsgren* case when it supported environmentalists’ appeal of the district court’s original ruling, as well as its position in *amicus curiae* briefs in other litigation. In its *amicus* brief in *Forsgren*, EPA stated that the regulatory review required by each of the statutes is different and considers different factors and that FIFRA does not take into account all factors needed to judge whether a particular pesticide discharge should be permitted under the CWA. Responding to those points, the EPA General Counsel issued a memorandum in January 2005 to explain some of those prior statements. The memorandum acknowledged that there could seemingly be inconsistencies in previous government positions but argued that, on detailed examination, differences are based on the specific facts of the litigation, not the general policies now being addressed. Moreover, in the current context, the Interpretive Statement fully reflects “the exercise of the Agency’s legal and policy judgment after considering public comments” and “the evolution in the Agency’s thinking in certain respects since the brief was filed in that case.”<sup>15</sup>

**Rulemaking Proposal.** Simultaneously with issuance of the Interpretive Statement and Guidance in January 2005, EPA also proposed a rulemaking to codify the Interpretive Statement. The proposed rule would modify EPA regulations (40 CFR §122.3) to specify that NPDES permits are not required for the application of pesticides to U.S. waters consistent with all relevant requirements under FIFRA in order to control pests that are present over waters of the United States, including near such waters, that results in a portion of the pesticides being deposited to U.S. waters. EPA rules previously had not addressed the relationship of the two laws on this issue.

The CWA allows states to adopt water quality policies and rules more stringent than EPA requires. As noted above, some stakeholders feared that, so long as EPA’s policy was articulated just as guidance, states could choose to require CWA permits for pesticide application. Thus, one rationale for formalizing the EPA policy in a rule was presumably to restrict that possibility. In the 2005 Interpretive Statement, the agency said that, under this interpretation, “a pesticide applicator is assured that

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<sup>14</sup> Susan Bruninga, “Discharge Permit Not Needed for Application of Pesticides, EPA Proposed Rule, Policy Say,” *Daily Environment Report*, January 27, 2005, p. A-9.

<sup>15</sup> Ann R. Klee, EPA General Counsel, “Analysis of Previous Federal Government Statements on Application of Pesticides to Waters of the United States in Compliance with FIFRA,” Memorandum, January 24, 2005, pp. 1-2.

complying with relevant requirements under FIFRA will mean that the activity is not also subject to the distinct NPDES permitting requirements of the CWA.”<sup>16</sup> However, EPA also noted that the policy does not preclude states from further limiting the use of a particular pesticide in order to address local water quality concerns. Some may see these two statements as being somewhat inconsistent.

**Final Rule.** The 2005 guidance and proposed rule allowed a second opportunity for the public to comment on EPA’s policy. After reviewing those comments, EPA promulgated a final rule in November 2006 to formalize its interpretation of the CWA-FIFRA issues.<sup>17</sup> The final rule, which became effective January 26, 2007, substantially tracked the 2005 proposal to revise the NPDES program rules to add 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.

EPA modified the 2005 proposal only to clarify the types of pesticide applications covered in the second circumstance to be those where the pesticide necessarily must enter the water to achieve its intended purpose. For example, “mosquito adulticide applications can result in some pesticide product entering the water because adult mosquitoes generally live over and adjacent to waterbodies.”<sup>18</sup>

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, above). 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.<sup>19</sup> The agency also responded to some public comments on the proposal that had criticized the adequacy of the FIFRA registration process for consideration of water quality, local conditions, etc. EPA said that the “regulatory and non-regulatory tools under FIFRA provide means of

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<sup>16</sup> 70 *Federal Register* 5100.

<sup>17</sup> 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.

<sup>18</sup> *Id.* at 68486.

<sup>19</sup> *Id.* at 68487.



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.<sup>20</sup>

The rule prompted multiple lawsuits brought by industry and environmental groups in almost every judicial circuit nationwide. In January, the litigation was consolidated into *National Cotton Council, et al., v. EPA* (CA 6, Civil No. 06-4630). Industry’s challenge seeks 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 claims that, by eliminating permit requirements for certain types of aerial spraying and other direction applications of pesticides to the nation’s waters, the rule ignores EPA’s duties under the Clean Water Act.

## Congressional Interest and Future Options

Congressional interest in these issues became apparent after the first federal appeals court ruling in one of the key FIFRA-CWA cases, the 2001 *Headwaters v. Talent* ruling. Two congressional hearings held since then 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. A hearing also was held on legislation introduced in the 109<sup>th</sup> Congress to clarify the scope of the CWA regarding the use of FIFRA-approved pesticides, fire retardants, and biological control organisms.

In October 2002, a House Transportation and Infrastructure subcommittee held a fact-finding hearing on the issues.<sup>21</sup> 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.

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<sup>20</sup> Id. at 68488-68489.

<sup>21</sup> 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, 107<sup>th</sup> Congress, 2d Session, unpublished.

A hearing held by a House Government Reform subcommittee in October 2004 examined challenges to controlling West Nile Virus.<sup>22</sup> The hearing was an 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 made these same points in the January 2005 Interpretive Statement, as noted above. 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 108<sup>th</sup> Congress, Senate appropriators included language in their report on EPA's FY2005 budget 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.<sup>23</sup>

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.<sup>24</sup>

**Options for EPA and Congress.** As described above, in November 2006, EPA issued a final rule, consistent with its long-standing view, amending CWA regulations to specify two circumstances in which pesticides applied to waters of the United States, consistent with all relevant requirements of FIFRA, do not require NPDES permits. Judicial challenges to the rule can be anticipated and would presumably address many issues previously addressed by the courts in litigation discussed in this report.

EPA has additional administrative options, as well, beyond its actions to date. In the final rule, EPA declined to address the issue of pesticide drift, although many stakeholders had urged the agency to do so. The Federal Register Notice accompanying the rule noted that EPA is awaiting advice from a workgroup of its

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<sup>22</sup> 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, 108<sup>th</sup> Congress, 2d Session (Serial No. 108-274), 182 p.

<sup>23</sup> 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, 108<sup>th</sup> Cong., 2d sess., pp. 110-111.

<sup>24</sup> Materials included in the EPA docket, No. OW-2003-0063, including submissions by Members of Congress, can be found at [<http://www.regulations.gov>].

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. In April 2007, 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.<sup>25</sup>

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 review could be changes to implementation of FIFRA in order to address some of these concerns.

Congress has several options, too, beginning with conducting further oversight of the issues. Another option could involve legislation to revise the CWA and or FIFRA, and some have urged EPA to ask Congress to legislate a resolution of these possible conflicts. Many environmental activists, however, would favor clarifying that permits *are* required, since they believe that EPA's approach in the previous guidance and now in the final rule is unlawful.

Alternatively, Congress could enact legislation to clarify that permits are not required for some or all pesticide spraying activity, as favored by members of the pesticide application industry and others, since many of these stakeholders believe that the earlier EPA guidance and possibly even the November 2006 rule do not provide adequate protection from citizen suits. Legislation intended to do so was introduced in the 109<sup>th</sup> 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 final rule addresses 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 109<sup>th</sup> Congress, in addition to codifying these policies, also addressed other, broader circumstances that EPA so far has declined to include in its regulations: applications

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<sup>25</sup> For information, see [<http://www.epa.gov/pesticides/ppdc/>].

over land areas that may drift over and into waters of the United States, broad exemption of activities for preventing or controlling plant pests or noxious weeds, and use of fire retardants.<sup>26</sup>

In September 2005, a House Transportation and Infrastructure subcommittee held a hearing on H.R. 1749.<sup>27</sup> 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 would reduce current uncertainty about the relationship between FIFRA and the CWA. The legislation similarly would clarify the interaction between the two laws, this witness said, noting the other types of uses addressed in the legislation but not in the rulemaking, such as spray drift. The EPA official did not expressly endorse the legislation, but he said that EPA appreciates congressional efforts to reduce potential confusion over these issues. There was no further action on either H.R. 1749 or S. 1269. Legislation that would reverse EPA's policy and affirm that CWA permits are required for pesticide applications that impact the nation's waters was not introduced.

Many environmental advocates believe 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. What is needed, in their view, is for EPA to revise its interpretation of the laws in accordance with judicial rulings. At the same time, many who would favor legislation supporting a narrow view of the CWA's jurisdiction on this issue acknowledge that any legislative effort would be controversial and could be seen as representing not clarification but, rather, an environmental rollback. Whether these issues will receive attention in the 110<sup>th</sup> Congress is unclear.

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<sup>26</sup> Reflecting a different approach, Rep. Goodlatte introduced a bill in the 107<sup>th</sup> Congress, H.R. 5329, that proposed amending FIFRA to expand the definition of what constitutes a "public health" pesticide in an effort to ease industry's ability to register pesticides for use in combating mosquito-borne illnesses.

<sup>27</sup> 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,'" 109<sup>th</sup> Cong., 1<sup>st</sup> sess., September 29, 2005 (109-33), 110 pp.