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TO: Tom Howard
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FROM: /s/
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DATE: September 29, 2005

SUBJECT: REGULATION OF AQUATIC PESTICIDES FOLLOWING THE NINTH
CIRCUIT DECISION IN *FAIRHURST V. HAGENER*

ISSUE

Under what circumstances are national pollutant discharge elimination system (NPDES) permits required for application of aquatic pesticides, in light of the most recent decision of the Ninth Circuit Court of Appeals (Ninth Circuit) on the issue?

CONCLUSION

The most recent decision by the Ninth Circuit makes the decision whether an NPDES permit is required dependent on which pesticide is applied and, possibly, the specific conditions under which it is applied. The court held that an NPDES permit is not required where a pesticide is applied intentionally, in accordance with label instructions, and there is no residue or unintended effect. But where a pesticide is applied in accordance with a Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) label, but the pesticide remains in the water following its intentional and beneficial function, an NPDES permit is required.

DISCUSSION

In the last several years, there have been several federal courts of appeals decisions, including three from the Ninth Circuit, and several guidance documents from the United States Environmental Protection Agency (US EPA), concerning whether a person who applies aquatic pesticides must obtain an NPDES permit. In prior memoranda,¹ this office advised that it

¹ See memoranda from Craig M. Wilson to Celeste Cantú and State Water Resources Control Board (State Water Board) members, dated April 8, 2002, and from Elizabeth M. Jennings to Tom Howard, dated July 25, 2003.

appeared that dischargers of aquatic pesticides were required to obtain coverage under NPDES permits. In light of the most recent decision of the Ninth Circuit, a smaller subset of those dischargers may need to obtain permit coverage.

In 2001, the Ninth Circuit issued *Headwaters, Inc. v. Talent Irrigation* (9th Cir. 2001) 243 F.3d 526. The case involved an irrigation district applying a weed control pesticide, Magnacide H (Acrolein), intending to kill the weeds in a closed irrigation canal system. The pesticide leaked through a gate and caused a large fish kill in a downstream creek. Application of Magnacide H was registered under FIFRA, but the district had not followed the FIFRA label instructions. The court determined that FIFRA did not preempt the federal Clean Water Act (CWA) and that the residual pesticide that remains in the water after its application constitutes a “pollutant.” (The CWA requires NPDES permits for discharge of a pollutant from a point source to waters of the United States. The court in *Headwaters* discussed each of these terms. The only issue relevant to this memorandum is whether the pesticide constitutes a “pollutant.”)

Following the *Headwaters* decision, US EPA issued several memoranda, some stating that enforcement of the court’s requirements was a low priority and some concluding that it was not necessary to obtain NPDES permit coverage before applying aquatic pesticides consistent with FIFRA label instructions.² In November 2002, the Ninth Circuit issued another decision regarding the need for an NPDES permit before applying pesticides. (*League of Wilderness Defenders v. Forsgren* (9th Cir. 11/4/02) 309 F.3d 1181.) That case involved aerial application of pesticides for silvicultural pest control. The court held that the pesticides were pollutants and an NPDES permit was required. On July 11, 2003, US EPA issued interim guidance³ that concluded that, so long as FIFRA label instructions are followed, there is no requirement to obtain an NPDES permit before applying any pesticide. The rationale was that pesticides applied consistent with FIFRA are not pollutants because they are “products” and not “chemical wastes.”

In *Fairhurst v. Hagen* (9th Cir. 2005) ___ F.3d ___, the Ninth Circuit had occasion to address whether US EPA’s guidance was consistent with the court’s prior rulings, and specifically whether pesticides discharged to water constitute “chemical wastes,” and thereby are “pollutants” requiring an NPDES permit. The court agreed with US EPA’s guidance regarding whether a pesticide that is applied consistent with FIFRA is a “chemical waste,” but it also stated that it was not changing its holding in *Headwaters* that regulation under FIFRA does not preclude the need for an NPDES permit. The significant factual issue for the court was whether

² These memoranda, issued in 2001, 2002, and 2003, are discussed in detail in prior memoranda from this office.

³ Available at http://www.epa.gov/npdes/pubs/pesticide_interim_guidance.pdf. In February 2005, US EPA issued a final interpretive statement and a notice of proposed rulemaking. (70 Fed. Reg. 5093 (Feb. 1, 2005).) These are substantially identical to the interim guidance.

there is any “residue or unintended effect” from the pesticide. In *Fairhurst*, the court found neither residue nor unintended effect, and therefore no need for an NPDES permit.

The facts in the *Fairhurst* case were that the Montana Department of Fish, Wildlife & Parks (Department) sought to re-introduce a threatened species of trout by killing non-native fish in a creek. The Department used a pesticide that is intended to kill unwanted fish.⁴ The parties to the case stipulated that the Department followed the FIFRA label instructions and that it killed the intended non-native trout. The court also found that there was no assertion that residual chemicals were left in the water after the intended use (i.e. killing the non-native fish) and that the antimycin dissipated “rapidly” and “left no residue.” The court agreed with the conclusion in the US EPA guidance that pesticides are not “chemical wastes” when they are applied consistent with FIFRA and for their intended purpose. In comparing its holding in *Headwaters*, the court concluded that the difference between the two cases was whether the pesticide “is intentionally applied to the water and leaves no excess portions after performing its intended purpose.” The factual difference, according to the court, was that in the former case, the Magnacide H “was not a pesticide serving a beneficial purpose and intentionally applied to the water, but was a chemical that remained in the water after the Magnacide H performed its intended, beneficial function.”⁵

Application of the court’s rules set forth in *Headwaters* and modified in *Fairhurst* is neither simple nor straightforward. For example, if a pesticide kills or adversely affects non-target species, but those effects were anticipated, do these effects render it a “chemical waste” (pollutant) or a product? Also, how much time may occur for the dissipation to be termed “rapid” and therefore the conclusions that no residual chemicals remain and no pollutant has been discharged. In *Fairhurst*, the plaintiff did not assert that residual chemicals were left in the water after the intended use and the court concluded that the Antimycin dissipated “rapidly” and “left no residue.” In a recent federal district court case in California, challenging DFG’s application of Rotenone to kill non-native trout, the plaintiffs claimed that macro-invertebrates would also be killed.⁶ These two chemicals have the same purpose—to kill unwanted fish. From information obtained by technical staff, both can be toxic to invertebrates. Also, the court addressed the rapid dispersal of antimycin, but Magnacide H (the chemical addressed in *Headwaters*) disperses in a matter of hours. The court in *Headwaters* stated that its conclusion was not limited to the facts before it—where the label instructions were not followed and a fish kill resulted—and repeated in *Fairhurst* that following label instructions does not create an

⁴ The pesticide is Antimycin. It is registered under FIFRA, but the California Department of Pesticide Regulation (DPR) has not registered it for use in California, apparently because of its toxicity to humans. It was used for the same manner that the California Department of Fish and Game (DFG) uses Rotenone.

⁵ Of course, the Magnacide H was intentionally added to the water to kill weeds. The court is apparently referring to its continuing effects, including the fish kill.

⁶ *Coalition for Alternatives to Toxics v. United States Forest Service*.

exemption from NPDES requirements. Nonetheless, the major factual difference between the two cases is whether label instructions were followed. Killing fish was the intended result in *Fairhurst*, but the court did not appear to question whether other organisms might also have been affected. Neither did it specify the amount of time that the chemical might be present in water before the pesticide becomes a “chemical waste” and a pollutant.

At this time, US EPA is considering promulgating a regulation that would clarify that NPDES permits are not required for pesticide applications so long as the discharger follows FIFRA label instructions.⁷ If this regulation is promulgated, there will be no permit requirement, and violation of FIFRA requirements could also expose the discharger to penalties under the CWA and California Water Code.⁸ Pending promulgation of this regulation, the Ninth Circuit court decisions apply in California. While the court’s decisions leave some questions unanswered, the following appear to be the current legal requirements:

1. A pesticide applied intentionally, in accordance with a FIFRA label, and with no residue nor unintended effect, does not require an NPDES permit.
2. A pesticide that is applied in accordance with a FIFRA label, but which remains in the water following its intentional and beneficial function, does require an NPDES permit.

Technical staff at the State Water Board have reviewed each of the aquatic pesticides currently regulated under its various aquatic pesticide permits.⁹ Staff also reviewed the chemical applied in the *Fairhurst* case. A matrix describing these various pesticides, their toxicity, environmental degradation, and residual effects is attached. It is difficult to draw any clear conclusions from this information, and to apply these to the court’s rulings. In a few cases, it is fairly clear that a permit is necessary. For copper sulfate pentahydrate, a weed killer, the main ingredient is copper and copper is strongly bioaccumulated and can persist for months after application. Several of the pesticides—including Magnacide H—dissipate within hours. But this is the pesticide for which the court specifically determined a permit is necessary. In a few cases, it seems clear a permit is not required. One of the vector pesticides—bacillus sphaericus—showed no toxicity to non-target organisms. Most of the pesticides, however, do have some toxicity for fish and invertebrates and some residue.

In summary, at this point, it cannot conclusively be stated when permits are required for aquatic pesticides, and even whether the answer might depend on the circumstances of the use. I

⁷ 70 Fed.Reg. 5093-5100 (Feb. 1, 2005).

⁸ Since any NPDES permit would, of course, require compliance with label instructions, there would be no permit coverage available for applications that violate those instructions.

⁹ The State Water Board has adopted statewide NPDES permits for weed control pesticides and for vector control pesticides. It has also adopted a rotenone permit for a single DFG project.

recommend that we provide a statement of the court's legal requirements, as summarized above. We should also provide the matrix prepared by technical staff, along with links to other information publicly available about these pesticides. Dischargers who believe that they no longer need coverage under the permits should be allowed to withdraw from coverage. Dischargers who wish to retain coverage should be allowed to do so. It should be made clear that any pesticide application must, at a minimum, comply with all requirements of FIFRA and DPR. Also, dischargers who decide against NPDES permit coverage could risk liability under the CWA if it were determined by a court that the pesticide remains in the water following its intentional and beneficial function.

Attachment