

## Rationale for Proposed Amendments to the Hawaii Administrative Rule, Chapter 11-54, Water Quality Standards

### **History**

Hawaii's administrative rule for water quality standards (WQS) dates back to January 1968, when Chapter 37-A, Public Health Regulations first became effective. These regulations were authorized under the federal Water Quality Act of 1965. The first amendment to these regulations became effective in May 1974 following the amendments to the Water Quality Act which gave rise to the 1972 Federal Water Pollution Control Act, commonly known as the Clean Water Act. Much of the existing content of Hawaii's WQS rule is based on the 1968 and the 1974 WQS rules. Subsequent amendments to Hawaii's WQS were adopted in 1979 to satisfy the CWA Section 208 Basin Plan requirements. Later amendments (September 1992) incorporated the National Pollutant Discharge Elimination System (NPDES) permit program, the CWA 401 Water Quality Certifications (April 1988), which in some cases accompany the Department of the Army's CWA 404 permit for constructions in waters of the U.S., and site specific amendments for the Kona (west) coast of the island of Hawaii. Some phrases and terms from the first Federal Water Pollution Control Act of 1948 have been retained in the existing Clean Water Act and existing WQS rule for Hawaii; for example the current designated uses have remained basically unchanged since 1948.

Section 301(a) of the Clean Water Act prohibits the discharge of any pollutant into waters of the U.S. unless the discharge is in compliance with other provisions of the Act. The Act defines the "discharge of a pollutant" as (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." A "point source" is defined as any "discernible, confined and discrete conveyance" but does not include "agricultural stormwater discharges and return flows from irrigated agriculture." "Pollutant" includes among other things, "sewage, garbage... chemical wastes, biological material... industrial, municipal and agricultural waste discharged into water".

Section 402 of the Clean Water Act provides a mechanism by which a person may discharge a pollutant without violating section 301 of the Act. A person may obtain authorization to discharge under the NPDES. Under section 402, EPA or an authorized state may issue a permit which defines the conditions under which a pollutant or combination of pollutants may be discharged. Two types of permits may be issued under the NPDES: individual and general. Individual permits are issued to individual dischargers and contain conditions specific to that discharger. Individual permit conditions are determined at the time of application based on the information provided by the applicant. General permits cover multiple dischargers within a specific category and the conditions are developed and issued in advance. Dischargers obtain general permit coverage through the submission of a Notice of Intent (NOI). Both permit types are subject to public comment and are applicable for a specific time period (not to exceed 5 years).

Historically, the EPA has never issued or required authorized states to issue NPDES permits for the application of pesticides to target a pest that is present in, over or near the water where such applications results in the discharge to waters of the U.S. Regulation of pesticide discharge has instead relied on the statutory framework of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) by which EPA regulates the sale, distribution and use of pesticides. Under FIFRA all new pesticides must undergo a registration process whereby the manufacturer must provide specific data from tests performed under EPA guidelines. EPA then assesses a variety of potential human health and environmental effects associated with the use of the product. Under FIFRA, EPA is required to consider the effects of pesticides on the environment by determining, among other things, whether a pesticide “will perform its intended function without unreasonable adverse effects on the environment,” and whether “when used in accordance with widespread and commonly recognized practice [the pesticide] will not generally cause unreasonable adverse effects on the environment.” 7 U.S.C. 136a(c)(5). When EPA approves the use of a pesticide for a particular use, the Agency imposes restrictions through labeling requirements governing such use. The products are evaluated for potential limitations in their labeling through toxicity testing and studying their fate in the environment. When used in conformance with FIFRA labeling directions, EPA has determined that pesticides will not pose unreasonable risks to human health and the environment. It is illegal under Section 12(a)(2)(G) of FIFRA to use a registered pesticide in a manner inconsistent with its labeling. States have primary authority under FIFRA to enforce “use” violations, but both the States and EPA have ample authority to prosecute pesticide misuse when it occurs.

Pesticides that were approved specifically for use in waterways were presumably evaluated for this purpose therefore EPA has not required an NPDES permit for the use of these products. Permit coverage is required however for pesticides that enter waters through other pathways such as storm water runoff, industrial wastewater (including discharges from the manufacturing process) and pesticide disposal.

Various court cases in recent years have raised the issue of whether the application of a pesticide in accordance with its EPA-approved label may require NPDES permit coverage under the CWA when the use results in pesticides being introduced into waters of the U.S. These cases resulted in some confusion among the regulated community and other affected citizens regarding the applicability of the CWA to pesticides applied to waters of the U.S. In response to these cases, EPA issued several guidance documents over the years in attempt to reconcile the requirements of the CWA and FIFRA. EPA issued a final rule on November 27, 2006 clarifying specific instances in which NPDES permit coverage was not required when applying pesticides to or around water, as long as the application conformed to the relevant portions of FIFRA regulations. They were: (1) the application of pesticide directly to water to control pests and (2) the application of pesticide to control pests over or near water where its entry into the water is unavoidable.

On January 9, 2009, the Sixth Circuit Court vacated EPA’s 2006 NPDES Pesticides Rule. The court held that pesticides (biological pesticides and chemical pesticides with residuals) are considered “pollutants” under the CWA and therefore a NPDES permit is

required for all such point source discharges. Chemical pesticides that leave no excess portion (residual) are not considered “pollutants” under this ruling; however, biological pesticides are always considered a pollutant under the CWA regardless of whether the application results in residuals or not and require NPDES permit coverage for all discharges from a point source. With certain exceptions, a NPDES permit is required to “discharge” a “pollutant” from a “point source” to “waters of the United States” – all of these terms are defined under the CWA. As a result of this decision, all point source discharges into waters of the U.S. of biological pesticides or chemical pesticides that leave a residue will require NPDES permit coverage.

On April 9, 2009 EPA requested a two year stay of the mandate to allow the Agency time to develop permit rules, to assist NPDES-authorized states to develop their NPDES permits, and to provide outreach and education to the regulated community. On June 8, 2009 the Sixth Circuit granted EPA a two-year stay and EPA was given until April 9, 2011 to develop and implement its final rules, after which, NPDES permits will be required for discharges to waters of the U.S. of biological pesticides, and of chemical pesticides that leave a residue.

On November 2, 2009, industry petitioners of the Sixth Circuit Case petitioned the Supreme Court to review the Sixth Circuit’s decision. On February 22, 2010, the Supreme Court denied the request to hear industry’s petition, leaving the April 2011 effective date unchanged.

On June 4, 2010, EPA published in the Federal Register the availability of a draft NPDES pesticide general permit (PGP) for point source discharges from the application of pesticides to waters of the U.S. The Agency sought public comments until July 19, 2010. This draft PGP covers specific areas in the country for which EPA has NPDES permitting authority. States that are authorized to issue NPDES permits are not covered by EPA’s permit and therefore are required to develop their own permits to cover such discharges.

On March 3, 2011, EPA requested a deadline extension to allow more time for pesticide operators to obtain permits for pesticide discharges into waters of the U.S. On March 28, 2011, the Sixth Circuit Court of Appeals granted EPA’s request for an extension. The court’s decision extends the deadline for when permits will be required from April 9, 2011 to October 31, 2011. This extension request allowed EPA sufficient time to engage in Endangered Species consultation and complete an electronic database to streamline requests for coverage under the PGP. This also allowed more time for authorized states to finish developing their state permit and for permitting authorities to provide additional outreach to stakeholders on pesticide permit requirements.

On June 17, 2011, the National Marine Fisheries Service (NMFS) issued its draft Biological Opinion under the authority of Section 7 of the Endangered Species Act (ESA) in response to EPA’s Pesticides General Permit. Under Section 7 of the ESA, federal agencies have an obligation to insure, in consultation with NMFS and the U.S. Fish and Wildlife Services (FWS), that actions authorized, funded or carried out by such agencies are not likely to jeopardize the continued existence of endangered or threatened

species or result in the destruction or adverse modification of critical habitat that has been designated for such species.

On October 31, 2011, the Administrator signed the Final Pesticide General Permit (PGP) for Discharges from the Application of Pesticides, which was published in the Federal Register on November 7, 2011 (Vol. 76, No. 215).

### **Rationale**

EPA's Pesticides General Permit applies to all those areas (states, U.S. territories, Indian Country lands and federal facilities) where EPA is the NPDES permitting authority. States that are authorized to issue NPDES permits for the control of discharges to waters of the U.S. from the application of pesticides are responsible for issuing NPDES permits for pesticide discharges within their respective jurisdiction. Nothing in federal regulations precludes a state from adopting or enforcing requirements that are appropriate to address discharges in their state or are more stringent or more extensive than those required under NPDES regulations.

Hawaii is authorized to issue NPDES permits and therefore will not be covered under EPA's Pesticides General Permit. To ensure that the state and county governments and others have the legal authority to use pesticides in and around waters of the state when necessary to control various pests or to protect public health or the environment, the Hawaii Department of Health must amend the Hawaii Administrative Rules, Title 11, Chapter 54 (HAR 11-54), Water Quality Standards, to allow permitted pesticide application to state waters before Hawaii's Pesticides General Permit may be issued. Hawaii's Pesticides General Permit is included in Appendix M of HAR Title 11, Chapter 55 (HAR 11-55), Water Pollution Control. In order to protect the waters of the state, the amendments to HAR 11-54 will also include certain restrictions on the use of pesticides.

The use of pesticides is an essential component of efforts by State and County governments for the control of mosquito-borne diseases such as West Nile Virus and Dengue fever as well as other mosquito-borne diseases. Pesticides are also used to control other flying insect pests (such as blackflies and biting midges), maintain ditches and reservoirs used for irrigation, and to control some types of animal, weed, and algae considered to be pests in other water bodies and watershed areas. These long standing pesticide uses, which were once solely regulated under FIFRA, has been impacted by the January 2009 Sixth Circuit Court ruling and the proposed amendments to the Water Quality Standards are necessary to ensure that pesticide uses under these circumstances may be continued in compliance with applicable laws. Under this ruling, all biological pesticides and chemical pesticides with residuals are considered "pollutants" and discharges into state waters will require permit coverage as described in Appendix M of Chapter 11-55, Water Pollution Control; however, amendments must be made to the State Water Quality Standards before any pesticide discharges authorized by permit may occur.

Currently, Hawaii's water quality standards prohibit any waste discharge into Class 1 Inland waters and states that certain water bodies (natural freshwater lakes, saline lakes and anchialine pools) be maintained in the natural state through Hawaii's no discharge

policy for these waters. The proposed amendments will allow the Department of Health to authorize NPDES general permit coverage to application of pesticides into these waters if necessary. The proposed amendments in chapter 11-54 are not meant to specify all criteria under which pesticides may be applied to state waters. Specific criteria which all pesticide applicators must follow are described in Appendix M of HAR 11-55, including restrictions to applications made to certain classes of water bodies. The proposed amendments to chapter 11-54 specify the general conditions under which pesticides may be applied to state waters. The pesticide must be registered by the U.S. EPA and licensed by the State Department of Agriculture or other state agency regulating pesticides. This is to ensure that the product has undergone the appropriate EPA-approved registration and testing process and bears a FIFRA label governing its use and handling, and has been approved for use in the state. Certain restrictions on pesticide usage will apply. To qualify for permit coverage, they must be used for the purpose of:

- controlling mosquito and other flying insect pests;
- controlling weed and algae pests;
- controlling animal pests;
- controlling forest canopy pests; or
- protecting public health or the environment.

The proposed amendments will require permit coverage for pesticide applied to state waters. This permit will be in the form of a pesticides general permit (as specified in HAR 11-55 Appendix M), the conditions of which were adopted from the use patterns specified in EPA's Pesticides General Permit. Any other form of pesticide discharge into waters of the state will not be covered by the State's Pesticides General permit. Restrictions on pesticide application will also be made via specific FIFRA labeling instructions. Labeling instructions ensure that the products are used (handled, stored and applied) under conditions that would not pose unreasonable risk to human health or the environment. Labeling instructions also describe the target pest species as well as the allowable areas of application (terrestrial or aquatic). The amendments will also require that the pesticides be applied in a manner such that the state water quality standards are met. The permittee (defined as the "operator" in Appendix M of HAR 11-55) is responsible for complying with the provisions of HAR 11-54 and HAR 11-55, Appendix M as well as all applicable FIFRA labeling instructions.

### **General Features of the Proposed Amendment**

The proposed changes to Chapter 11-54 are necessary for the State to be able to issue a NPDES general permit for the application of pesticides to waters of the state. The proposed changes include definitions of "pest" and "pesticides." These definitions are the same as those found in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and are consistent with those found in Chapter 11-55 (Water Pollution Control) and in HRS 149 (Hawaii Pesticides Law). These definitions will be incorporated into HAR 11-54-4(e). The amendments to HAR 11-54 shown below follow the Ramseyer format. Material to be repealed is bracketed and new material is underscored.

Hawaii's "no discharge" policy for Class 1 Inland waters must be amended to allow permitted pesticide discharge into Class 1 waters if necessary. HAR 11-54-3(b)(1) will be amended as follows:

11-54-3 Classification of water uses.

(b) Inland Waters.

(1) Class 1.

It is the objective of class 1 waters that these waters remain in their natural state as nearly as possible with an absolute minimum of pollution from any human-caused source. To the extent possible, the wilderness character of these areas shall be protected. Waste discharge into these waters is prohibited[.], except as provided in section 11-54-4(e). Any conduct which results in a demonstrable increase in levels of point or nonpoint source contamination in class 1 waters is prohibited.

"Waste" as used in in HAR 11-54, should not be interpreted in its ordinary, contemporary, common meaning as "eliminated or discarded as no longer useful or required after the completion of a process" or "any useless or worthless byproduct of a process or the like; refuse or excess material." Waste is specifically defined in HRS §342-D-1 to include "sewage, industrial and agricultural matter and all other liquid, gaseous, or solid substances, including radioactive substances, whether treated or not, which may pollute or tend to pollute waters of this state."

Because there is no specific definition of "waste" in the CWA, the ordinary, contemporary, common meaning of "waste" was applied by the Sixth Circuit. This may lead to confusion when applying HAR 11-54-3(b)(1). Using the common definition of "waste," a biological pesticide would not necessarily be subject to the waste discharge prohibition in HAR 11-54-3(b)(1); however, when the definition of waste, as defined in HRS §342-D-1, is applied, it becomes clear that chemical pesticides that leave a residue and biological pesticides both fall into the definition of "waste," as they may pollute or tend to pollute state waters. The Sixth Circuit Court decision specifically applies to the *residue* of chemical pesticides and not the chemical pesticides themselves, and all biological pesticides (whether or not they leave a residue). These components are considered "waste" and are therefore are subject to regulation.

11-54-4 Basic Water Quality Criteria:

(e) Pesticide Application.

(1) As used in this section:

"Declared pest emergency situation" means an event defined by a public declaration by the President of the United States, state Governor or county mayor of a pest problem determined to require control through application of a pesticide beginning less than ten days after identification of the need for pest control.

"Pest" means the same thing as defined in the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136 §2.

"Pesticide" means the same thing as defined in the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136 §2.

(2) Pesticide applications may be made to State waters if the pesticide applications are:

(A) Registered by the U.S. Environmental Protection Agency and licensed by the state department of agriculture or other state agency regulating pesticides;

(B) Used for the purpose of controlling mosquito and other flying insect pests; controlling weed and algae pests; controlling animal pests; controlling forest canopy pests; or protecting public health or the environment in a declared pest emergency situation or as determined by the director;

(C) Applied in a manner consistent with the labeling of the pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act;

(D) Applied under permits issued pursuant to HRS Chapter 342D;

(E) Applied in a manner so applicable narrative and numeric state water quality criteria as required in chapter 11-54 are met; and

(F) Serving or would serve the public interest and are consistent with public trust rights in these waters.

This added subsection states the conditions under which pesticides may be applied to state waters. Currently, a permit is required for all pesticides application to state waters. Specific general permit conditions may be found in Appendix M of HAR 11-55. These conditions are based on EPA's pesticides general permit.

The provisions of 11-54-4(e) allow the application of pesticides to all state waters in a declared pest emergency situation. To ensure that the declaration is of a true emergency which would jeopardize public health or the environment, the declaration must be made at the highest level of government. This would help to ensure that actions other than the application of pesticides could be taken or other resources could be made available to mitigate the emergency.

The basic water quality criteria specified in HAR 11-54-4(a)(4) states that all waters shall be free of substances attributable to domestic, industrial or other controllable sources of pollution, including high or low temperature; biocides; pathogenic organisms; toxic, radioactive, corrosive, or other deleterious substances at levels or in combinations sufficient to be toxic or harmful to human, animal, plant, or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water. The state does not intend to circumvent the basic water quality criteria in HAR 11-54-4(a)(4) and so includes the proposed amendment stating that the pesticide must be applied to meet applicable narrative and numeric state water quality standards as required in chapter 11-54, nor does the state wish to prevent the legitimate application of pesticides. The state interprets the requirements of the proposed 11-54-4(e)(2)(E) to mean that all narrative and numeric criteria other than those that specifically apply to pesticide residues must be met. The presence of pesticides, by their very nature, would be inconsistent with some of the provisions of 11-54-4(a)(4); therefore, with respect to pesticide residue and biological pesticides, the criteria stating that all waters shall be free of biocides are deemed to be met when pesticide application conform to the conditions of 11-54-4(e) and all applicable permit conditions. Likewise, the criteria stating that substances toxic to animal, plant or aquatic life do not apply to pests specifically targeted in the pesticide application. All other applicable numeric and narrative criteria will still apply. Under no circumstances

shall a water body contain pesticide residuals in concentrations deemed to be toxic to humans or in concentrations which exceed the human health criteria relating to acute toxicity standards as stated in 11-54-4(b)(2).

Because water bodies designated as class 1 and class AA, as well as no discharge areas, constitute Hawaii's most protected water bodies, special protective provisions are made in HAR 11-54 to ensure that these waters "remain in their natural state as nearly as possible with an absolute minimum of pollution from any human-caused source" Although exceptions are made in the proposed amendment to allow pesticide application in these protected waters, the conditions in 11-54-4(e)(2) are proposed to allow such application only for the purpose of controlling mosquito and other flying insect pests; controlling weed and algae pests; controlling animal pests; controlling forest canopy pests; or protecting public health or the environment in a declared pest emergency situation or as determined by the director, and only when these applications serve the public interest and are consistent with public trust rights in these waters. This paragraph requires that reasonable alternative means to control the target pests be explored prior to pesticide application.

Other references to Hawaii's "no discharge" policy in HAR Chapter 11-54 must also be addressed to allow pesticide application. A provision similar to that of HAR 11-54-3(b) will be added to HAR 11-54-5.2(a) Inland water criteria:

11-54-5.2 Inland water criteria. (a) Criteria for springs and seeps, ditches and flumes, natural freshwater lakes, reservoirs, low wetlands, coastal wetlands, saline lakes, and anchialine pools. Only the basic criteria set forth in section 11-54-4 apply to springs and seeps, ditches and flumes, natural freshwater lakes, reservoirs, low wetlands, coastal wetlands, saline lakes, and anchialine pools. Natural freshwater lakes, saline lakes, and anchialine pools will be maintained in the natural state through Hawaii's "no discharge" policy for these waters. Waste discharge into these waters is prohibited, except as provided in section 11-54-4(e) (see paragraph 11-54-3(b)(1)).

These changes will allow the State to issue NPDES general permits to dischargers of pesticides into state waters without violating Hawaii's Water Quality Standards and will specify the conditions under which those discharges may occur.