

Benton County Mosquito Control District

April 19, 2019

I appreciate the opportunity to comment on the Department of Ecology's (Ecology) Draft Aquatic Mosquito Control General Permit. Thank you for taking the time and effort to review and update the permit in 2019 adding coverage for the incidental deposition of the active ingredient deltamethrin. Your expedition of this process demonstrates a dedication to protecting public health and water quality while promoting the development of new, efficient tools for mosquito reduction.

Benton County Mosquito Control District (BCMCD) has been providing mosquito control services since 1969. We are dedicated to responsibly improving the quality of life and preventing mosquito-related illnesses in our community which covers Finley, Kennewick, Richland, West Richland, Benton City, Prosser, Grandview, Mabton, and the surrounding areas. The District accomplishes this by implementing Integrated Pest Management (IPM) strategies designed to utilize cost-effective control measures to reduce mosquito populations and the diseases they potentially carry, while being environmentally sensitive.

Communication and cooperation with property owners, residents and governmental agencies are critical components in the effort to enhance vector control education. This comment period serves as an opportunity to inform the public of best management practices for mosquito control. As the Legislative and Regulatory Chairwoman for the American Mosquito Control Association, I have an appreciation for the Department of Ecology's NPDES compliance requirements, and most of my comments are geared towards eliminating regulations within the NPDES permit that may be duplicative to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). I believe this will increase efficiency in permit compliance, streamline enforcement actions, and provide clarity to the residents of Washington while upholding water quality standards.

For each section of the Permit or Fact Sheet, I will include the draft language in bold followed by my comments.

S3. DISCHARGE LIMITS

A. Compliance with Standards

1. Ensure that the application of pesticides listed in Special Condition S4.A (Active Ingredients Authorized for Use):

a. Does not cause or contribute to a violation of the Washington State Water Quality Standards (WAC 173-201A) and the human health criteria in the National Toxics Rule (40 Code of Federal Regulation (CFR) 131.45).

b. Complies with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The application of pesticides must not cause a take, as set out in Section 9 of the Act, to an individual of a species listed as threatened or endangered unless that take is exempted under section 10 of the Act by the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration. The list of endangered or threatened species is presented in 50 CFR 17.11(h).



c. Complies with RCW 77.15.120 and 77.15.130 and does not cause a take of a state endangered or protected fish or wildlife, unless take has been authorized by a rule of the commission, a permit issued by the department, or a permit issued pursuant to the federal Endangered Species Act. The list of state endangered wildlife species is presented in WAC 232.12.014. The list of protected (“threatened” and “sensitive”) species is presented in WAC 232-12-011.

Subsection b. should be removed, because subsection c. sufficiently protects state listed species and federal aquatic species in the state of Washington from pesticide applications authorized by this permit.

This is an aquatic use permit for Waters of the State, yet S3. A. 1. b. restricts take of an individual of a species listed as threatened or endangered by the United States Fish and Wildlife Service (USFWS). This would include terrestrial species and is outside the scope of the permit. USFWS did not complete an Endangered Species Act (ESA) consultation or place restrictions on NPDES permittees during issuance of the EPA’s Pesticide General Permit (PGP), therefore I do not believe it is warranted that the Washington state permit include USFWS-listed species.

My concern is that this permit language includes terrestrial species that are not historically regulated under Clean Water Act NPDES permits. For example, if the USFWS lists a species of moth during the 5-year permit period, and a mosquito control Ultra-Low Volume adulticiding application impacts an individual of that listed species, the Department of Ecology would be the enforcement agency due to the proposed permit language. Investigations involving the incidental take of a terrestrial species should be conducted by the Washington State Department of Agriculture and should be regulated under FIFRA and ESA, not the CWA.

Not only does S3. A. 1. c. provide the necessary protections for organisms under the auspices of the Department of Ecology, S3. A. 2. c. states that applicators must comply with the FIFRA label when discharging pesticides. When the pesticides listed in S4. A. are reviewed by the EPA, USFWS and National Marine Fisheries Service (the Services) have an opportunity to consult on the uses of those products, and may add protections as needed. I understand that this process is still being ironed out on a federal level, but FIFRA is the appropriate federal law regulating the registration and use of the pesticides, not the CWA. Removing the language in S3. A. 1. b. will provide necessary clarity for the applicator and the Department of Agriculture in the event of a “take” investigation.

Mosquito control pesticide applications taking place on federal lands in Washington are subject to ESA compliance under Section 7, as actions authorized by a federal agency. Benton County Mosquito Control applies pesticides on federal lands in a listed salmonid habitat. In order to comply with the EPA PGP we worked with the land manager to complete a ESA Section 7 consultation, and it was determined that our activities would not adversely affect threatened or endangered species. The cost of the consultation was roughly \$120,000 and required a considerable amount of time and resources. I ask that Ecology give serious consideration to the capabilities of your Department, mosquito control programs, and the Services before requiring incidental take permits for listed species not directly associated with aquatic pesticide uses and discharges.

S4. Pesticide Use, B. Pesticide Application Requirements, 3. Adulticides:

While I agree that resistance management should be included in IPM plans developed by mosquito control programs, I do not believe the Department of Ecology has provided sufficient justification for placing additional permit restrictions on deltamethrin, malathion, and naled.

Best management practices for mosquito control involves surveillance, monitoring and product rotation in order to avoid pesticide resistance. Pesticide registrants are working diligently to provide new tools and pesticide product formulations to combat resistance. Some of these tools, including DeltaGard (with the active ingredient deltamethrin) are able to achieve adequate control while using less overall pesticide. By making these products less desirable to pesticide end-users, the Department of Ecology is negatively impacting the sale of products that have been duly registered for use in the state of Washington. It is my opinion that this is outside the scope of administering the aquatic pesticide permit. If the goal of Ecology is to promote the advancement of science and encourage new tools to prevent resistance, new chemistries should be promoted, not restricted.

Adding restrictions to specific active ingredients in the Aquatic Use Permit creates a public perception that these tools are increasingly toxic to aquatic organisms, contribute more to the environmental load of pesticides, or that they are to be used as a last resort. Benton County Mosquito Control strives to be a good steward of the environment and promotes judicious use of pesticides to protect our residents from mosquito-related illness and nuisance. I'm very concerned about the potential impact of the language in the draft permit relating to resistance management. I believe all tools registered in Washington should be equally available for use by mosquito control programs, should be used in accordance with each program's IPM plan, and should not require burdensome testing or reporting in the NPDES Annual Reports.

S4. Pesticide Use, B. Pesticide Application Requirements, 3. Adulticides, c. Deltamethrin:

Deltamethrin may only be applied in response to the development of pesticide resistance within a mosquito population. Document the following information in your IPM plan (Special Condition S5) and Annual Report (Special Condition S8.A).

- i. Evidence that indicated that a mosquito population was resistant to pesticides.**
- ii. Steps taken to manage the pesticide-resistant mosquito population.**
- iii. Include the quantity applied, whether aquatic or terrestrial application, the rate or concentration of the application, and the name and EPA registration number for all active ingredients.**

Include this information for:

A. Pesticides you applied that ineffectively managed the pesticide-resistant mosquito population.

B. Pesticides you applied that effectively managed the pesticide-resistant mosquito population.

This provision is not feasible for mosquito control programs. First, the Department of Ecology is now requiring that IPM plans be submitted while applying for the permit. These IPM plans will likely be broad, outlining the steps that will be taken throughout the year to prevent pesticide resistance. Each mosquito season is different, so there is a degree of flexibility built into the IPM plan. Mosquito control programs do not continuously update the written IPM plan throughout the year, or even at the end of the year, so requiring that permittees document the information in this sections is not technically feasible.

If this language remains in the final permit it will expose permittees to frivolous third-party lawsuits claiming permit violations, not because of detriment to waters of the state, but because the plan on file with Ecology and the plan kept in-house at the mosquito control office could quickly be out of synchronization, or may not contain all the information required by the permit.

Second, permittees should not be asked to provide the names and rates of products which were effective or ineffective in managing pesticide-resistant mosquitoes. Annual reports are public records, and the information the Department of Ecology is asking for in this section would not be scientifically valid. It is the duty of the pesticide registrant and the EPA to verify a product's effectiveness, to set the label rates, and to show that the product does not cause unreasonable harm to people or the environment. Asking mosquito control programs to provide evidence of resistance and publically declare that a particular product was ineffective is beyond the scope of the NPDES permit, and could cause unnecessary hardship for the permittee with no added benefit to water quality. The pesticides we use are not big business for our industry associates, but they support the products' continued registrations because they serve an important public health function. I feel that statements made on annual reports claiming a product was ineffective and potentially caused resistance could be misconstrued and could sour the relationship between mosquito control programs and the industry representatives we rely on for control tools, training, and efficacy testing.

Lastly, testing for pesticide resistance in mosquitoes is not a simple task. Conclusive tests would require a considerable amount of resources for permittees. I realize Ecology is not asking for laboratory-style testing of mosquito samples in order to prove resistance, but it is important for Ecology and the public to understand that there are many reasons a pesticide application could fail, including target species, temperature, time of day, air quality, etc. The permit defines pesticide resistance as "adaptation of a pest to a specific pesticide that results in reduced efficacy on the target pest." I would not be comfortable documenting that an application failed due to pesticide resistance on a public record unless I was absolutely certain.

S5. Integrated Pest Management Plan, Required Elements, 6. Mosquito control methods:

Ecology has added the inclusion of FIFRA labels for all products used. Please consider adjusting the language to allow for label changes and new products throughout the 5-year permit cycle. Since permittees will now be required to submit IPM plans with our permit application, the FIFRA labels included in the plan may change year to year or even throughout the season depending on the permittee's pesticide bid results, new information from EPA, or the availability of a product by distributors. Perhaps a better way to word this in the permit would be "labels

must be available upon request,” since applicators would always have current labels on hand due to FIFRA compliance. If Ecology decides to keep this language in the final permit, please provide guidance as to how you would like labels and IPM plans to be updated.

S5. Integrated Pest Management Plan, Required Elements, 7. Pesticide resistance-monitoring:

Consider removing “**Deltamethrin, malathion (larvicide), and temephos may only be applied in response to the development of pesticide resistance and in accordance with Special Condition S4.B.2.b.ii or S4.B.3.c,**” and leaving only the second part of this section: **b. If you implement a pesticide resistance-monitoring program, describe it.** I agree that IPM plans should include a resistance-monitoring program, however I think it is counterintuitive to restrict the use of deltamethrin while trying to prevent pesticide resistance. As far as I can deduce, subsection b. accomplishes the mission of Ecology without causing hardship for the permittee, the public, or the product registrant.

This would be quite a stretch, but since resistance-monitoring would now be part of the permit, could the monitoring requirements in section S5. (above) be confused with the requirements in **S7. A.4 – Monitoring** (below)?

a. Monitoring efforts conducted to satisfy requirements in this permit must comply with WAC 173-226.

b. Sampling and analytical methods used to meet the monitoring requirements in this permit must conform to the latest revision of the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 1366, unless otherwise specified in this permit.

c. All samples must be analyzed by a laboratory registered or accredited in accordance with Chapter 173-50 WAC – Accreditation of Environmental Laboratories.

S6. NOTIFICATION AND POSTING REQUIREMENTS, A. Public Notice, 3. h. The procedure for a person to follow if they want to be added to the “No Spray” list. Include the name and contact information of the person they should contact and the website for the entity that contains information about mosquito control activities.

To the best of my knowledge, mosquito control programs are not required to have a “No Spray” list. We maintain a list of registered chemically-sensitive individuals, organic farms, and apiaries, as required by the Department of Agriculture, but this provision may cause confusion for the public by calling it “No Spray”. For example, at BCMCD, one can request to be added to a list of individuals that will be notified when we will be spraying in their neighborhood, but in some cases, such as aerial spraying, we can not guarantee no exposure to pesticides.

Spraying notifications in this context are a human health related issue that does not seem appropriate for the posting requirements on an aquatic pesticide discharge permit.

S8. Reporting, A. Annual Report, 2. Contents, e. Treatment due to pesticide resistant-mosquito populations in accordance with Special Condition S4.B.2.b.ii or S4.B.3.c.

I respectfully request that this line be removed from the reporting requirements. Mosquito control programs in Washington are interested in developing a method of reporting and testing for resistance with the Washington State Department of Health, but I strongly believe resistance should not be tied to the NPDES Aquatic Use Permit.

Permit Fact Sheet, pg. 26 relating to the active ingredient malathion: The National Marine Fisheries Service (NMFS) completed a biological opinion on the effects of the EPA's malathion re-registration decision to endangered Pacific Salmon in 2008. The NMFS concluded that the EPA re-registration of malathion would jeopardize the existence of 27 endangered populations and adversely modify critical habitat for 25 endangered pacific salmonids.

The Fact Sheet lists Reasonable and Prudent Measures (RPMs) from the 2008 Biological Opinion, but it does not mention that this opinion was remanded on appeal in 2013 and is superseded by the NOAA Fisheries Opinion released in 2017. Without this information, the Fact Sheet creates the impression that the RPMs are currently in place for non-public health applications of malathion.

Thank you again for the ability to provide written comments on the draft permit. I would like to take this opportunity to express my appreciation to the Department of Ecology staff for sustaining a continuous open dialogue with me and my staff each time we have a permit concern. I hope we can continue to work together to promote public health while conserving the natural resources we all enjoy in Washington state.

Sincerely,

A handwritten signature in black ink that reads "Angela Beehler". The signature is written in a cursive, flowing style.

Angela Beehler
District Manager