MEMORANDUM
WATER QUALITY PROGRAM

September 20, 2018

To: Rich Doenges, Section Manager

From: Chris Montague-Breakwell, Watershed Resources Unit Supervisor CM-B

Subject: Recommendation to deny WGHOGA NPDES permit application as impacts of the discharge prohibit Sediment Impact Zone authorization and cannot be addressed via permit conditions.

It is my recommendation that the Department of Ecology (Ecology) deny the Willapa-Grays Harbor Oyster Growers Association (WGHOGA) application for an National Pollutant Discharge Elimination System (NPDES) permit because the proposed discharge will not be consistent with the requirements of the Sediment Management Standards and the NPDES permit cannot be conditioned such to meet the standards of this regulation. As required by WAC 173-220-110, Ecology issued an April 9, 2018 tentative determination to deny the permit. This memo finalizes the staff determination of the WGHOGA application for an NDPES permit, recommending the application be denied.

The WGHOGA applied to Ecology for an individual NPDES permit and sediment impact zone authorizations for Willapa Bay and Grays Harbor to use the pesticide imidacloprid to control burrowing shrimp on commercial clam and oyster beds. Ecology reviewed the applications and completed a Supplemental Environmental Impact Statement (SEIS) pursuant to the Washington State Environmental Policy Act (SEPA). The review of information by Ecology, as detailed in the SEPA documents and attached memorandum from Ecology's Toxics Cleanup Program (TCP), has led to the determination that the proposed discharge would create a sediment impact with an adverse effect on biological organisms above a minor adverse biological effects level within the sediment impact zone. Additionally, the proposed discharge would result in adverse effects outside of the sediment impact zone due to the movement of the pesticide in surface water. The impact of the proposed discharge does not meet the regulatory requirements set out in the Sediment Management Standards necessary for an authorization of the sediment impact zones in Willapa Bay and Grays Harbor. Ecology must issue permits that comply with surface water quality standards of the state of Washington, including Washington Administrative Code (WAC) 173-201A, Water quality standards for surface waters of the state of Washington, WAC 173-204, Sediment management standards, and applicable federal rules. The WGHOGA proposed discharge cannot meet water quality standards and therefore the NPDES and sediment impact zone applications should be denied and no permit issued.

SEPA Environmental Review

In 2014, the WGHOGA applied to Ecology for an NPDES Individual Permit to authorize use of the neonicotinoid pesticide imidacloprid combined with Integrated Pest Management practices to suppress burrowing shrimp populations on up to 1,500 acres per year of commercial shellfish beds in Willapa Bay and up to 500 acres per year of commercial shellfish beds in Grays Harbor (up to 2,000 acres per year, total). Ecology reviewed the potential impacts of the proposed action in a Draft and Final Environmental Impact Statement (EIS) in 2014 and 2015, respectively. The *Final EIS for Proposed Use of Imidacloprid for Burrowing Shrimp Control on Commercial Oyster and Clam Beds in Willapa Bay and Grays Harbor, Washington* (Ecology 2015; hereafter referred to as the 2015 FEIS) was prepared based on scientific studies and information available at that time. Ecology issued a 5-year NPDES individual Permit (WA0039781) on April 16, 2015, with an effective date of May 16, 2015. On May 3, 2015, WGHOGA asked Ecology to withdraw the permit in response to strong public concerns. Ecology cancelled the permit on May 4, 2015. The 2015 permit was cancelled prior to the close of the appeal period and before the permit was active.

On January 8, 2016, WGHOGA, on behalf of a group of about a dozen growers, applied to Ecology for a new permit for the use of imidacloprid to control burrowing shrimp on commercial clam and oyster beds in Willapa Bay and Grays Harbor. The 2016 proposal requested authorization to treat a reduced amount of acreage (up to 500 acres per year, total, in the two estuaries), and the application detailed the use of boats and/or ground equipment to apply liquid and granular pesticide rather than aerial applications from helicopters. The 2016 permit application for the use of imidacloprid, including the revised scope, was evaluated in a supplemental EIS in the context of additional research performed, and additional literature published on the environmental effects of imidacloprid since the 2015 FEIS was issued.

The proposed pesticide application and impacts are described in the 2018 Final Supplemental Environmental Impact Statement (FSEIS). The Literature Review (section 1.6.1) of the FSEIS includes a discussion of the new science that was evaluated during the supplemental EIS process. The review included more than 100 research papers and the federal Environmental Protection Agency (EPA) Preliminary Aquatic Risk Assessment to Support the Registration Review of Imidacloprid. The EPA Risk Assessment proposed acute and chronic chemical concentration risk endpoints for saltwater invertebrates. The FSEIS is available through Ecology at the website: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Aquatic-pesticide-permits/Burrowing-shrimp-control-Imidacloprid.

Regulatory Information

a) National Pollutant Discharge Elimination System Permit

The Federal Clean Water Act (1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act (CWA) is the NPDES, administered by the federal Environmental Protection Agency (EPA). The EPA delegated authority to the state of Washington to manage the NPDES permit program in our state. Our state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to Ecology. The Legislature defined Ecology's authority and obligations for the

wastewater discharge NPDES permit program in Chapter 90.48 Revised Code of Washington (RCW 90.48). Ecology may also issue State Waste Discharge permits under its state Water Pollution Control Act (RCW 90.48) authority for state waters, which includes both surface waters and groundwater. Where appropriate, Ecology issues a combined NPDES/State Waste Discharge permit under both authorities.

The Sediment Management Standards, Parts I-IV, in WAC 173-204, are federally approved water quality standards for the State of Washington.[1]

The discharge of chemicals to waters of the state requires coverage under an NPDES permit. Ecology has issued general and individual NPDES permits for discharges of aquatic pesticides and other chemicals since 2002.

An NPDES permit must include conditions that ensure the discharge will meet established water quality standards. WAC 173-201A-510. The following regulations apply to Individual NPDES permits:

- Procedures Ecology follows for issuing NPDES permits [chapter 173-220 Washington Administrative Code (WAC)].
- Water quality criteria for surface waters (chapter 173-201A WAC) .
- Water quality criteria for ground waters (chapter 173-200 WAC).
- Whole effluent toxicity testing and limits (chapter 173-205 WAC).
- Sediment management standards (chapter 173-204 WAC).
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC).

As described in RCW 90.48.180, Ecology cannot issue a permit if the agency finds the discharge "as proposed in the application will pollute the waters of the state in violation of the public policy declared in RCW 90.48.010." It is the policy of the state of Washington, as set out in RCW 90.48.010, to maintain the highest possible standards to insure the purity of waters of the state consistent with protections such as "protection of wild life, birds, game, fish and other aquatic life . . ." Also, as stated in RCW 90.48.520, "[i]n no event shall the discharge of toxicants be allowed that would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria." Therefore, if a federal wastewater discharge permit cannot be conditioned to have the discharge meet water quality standards, Ecology cannot issue the permit.

b) Sediment Impact Zones Authorization Determination

If the applicable sediment quality standards of WAC 173-204-320 through 173-204-420 (Marine Sediment Quality Standards) will be exceeded due to a proposed discharge, Ecology is required to issue a sediment impact zone consistent with the Sediment Management Standards. A

[1] In 1991, the EPA approved the initial version of the Sediment Management Standards in its entirety under the CWA. EPA also approved revisions to the Sediment Management Standards on September 18, 2008 and again on December 18, 2015. *See* Letter from Daniel D. Opalski, Director, EPA Office of Water and Watersheds to Maia Bellon, Director Department of Ecology (December 18, 2015) (available at https://www.epa.gov/sites/production/files/2017-10/documents/wawqs-letter-12182015.pdf).

sediment impact zone is an area where the permitted discharge can have a temporary impact that exceeds the applicable sediment quality standards, but only up to the minor adverse effects criteria. There are several other requirements that must be met for Ecology to be authorized to establish a sediment impact zone. Requirements for a sediment impact zone (including establishment, maintenance, and closure) must be set out either through a discharge permit or other formal administrative action. Ecology shall only authorize a sediment impact zone if the permit discharge effluent limitations, requirements, and compliance time periods can be conditioned sufficiently to meet the standards of WAC 173-204-400 through 173-204-420. Because Parts III-IV of the Sediment Management Standards are federally recognized water quality standards, any discharge permit issued by Ecology must meet those standards and criteria set out in the Sediment Management Standards.

Recommendation

Ecology's Water Quality Program is the department expert for issuance of NPDES permits, and worked in concert with the Toxic Cleanup Program for guidance related to Sediment Management Standards and sediment impact zone authorization. The memorandum authored by Ecology's Toxics Cleanup Program (dated September 13, 2018) addressed to Southwest Regional Office Water Quality Section Manager, Rich Doenges, explains how a sediment impact zone cannot be authorized for Willapa Bay or Grays Harbor as the proposed discharge will exceed the applicable sediment quality standards, and the requirements for authorization of a sediment impact zone cannot be met. Ecology has reviewed the requirements for a sediment impact zone authorization and determined that it is not possible to condition the individual permit effluent limitations, requirements, or compliance time periods to meet the standards of the Sediment Management Standards. Because Ecology cannot allow the discharge of toxicants that would violate any water quality standard, including sediment criteria and dilution zone criteria, the NPDES permit should not be issued.

For the foregoing reasons, it is my recommendation that the WGHOGA permit application be denied.