

## Jim Steitz

\*\*\*Minimizing competition from native wildlife against an invasive, non-native oyster farming operation is not a legitimate use of an insecticide already shown to have a vast range of non-target damage.\*\*\*

I oppose the spraying of Willapa Bay and Grays Harbor with any quantity of imidacloprid. Although the "no action" alternative is acceptable, the only really effective and protective alternative is restoration of the bays' ecology.

While the SEIS and other studies identify "immediate adverse, unavoidable impacts to juvenile worms, crustaceans, and shellfish in the areas treated with imidacloprid and the nearby areas covered by incoming tides," the SEIS fails to give adequate weight to the "knowledge gaps" it identifies. In some cases, monitoring is proposed as a way of reducing uncertainty. In order to protect the bays, facts need to be established before permitting the use of another toxic chemical in Willapa Bay and Grays Harbor.

Crucially, the SEIS identifies uncertainties regarding the efficacy of imidacloprid for controlling burrowing shrimp. These uncertainties include questions of the extent and duration of the effect of imidacloprid, the lack of a treatment threshold, lack of data regarding resistance, lack of field research regarding clams, and efficacy of treatment in low temperature. Certainly, no use of imidacloprid can be supported without demonstrating efficacy.

The SEIS finds a number of knowledge gaps concerning the direct effects of spraying imidacloprid, including accumulation in sediments, long-term toxic impacts, impacts on zooplankton, sublethal effects, impacts on vegetation, impacts of degradation products, and the area that would be affected. These gaps must be filled before approving the use of the chemical.

The SEIS does not adequately address synergistic effects, including impacts of imidacloprid combined with other chemicals ("inert" ingredients, other chemicals used in the bays, and other pollutants) or other stressors. Among the organisms known to be at risk is the commercially important Dungeness crab, which has been shown to be susceptible to the effects of imidacloprid, and whose populations experience large natural fluctuations, putting them at risk of extinction.

Given the systemic mode of action of imidacloprid in crop plants, the failure to account for impacts on non-target animals consuming vegetation in treated areas is inexcusable.

Willapa Bay and Grays Harbor have been affected by human activity over the past century that has contributed to problems experienced by all who use the bays. Of the three options proposed, the No Action alternative is the best. However, what is truly necessary to address these problems is an option that was not considered in the SEIS—a plan to restore the habitat by removing stressors from streams flowing into the bays.

Thank you for your consideration.

Sincerely,