

Oregon's Pesticide Stewardship Partnership

An overview of progress for the 2017-19 biennium

Since the early 2000s, the Pesticide Stewardship Partnership (PSP) Program has provided an alternative to a regulatory approach for achieving reductions in pesticide levels in water from current pesticide use. During the 2017-19 monitoring period, the program conducted activities in 8 PSP watersheds and 2 pilot areas throughout the state from the Middle Rogue in Jackson County to the Walla Walla in Umatilla County and extensively within the Willamette Valley and Columbia River Gorge. The Partnership operated with a budget of \$1,824,682.00 divided between local partner grants, laboratory costs, technical assistance and grant administration, and the waste pesticide collection program. The 2017-19 biennium also saw the establishment of a Stakeholder Advisory Group (SAG) that will aid in the implementation of the PSP.

During the 2017-19 sampling period 1125 water samples were collected and analyzed for 134 pesticides. This included 57 herbicides, 40 insecticides, 10 fungicides, 16 pesticide degradates, 6 legacy compounds, and 5 other compounds. Generally, these samples were collected during the spring and the first half of the summer when pesticide application are most likely to occur. Some

fall samples are collected primarily because of the potential for rain events to carry pesticides from soils into streams.

The results of this sampling indicated that 69% of the PSP water quality locations monitored during 2017-19 showed measurable improvement over the 2015-17 sampling period evidenced by lower concentrations and frequency of detection. Fourteen percent of the watersheds remained the same in terms of pesticide water quality and 17% of the watersheds showed a decline in water quality.

A five-year (2015-19) linear trend analysis of the concentrations of 27 most detected pesticides in all PSP watersheds indicates a positive (downward) trend or no detections of these pesticides for 86% of the sites monitored. Nine percent were unchanged and 14% indicated a negative (upward trend).

Currently there are six pesticides designated as of statewide high concern. These are the insecticides chlorpyrifos, diazinon, and imidacloprid and the herbicides diuron, dimethenamid, and oxyfluorfen. Across all watersheds, decreases in both concentrations and frequency of detections were noted for each of the insecticides; there were also decreases

in concentrations of dimethenamid and oxyfluorfen and a relatively

constant concentration of diuron. Detection frequencies increased slightly for diuron which continues to be detected at approximately 50% statewide.

During the 2017-19 sampling period additional funds were provided to local partners to assist in water sample collection, stream flow monitoring, and to support education and outreach activities including the development of PSP Strategic Action Plans. This represented a shift away from the funding of research projects.

Nine waste pesticide collection activities were conducted during the 2017-19 period. These events were conducted across the state with 5 events in Eastern Oregon and 4 in Western Oregon. A total of 109,256 lbs. of pesticides were collected from 132 participants. The collection of these often highly toxic legacy pesticides supports water quality efforts, and also reduces potential risks to humans and wildlife.

