OREGON DEPARTMENT OF AGRICULTURE

Pesticides Program
635 Capitol St, NE, Salem, OR 97301-2532
503.986.4635 | Oregon.gov/ODA

Minutes

Date	Location	Start Time	End Time
March 3, 2021	Virtual Meeting	9:00 am	11:30 am

Attendees:

Kirk V. Cook	Oregon Department of Agriculture
Rose Kachadoorian	Oregon Department of Agriculture
Brenda Sanchez	Oregon Department of Agriculture
Michael Babbitt	Oregon Department of Agriculture / PARC
Michael Williams	Oregon Department of Agriculture
Kevin Masterson	Oregon Department of Environmental Quality
Aaron Borisenko	Oregon Department of Environmental Quality
Colin Donald	Oregon Department of Environmental Quality
Todd Hudson	Oregon Health Authority
Thomas Whittington	Oregon Department of Forestry
Kaci Buhl	Oregon State University

Introductions and Update

Rose Kachadoorian reported that the chlorpyrifos rule was filed on December 15, 2020. As a result, chlorpyrifos became a restricted use pesticide on January 1, 2021 and as of March 1, 2021 additional requirements will be mandated for applicators of chlorpyrifos.

Thomas Whittington reported that Senate Bill 1602 became effective on January 1, 2021. This bill increases pesticide buffers at certain streams, schools, and inhabited dwellings. In December 2020 training and training materials were made available for foresters and applicators.

Aaron Borisenko reported that the release of the 2017-2019 went well and that it has received good press. The timing was very good going into the legislative session.

Kirk Cook reported that the recently released biological evaluation from EPA on atrazine, simazine, and propazine contains some major voluntary restrictions from the registrants of atrazine and simazine including its removal form use for Christmas tree nurseries, all commercial forests, and private/commercial applications. Atrazine was a chemical that

emerged as a moderate concern because of its frequency. The language of the proposal is beginning to appear on new labels. This was a result of evaluations presented in two separate documents.

Kevin Masterson reported on the PFAS issue. When discovered EPA reached out to state environmental and agricultural agencies. There are concerns that these contaminations could be more widespread beyond the mosquito insecticide Anvil. Plastic containers where chlorinated internally as a treatment to keep them in good working order and maintain integrity. In so doing these PFAS contaminated the insecticide. Applications were made area wide in 36 states. Questions arise as to how many other containers were treated with this same process. Some of these PFAS compounds are regulated by some states for drinking water in the range of 10-50 ppt per liter. Currently the specific PFAS compound is used for container treatment is unknown.

Kaci Buhl informed the WQPMT that they are on track to meet the requirements for the education and outreach $50,000 grant. Currently we are prioritizing a grant for Extension due to the lack of expertise in this area. The plan is to increase engagement in order to develop strategic plans around implementation of those plans as well as plans for education and outreach implementation both on a state wide and watershed basis.

Stakeholder Advisory Group (SAG) and Budget Management

The WQPMT was briefed on the results of the January 27 2021 SAG meeting. Numerous issues were discussed at that meeting including finalization of the Pilot Project SOP, expanded use of other data sources used in PSP analysis, and how future grants might be structured.

Pilot Project SOP

The pilot project SOP is now finalized and will guide the PSP program in designating future pilot projects and will also guide the decision as to cease pilot project activity or continue them as a full-scale PSP watershed.

Watershed Assessment

The SAG members were interested in potential revisions to the PSP program. However, for the foreseeable future the WQPMT will continue to use the 2013 criteria to determine what actions will be taken regarding monitoring and strategic planning. There was discussion regarding the addition of the Tualatin as a pilot project, and concern expressed regarding the status of the Yamhill. The Yamhill watershed council is bare bones. SWCD has participated, but is a little reluctant to dive into pesticides. This is a sensitive issue for them. Even though they do good work, the extension is stretched across many counties and yet has not been able to engage. We have the interest, but lack the band with and capability on the local side. This will make it difficult for us to have sustained success. Now, we have had worked with the irrigation district in the Palmer Creek where we see the most of the agricultural detections, and we had three

sites on the western side of the area. Part of the problem in the western part of Palmer is there are over 20 types of land uses in one tiny watershed. So, you really can't just go to the nursery association. It seems that the watershed is the natural place to begin conversations with all the different land owners, but it has still been a struggle to get everyone on board. This is due to the shear complexity of the watershed, along with not having the local capacity. If we invest based on limited resources in the PSP without investing in the local area, even if the WQPMT doubled their grant, it is debatable that they will still be able to acquire adequate staffing. The WQPMT should consider not spending as much money on the monitoring if nothing is been done to follow up on the findings. Perhaps focus should be put into more effort into building that network by going to the grange and increasing our interactions with pesticide dealers at Wilco in order to figure out what a path forward would look like.

PSP Grant Allocations

Changes to how future grants will be allocated was discussed with the SAG. These are considerations for the next biennium. Discussions are ongoing concerning allocating money to go to extension for support and PSP activities, as well as OSU education and outreach grants. The WQPMT has proposed to allocate a portion of the PSP grant funds to OSU for support form Extension on the development and implementation of Strategic Plans. The needs for additional education and outreach materials from Kaci's group was also discussed.

Funds are currently being allocated in four areas. Allocation of funds are not mandated. The WQPMT plays the primary role in making that determination. Due to a lack of activity around Waste Pesticide Collection, some re-allocation is being considered. The goal is to have something put together before the next SAG meeting in May 2021.The re-allocation of $25,000-$50,000 from Waste Pesticide Collection and a small amount from Grants.

Use of Other Data Sources

Use of other data sources was discussed during the SAG meeting which fostered discussion among the WQPMT. Currently there are numerous entities that are collection water quality data on pesticides (both nationally and in-state). The WQPMT has discussed the potential of incorporating this data into the PSP generated database. The advantage of this would be expanding the data available for pesticides that DEQ does not currently analyze and using a larger database to evaluate progress in all the PSP areas. A large potential source of this data would be from the U.S. Geological Survey. Rose Kachadoorian pointed out that though USGS data (and other alike) is of high quality, in order for it to have high utility, it would need to be more recent. Therefore, the timeliness of high-quality data should be taken into consideration. The data provide by analysis performed by the DEQ lab is more advantageous because it is more recent. We get this data fairly quickly as compared to USGS. Although, if they are uncovering something that we are not even analyzing for, we could consider incorporating that particular analysis. Another thing to consider in regard to funding is that though we technically cannot lobby, if there is a program that we feel is of value, the Association of American

Pesticide Control officials can lobby on our behalf. We simply need to make sure our interests are known and understood.

Aaron Borisenko pointed out that the USGS NAWQA program has taken some hits as of late. This is where a lot of valuable information came to light concerning pesticides and other toxins of concern. More recently they have been focused on water quantity and continuous monitoring. The hope is that they continue to look for emerging contaminant concerns in spite of the program taking several hits.

Kevin Masterson added that we are hoping that the program may be revived under this new administration. They look for about a hundred more analytes than we do. For the purposes brought up by Rose, in terms of informing us about what else we might be missing and to refine our purposes around method development, they can certainly be helpful there. The 2015 Willamette study the preformed provided a ton of information refencing the Tualatin Watershed. This could potentially aid us in evaluating new watersheds as well. They have very low detection limits as well. We should at least figure out how we could use that data and how we could communicate to the SAG and others what our intentions are.

2020 Monitoring Results

Chlorpyrifos: Continues to be a pesticide of high concern. Concentrations and frequencies have declined across most PSP watersheds. in most watersheds, however the Clackamas and Yamhill continue to be problematic. This is a marked improvement over the 2017 finding which demonstrated a detection frequency of 17%. A massive decline came after 2018 with detections falling from a total of twenty-six to six in 2019. This was reported to the SAG.

There was a rise in 2020 to fourteen detections. The good news is that there is a smaller proportion of those detections that are above the benchmark. The bench mark for the water quality number is quite low at .041mcg/L. Most of the detections where below that. The maximum concentrations began dropping in 2018 with a slight bump up in 2020 as well as average concentrations. It is not alarming to see this rise in Chlorpyrifos, although it is a bit disappointing to see a rise over 50%. Especially as the rules are going into effect. Rose indicated that it could be that people are attempting to use up larger stocks before it goes away. It is important to note that the Noyer Creek in Clackamas PSP, had 8 of the 14 detections of 2020.

2020 was the first time chlorpyrifos was not seen in Walla Walla at all. They use it in late dormant spraying in late March early April. This is usually to only time you find it there. There was a large spike in 2017 (8.04 mcg/L). This could be the indication of a spill. The extension used the press to reach out to the public to encourage them to use alternative insecticides during delayed dormant applications. This appears to be what many growers did. 2020 is the first time since 2005 we started monitoring for chlorpyrifos and it did not show up. What did show up was just one detection of pyriproxyfen, which is the product that the extension agent was trying to thinking about trying to get some of the growers to switch to. The chronic vertebrate bench mark is actually lower for pyriproxyfen than chlorpyrifos. The chronic and

acute fish bench mark the EPA has for pyriproxyfen is notably higher than that for chlorpyrifos. It is also much less volatile. Drift appears to be responsible for most of the chlorpyrifos detections on the east side of the mountains.

Carbaryl (Sevin): An insecticide of statewide moderate concern was detected in the Clackamas PSP specifically in Noyer Creek at 50% above the chronic aquatic life benchmark. It was detected above 50% of the acute benchmark in the Walla Walla PSP

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Oxyfluorfen (Goal): Has a benchmark of .29 mcg/L. This is considered to be considerably low for an herbicide. Statewide, it has exceeded the aquatic life benchmark several times. In 2019 the average in Jackson Creek (Middle Rogue PSP) was getting close to the benchmark. As a result, it has become a top priority as a pesticide of concern in this watershed. The local strategic planning effort came into play, and results were evident early. The Jackson Soil and Water Conservation District worked with the WQPMT the lab to identify additional sites in Jackson Creek to perform reconnaissance monitoring. In order to narrow down areas without looking at specific land owners. By doing that additional reconnaissance and by closely working with our lab was very effective. OSU and the JCSWCD were able to identify the area of concern. This is when OSU extension responded concluding that it was most likely a nursery that had a contract with the forest service. As a result, he nursery switched to a different product for some of their uses, but not getting rid of it all together. They simply changed their management practices to reduce runoff. This resulted in zero detections of Oxyfluorfen last year. It should be noted that there was a brief suspension of monitoring due to Covid (April early May).

Dimenthenamid (Outook): Has a benchmark of 8.9 mcg/L has dropped in frequency and concentration notably in North Fork Deep Creek (Clackamas) another encouraging sign. It continues to be detected in the Middle Deschutes at time exceeding 50% of the acute aquatic life benchmark. A recent analysis of statewide pesticides of concern conducted by the WQPMT using 2020 WQ data indicated that dimethenamid is no longer a statewide pesticide of concern.

Malathion: There have been 8-9 pesticide ingredients detected in Wasco. Overall things have looked pretty good. The watershed had some major success with Malathion coming down, much like with chlorpyrifos. In 2020 all detections, including insecticides, had a dramatic decline with detection levels being at 5-10 from 2019-2020. Which is a dramatic decline when compared to 2014 were we had over 40 insecticide detections. The small bump from 2019-2020 was due to Malathion detections. Part of this could be that education and outreach efforts have had less presence because of Covid-19. The WQPMT typically speaks at the watershed councils, but this is the first time we were unable to talk to the grower group. We usually get at least 40 people to show up at their morning meetings when we talk. It is here where we have the opportunity to talk about results before they start spraying. This is exactly what we were afraid of if we leave a watershed. In almost all of these cases we have been able to compare this data because we have been very consistent in the number of samples we take and the timing of those samples. This has enabled us to have more confidence over time as we continue monitoring.

DEQ 2021 Water Quality Monitoring Strategy Plan

Aaron Borisenko provided an update and overview of DEQ's 2021 Water Monitoring Strategic Plan. DEQ had a water monitoring strategy that was developed in 2005. Most of the progress made has created a shift in the Agency's emphasis on certain aspects of our water quality monitoring. It is now time for an update. In order to accomplish this, we brought together several technical experts within our agency to collaborate on several aspects of the water quality monitoring strategy. The document that was subsequently composed came out on GovDelivery. In the short term we are staying focused on meeting the needs of our water quality programs. This includes the standards and assessment section as well as the integrated report needs when new standards are being developed. A newly revised report of impaired waters came out a couple of years ago that enabled DEQ to identify areas that are of potential concern that requires us to collect more data to identify their real status. There are so many areas around the state that have not been assessed. We would like to stay focused on core responsibilities that are outlined in sections of the Clean Water Act are key to what our emphasis is in the next five-year time frame. We also need to continue work on incorporating our partner's data. There are a variety of partners out there that provide quality data that we can evaluate in order to help us with some of our assessments.

DEQ also needs to stay focused on public health. The 2018 event that created the water quality incident in Salem brought attention to things that we have been dealing with for over a decade and has seemed to be getting worst. There are also other contaminates that need attention. These contaminates of emergent concern require additional method development. Currently the lab is working on PFAS and we are hoping to have that method developed by June of sometime. We need to help collect data for TMDL development. Watersheds are currently being revised for temperature criteria, which may create the need for additional data. We will also be creating data based on a five-year cycle. So, there is an ongoing list of needs to develop watershed plans around the state. The ability to utilize remote sensing data in addition to data signs to provide real time information to drinking water providers is something that we need to continue to develop at DEQ. Monitoring programs have mainly focused on flowing waters. Many lakes and reservoirs don't have systematic monitoring. There have been occurrences of shell thinning of commercial shellfish and mollusks. Acidification scientists have been hired to study this. They found problems with shell development among multiple species. This was mainly found in the Pungent Sound, but we should be cognoscente of this in Oregon. This is a part of how we expand partnerships and the utilization of new data. Derived from those partnerships. This also confronts how we look at ground and drinking water sources long term as well as agricultural needs. This leads to environmental justices that need to be addressed. This involves unrepresented communities around community environmental representation. There is importance in collaboration around monitoring needs that emphasizes the importance of the WQPMT as well as the National Water Quality Monitoring Council, the Strategic Enterprise Approach to Monitoring Team, and the Pacific Northwest Aquatic Monitoring Partnership.

Other Water Quality Issues

Cyanotoxins: These where coming in from source water. In 2018 one of the cyanotoxins of concern made its way to the distribution system of the city of Salem at levels of concern for vulnerable populations creating an advisory that lasted for over a month. Most businesses where not using or distributing the water for their purposes which resulted in a very big economic impact. This is not a new phenomenon, and it is seemingly getting worst. Although the tools for looking for those contaminants are improving. We are also getting good satellite imagery to understand current trends.

Wildfires of 2020: We are still discovering what that will mean for water quality in the coming decade. This is due to the fact that over 1 million acres burned. We are already seeing some of the highest levels of dissolved carbon the USGS has ever seen on record. There are several problems for drinking water providers developing.

It was noted by some WQPMT members that of the noxious weed applications in the slopes will result in a large increase of pesticide use due to the lack of native vegetation resulting in large bare areas. The bird repellant anthropinon has been used as a replant on little trees to dispel hungry animals and pests. When you have pests, you have pesticides. It is vital that we are proactive on this issue.

A wildlife science team has been commissioned that Aaron will be a part of to address longer term questions around the wild fires that occurred in 2020. We will be bringing that important context to the conversation. To the pesticide team here: we did perform additional sampling down in the Rouge that was requested for wildlife response.

Next Meeting

The next meeting of the WQPMT will be held the second or third week of May