



# The Dalles Watershed Council

Fostering stewardship of Threemile Creek, Mill Creek and Chenoweth Creek watersheds

c/o Wasco County Soil and Water Conservation District

2325 River Road, Suite 3, The Dalles, OR 97058

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## MEETING MINUTES

April 11<sup>th</sup>, 2018 5:30-7:00 PM

USDA Service Center 2325 River Road, The Dalles

### Attendees:

Tatiana Taylor, *SWCD*

John Nelson, *Member*

Steve Byers, *Member*

Martha Blair, *Member*

Laura Street, *ODFW*

Abbie Forrest, *SWCD*

Mark Popoff, *Member*

Jason Seals, *ODFW*

Ken Bailey, *Co-Chair*

Dan Mahr,

Ryan Bessette, *SWCD*

Kevin Masterson, *DEQ (On Phone)*

### Introductions

Steve issued a round of introductions. Steve called for changed to the agenda. None were proposed. *Ken Bailey moved to approve the minutes as presented. John Nelson seconded and the motion passed.*

### 2017 PSP (Pesticide Stewardship Partnership) Results- *Kevin Masterson, DEQ*

Kevin began by explaining that the Pesticide Stewardship Program is a voluntary collaborative effort with different state agencies. All the groundwork is done with local partners. Kevin explained this is a monitoring driven program aimed to identify pesticides in surface water. The agencies also collaborate to identify streams with high frequencies of pesticides. The agencies then communicate areas of interest to partners. They then monitor trends in certain areas to see how efforts and best management practices have worked over time.

Kevin gave a brief overview of the program. Mill Creek monitoring started in 2000. Spotted Wing Drosophila made an appearance which caused producers to start using organic phosphates to get rid of the flies. Kevin overviewed the work performed in Wasco County. In 2002 the project was only monitoring in Mill creek, but by 2010 they had expanded to Threemile and Fifteenmile creeks. Kevin noted that they had added another site on 15mile at Dufur City Park, as the team wanted a better understanding of 15mile upstream. For the 2017 sampling season there are 5 monitoring locations. In Mill creek the sites are at Wright Road and at 2<sup>nd</sup> Street Bridge in The Dalles. In Threemile Creek the sampling site is at Hwy 197. In Fifteenmile Creek the sites are above Seufert Falls (aka Cushing Falls) and Dufur City Park.

He then went on to explain the 2017 sampling season. The samples were sent to the DEQ lab in Hillsboro. Sampling occurred weekly from late March through Mid-April. Sampling took a break and then continued from late April until Mid-July. This timeline is determined by ag use in the area. There were also two sampling events in September at Dufur City Park.

Kevin explained what pesticides are analyzed. There are approximately 130 insecticides, herbicides, and fungicides and Kevin noted that the list evolves over time. There were 12 pesticides detected in Wasco streams in 2017, however some compounds had only one or two detections. There were an array of compounds and the bolded ones are common in agriculture. The insecticides found were **Carbaryl (Sevin)**, **Malathion**, and Imidacloprid (Admire). The herbicides found were **Glyphosphate (Roundup)**, **2,4-D (Weedmaster, Barrage)**, Atrazine (Aatrex), Diuron (Karmex, Direx), and Hexazonone (Velpar). The Fungicide found was **Pyraclostrobin (Headline)**. \* **Glyphosate (Roundup)** was only monitored in Fifteenmile Creek Samples.

Kevin discussed the total number of detections in the Wasco Basin. They have seen a decrease in usage, and a significant decline in the number of detections, as well as a decline in the total number of benchmark exceedances in the Wasco Basin.

\***Bolded** typeface means that this pesticide is known for ag uses in Wasco County.

He explained detections of each individual pesticide. Kevin demonstrated that Lorsban detections had plummeted and there were no detections of the chemical in 2016 and 2017. Kevin explained the graph describing malathion and its average concentration and detection frequency. Kevin noted the general decline over time. The next slide demonstrated the % of detections that were over water quality criteria. Kevin pointed out that in 2011, over 80% of detections were over criteria, but by 2017 it had dropped to 20% of samples over the criteria.

Kevin went on to describe Carbaryl, commonly known as Sevin, which can be purchased at Home Depot. Kevin noted that in 2017, there were no samples that exceed the minimum benchmark of 0.5 ug/L. He explained the data trends of the chemicals from 2011 through 2017 using a box and whisker graph. Most data trends for this chemical indicated a decrease in usage.

Kevin discussed the drop of the benchmark quantity for the chemical imidacloprid, commonly known as Admire. The sample taken in June for this chemical exceeded the dropped benchmark.

The stakeholder need for round-up monitoring was discussed. There was one detection in Late September that was far below minimum benchmark. Kevin noted that the ½ life for roundup varies immensely, ranging from 2 days to 197 days. The average ½ life is approximately 47 days. A roundup degrade called aminomethylphosphonic acid or (ampa) was also measured. There were three instances of detection, two in Fifteenmile Creek above Seufert Falls (aka Cushing Falls), and one detection in Fifteenmile Creek at Dufur Park.

Kevin explained that 2,4-d was only monitored in Fifteenmile creek. There was one detection above the minimum benchmark that occurred Mid-September. Kevin explained that this product is usable by homeowners, which could potentially explain the surge.

Kevin discussed the chemical atrazine, which is a non-concern. There were two detections in Threemile Creek at Hwy 197 in late August, both of which were below minimum benchmark. Kevin discussed desethylatrazine being detected in Threemile Creek and Fifteenmile Creek. He noted that although there were several detections, they were not at a level or frequency of concern.

Next discussed was the chemical diuron, commonly known as Karmex or Direx. Kevin noted that the County used it for road maintenance, although all detections were below the minimum benchmark.

The last chemical discussed was hexazinone, commonly known as Velpar. John Dodd mentioned that this herbicide won't kill conifers. Ryan Bessette commented that because it won't kill conifers, it is sometimes used on CREP lands. Abbie Forrest mentioned that the herbicide is used on Alfalfa fields to get rid of weeds.

Finally, the council discussed the program as a whole. Kevin explained that most of the chemicals monitored do not have Clean Water Act thresholds. The chemicals are regulated under EPA and ESA, but not under the Clean Water Act. This program is an alternative to the Clean Water Act. Kevin mentioned that the number of pesticides are decreasing, which is encouraging. Kevin explained that he relied on the EPA benchmarks, which change but are not regulatory. The two pesticides that have reoccurring detections, have clean water act thresholds in Oregon.

Kevin discussed the chemical Lorsban. He explained that the EPA had this on the chopping block and was going to prevent production, but had not taken it off the market. Lorsban is common on the west side, as it is typical in fruit growing areas. Concentration and frequency decreased significantly in 2015, and in the last two years it hasn't been detected. Kevin mentioned that this was also the case for Hood River County, Lorsban used to be above frequencies, now they are seeing less.

Ken Bailey commented that this trend of increasing pesticide use between 2012-2014 matches with the time of the spotted drosophila, when producers might have been over applying to be safe and get rid of the fly. By 2015, the producers received more education, thus they used newer and fewer chemicals. Ken also explained that the potential banning of Lorsban encouraged the use of different alternatives. Many substances used today were not available 3-4 years ago.

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Kevin explained that the timing and location of usage of malathion in 2017 was consistent with the arrival of the Spotted Wing drosophila. The council examined the two outliers in the data set, one detection in Mid- July in Dufur Park and one in September. Kevin theorized that the first outlier could have been caused by a backyard tree being sprayed, and the second concentration was after cherry harvest, so it could have been caused by potential run-off.

Kevin gave a summary of the presentation. The program used to be grant funded, but in 2013 the legislature funded the program and combined it with several others. ODA and DEQ (who provides the analytical work) both get funding. Additional State funding allowed the addition of monitoring sites in Dufur, and for more consistent monitoring.

Ken commented that this type of program is very effective. The program hasn't eliminated all problems, but Ken mentioned that it might be more helpful than a strictly regulatory program. If the program can look for problems earlier, farmers won't be as inclined to "hide" issues that arise. Hood River and The Dalles are very different from the western part of the State. Ken mentioned the difficulty of visualizing trends in western Oregon because of the number of crops grown.

### **Lower Mill Creek Fish Evaluations 2017- *Laura Street and Jason Seals, ODFW***

Laura street explained last year was a very different year than this year. In 2017 there was still snow on the ground and in the basin. Laura went on to explain a map of the Mill Creek Watershed and located the screw trap on the map.

Laura discussed the two juvenile capture methods used in the program. The first is the rotary screw trap in which the team scoops fish out of the box. The screw trap is powered by the flow of Mill Creek. This causes issues because the cone won't spin during low water levels. During these times, they switch to the fyke trap. Laura explained that they have the trap in the creek from March to June, and they don't handle fish once it becomes too warm.

Laura explained the method for data collection and PIT tagging. The team works off the tailgate of the truck. While they are scooping fish, they add freshwater if it's warm. The team collects length, weight, and scales from the fish. They also take samples of DNA and PIT tag each fish. The PIT tag is 12mm and is inserted into the stomach. These are used for mark recapture estimates. Species of interest are Steelhead, Coho, and Cutthroat, with a special emphasis on Steelhead.

Laura discussed the 2017 migrant estimates. She mentioned that in March of 2017 the team couldn't use the screw trap because of high water. They tagged 1,265 Steelhead with an estimated 6,520 in Mill Creek. They tagged 35 Coho with 245 estimated. Only 5 Cutthroat Trout were tagged, and the team was unable to make an estimate.

Laura reviewed the smolt migration estimates by year. There was a dip in Steelhead smolt number in 2014, and the stream has been building numbers back up from then. She explained the age of the Steelhead smolt by length. Most smolts were 1-2 years old. Anything below 120mm are 1-years old, 2 years are overlapping in size, but slightly bigger. 3-year-old smolts are larger. 45% were Age 1, 46% were Age 2, and 9% of the smolt were Age 3.

This year 72 PIT tagged adults returned to Bonneville Dam. No adult fish were caught at Mill Creek, and the adult steelhead detections occurred at Bonneville Dam. 3% of the returning adults spend 0 years in the ocean. 57% spent one year in the ocean, and 40% of the fish spent two years in the ocean. Steelhead spend a variable amount of time in the ocean depending on how much food they can consume. The fish leave Bonneville Dam in the fall and get to their creek in the spring.

Laura mentioned that the team is tracking where the returning Steelhead are going. The team is finding that fish do not go directly back to their stream. 62% of fish that make it over Bonneville make it to Mill Creek. This could be due to warmer water in the Columbia, sports fishing, tribal nets, seals, and other

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barriers. 73% of the fish that got over Bonneville Dam went over the Dalles Dam. 29% went over the Deschutes River, 20% over the John Day Dam, and 6% over the McNary Dam.

She explained the effect of ocean conditions on the smolts returning as adults. In the 2012 Smolt Migration Year there were 1002 smolts tagged and 23 adults returned. In 2013 there were 765 smolts tagged with 23 adults returning. In 2014 there were 305 smolts tagged and 15 returning adults. In 2015 there was an exceptionally hot year in the ocean and there was little food in the ocean. The team tagged 730 smolts tagged and only 3 returned as adults. In 2016 there were 513 smolts tagged with 8 returning adults.

Laura concluded the presentation with a slide describing 'what's next' for the program. To measure steelhead adult survival and migration the team will continue to tag juveniles and monitor PIT tags. Laura explained that last year they couldn't complete spawning ground surveys because they couldn't determine redds from substrates due to the high-water year. The team also wants to improve smolt catch efficiency throughout the spring. They plan on doing this by adding a bicycle tire on the screw trap to keep it turning and by improving the fyke trap design. Laura also expressed interest in adding Lamprey to their species of interest and improving their monitoring of Coho Salmon and cutthroat trout.

### **Updates and Announcements**

Abbie explained that the South Fork Mill Creek Weir Project is currently on the back burner. ODFW's engineer has walked the site, but other projects have jumped ahead in priority.

Abbie also explained that she had started the application and grant process for Doug Powell for the Powell Rock Step Weir Project.

Tatiana updated the council on the Chenowith Creek Focus Area project. She explained that they had evaluated the area with ODA and are in the process of digitizing the results. She mentioned that she was working on putting together a mailing list and outreach process, along with a stream monitoring event.

*Next meeting is approximate: possibly July 12<sup>th</sup>.*

*Steve adjourned the meeting at 7:10.*

*Minutes prepared by Tatiana Taylor*