

DEQ Response to Comments

NPDES Phase I MS4 Permit: Clackamas Group

Permit number: 101348

April 21, 2023



State of Oregon
Department of
Environmental
Quality

Water Quality Permitting

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Overview

The Public Comment Period for the proposed permit modification was from January 23, 2023 to February 27, 2023.

No public hearing was held for the proposed permit modification, and no requests were for one were received.

DEQ received comments from the Willamette Riverkeeper. The comment letter is attached. Excerpts from the letter and summaries of issues raised are below in italics, with responses following.

1. *DEQ proposed these modifications at the request of the co-permittees, which includes 8 cities, one county, and two water services entities. These co-permittees objected to the frequency of pesticide monitoring in August 2022, almost two years after this permit was issued and close to one year after this permit became effective. If the co-permittees had objections to the frequency of monitoring, they had plenty of time to object and request modifications before the permit was issued, and well before the permit became effective.*

DEQ Response: An NPDES permittee is entitled to request a permit modification at any time, and DEQ did not determine that the permit modification request was inappropriately submitted or inappropriate to consider, in accordance with Oregon Administrative Rules, Chapter 340, Division 045. No changes were made to the permit in response to this comment.

2. *DEQ does not have strong reasoning behind the decision to modify the Clackamas Group's MS4 water quality permit. The reasoning provided to commentors is that "DEQ inadvertently assigned the co-permittees an unnecessarily high amount of pesticide monitoring by tying the pesticide monitoring to the storm event monitoring..." However, pesticide monitoring should take place during or right after significant storm events, as that is when the pesticides will flow into the waterways affected by this permit. [emphasis in original text]*

DEQ Response: The original permit language in the Clackamas Group MS4 permit tied pesticide monitoring to all other stormwater monitoring, unlike the other Phase I MS4 permits issued concurrently in 2021. The Clackamas Group's permit required pesticide monitoring at exactly the same frequency, times, and locations as the other required stormwater monitoring. This requirement would have severely limited the capacity of co-permittees to work together in creating an effective study. The intent of the modification is that pesticide monitoring will still take place during or right after significant storm events, but it does not necessarily have to be tied to all of the other stormwater monitoring the co-permittees are required to perform under the Phase I MS4 permit. The separation of pesticide monitoring from the other stormwater monitoring involves a reduction of the number of pesticide monitoring sample points, but it also allows greater flexibility in study design with the goal of using the results to make changes that would have positive impacts on stormwater quality. The co-permittees have a documented history of obtaining excellent results when designing their own pesticide monitoring study, as is discussed further below. No changes were made to the permit in response to this comment.

3. *In 2016, the United States Geologic Survey found “high concentrations of commonly used insecticides in streams running through the highly urbanized portion of Clackamas County.” The levels found in streams flowing through the area in during a 2013 storm were above EPA’s benchmarks to protect aquatic-life. One active ingredient of insecticides, bifenthrin, attaches “tightly to sediments contained in stormwater, traveling from the areas where it was applied through storm drainage systems to streams.” Even small amounts of bifenthrin affects beneficial insects which fish, birds, and other wildlife rely on for food.*

In their letter to DEQ, the co-permittees state “[r]equiring pesticide monitoring to be conducted at all stormwater monitoring locations and during each stormwater monitoring event limits the ability of co-permittees’ stormwater programs to optimize resources in support of stormwater program activities with tangible water quality benefits.” However, the current permit only requires most co-permittees to monitor pesticides at two sites twice per year, which is significantly less than other monitoring required in the permit. Monitoring for pesticides at once site only three times per term is irresponsible, unreasonable, and inadequate. At the very least, DEQ needs to require the co-permittees to monitor for pesticides at two sites once per year. [underlining in original]

DEQ Response: The 2016 study cited by Willamette Riverkeeper was a collaboration between the co-permittees and the USGS, conducted in part to satisfy a pesticide monitoring permit requirement from the previous iteration of the same MS4 permit (issued March 16, 2012). That pesticide monitoring requirement stated only that co-permittees must “[c]onduct or contribute to a pesticide stormwater characterization monitoring or instream pesticide monitoring project/task.” The flexibility in the permit requirement enabled the co-permittees, in collaboration with USGS, to design an effective monitoring plan for pesticides that yielded valuable information about pesticides in the Clackamas basin. The study contributed to the still growing body of literature indicating that, as noted by Willamette Riverkeeper, “bifenthrin affects beneficial insects which fish, birds, and other wildlife rely on for food.”

Enabled by flexibility in the 2012 permit, this study was the first to examine a broad range of pyrethroid insecticides and other current-use pesticides in stormwater runoff and streambed sediments in urban streams in northwest Oregon. Further, the 2016 study did not solely look at storm events, but collected sediments via samplers deployed over an eight week period, which were then collected a week after the single storm event for which samples were collected at outfalls.

This permit modification explicitly requires more monitoring events than were conducted to produce the 2016 study. It includes more clear, specific, and measurable metrics than the previous permit’s pesticide monitoring requirement, while adding some measure of the flexibility and possibility for collaboration that the co-permittees made such excellent use of in 2016. This flexibility allowed the co-permittees to coordinate their monitoring on pesticides specifically. Further, the new permit language leaves open the possibility that a pesticide monitoring study may involve sediment sampling, which the original permit language may have impeded by tying pesticide monitoring directly to existing stormwater monitoring.

Following consideration of Willamette Riverkeeper’s comments, DEQ agrees that additional pesticide monitoring is warranted, and has modified the permit to include additional sampling, as indicated in the table below. This adjustment represents an increase of 18 data points over the permit term relative to the proposed modification. DEQ continues to seek effective water quality monitoring in appropriate places, in the Clackamas basin and elsewhere in Oregon, outside of this MS4 permit.

2023 Clackamas Permit Modification Pesticide Monitoring Requirements (# of data points over the 2021-26 NPDES MS4 permit term)			
Jurisdiction	Number of Locations	Number of Events	Number of Pesticide Data Points
Lake Oswego	1	6	6
Milwaukie	1	6	6
Oregon City	1	6	6
West Linn	1	6	6
Wilsonville	1	6	6
Clackamas Water Environment Services (includes Clackamas County, Happy Valley and Rivergrove)	2	3	6
Oak Lodge Water Services	1	6	6
TOTAL	14	21	42

- Pesticides are widely used in “agriculture, homes and businesses, on lawns and gardens, along roads, in recreational areas, and on pets and livestock.” The Clackamas River basin has a “large amount of urban and agricultural land...where pesticides are frequently applied.” This is true for many water basins throughout Oregon. Accordingly, DEQ should be encouraging more pesticide monitoring in every permit, not reducing the Clackamas Group’s pesticide monitoring requirements to fit into the minimal monitoring required in different permits.*

DEQ Response: There is no evidence to suggest pesticide use patterns in the Clackamas basin are significantly different from elsewhere in the state, and pesticide use throughout the state is known and monitored by other programs, administered by DEQ and other agencies, in addition to MS4 permit requirements. Further, the Clackamas Group co-permittees comprise an area of urban lands overlapping the bottom of other basins as well, including the Tualatin and Lower Willamette, so the Clackamas Basin must not be the sole focus. The required pesticide monitoring activities in MS4 permits are a tool for program evaluation and improvement through adaptive management, and to provide a quantitative measure of current conditions and progress towards attainment of applicable water quality standards. The primary objective of pesticide monitoring in MS4 permits is not to discover every possible exceedance of water quality criteria or EPA’s aquatic life benchmarks, which would be beyond the Maximum Extent Practicable (MEP) standard.

The nature of the MEP standard in MS4 permits predicates that there is a balance to be struck between the value of monitoring versus the value of implementing long-term pollution prevention and reduction strategies. Both are needed, but the operator of an MS4 has very limited control over the uses of pesticides within its basins by homeowners, by private businesses, or by agriculture. In the time since the 2016 study, the co-permittees have refined and expanded their public outreach efforts, integrated pest management programs, and other BMPs addressing pesticides, in accordance with other MS4 permit requirements. DEQ has determined that adding flexibility in design study for a permittee group with a demonstrated history of excellent results is valuable and worthwhile as a permit modification. No changes were made to the permit in response to this comment.