



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 31, 2016

Ms. Jean Mendoza, Executive Director
The Friends of Toppenish Creek
3142 Signal Peak Road
White Swan, WA 98952

Re: Request for Formal Review of the YRCAA under RCW 70.94.405

Dear Ms. Mendoza:

Ecology has reviewed your June 10, 2016 letter and attachments asking Ecology to undertake a formal review of the Yakima Regional Clean Air Agency (YRCAA) as authorized by RCW 70.94.405. Ecology appreciates and shares the Friends of Toppenish Creek's concerns about clean, healthy air for citizens in the Yakima Valley. Your letter provides several bases for your requests. We respect the seriousness of your request for evaluation of the YRCAA. However, for the reasons outlined below, we have determined that it would not be appropriate to initiate a formal review of the YRCAA at this time.

1. YRCAA has taken actions to address emissions from Yakima Valley dairies

As your letter acknowledges, the YRCAA has designed and is implementing a program aimed at addressing airborne pollution from dairy operations. On July 1, 2013, the YRCAA adopted its *Air Quality Management Policy and Best Management Practices for Dairy Operations* (Dairy BMPs) to manage air pollution from dairies where cows are confined for feeding and milking. A copy of the Dairy BMPs is provided as **Attachment 1** to this letter. The Dairy BMPs were developed after public notice and comment, and with broad participation from dairies in the Yakima Valley over the course of a pilot research project and a one year implementation trial period.

The Dairy BMPs require dairies to submit annual air quality management plans outlining best management practices (BMPs) and operational procedures that will be used to reduce air emissions. BMPs must address emissions from specific areas at dairies, including milking parlors, sorting alleys, feed alleys, dry lots and free stalls, lands where nutrients are applied, storage lagoons, compost areas, feed storage areas, unpaved roadways and any other area or process where emissions may occur. Plans must describe how and when each BMP is to be implemented and the criteria for selecting BMPs, as well as a description of which pollutant will be reduced as a result of each BMP. Dairies must also pay a registration fee to the YRCAA, and undergo site visits and full compliance evaluations to determine their compliance.

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This program is the only one of its kind in our state. The YRCAA has committed to evaluating the policy every two years, assessing its effectiveness, and making modifications to improve the program. The first program review was conducted in 2014. A copy of the report on the 2014 program review is provided as **Attachment 2** to this letter. As part of this review, YRCAA staff visited 41 dairy operations consisting of 59 facilities and gave each dairy a grade from "A" (best) to "D" (worst) on implementation of the management system and BMPs. Each inspection team included 2 engineers and 2 compliance inspectors. Each inspection evaluated the implementation of BMPs in seven dairy operation systems: Nutrition; Feed Management; Housing - Freestall Barns; Housing - Drylot Pens; Grazing; Manure Management; and Land Application (Fertilizer and Manure). The inspections targeted BMPs designed to reduce eight air pollutants: ammonia, nitrous oxide, hydrogen sulfide, volatile organic compounds, particulate matter, methane and oxides of nitrogen, as well as odors.

Inspectors gave 21% of the operations an "A", 30% a "B", 37% a "C" and 12% a "D". According to these evaluations, 51% of the facilities, housing about 74% of the dairy cow population in the Yakima Valley scored A or B grades. YRCAA intends to use this dairy-by-dairy, BMP-by-BMP evaluation as a base line for further evaluations.

The report recommended that dairies be required to increase their recordkeeping and improve BMP effectiveness each year. It recommended the addition of a new, highly effective BMP consisting of installing a completely enclosed structure for the feed preparation area. It also recommended follow-up visits for some operations within a short period of time to verify the operations had followed agreed-upon recommendations to correct potential violations identified by the inspection team. Finally, the report recommended issuing compliance schedules for dairy operations that did not substantially implement reasonable recommendations and a site inspection schedule based on the overall grade each dairy received.

The second review is scheduled to begin this fall. According to YRCAA, for this review the YRCAA will conduct inspections of the dairies, and will reconvene the Dairy Workgroup to conduct the program evaluation and develop recommendations. The results of the review will be presented in a report that the YRCAA estimates will be delivered to the YRCAA Board of Directors in the spring of 2017.

We recognize the YRCAA's efforts to reduce pollutants from dairies. Because the Dairy BMP program is relatively new and still being honed, we believe it would not be appropriate for Ecology to conduct a formal RCW 70.94.405 review of the YRCAA's efforts at reducing emissions from dairies at this time. We encourage the Friends of Toppenish Creek to participate in improving the Dairy BMPs and the upcoming program evaluation and to vigorously pursue relief to address your concerns that YRCAA's program is not adequate.

2. Air monitoring efforts and scientific studies are underway

Your letter raises concerns regarding air monitoring data near dairies. Ecology supports and works with our air quality partners to promote clean healthy air throughout the state. As part of this effort, Ecology, the YRCAA, the U.S. Environmental Protection Agency, and the Yakama Nation conduct ambient air monitoring at four locations in the Yakima Valley (Sunnyside, Toppenish, White Swan, and Yakima). We review and evaluate the data collected at these sites regularly and use it to ensure that the area is meeting (in attainment of) the health-based national ambient air quality standards set by EPA. Like all the monitors in the state monitoring network, these monitors are designed to monitor ambient concentrations of pollution, and are not designed to measure impacts directly from individual sources.

From time to time, however, Ecology and local air agencies do conduct special monitoring studies in areas with specific air pollution and health concerns. In one such effort, Ecology worked with the YRCAA, the Yakama Nation, and researchers at Washington State University and Central Washington University to conduct the Yakima Air Winter Nitrate Study (YAWNS) completed in 2014. A copy of the report issued on that study is provided as **Attachment 3** to this letter. In this study, researchers studied Yakima's air to better understand why the air in the Yakima Valley has higher than usual levels of fine particles containing nitrates.

Researchers found that ammonia from agricultural activities interacts with oxides of nitrogen from motor vehicles during the right weather conditions to form aerosol nitrate, a component of fine particulate matter (PM_{2.5}). Aerosol nitrate builds in the air during cold, stagnant periods when pollution does not disperse easily. One gap in the study was that researchers did not collect data in the Lower Yakima Valley, the area where the dairies are located. This data gap was corrected last winter, when researchers measured levels of aerosol nitrate in the lower Yakima Valley. The data from these measurements have not yet been analyzed. "Ecology anticipates completing that analysis by the end of October 2016, and will share the results of that analysis with the YRCAA, and it will be available to the public."

Your letter also raises concerns regarding the availability of information on health impacts to citizens living near dairies. While there are numerous studies concerning impacts to farm workers and people who live on farms, there is a lack of data specifically concerning impacts to citizens living near dairies. To address this question, at the request of EPA Region 10, the Agency for Toxic Substances and Disease Registry (ATSDR), part of the Centers for Disease Control (CDC), conducted a study to measure exposure to air pollution at properties near dairies in the lower Yakima Valley. An email from ATSDR giving a short description of that study is provided as **Attachment 4** to this letter. According to ATSDR, ATSDR took samples for 8 weeks during the fall/winter of 2014 and 8 weeks during the summer/fall of 2015, to measure exposure to ammonia, hydrogen sulfide, and particulates near concentrated animal feeding operations (CAFOs) on the Yakama reservation. ATSDR anticipates releasing their results in the spring of 2017. The results of this study will help provide additional information to better understand and manage more localized air pollution levels and health risks for citizens living near dairies.

Ecology believes it would be inappropriate to conduct a formal review of the YRCAA before the results of these studies have been finalized and both Ecology and the YRCAA have had an opportunity to review and evaluate them.

3. YRCAA has taken steps to address questions concerning possible conflict of interest with the YRCAA Board of Directors

Your letter raises concerns regarding the integrity of the YRCAA Board of Directors and possible conflicts of interest. To address these concerns, in June, 2016, the YRCAA Executive Director and Board of Directors requested an opinion from the Attorney General's Office (AGO) on board member participation and potential conflicts of interest. A copy of that request is provided with this letter as **Attachment 5**. It is our understanding that the AGO has accepted the YRCAA's request and is currently working on the opinion.

In light of YRCAA's request and the pending AGO opinion, we again believe it would be premature for Ecology to further investigate this claim at this time.

Conclusions

Ecology shares your interests in clean, healthy air for citizens in the Yakima Valley. We understand that you believe that the YRCAA is not implementing its programs in good faith or as effectively as possible. We have thoroughly reviewed your June 10, 2016 letter and the materials you have submitted to us. We have also considered the steps the YRCAA is taking to manage air pollution from dairies in the Yakima Valley, as well as the steps YRCAA is taking to address your concerns about potential board member conflicts of interest. Finally, we looked at ongoing efforts to understand air pollution from dairies in the Yakima Valley as well as the pending AGO opinion concerning conflicts of interest.

After that evaluation, we have determined not to initiate a formal review of the YRCAA at this time. We expect to have more information about the results of YRCAA's efforts to reduce emissions from dairies, as well as the outcome of the ATSDR study, over the course of the next year. We will also have the AGO opinion concerning potential conflicts of interest on the YRCAA Board. These results will provide all stakeholders with important information to better understand the issues.

It is important to note that the Legislature has provided independent authority to local air agencies, delegated them responsibility for carrying out state air quality laws and regulations and authorized them to take delegation of federal requirements from EPA. Local air agencies are also provided authority to adopt local regulations that are equally or more stringent than state regulations. Ecology respects the broad discretion provided by the Legislature to local air agencies in establishing local priorities and programs to manage air pollution.

Even though Ecology is not granting your request at this time, we want to assure you that we respect the seriousness of the concerns you have raised. Ecology and its partners welcome a dialogue about air quality in the Yakima Valley. As more information becomes available, we are willing to engage with you in the future to further review your concerns.

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We vigorously encourage the YRCAA to pursue steps to bring relief to impacted citizens in the Yakima Valley. We also encourage all residents who are impacted by dairy-related air pollution to remain engaged in improving air quality in the Yakima Valley.

If you wish to discuss this further or if you have any questions, please do not hesitate to contact Chris Hanlon-Meyer at (360) 407-6115 or Chris.Hanlon-Meyer@ecy.wa.gov, or Sue Billings at (509) 575-2486 or Susan.Billings@ecy.wa.gov.

Sincerely,



Maia D. Bellon
Director

Attachments (5):

1. Air Quality Management Policy and Best Management Practices for Dairy Operations (effective July 1, 2013)
2. Air Quality Management Policy for Dairy Operations: Report to the YRCAA Board of Directors of the July, 2013 to October, 2014 Policy Implementation Period (dated November 13, 2014)
3. Yakima Air Winter Nitrate Study
4. August 30, 2016 email from Debra Gable, Subject; RE: ATSDR
5. June 2016 request for AGO opinion

cc: Gary Pruitt, YRCAA
Sage Park, Ecology Central Region
Grant Pfeiffer, Ecology Eastern Region
Stu Clark, AQ Program Manager
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