

Appendix G. Public Comments

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Comment 1



April 23, 2021

Jacob Berkey
Washington Department of Ecology, Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Dear Mr. Berkey:

This document will serve as comments from the Friends of Toppenish Creek (FOTC) regarding Ecology's proposed Yakima Regional Clean Air Agency (YRCAA) Rule Change - State Implementation Plan (SIP).

FOTC asks the WA State Dept. of Ecology (Ecology) to reject the YRCAA request for a rule change because the YRCAA, in fact, enforces neither the Federal Clean Air Act nor the Washington State Clean Air Act as required by law. Approval of a SIP for Yakima County would inaccurately signify that YRCAA actually follows rules and regulations. It does not.

Sincerely,

Executive Director, Friends of Toppenish Creek

3142 Signal Peak Road
White Swan, WA 98952

Yakima Regional Clean Air Agency & the Clean Air Act

Yakima County is home to 1/3 of all Washington dairy cows, about 100,000 milkers, that are concentrated in an approximately 271 square mile area in the Lower Yakima Valley (LYV). According to the WA State Department of Ecology (Ecology)¹, livestock in Yakima County emitted 8,053.58 tons of ammonia into the ambient air in 2011. Ammonia is a toxic air pollutant under Washington law, WAC 173-460-150. Dairy animals also emit significant amounts of methane, hydrogen sulfide and volatile organic compounds (VOCs) which, among other adverse effects, contribute to odor.²

For over twenty years citizens in the Lower Yakima Valley (LYV) have complained to the Yakima Regional Clean Air Agency (YRCAA) about air pollution from concentrated animal feeding operation (CAFO) dairies in the area. For ten years the agency simply stonewalled.³

In 2010 the YRCAA initiated work on an Air Quality Management Policy (AQMP) for dairies. The YRCAA approved the policy in 2013 and rescinded the policy in 2018 due to concerns about use of the AQMP data to support litigation. There is no dairy policy in Yakima.³

Over the years the YRCAA has rejected three requests by citizens to ban spreading/spraying of manure during air inversions and burn bans.³ In 2016 the YRCAA Board of Directors rejected a modest proposal to study ammonia in the ambient air.³ YRCAA ignored research by the Friends of Toppenish Creek (FOTC) that documented high levels of ammonia at a home near LYV dairies.³ The YRCAA has ignored research by John Hopkins University and the University of Washington that documents adverse health effects from dairy emissions in Yakima County.³

The YRCAA has rejected efforts to incorporate environmental justice into agency planning.³ In 2017, at the request of the Yakima Dairy Federation YRCAA made changes to policy for public testimony before the board and essentially eliminated opportunities to educate the board about air emissions.³

1. WA State Dept of Ecology (2014) Washington State 2011 County Emissions Inventory. Available at <https://ecology.wa.gov/DOE/files/ca/ca462fc4-dee7-4435-a2a6-e69081c8b0fc.pdf>

2. Environmental Protection Agency (2001) Emissions from Animal Feeding Operations. Available at <https://www.epa.gov/sites/production/files/2020-10/documents/draftanimalfeed.pdf>

3. Yakima Regional Clean Air Agency – Citizen Testimony at Meetings of the YRCAA Board of Directors. Attachment B

In February 2005, then YRCAA Director Les Ornelas told a WA State University workshop of dairymen⁴:

Now, I receive the largest number of odor complaints currently for my jurisdiction against feedlots, dairies, other kinds of chicken farmers, and other sorts of activities like this. We have people in the field who have been trained to evaluate odors, to be able to discern from a level 1, 2, 3 or 4 (4 typically is the one that causes a gag reflex). We go out and respond to all these numerous complaints every year and we have not yet issued a citation to any of the dairy people on odors in Yakima County, even though we have hundreds and some years over a thousand complaints.

During the past 15 years nothing has changed. The YRCAA does not issue citations for odor and dust against Yakima County dairies.

How does the YRCAA manage to avoid this duty? The agency has a simple solution. When citizens complain they call us liars⁵. The reason no citations are issued to dairies is that all the complaints are considered frivolous.

A citizen tries to obtain relief from the YRCAA⁵:

July 19, 2019 (Friday) at 7.35 PM citizen left a voice mail message with YRCAA.

CP says there's "Ambient cow pen dirt from Hornby west to Waneta and further. Particle dirt filling the air around us can be seen on video with lights. It smells like urine but you don't care about that."

July 21, 2019 (Sunday) at 11:30 PM left a voice mail message with YRCAA.

CP says that "Foul cloud of ambient open pen dirt and lagoon storage. Strong smell of ammonia/urine permitting our property and home. Gagging, sinus headache and inability to breathe even with high power filtering system."

YRCAA recorded the calls the next Monday but did not investigate.

July 22, 2019 (Monday) at 11:15 PM left a voice mail message with YRCAA.

CP says that "The ambient pen dirt air was sucked into her home and her sons through open windows around 11:00 PM when she was cooling her house down with the evening air. Horrible dirty feeling ambient pen dirt willed with horrid ammonia and manure AND

No investigation.

4. WSU AD Workshop; Sunnyside, WA; 2/25/05 – Transcripts. Attachment A.

5. Friends of Toppenish Creek. Dec. 2019. Descriptive Analysis of YRCAA Complaint Reports for Odor and Dust. Attachment C

July 24, 2019 at 9:35 AM left a voice mail message with YRCAA.

After wonderful rain and thunder showers last night no smells! Wonderful sweet clean air! But tonight, Wednesday, 7/24/2019 9:25, windows open screen doors letting in fresh air until this very moment! Boom ! Ambient pen ammonia stench coming in.

No investigation.

July 25, 2019 at 8:00 AM left a voice mail message with YRCAA.

"Awoke to horrid smell of dead cow composting. Velduis Klompe CAFOs is composting turning dead cow compost and it's gross. The ambient air is bringing this cloud of stench to my property this morning! Go to sleep with smells of urine wake up to manure

No investigation.

July 25, 2019 at 8:27 AM left a voice mail message with YRCAA.

"Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"

No investigation.

July 25, 2019 at 11:15 PM left a voice mail message with YRCAA.

CP says "Cool nights are once more and very appreciated. However, opening our windows and screened doors is a negative. The ambient pen dirt full of odor from the cafo open pens surrounding our home and the neighbors is restricting the enjoyment of fresh

No investigation.

July 26, 2019 at 1:20 AM left a voice mail message with YRCAA.

CP says "Awakened by stench from ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

No investigation.

July 29, 2019, no time recorded, left a voice mail message with YRCAA.

CP says "Kelsey, once more Klompe CAFO is composting and the ambient dirt from that is just nasty at my home. The wind was blowing from the east as well. I believe they've been told not to compost in the wind. Kelsey I have photos! This needs to be handled

The YRCAA initiated an “investigation” on **July 30, 2019** at 1 PM. This was their investigation:

Dairies and CAFOs in the vicinity of Hornby, Stove, Braden and Tear Roads were contacted and made aware of the complaints

Reasons to Reject SIP Update for the YRCAA

The Friends of Toppenish Creek ask Ecology to reject the State Implementation Plan for Yakima County because the YRCAA does not follow the laws of the state, or even the agency’s own rules and regulations.⁶ Specifically, YRCAA unfairly favors the dairy industry over all other industries in Yakima County and over the people of Yakima County. The YRCAA:

1. Ignores citizen complaints regarding odor, dust, and air pollution that threaten public health.⁷
2. Refuses to do the research that would clarify the impact of dairy operations on the health of citizens in the Lower Yakima Valley.⁸
3. Accepted false testimony from an “expert in manure management” who egregiously misinformed the YRCAA regarding health impacts of manure spreading during air inversions as they rejected a citizen petition to band this practice.⁹
4. Hired an agency director who lacks qualifications and fails to lead the agency.¹⁰
5. Allowed and continues to allow board members to vote on issues in which they have financial interests.¹¹
6. Knowingly fails to regulate emissions from the 100,000 cows that are housed in a 271 square mile area in Yakima County.

Regarding Reason 1, please review the voluminous summaries of YRCAA Board meetings in which citizens explained to the YRCAA and the YRCAA Board of Directors how air emissions from dairies impact their health and quality of life.

Regarding Reason 2, please see statements from citizens¹² who offered their own research using an EPA approved monitor, the “Hound”, as well as an FOTC conducted study of ammonia levels near LYV dairies. Please see statements from the YRCAA Board of Directors when they rejected a proposed \$14,000 study of ammonia levels in the LYV.⁸

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6. Misinterpreted Rules & Regulations Attachment K
 7. Yakima Regional Clean Air Agency – Citizen Testimony at Meetings of the YRCAA Board of Directors. Attachment B. Public testimony regarding an AQMP for dairies. Attachment D. Pages 24 – 69.
 8. Attachment B. pages 44, 45, 46, 47, 48, 49, 50, 52, 53. FOTC Ammonia Study. Attachment E.
 9. WA Dairy Commission Literature Review. Attachment F. FOTC Response to Literature Review. Attachment G. Citizen Testimony at Meetings of the YRCAA Board of Directors. Attachment B. Page 27.
 10. FOTC Letters to Ecology. Attachments H & I
 11. Attachment B. Pages 27, 43, 44, 46, 48, 51, 52, & 54
 12. Attachment B. Page 17

Regarding Reason 3, Dr. Nicole Embertson, hired consultant to the YRCAA, incorrectly:

- Concluded that there was no adverse impact on public health from manure spraying and spreading, in spite of contrary evidence in 12 out of 13 her cited references.
- Stated that the Dairy Nutrient Management Act addresses air emissions. It does not.
- Stated that dairies in the LYV do not spread manure during winter months. They do.
- Mis-stated statistics on the contribution of ammonia to PM 2.5.
- Mis-stated conclusions from research by John Hopkins University in Yakima County.
- Mis-stated national research on the adverse health impacts from CAFOs.

Regarding Reason 4, the YRCAA Board of Directors hired Keith Hurley to serve as YRCAA Air Pollution Control Officer (APCO) in 2017. While other WA Clean Air Agencies employ attorneys and scientists for this position, Mr. Hurley holds a bachelor's degree in physical fitness. The YRCAA Board rejected candidates with advanced degrees in engineering and environmental science.

Regarding Reasons 5, citizens have protested the presence of Dick Camp and Dr. Steven Jones on the YRCAA Board of Directors to no avail. Mr. Camp operated a facility that was classified as a category 5 hazardous waste site. Dr. Jones receives a significant portion of his annual income from the dairy industry. Dr. Jones votes on issues that economically impact his clients.

Regarding Reason 6:

- The WA State Department of Agriculture (WSDA) has determined that about 35% of nitrogen excreted on dairy production areas is emitted into the ambient air.¹³
- The WA State Department of Ecology (Ecology) estimated that animal agriculture in Yakima County emitted over 8,000 tons of ammonia into the ambient air in 2011.¹⁴
- Ecology conducted a study in 2013 that examined high levels of fine particulate matter in Yakima County. The study found, "Yakima is unusual within Washington in that a significant fraction of the PM_{2.5} during winter is comprised of particulate nitrate, usually in the chemical form of ammonium nitrate (NH₄NO₃)".¹⁵
- YRCAA enacted policies to address emissions from beef operations in 1997 and from heifer operations in 2002.

13. Lower Yakima Valley Groundwater Management Area Program. Vol. I, page 25. Available at <https://www.yakimacounty.us/DocumentCenter/View/22177/GWMA-VolumeI-July2019>

14. WA State Dept of Ecology (2014) Washington State 2011 County Emissions Inventory. Available at <https://ecology.wa.gov/DOE/files/ca/ca462fc4-dee7-4435-a2a6-e69081c8b0fc.pdf>

15. WA State Dept. of Ecology (2015) Yakima Air Winter Nitrate Study. Available at <https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>

- YRCAA enacted a controversial policy to address emissions from dairy operations in 2013 and rescinded that policy in 2018 because data might be used in litigation.

Fine particulate matter and ammonia negatively impact human health. People in Yakima County suffer from higher-than-average rates of heart disease, lung disease and adverse perinatal problems.¹⁶ Most recently, Yakima recorded the highest rates of infection and rates of death due to COVID 19 in Washington State. There is a relationship between air quality and COVID 19 morbidity and mortality.¹⁷

Please, do not validate the ineffective YRCAA by approving the proposed WA State Implementation Plan for Yakima County.

Sincerely,

Jean Mendoza

Executive Director, Friends of Toppenish Creek

3142 Signal Peak Road
White Swan, WA 98952

16. WA State Department of Health. WA Health Tracking Network. Available at <https://fortress.wa.gov/doh/wtn/WTNPortal/>

17. Wu, X., Nethery, R. C., Sabath, B. M., Braun, D., & Dominici, F. (2020). Exposure to air pollution and COVID-19 mortality in the United States. *MedRxiv*. Available at <https://www.medrxiv.org/content/medrxiv/early/2020/04/27/2020.04.05.20054502.full.pdf>

Attachments

Attachment A: WSU Dairy Workshop 2005

Attachment B: Citizen Testimony at YRCAA Board Meetings

Attachment C: Descriptive Analysis of YRCAA Complaint Reports for Odor and Dust.

Attachment D: Public Testimony on the Draft YRCAA AQMP for Dairies

Attachment E: FOTC Ammonia Study

Attachment F: WA Dairy Commission Literature Review

Attachment G: Response to WA Dairy Commission Literature Review

Attachment H: Letter to Ecology Director Maia Bellon January 2019

Attachment I: Letter to Ecology Director Maia Bellon March 2019

Attachment J: Timeline

Attachment K: Misinterpreted Rules and Regulations

Les Ornelas, Yakima Regional Clean Air Authority, Yakima, WA

I'd like to thank everyone for being here and I understand that I missed half of you already. Several of you ran for cover after looking at this afternoon's agenda and seeing that a regulator was going to be here, so I appreciate those of you who had the endurance to hang around.

First of all, let me introduce myself. I'm the air pollution control officer for Yakima, I only speak for the Yakima Clean Air Authority. But I think that much of what I'm going to say will affect you wherever you are in the states of Washington, Oregon or Idaho.

I'd like to start out by saying that the bottom line is going to be affected by how these regulations affect you. Your bottom line is going to be affected by how regulations affect you. Don't forget to include that in your cost analyses as you develop your various programs on whether it's anaerobic digesters or any other kind of program. Regulations have become a real part of our lives.

I speak from personal experience on both sides of the fence. I'm a regulator but I'm also an entrepreneur. I have businesses in California and Utah and in Washington State, and so I sign both sides of the paycheck, I receive one and sign the back, and I issue some and I sign the fronts of them. I want you to know that I understand the situation that each of you, as businessmen and women, have to live with. This agency attempts very diligently to address the issues of the business community, and I'm pleased to be able to report to you that we have been successful in working with most of our businesses which we regulate here. We have a pleasant and ongoing relationship with Steve George, with the Yakima Valley Dairy Federation, as well as other elements of our business community here. We're still regulators and we'll still comply and cause compliance with all the laws that apply to all of us, but that's fundamentally what we're all about.

I was going to read 47 pages of material here for you but I decided that might be a little bit much. So I condensed everything down to a 3x5 card. I hope that satisfies most of you. I want to again congratulate the organizers.

I had the great privilege of being involved in a number of alternative power generation projects in the State of California when I worked there years ago. I think that a lot of the work that you're being approached with today has already been done. The question is whether you can get the numbers to line up. Some of you are more or less affected by the regulations that I

represent, that is, air quality regulations. But let me just go down a couple of them before I get to the subject that was on my line on the agenda.

Boilers, power generation plants, storage and activities all may be subject in one form or another by an air quality agency. The subject that was listed for me is odors. As you know, the public's expectation is changing. Their tolerance levels are being significantly changed as we continue to evolve. New people not accustomed to agricultural activities move in next door to you. Your organizations, your businesses are growing. Therefore they contribute more to the problems that tend to be an irritation to some of your neighbors.

The two largest contributors to pollution from your industry are dust and odors. Fortunately here in Yakima we've been able to deal with most of the dust problems very effectively. Because of the uniqueness of the Washington State law, we're unable to deal effectively with the odor issues. And, in fact, many in the community feel that they are being stonewalled by your industry. I work with a lot of you around here and so I know that you're doing things differently. I know that you're making progress, I know that you're taking seriously your role in a vibrant community. I know that you're taking these things seriously, but the public by and large doesn't appreciate your efforts.

So I believe that one of the key ingredients here is to open up ourselves and have better dialogue with our community. As you elect to make these changes including perhaps changing your method of operation, expanding your facilities or whatever, I do believe it would be to your great benefit to involve your community in those plans so they understand what's coming along. The interactive dialogue is going to significantly improve our relationship. I think that's a proven fact. Please pay attention to that.

As I mentioned to you, the odors issue in the State of Washington is difficult. You have an agricultural exemption. The test if someone complains about odors in the State of Washington is difficult to meet. We have to bring in, in a timely fashion, at the time the incident occurred, third party experts to testify that the business is following best management practices for your industry in your locale. Well, if everyone is doing everything in a particular kind of a way, guess what the best management practices are, irrespective of the public's perception of a problem. You follow me there? The public's perception of the problem is what's pushing many people's trigger finger or hot buttons or however you want to put this. So, I ask as you change your business or as

your community is changed around you that you attempt to address this issue in a more public sort of a way.

Now, I receive the largest number of odor complaints currently for my jurisdiction against feedlots, dairies, other kinds of chicken farmers, and other sorts of activities like this. We have people in the field who have been trained to evaluate odors, to be able to discern from a level 1, 2, 3 or 4 (4 typically is the one that causes a gag reflex). We go out and respond to all these numerous complaints every year and we have not yet issued a citation to any of the dairy people on odors in Yakima County, even though we have hundreds and some years over a thousand complaints.

Why is that? Because the perception of your neighbor is that you have a real big problem and the evaluation of an agency responsible to investigate these issues is that we don't find a problem significant enough to issue a citation. This is causing frustration in the community. And I've had to withdraw from some of the meetings and discussions that are going on among your industry here in Yakima because I have people looking over my shoulder all the time and they want me to fully disclose the minutes, the actions, the report in great detail, and some of the things that you're planning for the future to address these sorts of things. The concern I have on your behalf is that once we say that we're dealing with some of these problems, they tend to be an acknowledgement that a problem does exist, which then feeds the critics. You follow me here? This is a dangerous circle, but you have to understand that this does exist here.

So I'm asking all of you to continue to stay this course. Do what you can. As you start to contain and manage your waste streams, you're going to deal with the major component of the public's concerns and that is odors from your facilities. Because you're going to contain them, you're going to process them, you'll divide them, separate the solids from the liquids, you're going to create gases, you're going to contribute to the community in a more holistic perspective. We will all benefit from your work, your investment, and reward from your changes in the way that you do things.

I'm not here to criticize you, I'm not here to pose tremendously fantastic new models and pictures. You guys are doing the right thing by looking at this. I'm not here to advocate anything in particular other than, I think that you're on the right track, and I encourage you. We put money out for demonstration programs. We will support you in pursuing grants to assist in these things,

and I think that we can meld a wonderful relationship among ourselves here if we really work on this aggressively. But I do think that the clock is ticking.

I have a five-member board. It takes three of those board members to make a change in policy. And we have legislatures and county commissioners, boards of commissioners, and other kinds of boards around that have regulations, and all it takes is a majority to change the paradigm from what we have today to what it might be. I think it's in all of our interests to do those things so we can demonstrate steady progress toward addressing these problems whether we want to accept them ourselves or not. They are a perception and we have to deal with a perception one way or the other. I hope I've not said anything that has offended anyone, but that's the way I see it.

There were two other points I wanted to make here—I guess I made one of them. From an air quality perspective your permits will include your boilers, your generators, and any other point sources that you create as you change your operations. And the applicability of these laws will be different when you start moving into those more industrialized kinds of processes than they are today where you are by and large covered by the agriculture protection laws. That's one thing I repeat myself on.

The other thing is that I want you to work closely with your own regulatory agencies as you consider these changes so that you can be prepared for that. I guess I'll emphasize the first point once again. You should include the cost of compliance in your economic analysis as you consider the various ways that you can approach this issue.

Public Comments from YRCAA Board Meetings

Access video tapes of YRCAA Board Meetings at
<https://videos.yakimawa.gov/CablecastPublicSite/search?channel=2&query=yakima%20regional%20clean%20air%20agency>

December 2011

Jan Whitefoot (Citizen): Against CAFO air pollution. Object to Tom Silva, former director, as a citizen rep on the AQMP work group. No information from Mr. Silva. Picture of Mr. Silva's house with burning during a burn ban. Study by D'Ann Williams – air testing on 40 YV homes showed that it is bad to live next to a dairy/feedlot. Particulates can travel over ¾ miles. Today smelled stench of CAFOs. Have you read D'Ann Williams report. Have asked copies of the notes from dairy WG meetings. Have not received them. Violation of the law. She volunteers to be the female rep on the dairy meetings. Gary Pruitt says the dairy meetings are not public meetings and they do not have to share minutes with the public. Invited the board to tour the LYV. There is more manure in the county than there is land for application. Has photos of manure application for two straight weeks during the winter. That is why you need a genuine citizen rep on the dairy WG.

Tom Gasseling (YRCAA Board Chairman), “let's see what comes out with this report and this work group. . . . we still don't know exactly the final outcome of this workgroup. . . we may not have a legal recourse, but we have an ethical recourse.”

Jan, Whitefoot “We should be there working with you.” “The people of the community need to know that we are not being represented by Clean Air.”

Larry Fendell (Citizen): Ongoing inversion. No outdoor burning. Asked for no more liquid manure spreading. They are spreading it next to me, . . . every day. A ban would help a lot.

Chairman Gasseling: I don't think we have the jurisdiction.

January 2012

Presentation of Air Quality for Dairies by YRCAA Director Gary Pruitt

Dr. Nicole Embertson, Nutrient Management Specialist from Whatcom County participated.

Louie Aguilar (Citizen): When he visits his 90-year-old mother in Sunnyside the smells are bad. Will this policy make a difference or is it just a procedural document that says, maybe in 15 – 20 years Sunnyside will smell better.

County Commissioner Rand Elliott: Appreciate the question. No intention of getting into a public debate.

Jim Dyjak (Citizen):

Only seven people got the packet. What about the hundreds of people who did not get the packet?

What if a dairyman removes manure from pens and gets high points, then moves the manure to another place? What if he takes the manure off the dairy and places it on another site?

No scientific instruments were used. Re NAEMS – Where is the baseline for neighboring homes?

Karen Cook Gulley (Citizen):

Lived in Toppenish all her life as well as grandparents. Health is decreasing in value. Has asthma, sinus infections, migraines, now chest pains. Why can the Beef Plant burn whatever they want any time they want, while residents cannot use their wood stoves.

Every time there is a problem, they sell the plant and pass the problem on to someone else. Have you ever studied the asthma rates in Toppenish?

The air quality leaves deposits on Toppenish murals.

Jan Whitefoot (Citizen):

Vision Statement – To protect public health and safety from air pollution

Score Card is based on the assumption that BMPS work. Have been in place for 20 years. Not enforceable. Following BMPs has led to the mess we are in today.

YRCAA received \$30,000 to conduct the Pilot Project. This is unethical. No environmental representatives were allowed to attend the meetings. Consider this a conflict of interest.

Quotes Attorney Charlie Tebbutt: “The proposed policy does nothing . . . but allow the industry to claim they are regulated.”

You cannot separate a lagoon with aeration from water.

“Why do you allow the poop sprinklers on the dairies?” People have experienced poop sprayed on their cars while driving to work. Under BMPs the poop sprinklers are legal.

Why are poop sprinklers not addressed?

John Hopkins study. Why did the YRCAA say the study has holes in it. Why are you not paying attention to this study, peer reviewed, etc.

Say you are going to use eyesight as a mode of measurement. Not scientifically acceptable.

RCW 70.94 requires scientific measurement. HOUND has been used at Monson feed lot and by the EPA.

We have had horrible inversions. Cows don't stop pooping during inversions.

Dairy Score Card does not address public health during inversions.

Voluntary participation has never worked.

Pumping liquid manure from a lagoon onto 40 acres next to an area where children are playing. And this is legal under the AQMP.

Dust control.

Acting YRCAA Board Chairman Bill Lover tries to cut her off.

Whitefoot continues: Why would you allow dairies to recycle wastewater to be used for dust control?

AQMP creates a paper tiger that protects industry and does nothing to protect the air.

Are there monitors at dairy sites?

EPA did not participate in development of AQMP.

Much of the information in the score card will not be available to the public.

Ask them to stop and work with the public to write a viable plan.

Jean Mendoza (Citizen):

Report looks very nice. Goal should be to make report relatable to reality. Goal to improve and maintain public health with respect to air quality.

Baby's lungs are not mature until age five. Pollution impacts children differently.

Studies on young people with asthma.

Chairman Lover questions relevance

Mendoza – trying to make the link to human health as well as animal health. Encourage YRCAA to put a human health component into the project.

Suggested additions:

- Look at impact on human health
- Micro-organisms in particulate matter
- Difference between Pm 2.5 and PM 10

- Look at fecal dust – can cause disease in people
- Look at how much pollutant there is – Can look at how many cows per acre

Chairman Lover intervenes – have to close meeting by law

Suggest rejection of Appendix G – A lot of people will accept this as the truth, It is more virtual than real. There was no baseline air study. YRCAA says they cannot measure odor, but says they reduced odor by 24% in Appendix G

Adjourn study session and re-open to public comments for regular meeting. Lover, Elliott and Camp present.

Louie Aguilar (Citizen):

If you held these sessions in an environment where people are exposed to the pollution all the time, it might bring a different incentive, able to observe changes. We are sitting here in a beautiful, air-conditioned environment. Need to consider the issues where the problem exists. Otherwise, will be here 20 years from now discussing the same problem.

Gerald Gefre (Citizen):

Downwind from the DeVries Dairy – means anyone within 3-4 miles of a dairy. There was no true citizen representation at the workshops. Impacted people were not heard. Maybe the board should get into an airplane in June or July and smell the odors from the dairies – causes N/V.

Suggests implementation of BAT – Best Available Technology instead of BMPs. Dairymen who make a good living, should be looking out for their neighbors.

Pollution will affect people down the road.

No reference to what happens to manure after it comes off the dairy.

Asa Washines (Citizen):

From West Wapato area. The document lacks the partnerships with the Yakama Nation, part of Yakima County.

There have been cases in which tribal areas have higher standards than neighboring areas. Tribal standards can supersede neighboring rules.

Disappointing to see lack of collaboration.

Chairman Lover says he tried to reach out, not successful.

Do you remember the name of the person from the Yakama Nation.

Rebecca Hauk, Elizabeth Sanchez, Noelle Saluskin & Phil Rigdon per Gary Pruitt. YRCAA presented to the Tribal Council.

Lavina Wilkins (Citizen):

Tribal member who lives on West Wapato. Moved to her home for fresh air for her grandchildren. Now all her family has allergies and asthma. Every morning when you go outside you smell cow manure. Raising a grandchild with asthma who is on a machine. I have an inhaler.

Jurisdiction. Air does not have jurisdiction. The cities are affected by pollution.

Need to see a better plan and more people involved. Our children are our most valued possession.

“If you can see the air its OK” Is this the policy you are pushing. I can’t for the life of me see how you can see the air. Applause.

Steve George (Citizen):

Works for the dairy federation. The industry was invited to participate and did so voluntarily. Appreciate the professionalism of the YRCAA staff and others. There has been a lot of chaff spread round here today. Believes the wheat needs to be separated from the chaff.

Industry looks forward to working with staff. Believes they have made great headway. Great program. Looks forward to working with YRCAA.

Larry Fendell (Citizen):

A lot of work involved, even though I don’t agree. Appendix G-1. Pie Charts. Ammonia and odor. Could not find a baseline anywhere. Says they reduced ammonia and odor. But there is no baseline.

I live down there. I don’t notice a 24% reduction. It stinks. There’s too many cows on a confined area. You end up with > 6 cows per area. This is not agronomic. The main thing dairies produce is manure. But we have just too many cows.

Only eight people participated in the workshops.

Not the first in the nation. Have found projects in Idaho and California. They are used to get more laws passed and a propaganda tool.

Putting up trees at stage three. Creates problems – mites and aphids.

Running manure through wheel lines, or through a honey wagon, pollution hangs in the air till the cows come home.

There is nothing scientific about the AQMP. They should have established a baseline. Dr. Ndgwa has state that spraying manure is the worst way to spread manure. People's homes and cars have been sprayed.

Dr. Nicole Embertson (Consultant):

Good comments, etc. Good to compile so the scientists can reply and provide resources.

Loover was an observer throughout. Not an expert but has comments:

Public should believe the dairy industry made a good faith effort and should be commended. In particular the article in the paper from Dr. Williams made irrelevant comments.

Conclusions are consistent with pro-active problem solving with CQI. Same processes used in major industry.

States he is still open to opinions. Believes it will improve air quality. Commends the industry.

February 2012

Study Session – YRCAA Director Gary Pruitt – Purpose to comply with the WAC. Identified BMPS that impact human health. Investigate whether BMPs were being implemented. Summarized in a Score Sheet. Emissions can't be measured adequately and accurately for fugitive sources such as dairies.

There are public impressions and concerns:

- Measurement of ambient air is necessary.
- Measurement of fugitive emissions cannot be done.
- Public was not involved.
- No new BMPs created.
- Therefore, the public could not and should not have been involved.
- Perception of conflict of interest because of dairy funding
- CAA declares that the cost of air quality control should be funded by polluters.
- BMPs don't work.
- National Academy of Science disagrees. 2003 report on Regulation of Air Emissions from Animal Sources says there should be no delay.
- Industry has concerns – Not totally on board – Policy is another layer of govt regulation.
- Prefer no consequences.
- Gary disagrees.
- Industry says there is already a high degree of BMP utilization.
- Information given to the agency can be used to support lawsuits.

- YRCAA would not disclose.

YRCAA has the legal authority to require all dairies to register.

Registration does not mean a permit. Need to be able to determine if a facility has the potential to permit that would trigger a permit requirement under federal law.

March 8, 2012

Larry Fendell (Citizen):

Involved in clean air for a number of years. No problems getting information. All of a sudden it is hard to get information.

Dave Caprile wrote a deal into the paper – best approach to the dairies. He’s writing and talking about people twisting facts. This leads a lot to be deserved too. I brought a few pictures showing the smell problems we have. They push up berms. Make lagoons wherever, usually on property lines. They spread it out to dry right next to people’s homes.

This is a rig spreading the manure out. This is what it looks like after they harrow it. They haul it everywhere. This is Roza Drive in one drive. Where do you think that goes when you can’t get your mile? How do you incorporate manure on asphalt? One of the pictures they have dead calves laying out there. Here are the Big Guns. This is brown water. There supposed to be cutting that with something. Dr. Pius has said this is the thing they can do. Aerating it through irrigation. Here is a barn that hasn’t been cleaned.

When Dave writes a deal for the paper, he shouldn’t be so single minded. There are lots of reports that are ignored. They were supposed to be doing something since 2003.

Jan Whitefoot (Citizen):

On Monday the day the wind was blowing, 40 miles or more. Helen and I invited a reporter to go with us on a poop tour. You couldn’t hardly see the road. I the Best Management Plan it said they wouldn’t do anything in the wind. We saw truck after truck applying manure. They are not following it now. What will make them follow the plan.

Concerned about transparency. You didn’t share that the dairy industry provided \$30,000 until we brought it up. We are never offered the choice of participating. The citizen rep has not showed up for the last meetings. We all volunteered to serve in that position.

I would like to formally request that we do gasses. Asked for tracking and way to go back and see results. It is an EJ issue to include the public, and a matter of fairness. We never have the opportunity to share what we know.

Did anyone work with Ecology on the AQWMP card.

Did any members of the YRCAA lobby for a bill that would limit public request records. Kevin Bouchey might have done this.

You wouldn't be getting all these PRRs if we could access the records.

Steve George (Citizen):

Reiterate items from dairy industry perspective.

Industry participated 110%. Worked toward a positive goal. Had significant participation – at least half of the cattle. Had academia. High compliance rate.

Dairy should not be saddled with a mandatory program.

YRCAA Board Chairman Tom Gasseling:

The problem with the pictures is you cannot tell what they are. They could be dust blowing or anything.

Fendell: You mean you don't know shit from shinola.

Gasseling: That's right, I don't.

Gasseling: I'm getting real tired being told that I'm sneaky, deceitful, devious . . . I 'm getting real tired of being called devious. . . Don't come here every month and being told I'm some useless piece of crap.

I personally, I'm fed up with it.

This has got to stop. I'm not going to tolerate it any more.

Jan Whitefoot: You were bad mouthing me in an email.

Gasseling: I meant what I said.

April 12, 2012

Steve George (Citizen): Industry appreciates the tact you took at the last meeting. Over half of the cows in the program. Thanks from the industry to continue with a voluntary program.

Doug Moore (Citizen): Fighting this problem since Feb. 1991. I quit counting how many calls I have made. They go to the dairy. They don't go to the complainant. The dairies take them to a different area. I have had visitors that visited the boundary and almost vomited. Dr. Williams

said the air at my place is the second worst in the LYV. When I see that crap in the paper that says no one complains I throw my hands up in the air. Like I said, I have been complaining since 1991. I get pretty upset. As you can see my hands are shaking right now. There is an extra lagoon. The stuff is going into Ditch 9, Black Rock Creek. I know they are dumping, and no one investigates. They put in a plastic pipe that discharges right into Ditch 9. Now the discharge is covered up. It's been 21 years and I am still fighting the bureaucratic BS. Brought pictures. I got a dairy on Stover Road with manure this high. (five feet) Now they are coming down Braden Road. That's not good management practices . . . and you want them to decide what is good management practices. There is a lagoon with 3 million gallons of raw manure 187 feet from my house. I've filed complaints against it. They bulldozed down cat tails because that was a wetland. One time the gate broke and the whole 3 million gallons drained into Black Rock Creek. Nothing has ever been done. I'm so mad I have just about given up.

Dale Coder (Citizen): I really don't know what I'm doing here because it sounds like no one is doing anything. I get up every morning and go out to get my paper and the air is so bad I can't hardly stand it. Who pays you guys wages? When are you going to get off your butts?

Chairman Gasseling tries to intervene.

"Come out and take a look. It's crazy."

Eleanor Hungate (Citizen): Former full-time faculty at WSU Dept of Ag Economics. Talks about externalities and CAFOs. Don't think you are concerned about the vastness of the externalities. Pediatric asthma cases are real costs. Increased among people who live down wind. You don't seem to have much power to regulate. I think you have too nice a relationship with those you regulate. If dairies can say they are performing within guidelines their liability is reduced. Concerned about the over concentration of CAFOs. We have other agriculture that is of equal or greater value, that is being adversely affected.

Doug Moore: Many years ago I was affiliated with a dairy in Southern California, one of the largest, and they didn't do this stuff. At one time I helped service about 57 dairies in this area. A lot of them came from Simi Valley, through Maple Valley, they started moving here in the 1990s. So they didn't really sell their dairies like they were supposed to. I'll bet a lot of them have another dairy over by Twin Falls, Idaho.

Jan Whitefoot: Questions. At last meeting I was embarrassed by the way Tom Gasseling yelled at us. Where is the code of conduct for board members?

Chairman Gasseling: I'm going to cut you off.

Jan Whitefoot: Last month someone said that only a few people complained. Brought presentation from Les Ornelas. Brought documentation of many complaints.

Have requested exact changes to policy. We should not have to FOIA this information. Need differences between new and old policy. Requested this information three weeks ago. Still has not received. Feel that only meeting with the dairy industry is prejudicial. Request meeting with the public so people can present information more than allowed in two minutes.

Five months that the public representative has not showed up for board meetings.

What scientific instruments should be used to measure air pollutants. Going out and having a guy roll down his window and take a sniff is not scientific. Dairies say an official came out and took a sniff and said we are in compliance.

Let's work together. You need to involve the citizens.

Recently one of the CAFOs on the reservation applied for an expansion. Why is YRCAA included in the permit application. Hasan says it is because of the SEPA review. Did Dr. Tahat visit the site? No. The dairies fill out the paperwork.

You have members that have attended dairy symposiums and have presented dairy symposiums. Why not attend health symposiums.

Marlene White (Citizen): Member of the Yakama Nation. As a resident of Harrah dairy smells are getting worse. Becoming significantly far, far worse. I have family members that suffer from allergies. Now we smell it during the winter. Have had problems with flies. New problem. Need a response to the people who come to you with these problems. When you permit establishments to come onto a reservation and you don't regulate it, this is concerning. Lots of cancer on the reservation. Listen to some of the things that are being said. I assume that this is part of your jobs. No one has come to the little town of Harrah and asked what we think. I beg you people to do something and then get back to us.

Jan Whitefoot: In your statistics include the hundreds of complaints to the EPA.

Chairman Gasseling: Agency has no authority on the reservation. (Incorrect because the county permits)

Marlene White: Cites the permitting that takes place on the reservation. If you are going to permit find a way to cooperate on regulation. We meet resistance regarding regulation of non-Indian people on the reservation. I would say, extend an olive branch regarding regulation of CAFOs.

Larry Fendell: This has been going on for 20 years. It got really bad in 2002. There were stacks of complaints. When we talked to Clean Air they had no record. We had stacks of records. People are angry. Has only had one person set foot on his property after a complaint.

They are still not incorporating. The dairies are clean but the neighborhoods are a mess. It is spread all over the roads. Manure is just laying out there on the fields since winter.

Jan Whitefoot: Of all the dairies on the reservation only one has a legal permit to operate. Yakima County permits dairies on non-tribal land, permits pipes. Only one operator has a legal permit.

May 10, 2012

Helen Reddout (Citizen): Minutes of last meeting said that he invited Helen to be on the dairy committee. If I had been invited, I would have been there with bells on. I went back to 2010, the only face to face conversation with Mr. Pruitt took place in 2011. Mr. Pruitt came up to me and thanked me for my professionalism. If it is an oversight on my part, I would like for Mr. Pruitt to produce the emails asking me to be on the committee. Asked for clarification.

YRCAA Director Gary Pruitt: I placed a phone call. Intent was to ask her to meet and be on the committee if we talked. Never got the opportunity to invite Helen.

Helen Reddout would like to be on the committee.

Jan Whitefoot: Corrections to last months minutes. Also, comments on Les Ornelas exaggerating. Please add to minutes. Mr. Silva has now missed six meetings. Asked for clarification. We ask questions but don't get answers. YRCAA did a SEPA review on the Steve Bangs Dairy.

EPA has air monitoring devices available. Public asks for air monitoring when you do an investigation. Some people are voting on CAFO issues and have never seen a CAFO. Invitation to tour the area.

Director Gary Pruitt: Will post comments on the YRCAA website.

Jean Mendoza (Citizen)

Are several vacancies on the board. FOTC supports Jan Whitefoot for the small cities position. She is knowledgeable. Has necessary contacts. She is female. Feel the need for a female perspective.

Chairman Gasseling: Board has no control over small cities rep.

Mendoza: Response to review of John Hopkins by Ndgwa, Harrison, Embertson. Clarifies a longitudinal study versus a cross sectional study. They talked about ammonia. Not the only component of odor. There are over 200 chemicals that impact odor in the air. You can have sub threshold levels for all compounds but when you put them all together you get bad odor.

When people have asthma, they respond to lower levels of BOS D2 antigen. That is why there are no threshold levels.

Antigens can 1. Sensitize the lungs – develop asthma over time. 2. Cause an asthma attack with exposure.

June 21, 2012

No public comments

July 12, 2012

Jan Whitefoot (Citizen): Asked for clarification re PM 2.5 number of times out of compliance. What measuring devices are you using and is it different from EPA devices. How do you differentiate between particulates from CAFOs and wood smoke?

Acting Chairman Bill Lover: Do you want to wait until the next meeting?

Director Pruitt: Would be a qualified answer. Needs to make assumptions in order to answer.

Use a federal reference monitor approved by EPA.

Differentiating particles from CAFOs and wood smoke. There is really no way to differentiate. Are running a set of chemical speciation monitors. But no way to differentiate between either crustal or organic.

Will make an attempt to answer.

Steve George (Citizen): Understanding is that the air quality issue is primarily during the wintertime when wood stoves are being used and there is little agricultural activity

August 9, 2012

Jan Whitefoot reads letter from Helen Reddout. Letter says that the RCW does not say YRCAA cannot enforce air quality on CAFOs. At no time was a position on the dairy committee mentioned or a position on the committee. If he wanted me on the committee not mention it on the call or send a letter. In June Helen said she would like to serve. Did Mr. Pruitt forget?

Minutes forgot to tell about air monitoring in Harrah. Citizens still do not support AQMP. No reason not to have air monitoring.

Title VI says there should be diversity on the committee. Would like to see more women and minorities on committees.

Provides data from the federal govt on the number of cattle. Contradicts numbers from YRCAA. Left data with the board.

For the record, Do not repeat that Jan Whitefoot is against all CAFOs in the Yakima Valley because that is not true.

Chairman Lover - will answer at next meeting.

October 11, 2012

Jan Whitefoot: Last meeting gave YRCAA the numbers for cows in Yakima Co. Working on data through NASS. The number does not include beef and slaughter cows.

Hot spots for water pollution are in Granger, Mabton, Sunnyside, Grandview. Lagoons lead to air monitor. Want air monitoring near the Outlook School.

Why wasn't Hydrogen sulfide included in YAWNS.

Need to test downwind from facilities.

Still asking YRCAA how they monitor poop sprinklers?

Impacted communities are supposed to be included in the studies.

Larry Fendell: Last month was a tough month for smoke and things. We were socked in and yet we had neighbors that were aerating the manure. You know where it stayed. What do you think hangs in the air? I've asked in the past and I'm asking again. If there is a Stage II burn ban, and I can't burn a fireplace or any outside burning, I don't know why people should be allowed to go out and spread liquid manure. I've asked before and I'm asking again for a discussion.

Jean Mendoza: As advocates for people in the LYV Ammonia is a precursor to nitrates in the air. Every dairy cow produces about 80 lbs. of ammonia per year.

Director Gary Pruitt: We'll communicate with Jan, Larry and Jean outside the meeting.

Acting Chair Lover: There were some jurisdiction questions in WA. All contributors of airborne nitrates will be considered. Even the ammonia that each of us emits on a daily basis. It's a "must do" study. We support.

Legal action by Citizens for Sustainable Development – hearing date set for October 30.

New Mission Statement

November 8, 2012

Jan Whitefoot (Citizen): New information on dairy cow numbers. 226,000 non-dairy cows. 58,000 milkers, other Total 318,687 head of cattle.

Lagoon surface area in 1,211,127 meters squared. Need to address this.

How will you incorporate the new numbers into your policy.

Letter from Mendoza,

Spraying of manure during air inversions. Would you be willing to discuss and write regulations re manure spraying during burn bans?

Helen Reddout (Citizen): I would like to look at your definition of a dairy. Should include heifers, calves and other.

Larry Fendell (Citizen): Need discussion. It was a simple question. I want an answer in an open forum. I want a discussion. Let's talk about it between the board and citizens.

Don't need any more cows in this county. We have polluted air and water.

When did the policy lower the time between pulling out trees and burning to 30 days?

Kathleen Rogers (Citizen): Neighborhood formed a group called AWARE. They stopped a calf operation in their neighborhood. Close to her home two dairies have merged. They have added so many more calves, cows, lights at night, piles of poop. Used to have 5 acres of manure. Now they have started more. I don't understand why you have to be so angry. Enough is enough. Draw the line. We have to do something to contain the smell of the lagoons, urine, cow poop. I want to protect my home and I know you would too.

Director Gary Pruitt: Have experienced ineffective information exchange. Asked about an open forum.

December 13, 2012

Jim Dyjak (Citizen): Major health problem. Haystack fire burned and smoldered for a week. I am now the proud owner of an inhaler.

Facilitator at community forum needs to be independent from the agency. (Facilitator was Dave Caprile from YRCAA)

Larry Fendell (Citizen): Feels for Jim Dyjak. In Larry's area there was a huge barn fire. The fire dept. stayed until the fire was out. No smoke the next morning.

Community meetings. I've asked a question for three meetings now. No answer. Why are dairies allowed to spread manure during burn bans? The reason we bring things to the board is when we bring things to the agency nothing happens. Need to have concerns recorded. For the last three months we have asked about ammonia. We have to stop using wood stoves and fireplaces. We go out and they are spreading manure and the air is bad. I want the board to know that there is a problem.

Director Gary Pruitt: "You're so full of crap."

Jan Whitefoot (Citizen): We have been asking for several years for scientific air monitoring in the LYV. \$9,000 on incentives. Spent \$12,000 on a reader board. We need a 1-800 number so people can call in complaints. YRCAA says they still have a 1-800 number. A lot of people do not have computers.

Community Forum no decision-making power.

Did Tom Silva attend the dairy meetings? Still no citizen representation.

County Commissioner Kevin Bouchey – The board needs to address Mr. Silva's absence.

Director Pruitt: There are others that are no longer attending.

Whitefoot: The fact is that throughout the whole procedure you had no citizen representation.

Cow numbers were not put in last months minutes.

Mary Baechler (Citizen): Is it true we don't have any air monitoring in the LYV.

Dr. Hasan Tahat (YRCAA): We have them in Yakima, Toppenish and White Swan. None in Sunnyside.

Baechler: Are we monitoring nitrates? I recall that nitrates are carcinogens.

Tahat: No.

Baechler: Why not?

Tahat: What we are monitoring is the criteria pollutants.

We have a speciation monitor in Yakima. By law we are required to have basically the criteria pollutants.

January 1, 2013

Larry Fendell (Citizen): From a TV interview Mr. Pruitt, “Frankly the money just isn’t there. Testing wouldn’t produce credible evidence of anything. It would cost tens of millions of dollars to set up testing in the lower valley.” Does that statement bother anyone?

Requests for items on the community forum agenda. Its also been stated that they are going to take this nationally. Other studies have PhDs and peer review. Don’t see this on the AQMP.

Board Chairman Gasseling We don’t have any authority so anything we can do to move it forward is a good thing.

Fendell: Mr. Pruitt said that Helen Reddout would not be on the work group.

First Community Forum – Led by Dave Caprile of YRCAA

Outlined the purpose of the forum – to address air quality questions from the public. Only air quality issues. Provide answers that can’t be provided at board meetings.

Will start with points of information. Point of view from the laws and regulations.

Larry Fendell (Citizen) Spraying manure during an air inversion

Several days when manure just stayed on the fields. The pollution just hung in the air.

Dr. Tahat (YRCAA): We do not have the authority to shut down an operation

Fendell explains that originally dairies had to have enough storage. Now they haul every day of the winter.

Helen Reddout (Citizen): I’m astonished that you have no idea what is happening in the valley. Why don’t you come down and we will take you around the valley? Over 400 pathogens held near the ground surface. What are those pathogens doing to people’s lungs.

YRCAA Director Gary Pruitt: We have no authority to regulate emissions during emissions except for wood stoves. There is a piece of legislation that would change that – specific to banning heating devices and outdoor burning.

Monitor in Yakima is situated to find the highest readings in the Yakima urban area. The type of pollutants of primary concern would not measure the pollutants of concern.

Steve George (Citizen): Not aware of a certain time frame in the fall or spring when manure from lagoons could be applied. Only aware of weather conditions or soil conditions.

Reddout: SYCD handbook 1995 talks about fall applications only.

Fendell: roads covered with manure, liquids and solids.

Caprile: looking for our ability to stop manure applications during a burn ban.

Reddout: provided scientific studies – PEW, John Hopkins, etc.

Caprile: this is based on a model, not sampling.

Reddout: but we have used the Cerex air monitoring device. We had readings clear off the graph.

Caprile: maybe we should offer discussions on modeling and sampling.

Reddout: you turned down our offer to use the Cerex air monitor.

Fendell: Dr, Ndgwa used this type of monitor in the NAEMS

Dyjak: the dairies are clean and getting high scores. They just move it across the street and you ignore it.

If they lease land it is not attached to the dairy.

Pruitt: we are looking at the whole farm operation, all the land under his control.

Rogers: Veldhuis stored manure 50 feet from a neighbors' home. Composting manure across the street from her house. He says this manure doesn't stink and there won't be any flies. There shouldn't be manure dust in my home. That is an invasion of my home.

Keith Hurley (YRCAA): Agrees with her. But we are paid to be dispassionate. We are constrained by the law. My guys will continue to act within the letter of the law. If we see a violation we will act. We have sat down and we have examined the law. Because of the complaints that were lodged we did something.

I'm going to speak to D'Ann Williams study. She wrote it. John Hopkins did not endorse that study. We all know there is a dilution level after air leaves a dairy. The problem I have is there were serious technical issues with it. There was no correlating to a health issue threshold. If there was there would have been actionable intelligence. The NAEMS is going to do that. We are kind of tied until the results arrive.

In this particular case the fight is at the legislature. We aren't moving fast enough for you guys.

June 13, 2013

Jim Dyjak: Changes in Item 9 from the material presented to the public. Need to sit down with the public at a study session. A lot of unanswered questions and different from the material that was presented last month.

Larry Fendell: Item 10. Started this discussion earlier. We were berated, reprimanded and ignored. We have brought things up at the community meeting and it gets thrown away. You wonder why we want to come to the board. If we can't have open communications; if things are being covered up then some changes need to be made.

Item 9, is not what the public reviewed a year ago. It is a blank check.

Jan Whitefoot: Agrees that the public was left out of the dairy score card. Cannot think about any public suggestions that have been implemented. Does nothing to protect public health. Ecology has public hearings for their air permits for CAFOs. YRCAA does not do this. You all were elected to protect all of the people, not just dairy. Using eyesight to measure air quality is junk science.

It's a logical concern to put poop into the air that people breathe. Would you accept this for your children?

Helen Reddout (CARE): Over a decade of advocacy. Each time we had to go to court. That is not a good way to go about protecting a neighborhood. You represent all of us, not just one group. Supposed to be making decisions on the basis of the needs of the constituency. This is the agency that is being paid to do that.

Kathleen Rogers: Invitation to visit the LYV and see what is surrounding homes in the LYV. Last month Mary Baechler spoke, and someone asked why she spoke since she is from west valley. Mary does visit the LYV.

Jean Mendoza: Response to Ex Memo, Item 10. Would have been good if the agency had consulted Ecology, DOH and SYCD. WSDA does not address inversions in their implementation of the nutrient management act. Do address high winds. Appears some producers ignore these provisions.

Regarding the Ex. Memo. It is not the role of YRCAA to protect groundwater. Not the role to protect industry. Primary role of clean air is to protect the most vulnerable members of society,

A member of a community advisory board for asthma in the LYV. Looks at what happens to asthmatic children. Have measured ammonia and other pollutants. Data shows a relationship between decreased lung function and air pollution. U of W wants to share the data.

Gary Pruitt: Lawsuit against YRCAA by Citizens for Sustainable Development has been settled in the amount authorized by the board. Dismissed with prejudice in process. Agency denies any liability. Settlement chose to avoid continued litigation.

Item 9: AQMP for Dairies.

Director Pruitt: Changes were made specifically to address non-substantive requirements.

- Open to advice from Ecology, EPA, etc.
- Changes related to applicability.
- Number of site visits & frequency. Code B, Part 5 address site visits.
- Fees. Treat all the sources the same. Would fit into the minor source category. Some might be considered a complex minor. Won't know until the visit.
- AG Task Force has been existence since 1995, not always active. Has been dormant, and primarily dealt with ag burning. Dairy Task Force has completed their work. Would entertain suggestions on who should serve on the task force. Will bring a recommendation.

Board Member Lover: Is there an appeal process for a task force ruling?

Pruitt, doesn't know of an appeal process.

Lover, so it would just be a citizen appeal to the board.

- How AQMPs are submitted added to the policy.
- When will policy be evaluated? Will be accomplished jointly by YRCAA and Ag Task Force, based on effectiveness of reducing pollution and reasonableness. Board would approve any changes.
- Recommends adopting the policy.

Board Member John Gawlick abstains from voting on policy and rulemaking because he does not know enough.

Yakima County Commissioner Elliott willing to support with the proviso that it is appropriately reviewed.

Lover questions answered include evaluation, dispute resolution, updates, timelines, etc. Prepared to go forward with the current document.

Yakima County Commissioner Bouchey believes the policy represents the interests of all people in Yakima County. Delay is not advisable. Passes with 2 for and 1 abstention.

Item 10: Ban of manure spraying.

Director Pruitt: The guiding statute is the Administrative Procedures Act. Talked to Laurie Crowe, SYCD. Dairy Nutrient Management Act (DNMA) is the only law that deals with manure. Emailed Virginia Prest at WSDA. She responded yesterday.

Part of the tenet of the Clean Air Act is to support economic development.

Reasons are not stand alone.

Nutrient management is managed by the DNMA. Must be agronomic.

There is no evidence that there would be a difference of health risks during a burn ban. Burn bans are sometimes called to prevent fires. Air quality burn bans don't exist during windy conditions.

Could impact groundwater.

We don't want to be responsible for overflowing someone's lagoons. Also, there would be an enforcement issue. We can't do that.

If board chooses to deny the petition I will give further reasons.

Commissioner Elliott not willing to adopt petition. Does not think petitioners will run and appeal to the Governor. It deserves further consideration.

Commissioner Bouchey if we do not take action then the rulemaking process begins.

Board needs more time. Will commence rulemaking.

July 11, 2013

Jim Dyjak (Citizen): Questions

- Can the public participate in the study sessions? Pruitt – When it is appropriate. There would be some cases in which it would not be of value. Depends. Elliott – No hard and fast rule.
- Re AG Task Force – need a study session. In the past I tried to be on it and was told I could not join.
- How often the AQMP for dairies is reviewed needs to be clearly stated.
- Petitioners need to meet with YRCAA – It is being dragged out. Suggestion of back room dealings. Let's fill in that two month hole and meet with the petitioners. We ask for the same respect YRCAA gave the dairies.

Kathleen Rogers (Citizen)

- Directors report re rulemaking – When will the first stakeholders meeting be held? How many meetings? Why the 60 day delay? What are the criteria for acceptance or rejection?
- Why did YRCAA reject the nomination of Jim Dyjak for an award? Larry Fendell was also nominated. Believes the criteria needs revision to make citizens eligible.
- Advocates for ammonia monitors

Larry Fendell (Citizen)

- Supports the need for LYV monitors. Have been calling for this for 12 years.

- Delays in Item 6 – another drag out that prolongs suffering of the people from air pollution.
- Cow numbers are increasing. Manure hauling increases during the winter months. Let's don't sit on our hands. We're ready to go. You need scientific evidence. We have it. No reason to have to go through another winter like last winter.

July 15, 2013

Community Forum

Dave Caprile, Gary Pruitt, Hasan Tahat, Patty Walker, Jim Dyjak, Linda Dyjak, Kathleen Rogers, Dan DeGroot, Genny DeRuyter, John Gawlick, Mary Baechler

Open Agenda: Rule Making, Final Thoughts

Kathleen Rogers (Citizen): Few other ways to express Yakima County concerns. Has not seen Mr. Pruitt report concerns from the meetings to the Board of Directors. No assurance that concerns would be brought to the board so they could provide solutions. Only insulates the board from community complaints. Some meetings have been intimidating. Regular citizens would be inhibited by this format. Sees value in the forums if the alternative is no venue whatsoever. Hope the forum continues.

Question: Has the YRCAA staff communicated with the board after community meetings?

Director Pruitt: Communicates by providing a meeting summary. It is their decision to decide whether or not to come.

Question: Can we presume that the forum meetings are only designed to placate the community?
Partially answered.

Pruitt: I personally have reported that the meetings have been productive. We can provide this in any format that provides information.

Mary Baechler (Citizen): How do you publicize the community forum?

Dave Caprile (YRCAA): Website & board meetings. Community Announcements in Yakima Herald, Sunnyside Sun & El Sol.

Genny DeRuyter (Dairy): How has attendance been recorded. Disappointed that so few people attend and we talk about the same old things.

Mary Baechler: You have to leave work. I had to leave work for example.

Genny DeRuyter: We have to hear from more people.

Jim Dyjak: Twice I have asked to have something put on the board agenda. The board gets to put on a presentation with their spin. We have to spend our time correcting their statements. That's why I will not tell the agency what I plan to say ahead of time.

August 8, 2013

Study Session: Discuss a Petition to Disallow the Spraying of Manure during Inversions

Director Gary Pruitt:

There is an executive memo, and a summary of the two public meetings.

Very little attempt at consensus building.

Four key points

- Does the agency have the authority to write a rule?
 - Adverse health effects.
 - Is the rule needed?
 - Where to go from there, continue the rule making process?
- There is apparent consensus that YRCAA should not continue the rule making process.

Comments from the Farm Bureau, Yakima Dairy Federation, WA Dairy Federation, Attorney Shawn Russell. Late comments came in late, consistent with those comments against:

- No clear statutory authority.
- No adverse health effects.
- already regulated.
- potential damage to crops, soil and water.
- unreasonable operating and management impacts.
- probable adverse effects on non-dairy operations.
- uncertainty of agency's ability to enforce.
- does not apply to Yakama Nation.
- best addressed by recently adopted AQMP for dairy operations.
- lack of consensus to proceed.

Summary of comments in favor:

- 50 signers
- 3 Individual letters of support.
- Literature in support.
- Rule is needed.
- No conflict with other laws.
- No less expensive alternative.
- Should not apply differently to public and private entities.
- Rule is simple.
- Rule does not differ from federal law that applies.

Comments from meetings:

- BMPs are not being used.
- BMPs don't work.
- There are adverse health effects.
- Air quality is worsening.
- There is a lack of air sampling in the LYV.

Emails received in support of the rule. Made no progress on consensus on that the rule should say. Are at the end of negotiations. Need to decide whether to proceed with the rule making process and if they do proceed how to accomplish that.

If they decide to proceed with rulemaking there is a period for further public comment. Have up to 100 days to complete the rule making.

Both meetings resulted in unanimous decisions not to proceed with rulemaking. No hands raised in favor of pursuing.

Elliott – Have we fulfilled our obligations. If there is no interest in going forward, do we need to go on.

Gary Cuillier (YRCAA Attorney): Are past the 60 days to deny the proposal. At the exact point to chose

- Stop proposed rule, discontinue the process.
- Refer the effort to committees such as the AG Task Force.
- Continue effort by agency staff.

Regular Meeting:

Jim Dyjak: Put together a package. Flow chart for agency rulemaking.

- Agency must make the rule
- Optional paths – rulemaking process
- Earliest you can take public comments on the rule

Does anyone know where negotiated rulemaking came from? 1990 Congress enacted the National Rulemaking Act. Public Law 104-320 signed in 1996.

No rule was ever proposed.

Why the rule is needed or might accomplish. But that is not what he sent to the state. The statement to the state should have been given to the public.

Commissioner Elliott asked who the rule writer is. It doesn't have to be Mr. Pruitt. No qualifications.

The intent is for people to come together on the writing of the rule. The agency can still write a rule without consensus. I myself got upset at the meeting. It was like, “lets go out and lynch somebody.” The statute doesn’t say let’s get a bunch of people together and ask them to fill in the blanks.

Questions about AG task force. Why are we making for dairies their own little world where they are judged only by their peers and insulates them from the process. Why aren’t Jim Dyjak and Larry Fendell on the list? We have been coming to these meetings for 11 – 14 years. Debra Suzuki from EPA said that her people couldn’t make the meetings, but they are happy to advise.

Larry Fendell (Citizen): Agrees with Jim Dyjak. The two meetings – Consensus of what? I had to ask to have the petition read so people would understand it. At the second meeting other things were discussed. Meetings provided no information. There was no rule written. Nothing explained.

This valley is getting worse on air quality. I don’t need someone from Whatcom County or anyplace else to tell me what’s going on in my neighborhood. It all boils down to too many cows. They shouldn’t be putting manure on their fields in the winter. Rules and regulations are not being fields.

Doug Moore (Citizen): Lived in the valley for 22 years at the same spot next to a 3 million gallon lagoon. Last night at 3 o’clock I had to get up and close my windows due to the manure smells. Last winter, five weeks in a row, my neighbor spread this stuff on the ground next to my home, within fifty feet. Ammonia releases at a packing house brings closure of a highway. But not for the dairy. I have had to fix electrical problems on dairies due to ammonia destroying the wiring. I would guess 20% of dairies are not very good. Especially during a burn ban, that should be a no brainer. Family is being bitten by vicious flies.

Steve George representing the Yakima Farm Bureau and Yakima Dairy Federation (app 70 dairies)

Item 9. Did not see the legal brief from Groen, Stevens & Klinge on the table of documents.

- Proposed rule prohibited by the ag exemption.
- No substantial effect on public health
- From Ginny Prest from WSDA – request to comment. Can’t endorse a proposal that might have unintended consequences in other areas.
- Farm Bureau requested data from Dept. of L & I. – 90% of injuries are open wounds & bruises. No complaints from harmful air quality.
- No scientific data
- Clients do not support moving forward.

Yes, ammonia is corrosive. But this does not happen just on dairies. Also for fertilizers.

Steve attended both meetings. Did not hear confusion. A large majority of the attendees were dairymen. Dairy is still committed to working on the issues.

Jan Whitefoot, a Petitioner:

Has talked to families where children have played in sprinklers when they did not know manure was in the water. Spraying manures have been banned in other areas due to the pathogens and particulate matter. Referenced El Proyecto Bienestar regarding asthma. Have asked YRCAA to do further studies with the same inexpensive equipment. We never hear about asthma at YRCAA meetings. In favor of proceeding with the rule. Attended both meetings. Opposes Gary Pruitt as Rule writer. Our health studies were not shared at the meetings. But dairy information is shared. I felt intimidated and others felt intimidated. No Latinos at the Granger meeting. I get phone calls because people are afraid of losing their jobs and homes. I have been threatened and followed.

You all didn't listen until we brought a lawyer. We have come time after time. We have told you about the problem. EPA does want to be involved. I would encourage you not to take the staff's words at face value. Do your homework.

Doug Moore: Five years ago I had the Hound installed at my place for three months. We have had scientific proof and it's been delivered to the department. She said the air at Harrah was the worst, mine was second worst and there were several others that were similar.

Fendell: There was scientific evidence turned in with the petition. The agency hid it.

Kathleen Rogers: I have to tell you, scientific data or not, my nose and my lungs are scientific instruments. It is urine in your window.

Terry Brooks (Citizen): This winter one of the dairy farmers that has a new lagoon right in my front door. Last night my neighbor had so much manure on the road you can't see the line. This stuff is getting in my throat. I just hope and pray that something can be done. I don't think we are asking too much. I have lived there all my life, longer than any of my neighbors.

Steve George: Some people have relied on a report from John Hopkins by Dr. Williams. Dr. Embertson did a review of that report. She states, the study examining allergens found levels below National OSHA levels. In some cases, children born on farms have lower incidences of allergies. You have to make your decisions based on science and the law, not impassioned pleas.

Genny DeRuyter: Not all dairies have the same practices. Since 1997 we have spent millions of dollars to address issues. There are different degrees of manure separation. At our dairies we have a three-stage separation. We end up with brown water. We have more than enough storage. Where we get into a problem is different storm events with rain and snow melt. We can't predict the weather. There are lots of extenuating circumstances. I'm not convinced that it is the responsibility of this agency to address. Some lies with WSDA and Ecology.

Report on six Community Air Forums

AG Task Force:

Gary Pruitt: At the July board meeting you agreed to the formation of an Ag Task Force. Has a proposed list.

Item 9: Petition

Board Member Lover moves to suspend the rulemaking process. Second. Discussion.

Board Member Gawlick: Having another rule when others already exist and need to be enforced. Can revisit the rulemaking process after we see the implementation of the practices that were approved by the board in January. I have been told by staff that there was a positive effect. We should put it into action. For those who are not participating compliance should come into play.

Commissioner Elliott: Lots of contradicting opinions and evidence. Believes that 90% of problems are created by 10% of dairies. We need to put pressure on WSDA to do their job. Agrees on stopping the process.

Lover: This was excluded from the BMP study. Maybe this is where it should land. To me we are headed right into court. We should wait for EPA to complete their work. Obviously, there are problems in certain areas and with certain operators. I don't believe a rule is the way to go.

Commissioner Bouchey: Currently the rules and regulations are not being followed. We need to look at the agencies that have oversight. We have approved the AQMP for dairies. I'd like to see the staff focus on that.

Motion passed.

October 10, 2013

Jon DeVaney joins the board as an at-large citizen representative, replacing Tom Gasseling.

Larry Fendell (Citizen): E-coli can travel on air. Would like to hear from the Health Department on how people can protect themselves. The manure trucks are going really heavy. It is falling of and blowing all over. Other trucks have to cover up their loads. Manure trucks should also.

Jim Dyjak (Citizen): Jean Mendoza would like time to address the study session of removing Dr. Embertson from the Ag Task Force. 90% of the members are from ag. But I see you adding more dairies. You need some citizens on there. Again, what happened to the public? What about the victims? When will we be included? Everything is geared to protect ag. If I bring an academic is the agency going to pay them. The last time we had to pay them. But the agency pays the academics for the dairies. If you are going to pay one you should pay them all.

November 14, 2013

Jean Mendoza (Citizen): Re Dr. Embertson.

- Provided misinformation and false information to the agency and the board
- Embertson's Literature Review was made available to the public and was posted on the YRCAA website.
- Statement regarding scientific misconduct
 - Fabrication
 - Falsification – manipulating data or results
 - Plagiarism – appropriation of another person's ideas
- Definition of a Literature Review

Chairman Bouchey asks for information in addition to letter.

- Referenced 40 pieces of research. 13 pieces actually look at community health. 12 found significant health impacts related to public health. Reads some conclusions.
- No restrictions regarding high temperatures, inversion, or wind events in the Dairy Nutrient Management Act. Not part of AQMP for dairies. It is a fact that people complained to YRCAA when one of the creators of the AQMP sprayed manure into the air during 40 mph winds.
- Incorrect use of references.
- Incorrect statement of a chemical reaction
- How much does ammonia from agriculture impact PM 2.5. Misstates the statistics.
- States manure is not typically applied during winter months. This is not true.
- O'Conner study rejected all but 9 out of > 4,000 studies on health

Chairman Bouchey – Keep asks Mendoza to stay focused.

Do you get my point that she is saying studies say one thing and they say something different?

- Misquoted the John Hopkins study and said it addressed pollutants carried by winds.
- Ignored studies done in the Yakima Valley.

Jan Whitefoot (Citizen):

Granger meeting, proposal was not presented to the public. Only dairy information was shared. Dave Caprile gave the board misinformation.

Dick Camp, former YRCAA board member, has applied to increase his operation. Why could a person be a board member when they are regulated? Mr. Camp's operation (Bay Zinc/Kronos) was the biggest polluter of SO₂ in Yakima County. Why was a permit even given to a facility that was classified as a category 5 hazardous waste site? EPA is currently investigating a spill at Kronos (Camp's facility). Kronos self-monitors.

Jim Dyjak (Citizen):

Summary says that Jim Dyjak declined an opportunity to participate. I don't believe in the program, and I'm not being involved in kick starting it. Summary did not convey what he meant.

33 – 38 dairies have not come on board yet. Now fees are going up. We want your money because we need a pay raise.

Item 12: Ms. Rogers asked about the status of a grant for monitors. Tell us what the monitors are, what they will be used for, and where.

Steve George representing Dairy Federation & Yakima Farm Bureau. Organizations do not agree with accusations against Dr. Embertson. Swine operations are not relevant.

Mendoza: Dr. Embertson is the one who brought swine information to the table.

Bouche: Need to give Dr. Embertson the opportunity to respond. (Dr. Embertson wrote a letter in which she rejected the need to respond. The board took no action against her.)

December 19, 2013

Kathleen Rogers (Citizen): Questions re monitors in Sunnyside. There was a monitor at the Sunnyside Schools around 2000. How to get the monitor back. The bases are still in place. Also, the "Hound" is available. Invasive air in the area. Keeps my in my home. I can hardly breathe.

Jan Whitefoot (Citizen): Has received training on how to read the PM 2.5 monitors. In Toppenish for six days in a row the readings were above 35 mcg/sq meter in November. Horrible inversions for weeks. Has friends with bad COPD. Need to inform the public. Risk of non-attainment. Ten days of non-attainment so far this year. It would be good to have a report on asthma. YHD said e-coli in the air can affect people. How many extra people are hospitalized during periods of high PM 2.5? Please do air monitoring.

Jim Dyjak (Citizen): Asks for details on grant request for monitors. For years you have said you cannot afford monitors. When we brought the "Hound" to the board we had to provide information.

Larry Fendell (Citizen): November and December have been pretty bad. Tuesday night there were three fires going along the old Sunnyside Highway. Seems like people are burning more. There are just lighting them up. Someone needs to impress on them that there is a burn ban.

Can we get the health district to talk to us about e-coli in the air?

I asked Nicole Embertson to tell us where she got her information. She said that only 5% of the people spread manure during the winter. I asked where she got the information. She said that Stuart Turner told me that. I asked, Is Stuart Turner running experiments? I don't think so. That's the reason we don't like your paper. You don't have any facts to back it up.

Jean Mendoza (Citizen): Presented a paper last week regarding Dr. Embertson's Literature Review. I read her response that is in your packet. She essentially said, I don't have to justify what I said. By implication the Clean Air Agency is saying, we can put out any information and we don't have to support it. It is a cruel thing to do to the public, to put out information and say, it is your job to research and find if it is true. I hope you will take some action on my request.

Board discussed complaint against Dr. Embertson. Took no action.

January 9, 2014

Dr. Steven Jones joins the board in place of County Commissioner Kevin Bouchey.

Jim Dyjak (Citizen): Board and staff do not answer citizen questions. Cites unanswered questions.

Kathleen Rogers (Citizen): Please continue in your efforts to understand what is happening in the lower valley. Need a monitor.

February 13, 2014

Kathleen Rogers (Citizen): Monitoring is a huge step. Without the data, we have no comparison on what the task force is doing.

Jim Dyjak (Citizen): We do need monitors. Talks about a contract for a monitor. Asks for a citizen's group to discuss. Dyjak hand carried the grant application to EPA trying to help the agency. Need more communication with the citizens.

Mayor Micah Cauley joins the board as representative for large cities in place of Bill Lover.

March 13, 2014

Jean Mendoza (Citizen): Provides information to the new board members. Participates in the ag task force with the goal of improving air quality. Talks about spreading/spraying manure during inversions. WA Dairy Commission asked Dr. Nicole Embertson to write a letter. She opined that there is no danger to human health. Mendoza analysis is that Dr. Embertson is biased and gave the agency misinformation. Passed on half-truths. Embertson said producers do not spread manure during the winter. This is not true.

April 10, 2014

Study Session for Budget.

Jim Dyjak (Citizen): Will citizens receive the complete board packet. Will the agency post the complete packet on their website? Clerk Patty Walker says the complete packets will be emailed to the addresses she has for board members and for interested citizens.

Item 6, the Dairy Work Group Meeting. Russ Davis is an instigator? Is this insulting? Director Pruitt agrees. Why are we still testing on the dairies? The problem is on properties next to the dairies, in the homes of people who are impacted.

Ask that the public be made part of the budget process. People get five minutes or less to testify. There is no discussion. The public is left out of the process. Written comments never make it to the board.

At one time there was discussion at the board meetings, but no longer. The board assumes that the YRCAA staff is correct. Not always true. For example, giving a pay raise and a bonus at the same time is wrong. Bonuses should not be automatic.

Larry Fendell (Citizen): Seems to be a whole new atmosphere on the board, an improvement. There has been a study in Idaho re spreading of liquid manure. Injection reduced the ammonia and air emissions by 78%. Idaho started with a baseline. The YRCAA policy did not. There is a huge difference in application rates. Be cognizant. Testing needs to be done off the dairies also.

Dr. Tahat (Agency): What is the baseline you referenced?

Fendell: They place monitors on a 22-acre field. Applied manure from tankers. Had another field with circles. Had another field with injection. The baseline was before application.

Genny DeRuyter (Dairywoman): In response. If you were to come to our dairy and measure the differences in tank applications and compare to other dairies, there will be a big difference based on manure separation technology. We are trying for better separation and get cleaner water. Our applications will be different from others. Lots of variables involved.

Don Day (City Manager for Sunnyside): Introduced himself. States concern and awareness of odor problems. SS wants to work with dairies and others to find solutions.

Kathleen Rogers (Citizen): Thanks for open attitude and improved communication. She has talked with neighboring dairymen. All we can do is hope. The door is open. She has talked with Director Pruitt about dust control and flies.

Jean Mendoza (Citizen): Compares YRCAA budget to family budgets when children are sick, for example asthma. References letter from WA Dairy Commission. Concerned that the letter became part of clean air thinking. You all do not answer to anyone but the legislature. You are the only people who can address respiratory problems re air quality.

Shares SIP for YRCAA. No person shall make a false statement to the board.

May 8, 2014

Presentation on Yakima Air Winter Nitrate Study (YAWNS).

Jim Dyjak (Citizen): YAWN Study identified potential health risks to people in the valley. Opened a lot of eyes and will help everyone.

Questions re the study. Do you need further study?

Jan Whitefoot (Citizen): Questions for Ecology. Is ozone higher in the summer? Where is the proof of a NO₂ max compliance? A couple of years ago the EPA Environmental Justice division came to Yakima and found serious problems. 100,000 cows contribute to much of this air pollution. We learned of a difference in air monitors. Any monitor should be certified. Need to monitor for a large number of pollutants in order to know where the pollution is coming from.

Answer – off-gassing of ammonia from application happens during the summer. There are probably other forms of nitrate in other parts of the year but may not be gaseous.

Whitefoot: Ammonia is a precursor?

Yes.

There was a NO_x monitor at the community college. Nothing close to the standard.

Whitefoot: You mentioned other areas with similar problems. Do those areas have CAFOs?

Yes.

Alvin Atlee (Businessman from Selah): Concerns about a big smoker and barbecues. Smoke impacts businesses. It is not illegal to have a smoker in town. Smoke is worst during non-business hours for YRCAA. Several complaints to YRCAA.

Director Pruitt: YRCAA will address the complaints.

Inspector Hurley: The smoker is legal. Invading other properties is not. Ideal solution is for parties to work things out. Trying to get the smoke up and out of the breathing zone. Put a stack on it.

Theresa Lua (Citizen and another Selah business owner): Concerned about the health of her employees who now have breathing problems.

Rick Moen (Owner of the Smoker): Prior to this meeting we would have openly taken discussion about the problem and tried to rectify it. We start it in the morning and bring it up to heat. and this eliminates the smoking later in the day. I've always tried to accommodate them. I sat down

with these gentlemen and explained the smoking process. We have looked at bids for extending the stack. We will continue to do everything we can.

Kathleen Rogers (Citizen): Applauds people for coming together and talking. Keep communication open.

Larry Fendell (Citizen): Thanks people who presented the YAWN Study. People who testified on manure spraying during inversions proved health problems during inversions. Asks board to revisit a ban.

Dean Effler (Citizen): Ran into a grandma recently with four grandchildren, ages 3 to 10. About forty years ago she bought a rural home. There was a neighbor with a few cows. About ten years ago that property was purchased by a dairy. She can no longer let her grandchildren go out and play. Two of them have asthma. There is a lot of particulate matter in the air. Lots of spraying of manure right next to her property. So frustrated. It is no longer a good place for family. Property values have dropped. If this was your property, what would you want? If these were your grandkids, what would you want? I am making an assumption that everyone in the Yakima Valley has a right to clean air. Monitoring units should be on the property right next to the CAFOs. They have as much right to clean air as someone who lives in the middle of Yakima next to Yakima Valley Community College.

Mayor Gawlick: As always, the problem is the budget. We have to do the best we can with current resources.

Steve George (WA Dairy Federation): Dairy industry went into an effort with the YRCAA on a mandatory reduction program. Asked the YRCAA to give it time. Already addressing the ammonia issue. Give it time to work and gather real data, rather than use some model from outside the area.

It appears that claims are made that animal agriculture is not healthy. I would challenge you to come up with the data that shows agriculture is not healthy. There is data that shows people on farms are more healthy than the national average.

Mayor Gawlick: Board members visited the LYV. Are aware that the dairy industry is using the AQMP for dairies. Board is hopeful that they will see positive results.

June 12, 2014

No public comments. Discussion about additional monitor in Sunnyside and proposal for more monitoring.

August 14, 2014

Study Session re Open Government Training. John Gawlick and Steve Jones present for the board.

General Session.

No public comments

Rand Elliott joins.

September 11, 2014

No public comments

October 8, 2013

Jim Dyjak (Citizen): Questions about Item 8, Item 9 on the agenda. Shares documents. Suggestions regarding posted data from the new monitor.

Jan Whitefoot (Citizen): Thanks YRCAA for setting up the new monitor. The CDC will do some ammonia and hydrogen sulfide monitoring in Harrah. Concerns because the SS monitor is not certified. A citizen called her and stated that the Steve Bangs Dairy is expanding. Does it need an air permit for expanding? Citizen called Yakima Planning and was told there was no need for action. 1. Does he have an air quality permit. 2. Does he need an updated permit.

Question: Do you have any dairies with air quality permits?

Director Pruitt: No.

Kathleen Rogers (Citizen): This year has been better than last year re neighboring dairies and air quality. Pleased about new monitor. Hoping for progress.

Director Pruitt: YRCAA asked for an FRM monitor. Were denied. Will continue to request an FRM. Looking forward to a large data set.

December 11, 2014

No public comments

January 7, 2015

Jim Dyjak (Citizen): If there is an item on the agenda, do I come up now or during the discussion.

Rand Elliott: Comments now. John Gawlick agrees.

Dyjak: Comments on Strategic Plan. Is this a requirement of some sort?

Elliott: Not that he is aware.

Director Pruitt: No

Dyjak: Input from key stakeholders. In the AQMP plan public was excluded. Will this happen again? Question re highly impacted communities. What is the definition of highly impacted communities?

Elliott: When the plan came up, I was going to ask to table it. I think it would be better for the board to prepare a presentation to the public, rather than a presentation from staff.

Dyjak agrees. Has lots of concerns.

Dyjak: Concerns about statement re declining cancer. Now we have an agency with no expertise that thinks they can do something by 2020. Goals have to be measurable.

Larry Matson (New Director for the Yakima Council of Governments): Introduces himself.

February 12, 2015

No public comments

March 12, 2015

Jim Dyjak (Citizen): Effectiveness evaluation of AQMP for Dairies assigned to Dairy WG. Will the victims be allowed to comment? Asked whether YRCAA contracted out Smoke School to a former employee?

Director Pruitt: Yes

Dyjak: I asked the board specifically to watch that. Caprile retired and he got the contract. Asks someone to look into it. Was the contract advertised, or was it set up?

Larry Fendell (Citizen): Did not attend Tuesday meeting of the Dairy WG. Heard that some of the information he passed on was inaccurate. Justifies his statements about increasing dairy herds. Cows from outside the area are coming through the Toppenish Auction. This is where the market is.

Jan Whitefoot (Citizen): Questions about solar energy. There are some really good programs for solar panels. Would be pleased to see YRCAA pursue solar in addition to wood stove change outs. On the east coast people can lease solar panels.

Talks about NPDES permits for CAFOs – under consideration by Ecology. There is a dire need. Curious why dairies are not permitted while others are.

Dairy Air Score Card. Has not seen a change in air quality. Hardly any burn bans called this year, because we can see hazardous air.

Monitor in Sunnyside is frequently down. How can you calculate impaired days when the monitor does not work during bad air events?

Where does the public get information on hazardous waste facilities? Is it ever put on the YRCAA website? Specifically, how to get information on Kronos in Moxee.

April 9, 2015

Jon Devaney assumes the role of Board Chair.

Jim Dyjak (Citizen): Questions on Item 7. Does this policy cover contractors, or just employees?

Director Pruitt: Applies to contractors.

Dyjak: Is it customary to issue credit cards to contractors?

Pruitt: No. Only if the Director administers a credit card?

Dyjak: How does a contractor purchase gasoline?

Pruitt: They use a gas card that is assigned to a vehicle.

Further discussion. Discussion of Smoke School and former employees. Anything > \$25,000 must come to the board. So you divided Smoke School into two sections, each < \$25,000. This is a sweetheart deal that was set up before the employee retired. Also an employee was terminated for cause and then received a contract with YRCAA. YRCAA does not know if the contractor is bonded and insured or has a contractor's license.

Devaney: You have raised some good questions. The board needs to investigate.

Jan Whitefoot (Citizen): Was the contract put up for bids?

Pruitt: No. Does not reach \$25,000 bar.

Whitefoot: Comment on Dairy Air Score Card. Describes John Hopkins study, YAWNS. Concerned about using eyesight to measure air quality. How does YRCAA evaluate off gassing of hydrogen sulfide? No baseline. No scientific air monitoring equipment in AQMP for dairies. Dairies are supposed to use AKART and BACT. The CDC will do scientific studies in the valley using scientific equipment. SS monitor did not work for a month. Dairy Air Score Card does not address off gassing from lagoons, nor manure spreading.

Larry Fendell (Citizen): Number of cows has increased. Lots of studies since 2009. So much ammonia in the air according to YAWNS.

May 14, 2015

Jan Whitefoot (Citizen): Article in YHR says Yakima is one of the most polluted cities in the nation, worse than Seattle. No stage 2 burn bans last year? The year before there were about 66 burn bans. Has anyone looked into the solar information? Did a PRR on Yakima Air monitors. Response says there are five monitors. Four are in Yakima, so they do not measure anything near the dairies. For Director Pruitt to imply that YRCAA is monitoring air on dairies is incorrect. The only relevant monitor is in Sunnyside and that is for PM 2.5. That monitor was down from January 9, 2015 to March 10, 2015. This is a period with the worst air quality. EPA said they would place the monitor for a year and see if there were problems. Having the monitor down skews the data. Please ask us questions.

June 11, 2015

No public comments

August 13, 2015

FOTC asked YRCAA to address global warming and climate change.

Larry Fendell (Citizen): Over the years we have had public comments during meetings. Sometimes we have question that arise during the meeting. Asks to have public comments moved to the end of the meeting.

Commissioner Elliott: Yakima County has comments at the beginning. Board meetings are business meetings. Should welcome questions ahead of time, take them under advisement and respond.

Dr. Jones: Could this take place in another setting?

Rainey Haws (Alternate for Jon Devaney) Agrees

Bill Lover: At City Council Meetings have sign in slips for agenda comments. Otherwise, there is a public comment period at the beginning.

Mayor Gawlick: Will continue as done in the past and address at next meeting.

Jim Dyjak (Citizen): At one time we could talk during study sessions. Now we cannot. All you get is what the agency wants you to hear. Item 8 – approval of SS air monitor – should be upgraded. Hopes you vote in favor. The public has fought hard for the monitor. Has worked with EPA.

Environmental Justice is big in the federal government. YRCAA should not be getting funds when the public is left out. I am pushing hard to stop federal funds until we get an EJ program.

The SS monitor was off for a week and no one noticed.

YRCAA needs the public and should realize it. Dyjak hand carried a grant request to EPA officials in Seattle. Work with the public.

Jan Whitefoot (Citizen): Hx of not working with the public. We had to go to the CDC to get air monitors that would tell us where the pollution is coming from. CDC sent a team, and they are in the second phase. The YRCAA Board has turned your backs on the public. YRCAA has refused to monitor for ammonia, hydrogen sulfide and VOCs. Many monitors are easy to program.

Dairy Air Score Cards – Lots of redactions on PRR information. They did not list the number of cows. No scientific measurement of the pollutants that the scoring says they measure. Why are the numbers of the cows not listed? If you don't know how many cows, how do you know how much ammonia or hydrogen sulfide? Does YRCAA measure the pH in manure piles and lagoons? She shows cards with major redactions.

Director Pruitt: If there is reaction RCW 70.94.205 provides for redaction. Dairies have to certify in writing that the information would adversely impact their business.

Mayor Gawlick: What about multiple facilities in one operation. Title V insists that the agency document all facilities under one operation as one operation. They are registered as one operation.

Director Pruitt: There is no reason to look at cow numbers.

Whitefoot disagrees. The pollutants are listed at the top.

Kathleen Rogers (Citizen): Shares an album of pictures and pictures from the previous night. There is no water applied to the dust from the pens. Drove around and took pictures of the neighborhood. There is no reason why people should have to breathe that air. Some dairies are improving. They have gone to expense and effort. Others have not. Instead, they buy more property and expand. Do not even take care of the facilities they have.

Mayor Gawlick re the photos: What part of the BMPs addresses dust control.

Director Pruitt: Most of the dust is PM or larger. You can water, cross fencing in which urine stops dust and compacts, additives. These practices are listed in the policy. I've never been a cow inspector, but I've been a building inspector. You have to manage dust.

Director Pruitt: Cites the law. Have to prove public health problems. The law really says that nuisance is OK. This is the major complaint we receive. We don't like the nuisance exemption. Obviously, the people that are being annoyed do not agree with what we are doing. I would not either. Describes limited resources.

Larry Fendell (Citizen): Dry year. Once a pollutant leaves your problem you are in violation of the law. There are laws that cover that also.

Genny DeRuyter (Dairywoman): Single family-owned farm. Clarifies how dairies operate. She has two milk barns classified by WSDA as two facilities. But they are contiguous. There are different methods of classification.

Jean Mendoza (Citizen): Who wants to do something about Global Warming?

No response.

Mendoza: That is sad. YRCAA is the most important agency re Global Warming. Presents a mini-lesson. In Europe, the amount of ammonia in the air has increased by 50% over 100 years. Here to ask YRCAA to get involved. Ask YRCAA to do this type of analysis. Here to volunteer to help.

September 10, 2015

Study Session – Comments and Appearance before the Board: Request to move the comment period to the latter part of the meeting.

Commissioner Elliott prefers keeping comments at the beginning.

Director Pruitt: Administrative Code Part A says people could engage with the board during action items. Fill out a request prior to the meeting. Was never implemented because the board changed. It is your choice. There are no rules.

Mayor Gawlick: Concerned about prolonging the discussion. Can be a problem.

Commissioner Elliott: Needs to be ahead of time in writing. No back and forth.

Devaney agrees.

Jones agrees.

Make a change. Comments during the public comment period. Consider changing Code A.

Second Item – Proposal from Jean Mendoza. Commissioner has not heard from staff. Postpone to next meeting. Pruitt – needs to look at from an engineering viewpoint and also from an administrative viewpoint. They are dissimilar.

Director Pruitt comments on paper. Lots of works. Large body of information. Does not fit into any of their work programs. Are some disagreements. “Nitrogen is not an air pollutant. It is not even an air contaminant. It can become an air contaminant.” “Our atmosphere is extremely durable, and resilient.” “We need to deal with pollution one pollutant at a time.” YRCAA can ask the DOH to discuss asthma and health problems. We are not health officials. We use advice from others. This is a request from FOTC asking YRCAA to:

1. Analyze impact of agriculture on air quality – Ecology does that.
2. Analyze impact of wet and dry deposition of ammonia – We are not going to do that.
3. Estimate costs and benefits from PM 2.5 and Ammonia with respect to public health – We are not going to do that.
4. Seek funding for research and mitigation projects – Yes, absolutely.
5. Inform outside researchers and agencies about the unique characteristics of the Yakima Valley – If you want us to do that, we can.

6. Discuss the ways that pollution impacts life in the Yakima Valley – Yes, absolutely
7. Read and consider the document “Hidden Costs of Agriculture” by Harvard scientists Paulot and Jacob – Yes. We have read it and do not disagree. But we are not economists and do not pretend to be.
8. Inform decision makers that lung health is not addressed in the Yakima Valley in spite of the fact that we have the worst air in the state. – That is an opinion.
9. Impose appropriate regulations to control Yakima Valley air pollution – YRCAA disagrees with statements.

Will address at next meeting.

Regular Meeting

Kathleen Rogers (Citizen): Wrote a letter to the editor regarding dust from dairies. “It seems to me there ought to be a conscience there of taking care of their pen dirt when there is already an air issue.” They should have been out there with some water. Question about Mr. Pruitt’s answer last month about how dairies chose how to deal with pen dirt. What does YRCAA do if they make poor choices.

Jean Mendoza (Citizen): Thank you for reading my request. There is a strong connection between air and water. Sometimes when you decrease water pollution there is increased air pollution. I am here to volunteer my skills and work. At the meeting for the Integrated Plan yesterday people acknowledged Global Warming. I want to help.

October 8, 2015

No public comment

November 11, 2015

Devaney & Jones present. No Quorum.

Kathleen Rogers (Citizen): Urgency of air pollution in her neighborhood.

Larry Fendell (Citizen): Can vouch for the bad air quality last night. Poop sprinklers are still going. Lots of manure that has not been incorporated into the ground. Air quality is worse.

December 10, 2015

Larry Fendell (Citizen): Four months ago I asked for public comments to be moved from the beginning to the end of the meeting. Bringing up the request again.

Commissioner Elliott thought it was discussed and agreed to leave it as it was.

Dr. Jones agrees.

Fendell – cannot bring additional information that disagrees with the staff at the meeting.

Dr. Jones – Was discussed and agreed to leave it as it was.

Jon Devaney – Move it to a future agenda item when Director Pruitt returns.

Mayor Gawlick – Put it on a future agenda.

We've had burn bans for some time, but manure is still being spread. If you can't burn wood stoves people should not be spreading manure.

Mayor Gawlick – Put it on a future agenda?

Fendell – Future agenda.

Jim Dyjak (Citizen):

Example – Item 8 Budget Revision. Suppose I have a question after the report? In order to ask I have to come back next month. It is hard to ask an agenda question if you don't know what people are going to say.

Where does the citizen award program stand?

The citizen representative on the board is always from industry. This agency is corrupt. The agency is discriminating against the public.

Dr. Tahat: Not sure about the citizen award?

Mayor Gawlick: The accusation of corruption is offensive to me. I have taken my job very seriously and have worked with several of the staff members. The things that I have seen do not substantiate the allegations.

Dyjak: You have done an outstanding job. From Day One when the Dairy Program began, citizens could not participate. When is the Five Year Strategic Plan coming back?

Commissioner Elliott: It was tabled. Will not come back.

Dyjak: Where is the enforcement on business during burn bans. Why only private citizens? There is discrimination.

Kathleen Rogers (Citizen): Sent a letter. Received an answer from Nancy Helms. Dr. Catherine Karr is doing health studies. EPA is working on the problem. Hoping the CDC will provide useful information. Thanks Mayor Gawlick for his hard work.

Steve George (Yakima Dairy Federation): Clarification on the YHR article by Dr. Seeman. He supported some valid studies.

January 14, 2016

Jean Mendoza (Citizen): YRCAA is the only agency with the responsibility of protecting public health re air quality. One method is education re risk factors. Uses the media. Last week there was an article in the Toppenish Review Independent. Quotes the YRCAA. Says ammonia emissions are insignificant. This is inaccurate information. Review Independent said the article was approved by the YRCAA. Shared U of W research from November 2015 in the LYV re asthmatic children. Article talks about ammonia in the LYV. Found a relationship. When ammonia levels rise the children's respiratory function decreases. The closer to dairies, the more ammonia. People in the workplace are expected to tolerate higher levels of pollution than young children. Hopes the board will direct YRCAA staff to request a correction to the newspaper.

Kathleen Rogers (Citizens): Agrees with Mendoza. Received a report from Dr. Wasserman from DOH about asthma in Yakima County. Last year the air in my home was intolerable. Begs her neighbors to do something. Too many calls on such a small area. There is more than smoke in the air.

Jim Dyjak (Citizen); Item 9. The chart on PM 2.5. The monitor was down for a week. We had the same problem last year. Does it take a week to change a battery? Dec 27 to 30, the monitor was off again, during a peak of pollution. Dr. Seeman was talking about farms, not CAFOs. On page 13, tables 13 & 14. Who is the QA person? If no evaluation was performed, how do you get valid data?

March 16, 2016

Kathleen Rogers (Citizen): Impact on her health last week. In spite of promises, her neighbor began stockpiling manure across the road from her. Nothing he could do because of the wet winter, he said. They have no other place to use. I begged him not to place manure there.

Dr. Tahat, you can come to my house any time and test the air. She has asked to join inspections. No one every invited her.

Jean Mendoza (Citizen): Talks about NAEM Study in the LYV by WSU. Studied Hydrogen Sulfide. Average level of hydrogen sulfide in the ambient air was high. Some states do regulate it. Levels in the study were above regulatory limits in California and Minnesota. In Minnesota the state sanctioned a dairy for hydrogen sulfide.

WA state has a law that regulates toxic air substances and the air in this study exceeded WA regulatory limits.

According to Regulation 1, if a business emits more than 40 tons per year of VOC, they must get a permit. According to the NAEM Study LYV dairies emit > 40 tons.

Jan Whitefoot (Citizen): Since yesterday people in Harrah are getting sick. Has been coming to meetings for ten years. Sees no attention to public health. Only cares about industry. Talks about

Ecology fines at the Wallula Feedlot. YRCAA is supposed to be doing this. If YRCAA cannot do this, you need to step down.

Larry Fendell (Citizen): Recalls smudging. Was involved in moving away from that practice. This problem went away. That problem lasted one month out of the year. The dairy problem lasts all year long. Talks about inability to respond to misstatements until the next month. Talks about spraying manure during inversions.

Jim Dyjak (Citizen): When you started the AQMP for dairies, Director insisted it could be enforced. A few meetings ago Director Pruitt said it could not be enforced. In this newspaper article Hasan says it can be enforced. Which is it? If they are only going to inspect dairies with a D or below, this is just a money-making project. No inspection but we will take your money. Where is the report and evaluation? Where is the baseline? Need to measure what is off the dairies. Come to my yard. I have told you that many times. YRCAA needs to make money so they can get their pay raises and guaranteed bonuses.

April 14, 2016

Mayor Norm Childress from Grandview joins the board.

Kathleen Rogers (Citizen): Several years later expressing disappointment. This is her sixth year coming to YRCAA meetings and making comments. Had hoped that things would change. Maybe a little bit. Last year was one of the most horrific. Doesn't expect anything better this year. Her neighbor is turning a green field into a compost area. Doesn't know how some neighbors survive the stench. Disappointed that there are no handheld monitors. Director Pruitt asked her to organize neighbors to put together a grant application for handheld monitors and bring it to the board. Buying out your neighbors is not a solution. I am not going to sell. I've been in my home for 35 years. Asking for board's help.

Jean Mendoza (Citizen): Correction to last meeting. Dr. Tahat said that a study was a snapshot in time. Actually, it was a two-year study. There was an article in the Toppenish Review and the Yakima Times saying there is no danger to public health from ammonia emissions from Yakima dairies. Publisher said the article was endorsed by YRCAA. It is a bad policy for the agency to deny health hazards. The research shows that there is a health hazard. I presented this information to the board in January and Commissioner Elliott said he would look into it. I haven't heard a response since then.

Jan Whitefoot (Citizen): Clarification re what she said last month. Why doesn't YRCAA address fugitive dust the way that Ecology does in Wallula. YRCAA has refused to implement enforcement against dairies as the law says they should. A local agency cannot institute less restrictive rules than the state. Meeting after meeting we come here and you guys have turned your backs on us. Linda Dyjak has been reporting the DeVries dairy to YRCAA for 15 years. Air quality is not improving. It is YRCAA's legal responsibility to do something. Questions re which monitors are used for determining attainment/non-attainment. You have purposefully turned your

backs on the people of the Yakima Valley. People cannot sit in their own back yards, but YRCAA gives dairies high scores.

Larry Fendell (Citizen): I'm going to sound like a broken record. When the people ask about something it is discussed behind closed doors. This is not a public meeting. If you have three board members together that is a public meeting. Things are getting worse. Who gets marked down for all the manure on the roads in the LYV? Air quality is not getting better. Don't think that anyone who lives there believes the statements about improved air quality. Let's actually do something or save the \$1.2 million and let Ecology take over.

Steve George (Dairy Federation): We discuss with what has been said. We feel that the dairy industry has stepped up to the plate to work with the YRCAA. Guidelines were put together by professionals in the field. I looked into the DeVries Dairy. YRCAA said there were no violations. Tom DeVries does everything he can. His dairy is a showcase dairy. There were no obnoxious odors when I was out there last Friday. I know that YRCAA went out there last Friday and did not find the conditions that these people describe. They make these claims that are not substantiated. In regard to the claims that there are health issues, WSU and others have done studies on dairies. We have provided the information to staff. They have not found health issues directly associated with the dairies. I don't know where this is coming from. The dairies are willing to come to the table.

Sandy Braden (Citizen): Happy to take Mr. George to the LYV when odors are high. Why is Dr. Jones on the board, considering that he is a dairy nutrition consultant? He is here in a position of decision making while he has financial ties to dairies.

August 11, 2016

Study Session – Process for Selecting Next Executive Director

Jean Mendoza (Citizen): Asks the board to add a member of the community to the search committee. Be aware of public health related to air quality. YHD is seriously underfunded. YHD cannot even send a representative to YRCAA work groups. Asks the board to find a director with knowledge about public health. Asks the board to add Jim Dyjak to the search committee.

Jim Dyjak (Citizen): Why is there no emergency back-up for the director? What if he is killed in an auto accident? Most clean air agencies in this state have a director who is an environmental attorney. Let's make sure you hire a director with the educational qualifications. Avoid the good old boy system. Do they have the background, the knowledge, the people skills?

Sandy Braden (Citizen): Do you have any information from the Attorney General's office based on complaint re Dr. Jones conflict of interest?

Chairman Jon Devaney: Still awaiting an AG opinion. Will be asking YRCAA attorney for an opinion.

Braden: Has called the AG office to learn whether they have received a complaint. They said they have received no complaint. In essence, the supposed complaint has not reached them. Braden submitted her own complaint. Received confirmation.

Chairman Devaney; YRCAA submitted it as a general request, not a complaint.

Braden: Asked if there was a record of anything coming from Rep. Johnson. She will share her data with the chair.

Steve George (Yakima Dairy Federation): In regard to the selection committee. If you are going to open it up to persons other than the board, then please include someone from the regulated community.

Kathleen Rogers (Citizen): Reiterates what she has said before. Need someone from the public on the search committee.

December 8, 2016

Study Session for Proposed Ammonia Project

YRCAA presented a proposed ammonia study. Prepared by staff after conversations with Dyjak, Mendoza & Rogers. To assess the contribution of ammonia to aerosol emissions inventory. Suggested use of National Ammonia Program methods.

Proposed: Four sites, two in upper valley, two in LYV.

“will provide YRCAA with a better estimate of nitrogen inputs to the Yakima County airshed and a better understanding of the county’s emission inventory.”

Proposed Budget: \$14,400.44

Questions:

Costs? Come from profits from NOC or penalties. Those are discretionary funds. Absorbable.

Will establish additional baseline data? Yes.

Will not tell us anything about sources? Yes.

What will the decision tree look like? What would the board’s actions be after data is collected?

Answer: What we are trying to find out is how much ammonia is in the ambient air and how it contributes to the 25% of PM 2.5 in the UYV air and 33% of PM 2.5 in the LYV. Long term that might point to methods for reduction in the winter of PM 2.5. Might lead to changes in the YRCAA PM 2.5 Advance Program that we submit and change every year. There is no National Ambient Air Quality Standard for ammonia.

Dr. Jones: Disturbed by the phrase, “it is hoped”. Did you have a thesis or hypothesis for this study?

It doesn't appear like there is randomization for sampling. This biases the study from the beginning.

Commissioner Elliott: How did you arrive at these four locations?

Dr. Tahat: About 3 years ago we submitted a grant for half a million dollars. There would have been 20 sites.

In this case, as far as I am concerned, ammonia is going to exist whether it is in an urban area or a rural area. No question. It is really a matter of time, temperature and humidity for contribution of PM 2.5. There are several ammonia sources in addition to dairies. Year long study will give you an idea of how much ammonia we have. It could come from fertilizer, or from other sources.

The objective, as far as I am concerned, is to say how much ammonia is in the lower and the upper valley. We can do some modeling eventually. Take those numbers and do some modeling county-wide.

Dr. Jones: Is there any agency policy about doing sampling on private property versus public property?

No.

Dr. Jones: So the YAWNS said that 97% of ammonia comes from agriculture and dairy was 94% of that. That's really, really high. I'm suspicious of that number. Hristov studies estimated that only 50% of ammonia comes from agricultural operations.

Dr. Tahat: I don't remember that number. If that number is true, I would also question that number.

Dr. Jones: If we know that ammonia is not the driver of PM 2.5, why do we need to measure it in the first place?

Dr. Tahat: We are talking about the primary source and the secondary source. Regarding secondary you are talking about the NOx, part of the combustion process.

Dr. Jones: But you are not going to get PM 2.5 unless you have the NOx. As long as you have the NOx available it is going to create aerosol nitrates.

Dr. Tahat: If you look at the ammonia by itself, then you can look at other reduction strategies. Going back to the National Academy of Science paper, either you are going to wait for the emission factors, or you measure. That is the dilemma, how much is there. We know it is there, but we don't know how much.

The question we are being asked is, you don't have the scientific data to show how much you reduce emissions with BMPs. With the data you can implement some modeling and develop control strategies.

In this agency we have never had the chance to say how much ammonia is in the air. Even though it is limited, I don't believe it is a bad idea.

Dr. Jones: To me it is like wetting your finger and sticking it in the air and saying, OK the wind is blowing. I don't see how you are going to come up with any definitive numbers.

Dr. Jones: Is there any approved method accepted across the United States for ammonia sampling?

Dr. Tahat: There are several. There is a lot. But you have got to look at the budget and how much you can do.

Keith Hurley: Initially we had two sites. I talked with Dr. Lehman at the national monitoring lab in Illinois and he said it would be better to have four sites. What you really need is a large array of sites.

Dr. Jones: What you are telling me is what you will get will be a number. It won't be worth a lot.

Mayor Childress: With the lack of a national standard, do you guys have an idea, what will you use as a baseline to tell us, this is a lot of ammonia, or this is not a lot of ammonia?

Dr. Tahat: What we have right now is the YAWNS and the subsequent study.

Jon Devaney: My understanding is that we will have the opportunity to question staff further as we need to.

Regular Meeting

Jean Mendoza (Citizen): Comment on ammonia project. No NAAQs. The CDC does have standards for chronic exposure. The U of W has studied asthmatic children in the LYV. At least three board members are presumed to have the public interests at heart. Please put public health at the top of your agenda as you think about this study.

Jim Dyjak (Citizen): Now if you have some numbers to show ammonia is here, it may give us data to get more grants. If you have the numbers, it may make a lot of sense to the people holding the purse strings.

Sandy Braden (Citizen): Back again for the eighth month. Have you heard from the AG's office about my complaint that Dr. Jones has a conflict of interest?

Board Chair Jon Devaney: I have not.

Kathleen Rogers (Citizen): There is nothing like getting your hopes up about something being done and then see someone on the board squelch it. We want monitoring because our dedication to this program has gone on for a decade or more. We don't come up here for our jollies. We come here because of what is going on in our homes. It feels like Dr. Jones is putting the industry ahead of the citizens. We have been battling YRCAA to get attention for many, many

years. And it is here. We are finally going to get something that will tell us what we are seeing and smelling and feeling.

Steve George (Dairy Federation): Has written comments that he will provide to staff. Will give a summary. We contacted Dr. Pius Ndgwa earlier this year because this is the first time this has come up about how ammonia emissions affect the air. I'm going to read an excerpt. Dr. Ndgwa says, "Air quality in Yakima gets worse in winter months from December to February when too many residents keep warm with wood burning stoves that when blended with vehicle emissions bring significant air quality challenges to the valley. Regional Clean Air Authority continues to work on improving air quality with local residents and businesses including farms. Although the research reveals small amounts of ammonia emissions from farms, these emissions are insignificant and do not pose an overall risk to human health."

States that research shows low levels of ammonia at sites outside dairy barns. States levels are below levels set by OSHA and NAOSH

So, a lot of the stuff has already been addressed. For the record, the dairy industry does not support this project as proposed. It is too cursory without enough depth. It targets dairy producers when there are other sources of ammonia. These sites are not random. They are biased.

The government is providing services to two chronic dairy complainers who have demonstrated that their complaints are frivolous, being used as harassment, and, according to agency staff that I have had conversations with, wasting public resources.

The dairy industry has already stepped up. We are in our third year of a mandatory dairy air emission program.

Jim Dyjak: I'm going to rebut that. He just gave you a false statement, that all the complaints have never been verified at my house. Do you know why? Not one person from this agency in sixteen years has ever been to my house. Not one. When you report something on Monday and they might come out a week later, it ain't going to be there. The study he cites was done inside the barns. Dr. Pius is using an assumption that the drift is less. This study will show whether it is there or not. I resent being told my complaints are wrong when no (investigators) have ever been to my house.

Larry Fendell (Citizen): All the testing has been done on dairies. The neighbors really don't care what is on the dairy. We care about what comes across the fence line. We care about all the fields where they apply manure, don't disc it in, make two or three applications. The neighbors get to smell it for a month. So, let's be fair about this. He (Steve George) is a paid person who gives you half-truths. Too many of us live with this. We want to know what is coming over the fence. We want it reported.

January 12, 2017

Study Session to Interview Candidates for Executive Director

Regular Meeting

Sandy Braden (Citizen): This is my ninth month asking this question. Have you heard from the AGs office yet about my complaint about Dr. Jones presence on your board. I feel there is a conflict of interest.

Chairman Devaney: We have not heard from the AGs office. In the interim it has been the board's determination that there is not a conflict. We are acting according to our own counsel's advice in the interim.

Jim Dyjak (Citizen): Discussion about the ammonia study. Dr. Pius supports what the agency is doing. He supports what you propose to do. He gives them a study by Dr. Ndgwa on measuring odors from dairies. He outlines low cost equipment for measurement because sense of smell is variable from person to person. He provides a form for doing the studies.

If you look at an odor complaint from this agency, none of this information is on there and it is very critical – the wind, the temperature. When you look at a form this agency fills out it just says, I was there, there was no smell. It tells you nothing about it.

I doubt if anyone at this agency has ever had certified training for using your nose.

Board discussion of proposed ammonia project.

Devaney: There were questions about cost and methodology. Do you have answers? No.

What data points would be actionable? It could lead to raised expectations and public disappointment.

Commissioner Elliott: I think that questions remain and I'm not comfortable approving it today.

Dave Edler will get a further report for next month.

Devaney: We'd like to table this till a future meeting where some of those methodological questions can be addressed.

Dr. Jones: Mark, will you accept some written questions from the board? Yes

Devaney: I know there is a lot of public interest. Why don't you communicate with the public and try to get their questions?

February 1, 2017

Commissioner Ron Anderson replaces Commissioner Rand Elliott

Discussion of contract with Keith Hurley, the choice to head the YRCAA.

Regular meeting was cancelled.

March 9, 2017

Study Session – Proposed ammonia project – Bill Lover, Rainey Haas & Steve Jones present

Comments were solicited. Copies provided to the board.

Dr. Jones: With DOE inventory of ammonia why are we doing further study? > 8,000 tons for the county?

Dr. Tahat: Differentiates between ag and animal ag. Basically, ammonia comes from livestock. The purpose is to look at temporal and spatial distribution. We would like to know how much ammonia is available in the atmosphere by season. It is a stretch to say the ammonia by source is the same in the UYV and the LYV.

If we are out of attainment for PM 2.5, We have to look at every source. Without data we have to use the emission inventory.

Dr. Jones: Four sites will give enough information?

Dr. Tahat: Yes

Dr. Jones: I am still not sure the four measurements are sufficient.

Director Hurley: We are not doing this for the dairies. We are looking at ammonia. Don't have the resources to do more studies. We have had 9 exceedances in 2017 so far. In the past we had 2-3. This is due to more sampling. This is purely an exploratory study. We do see value.

Dr. Jones: Drs. Harrison and Leytem said more data is needed.

Director Hurley agrees.

Bill Lover: Hear from the audience. Haas & Jones say No.

Regular Meeting.

Jim Dyjak (Citizens): Request removal of ammonia project under the fairness doctrine. Two board members have not participated in the ammonia discussions.

Public comment

Sandy Braden (Citizen): Month 11 asking if they have heard about complaint that Dr. Jones clearly has financial ties to the dairy industry.

Bill Lover: Our chair has been following this. The agency has received no update.

Rainey Haas: No information.

Kathleen Rogers (Citizen): Thanks Dr. Tahat and Director Hurley for presentations about ammonia studies. Last meeting was so difficult because her complaints were classified as frivolous. Don't vote today. Brought parents because they are also impacted. Dr. Jones does not

know the impact. Problems only began when the CAFO across the road from her began to grow. If the CAFOs are growing then we need to let YRCAA measure the air quality.

Jim Dyjak (Citizen): Questions about the community forum, item 12. Dan DeGroot said that economic incentives reduce emissions. Where is the documentation. The summary says the odor intensity is decreased. Where is the documentation?

Director Hurley: There was no documentation. That was his opinion.

Dyjak: Why not use the EPCRA calculations for animal ag?

Does anyone know if they have even been required to provide this information?

Keith Sparrow (Citizen): Lives in Grandview Sunnyside. Goes for walks in the evening. Sees high clouds of dust from cows that spread for several miles. The smells are in my house. I think the air monitors would show the problem before it gets worse. If the money is there, why not?

Jean Mendoza (Citizen): Provides handouts. Letter to YRCAA re conflict of interest. Response to Chairman Devaney's interim opinion. Formal request for date, time and minutes for the meeting where that decision was made. Mr. Cullier's letter to the board cites a requirement for board members to recuse themselves from discussion and voting on projects in which they have a financial interest. Requests that Dr. Jones not vote on the ammonia project.

Dr. Jones: Took offense when Mr. Fendell referred to PhD as piled higher and deeper.

Larry Fendell (Citizen): Comments referred to submitted letters by PhDs. When people talk about dust, that is not dirt. Let's call it what it is.

Director's Report:

Proposal to eliminate division reports at board meetings.

Ammonia Project – Table till next meeting? Yes.

April 13, 2017

Study Session for Budget

Regular Meeting

Jim Dyjak (Citizen): Approve ammonia research. On AQMP there were lots of questions by the public and we were blown away. Now the public wants research and industry opposes. The public could not attend dairy meetings. Dr. Jones was not a board member at that time and he attended. We need to work together. There has never been an actual citizen on the board.

He applied to be on the YRCAA board and was refused because he stated he would not vote on dairy issues. Then they appointed someone from the industry.

Public comments at the community forums do not reach the board. Why should we go to a meeting if it makes no difference? We are busy just like you.

When the public brought information that disagrees with information presented it is cut out. Now we cannot comment in a timely manner. If I have been slandered at a meeting (by Steve George) I will defend myself. Start working with the public, not just industry.

Devaney: You have spoken for five minutes.

Dyjak wraps up.

Kathleen Rogers (Citizen): Asked classmates about their experiences when they come back home for a class reunion. Several submitted comments. She reads five. She has fifteen. Please vote for ammonia study.

Sandy Braden (Citizen): Month eleven or twelve. Have you heard from the AG's office re conflict of interest?

Devaney: Yes. Will discuss during the agenda. The short answer is an unequivocal No. There are details.

Braden: She received a letter and reads point by point. No. 2 & 3 are in fact maybe. If there is a conflict of interest the member may not participate or vote on related issues. Will the board allow Dr. Jones a vote on the ammonia project?

Larry Fendell (Citizen): In the past things, when he was young, were discussed openly. There were heated discussions among the board members. Have not seen that for a long time. Appears that some things have been discussed outside of public meetings. I think you need to watch what is going on. I'd like to see some dissent. Five people do not agree all the time.

We want to know what is happening on our property. This is the agency's job.

Director Hurley suggests a study session on conflict of interest.

Devaney asks attorney Gary Cuillier if he sees anything in the AG letter that impacts voting at this meeting.

Cuillier: If Dr. Jones earns more than 20% of his income from an industry, he probably should excuse himself from a quasi-judicial hearing. Getting to the legislative issues, it is difficult, because legislators have agendas & constituents. Cuillier goes by the 2016 MRSC book, Knowing the Territory. They look at financial interest. If someone were to be influenced because of their customers, then there is a conflict of interest. The other conflict is if the agency contracts with someone that the board members works with. The other conflict is if the board member feels obligated to disclose confidential information. Sharing confidential information poses a conflict of interest. Doesn't really say that every legislative matter involves a conflict of interest. The AG letter leaves that up in the air.

Does not know about a conflict with the AQMP.

Plan to ask MRSC to present a study session.

Devaney: Re annual adoption of a fee schedule. Has impacted clients.

Cuillier: Schedules are presented by staff. Does not originate with the board. Does not see a financial gain or loss from voting on this issue.

Director: Letter from Steve George re Public Comments at Board Meetings – will formulate guidelines for public comments.

Ammonia Project

Dr. Jones believes he can be fair and impartial but asks for the board to consider.

Bill Lover – At City of Yakima they don't vote on anything without time to study the issue. The Las Vegas rule.

Devaney, the Las Vegas rule has been met.

Childress – I don't intend to make a motion. If Steve says he can be impartial I think he can be impartial.

Lover – To me there are citizens who do not want Jones to vote and they are using the conflict of interest issue to keep him from voting. Do we settle this before voting on ammonia.

Devaney further discussion on the Draft Ammonia Project.

Mayor Childress: Let's presuppose that we do this and get the results. What are the ramifications of the results? Does the agency have enforcement action as a result? Do you have sanctions?

Director Hurley: First of all, this is ammonia and there no NAAQ standards so there is no enforcement. The study will also educate us on the life cycle of ammonia in the valley. I don't see any enforcement.

Motion to take action. Anderson moves to adopt. Second – Childress. Discussion.

Commissioner Anderson: It is a study. I feel we need to have a study so we have a basis for any future actions and determinations.

Lover asks for staff input on the need.

Hurley: relates to non-attainment. May help reduce precursors.

Childress: No standards. I've been in the valley for close to 60 years. I lived across the road from the Monson feedlot. I understand. I smell it in Grandview. I don't know what we are going to do with the information. So, what do we do? Now we know the air stinks and there is dust. There has to be an end result.

Childress: Is ammonia a public health risk? Is there a danger to the public?

Hurley: What if we go through this and we see medium levels and we see something that says we need more monitors?

Dr. Jones: In March, the highest PM 2.5 was around 8. Can you directly relate any reading for ammonia to PM 2.5?

No.

Childress: If we do this it will just get our foot in the door. We'll have people coming to us saying there is ammonia in the air, what are you going to do?

Devaney: If we are solely looking at ambient and monitoring of regulated pollutants, why do we need four sites.

Hurley: I increased the sites at the suggestions of the AMON people.

Devaney: What is the cost difference between two and four sites?

Hurley: Roughly half.

Anderson votes in favor. Others, including Jones, vote no.

May 11, 2017

Jean Mendoza (Citizen): Tried to attend the public forum in April. Jumped through all the hoops she knew about. Was told to go home and come back in August.

Since the YRCAA is not doing ammonia studies, hopes YRCAA will use the ammonia studies already performed. U of W found levels up to 200 times the state average. Some samples above the minimum risk level for ammonia. Shared MRLs for ammonia from the CDC. If YRCAA cannot do your own studies, need to use the best available information.

Re Ag advisory committee. Last month's report sounded like everything was going well. Disagrees. YRCAA shared no data at the meeting. No data from the AQMP. The only evidence at the meeting was testimony from two people who live close to dairies. In one home a woman's son came to her and said he could not breathe.

April 2016 board meeting. Last report in 2014. Beginning in 2015 dairies with grade D would be visited every 6 months, grade C dairies would be visited every year. This has not happened.

August 10, 2017

Study Session on Ethics and Conflict of Interest

General Session

Jean Mendoza (Citizen): March of this year AG task force met. Later Director presented a review of the AQMP for dairies. I sent you a disagreement with Director Hurley. Will send the disagreement again and requests a response.

Kathleen Rogers (Citizen): In July she took videos of air in her area. She will send a copy. The air in Grandview/Sunnyside is horrid and she will persist until they do something.

Board made changes to the code regarding public comments.

September 14, 2017

Sandy Braden (Citizen): A year and a half ago she asked about conflict of interest re Dr. Steven Jones. Listened to Jim Daugherty from MRCS. No definitive answer whether there was a problem here, whether Dr. Jones is allowed to vote on issues related to dairies.

Dr. Jones is also supposed to address the general public interests

Dr. Jones Mr. Chairman, I have a point of order – Public comments are supposed to address an agenda matter.

Braden: The fact that we were supposed to, according to Mr. Cuillier he brought this gentleman in to address . . . cut off

Childress – that item is not on today’s agenda.

Hurley – You are absolutely correct. that item is not on the agenda. Her characterization is incorrect. It is wrong. It’s off. There were three opinions.

Braden: Which were two maybes and a no

Hurley – No, it is pretty clear. Much more . . .

Braden: OK, may I finish. Is this something new, that I’m not aware of. People have brought up things before . .

Lover: The first three lines state. . .

Hurley: The admin code is quite clear and was discussed at the last meeting. There is a process now for people to submit comments to me ahead of time.

Braden disagrees.

Lover: He has not ruled on a point of order.

Childress: This board has put things to rest. If you want to bring it to us . . . I don’t think this board has any problem with Dr. Jones serving on the board. I think we put this issue to rest.

Braden: You see no problem with Dr. Jones voting on air quality issues related to dairies?

Childress: I personally don’t. You would have to go to the board members individually. Case by case. If a conflict arises we will address it.

Lover: Point of order. We have not discussed the point of order.

Childress: You are correct. Her comments addressed something not on the agenda. If you want to continue this submit comments ahead of time.

Braden: Is this something new.

Hurley: The admin code was discussed last month.

Braden: At an open public meeting why is the door locked?

Don Lyon (Citizen): I don't know whether what I want to talk about is on the agenda. I was invited to this meeting by Commissioner Ron Anderson. . . I'm here and I would like to speak.

Childress: What item are you speaking about.

Lyon: I am speaking on clean air . . begins

Jones: Point of Order is it on the agenda

Childress: I don't know

Lover: We have public comments on the agenda. Should we suspend the rules.

Childress: I would entertain a motion to suspend the rules until we get this sorted out.

Jones moves, Second.

Discussion follows. Passes. Will allow Ms. Braden to restate her comments.

Braden cites definition of open public meeting.

Lyon: I'm just trying to get some information out here. Up until 1994 summers were always clean and pristine. We have choices but I think we can make better ones.

The clean air authority does some good things. But . . two weeks ago I called the YRCAA when it was so smoky I could not see Ahtanum Ridge from my home north of Selah. There was no burn ban n effect.

Burn permits in this county are just a source of revenue. Many are not following permits. Some homeowners burn large piles on the weekend when the YRCAA is closed. Some burn large amounts of unpermitted materials.

When are we supposed to get a breath of fresh air around here?

Except for agriculture, outdoor burning should be outlawed countywide – my opinion.

Easter Sunday, I came out of the house. It was so smoky I thought I was in the forest fires of '94. Two houses north of me was a pile burning. Neighbor was burning. He said, "I've got a burn permit". He didn't follow it.

I've had heart palpitations due to bad air. How many people are dying because of the air.

Jean Mendoza (Citizen): "I did attempt to get something on the agenda." Her request is not on the agenda. I want to submit a petition. Can you tell me your preferred method?

Childress, Hurley – don't know

Mendoza: I'm just asking.

Hurley: I would have to research.

Childress: Do you have copies. Go ahead. I don't have a problem.

Mendoza: How soon will you get back to me?

Childress: I don't know.

Hurley: I will have to take a look at the Clean Air Act.

Mendoza: Will you give me time to talk at the October meeting?

Childress: Yes

Mendoza: Will you give me more than three minutes?

More

Can present at a study session.

Mendoza: It is a legal petition from the citizens so I hope you will take it seriously.

Francisco Maltos (Citizen): I want you to think about something. Global warming is for real. Suggest that the YRCAA discuss the benefits of inviting more people to participate, specifically the young people. They are the future and, unfortunately, they have to deal with global warming and climate change. If you set an example by being proactive by trying to engage and think about this issue.

October 12, 2017

Study Petition to Ban Spraying of Manure during Burn Bans

CARE and FOTC asked for the ban.

Director Hurley presents. April 20, 2013 the same petition was presented. This is the second submission. Process ceased after public meetings.

Hurley recommends rejection of petition. No evidence of change. Conflicts with RCW 90.64 and RCW 90.48. Laurie Crowe from SYCD says permit processes have emergency application

provisions. Cites the agricultural exemption. There is no evidence that spraying of manure during burn bans endangers public health. Such a rule would impact many farmers.

Adds a letter from Gary Cuillier. Finds no impediments to deny or initiate rule making. A discretionary legislative policy decision.

Jean Mendoza (Petitioner): Mr. Hurley spent a great deal of time investigating from the perspective of the dairy industry and no time on public health.

No one should be adding pollutants to the ambient air when it is unhealthy. Intentionally adding pollutants to the air when it is unhealthy is unwise.

Rebuttal of five recommendations.

- RCW 90.64 does not address air issues. DNMA is for water.
- Most dairies are not covered by NPDES permits and these only address water.
- Overtopping should only be an emergency situation. Don't see why this is a valid reason for not protecting public health.
- Local regulations cannot be less stringent than state. Reads ag exemption for YRCAA. Reads state exemption – more information “unless the practice has a substantial adverse effect on public health and safety.”
- It is incorrect to say that spraying does not impact public health.
- Section 2.03 A of the SIP – no false statements
- Research shows increased morbidity and mortality with increased pollution.
- There is no proof that farmers would substitute synthetic fertilizers for manures.
- Compares inconvenience to dairies to inconvenience when orchardist cannot burn trees at will.
- Director did not tell us how many lbs. of ammonia in fertilizers are applied and how many lbs. of manure are applied.
- Manures are aerosolized and this increases air pollution.

People of the LYV are more likely to be poor and people of color.

Most manure is spread in a 271 square mile area.

Know the impact of disease related to PM 2.5. Know the percentage of PM 2.5 in the LYV from ammonium nitrate.

Talks about reduced life expectancy and spread of infectious organisms when the air is stagnant.

No questions.

Devaney: This issue is appropriate for the public comment period.

Regular Meeting

Review of Administrative Code Part A, Public Comments

Director Hurley: Letter from Yakima Valley Dairy Federation – concerns with conduct of board meetings. Resolution 22.11.

During the May board meeting the board requested procedures for conduct of public comment period.

Page 5-10. Agenda posted on YRCAA . . . Requires the public to submit comments ahead of time for approval.

Public comment period on page 9-10. Must identify agenda item to be addressed. < three minutes per person.

Will introduce a change to the format for agendas.

Mayor Childress: I voted for it, but I don't like it. There needs to be a way for people from the street to address us. There needs to be civility and decorum. We need a way for people to come to the podium and say their piece.

Chairman Devaney: When there is back and forth, we are getting into an un-advertised discussion of policy.

Mr. Lover: I have always been in favor of public comment. Never too much, maybe too loud.

Devaney: You don't have to come to these meetings to interact with staff or board members.

Public Comments:

Jim Dyjak (Citizen): Comment section needs to be moved to the end of the meeting. It is hard to address items on the agenda until we have the opportunity to hear the presentations.

On the petition, if you go to the state website. There is a form that says, when you say no, you have to reply, say why and provide an alternate method.

None of the material Jean turns in to the agency is sent to the board. The dairy information is shared with the public and the board, but the board does not hear public health. Let's take a look at the documentation.

Devaney: We had issues with emails from the agency not being auto forwarded to our personal emails. At some point my workplace decided this was spam. Forwarded mails are flagged as spam by many systems. It was not intentionally not forwarded by staff.

Lover: There should have been a point of order called as soon as he started talking about the ED. Get in the habit of not allowing negative comments.

Childress: Also had trouble with emails. Has been rectified. You are correct. A lot of information did not reach us.

Larry Fendell (Citizen): Comment period should be moved to the end of the meeting. RE the petition, a burn ban is called because the air is unhealthy. If you ever drive by one of these fields at this time you know. This is in the dead of winter when artificial fertilizer is not spread. They spread manure because they need to get rid of the manure. There is a huge difference when they turn on the big guns in the evenings. There are 84,000 people in the LYV. People can't heat their homes during a burn ban. It seems idiotic that they can spray raw sewage during a burn ban.

Steve George (Dairy Federation); Re the petition:

- Discussion made it sound like the dairies are not regulated. Are the most regulated segment of ag in the state.
- We have the AQMP in place. All dairies are inspected by this agency.
- Nobody talks about the increase in population and the increase in vehicle traffic, the main contributor to pollution.
- There was a burn ban for 60 days last summer and that is during the growing season.
- Best practices are to spoon feed fertilizer to the plants a little at a time.
- "Dairy is second only to apple in Yakima County. Employee nearly 5,000 people. Over 90%, probably closer to 99% is of Hispanic origin. So, those people, I feel I represent, along with the 60 -70 farm owner families. Those people like their full time jobs, They like to buy their houses and their cars. The dairies are a huge employer of minorities and those guys like their jobs. We don't seem to see those health effects with the workers and their families that live on those farms."

I'd like to add to the public comment issue. Keith mentioned that the letter I wrote to the agency is in your file. I wrote that letter because I was tired of the type of conduct I was getting from other people who were making public comments.

I don't know where the comment came from that the dairy industry is running things, because I'm from the industry and I haven't talked to anyone.

Sandy Braden (Citizen): Doesn't claim to be a scientist. If your purpose as an agency is to guard the public health of this valley. When dairymen chose to spray manure into the air during a bad event, common sense says you are adding to the pollution.

November 9, 2017

Study Session re YRCAA Permit Program Revenue Analysis

No comments

December 14, 2017

No public comments

January 11, 2018

No video

February 8, 2018

No video

March 8, 2018

No public comments

April 12, 2018

Study Session re Legal Costs of Exposure for the AQMP for dairies

Director Hurley: December 9, 2011 the agency was sued by Citizens for Sustainable Development. Followed by \$120,000 settlement. Legal fees = \$60,000. Consequently developed Admin Code Part C.

Jan Whitefoot has sued the agency over public records access.

Started tracking PRR.

Annually 425 work hours fulfilling PRR. Dairy issues require more staff time and are more complex. Dairy centered PRRs are about 19%.

Two suits directly related to dairy PRRs. No estimate of future costs re PRR and lawsuits.

Legal costs are allocated under base operations, professional services.

PRR is spread over entire spectrum of YRCAA work.

Childress: What happened in 2011?

Violations of the Public Records act.

Could be a plethora of issues with the PRR. With the new law suit we are concerned with redactions.

Devaney: Understands that by collecting information YRCAA is a target for lawsuits against dairies.

Hurley: Some of the data in AQMP forms there is protected information. Have a duty to protect. On the flip side, there may have been a misunderstanding that anything they turn in was protected. The records open us up to legal liabilities.

Devaney recommends continuing the discussion at a later time. Provide guidelines that reduce emissions without collecting information that may contribute to litigation. Need to more fully explore their options.

Kay Funk: Are your records electronic.

Hurley: They are electronic. There are problems doing redactions electronically. There is some paper. Try to digitize where they can. YRCAA is a lean agency.

Devaney recommends that Hurley brings back more information.

General Meeting

No public comments

May 10, 2018

Study Session for Review of the 2018 Budget Summary and Proposed 2019 Budget

General Meeting

No public comments

June 14, 2018

Study Session to Review the 2019 Budget

General Meeting

Jean Mendoza (Citizen): YRCAA is responsible for implementing the federal CAA. Sent research regarding “manure irrigation”. A permit is required in Wisconsin. Sent the board related research. Looked only at bacterial infections. Three different bacteria – Salmonella, Campylobacteria and E-coli 0.157. Did find an increase in infections when manure is sprayed and spread.

How many people are allowed to get sick before we impose regulations on animal agriculture.

Summarized the research – zoonotic GI infections.

In Wisconsin manure spraying is prohibited within 500 feet of a home. Recommended that manure irrigation should not take place during inversions. Cites pages.

Devaney: Are the documents included in the Monthly Packet? Yes.

August 9, 2018

Study Session to Review the AQMP

Director Hurley: Presents an executive Memorandum. Vast majority of litigation risk relates to the documents collected. Impressive requirement to examine documents for PRRs. If they reduce the data in the collected documents reduces litigation risk.

Maintain the policy in current form.

Terminate in entirety.

Modify by reducing the

Terminate and publish as a resource guide.

Blend of strategies 3 & 4.

Anticipate a federal plan to estimate air emissions from animal ag that will require data collection, if animal emission factors are promulgated.

Devaney asks about conflict of interest.

Dr. Jones does not believe he has a conflict but steps out to avoid problems.

Hurley recommends rescinding the policy and making it a resource guide.

Calls Laurie Crowe from SYCD to add information.

Hurley: I don't know if she is a doctor or not. (In fact, Ms. Crowe does not even have a bachelor's degree).

Devaney: How would you use this document in the future?

Hurley: We would make it available on the website and to anyone who asks. We would continue to provide free consultation. A bookshelf reference.

Laurie Crowe: We (SYCD) gathers our own information gathered from other agencies. Each dairy has a nutrient management plan. Dairies are inspected by WSDA. There is a tool for

producers to evaluate their own properties. She is in the process of adding a web page on dairies. Partnering with YRCAA they could do a fantastic job.

Crowe: Dairy odor and dust has always been part of the nutrient management plans.

Anderson: Would you send out letters that say your web sites are linked. Could send letters to dairies.

Childress: Concerned about changing from a policy to guidelines. Takes the teeth out.

Hurley: Cannot enforce anyway.

Crowe: Most eastside producers are doing a really good job.

Childress: I've found that with any group you have bad apples.

Hurley: If we felt the need, we could always bring in WSDA.

Crowe: A lot of people do call them.

Devaney: How do we require other industries to pay a fee in anticipation of modeling?

Hurley: We don't require people to register for modeling. For ag do not have approved estimated emission factors. Nationwide do not. His opinion that the state will do this first.

Devaney suggests coming back during the regular board meeting.

Regular Meeting

Jean Mendoza (Citizen): More information regarding the dairy policy. Is part of a group looking at atmospheric deposition – wet and dry. The EPA does study atmospheric deposition of ammonia across the nation. There is a monitor in Twin Falls, Idaho. Similar to Yakima County. CDC says that anything > 25 ppm for eight hours is hazardous to human health. Left copies.

September 13, 2018

Study Session re Reducing Litigation Risks

Two proposed resolutions:

1. Simple Rescinding.
2. Maintain registration and publish AQMP as a resource guide.

For purposes of discussion. No action. Action in October.

Dr. Jones: Questions about distribution of BMPs. (Dr. Jones stepped out of this AQMP discussion in August)

Chair Devaney: Do we currently maintain lists of other sources?

Yes. What is different in this is when they pay a registration fee, they go through New Source Review.

Dr. Jones: If other clean air agencies wanted a dairy policy, they would have to get information from other agencies. Or gather the information themselves.

Childress: I assume the fee covers administration costs.

Hurley: \$124 per registration for a scaled down program – for two hours of work. For all sources it is \$423 normally.

Childress: Is there a problem with sharing information? Do you have interlocal agreements? Why do you need a PRR?

Hurley: No intergovernmental agreement with WSDA.

Dr. Jones: The registry would potentially be an inventory?

Hurley: Yes. It would be part of being a good air agency. Would provide a clearer description of the airshed.

Jones: How do CERCLA and EPCRA fit in?

Hurley: We want to be the best agency we can be. There is a recent court decision. CERCLA and EPCRA no longer required. But we owe it to the public to know what is happening in the airshed.

Decision in October.

General Meeting

Jean Mendoza (Citizen): Apology because she brought inaccurate information re Twin Falls. Math error.

Dept. of Ecology is readdressing standards for toxic air pollutants. Will attend meetings.

During unhealthy air days last month, dairies continued to spray manure into the air.

Devaney: Do we post the revision study to our website?

Hurley: Gives an overview. Will not be a complete rewrite. Dr. Tahat sits in on the meetings.

October 11, 2018

No public comments

Board votes to rescind the AQMP for dairies.

November 8, 2018

Study Session Review of Calendar 19 Fee Schedule

Regular Meeting

No public comments

January 10, 2019

No public comments

February 14, 2019

No public comments

March 14, 2019

Study Session to discuss public comments.

Director Hurley: Hx refresher. Took over as Director on February 17, 2017. Soon after the board approved changes to public comments.

Reviewed the community forum so items could be addressed that are not appropriate for the board.

Will make an addition to the policy today. Suggested addition. "The agenda is the business at hand." Comments by public commenters are to be directed to the board chair. Have heard from MRCS, Jim Dougherty - Recommend putting restriction on when public comments are allowed. Limit to matters on the agenda. Time limits are good.

Mayor Childress: I don't know that we should put on restrictions. If people read that we are having a meeting, come down and have an issue that they want to talk about, I don't think we should restrict it to agenda items only.

Dr. Jones: Items were being brought up that the agency had no control over. It got to be pretty frustrating for me personally listening to things we could not address.

Chair Devaney: We had issues brought up that tended to engage the board. We had unnotice debates.

Commissioner Childress: I've presided over hundreds of meetings. These are lay people. I know you can get off topic, but people really don't understand. I can go both ways. I think people have a right to express their concerns. Maybe they will say something, and we can give them help.

Chair Devaney: I have not refused to hear a public comment. I don't think anyone else has done so.

Director Hurley: Parliamentary Rules govern. If we are going to suspend rules it takes 2/3 to do that by a motion and vote. Options:

- Suspend the rule for a certain meeting.
- Rewrite the rule, doesn't have to be an agenda item.

Childress: The rule says any item relevant to the business of the board, not an item on the agenda.

Devaney: My view is that when people have detailed information on a specific issue the board may not be prepared.

Childress: We could give people more than three minutes if they ask to be put on the agenda. Items should be for discussion with not action – avoids need to notify the public.

Dr. Jones: I think you will put a lot of pressure on the chair. There were some aggressive comments. Pressure on the chair to calm the public. The chair has to be able to cut off comments if they get out of bounds and that will be difficult. Needs to be something the agency can actually do something about.

Childress: I don't know that we can decide this until we give people the chance to speak.

Dr. Jones: I want people to address something that the board or the agency can actually work on and that is not what we had in the past.

Devaney: They could relate to the Director's report and agency operations. As chair I would interpret it broadly. I would relate it to the agenda and board activities.

Agree on no change and discretion of the chair.

Regular Meeting

Last Monday was a deadline for selection of a representative from the Small Cities. No nominations. Will have to start the process all over again. Not sure if he has the authority to call a meeting of the City Selections meeting. (Norm Childress, former Mayor of Grandview and rep to the YRCAA board, was elected to the Yakima County Comm

Commissioner Childress: I have had two people from the small cities ask and it appeared that the message is not being passed along.

Hurley: Don't know if the process is convening the City Selection Committee or starting communication for the third time. Will target June. We have met our obligations as far as the CAA goes by starting the process.

Sandy Braden (Citizen): Placed on the agenda for “Other Business”

Jean Mendoza (Citizen): Am I allowed to talk about the study session? Knows that people have asked to have public comments at the end of the meeting. Previously was a member of the AG task force and disagreed with Director Hurley’s summary of the meeting. Asked to be put on the next agenda to make corrections at the next meeting. Was not placed on the agenda. Emailed each of the board members. Asked them to let her know if they received the emails and there were no replies.

At a previous board member Board Member asked if private citizens could represent small cities. That is encoded in code A. That is an option. Please let the public know.

It is frustrating when private citizens come here month after month and feel that they are being stonewalled. This is a reason for anger.

Received a letter from Kirk Ellis. Hurley is in communications with the EPA Office of External Civil Rights.

Usually get 2-3 exceedances per year. May be more this year. One in 20 year event.

Sandy Braden: Clarification of the type of burn permits and enforcement methods if an inspection officer determines that the permit is not the correct one. Initially talked to Director Hurley at a community forum. Relates a case. Appears that someone used an incorrect permit for land clearing and there were no consequences.

April 11, 2019

Sandy Braden (Citizen): Addressed the board last month re enforcement of burn permits. Discussed at last month’s community forum which she missed. Asks what happened.

Chairman Devaney: Contents of meeting will be available on the YRCAA website.

May 9, 2019

Study Session to Address on Proposed FY 2020 YRCAA Budget.

Regular Meeting

No quorum

Jean Mendoza (Citizen): Study Session, Composition of the Board, and Inform about an Ammonia Study. Is that alright?

Yes

There is a law that the majority of the board members need to represent the public. Since January there has been a 50/50 split. Two are elected officials. Two are from the regulated community.

Re SIP policy. Asks the agency to follow its own guidelines when reviewing regulations. Shares problems with YRCAA Regulation 1, in place since 2003.

FOTC completed an ammonia study between Sunnyside and Grandview. Results show that on average the samples were above the Minimum Risk Level (MRL) for chronic exposure.

Why has the YRCAA gone from 11 FTEs to 10 FTEs? Gone from 3 inspectors to 2 inspectors. If either of the inspectors takes vacation, that leaves only one inspector to do the work. The cost for salaries and benefits has gone down but the cost per FTE has gone up.

Would like to hear what the YRCAA is doing about SIP.

How are raises determined? Who evaluates whether people reach their job goals?

Director Hurley: State of the Air 2019. Yakima is the sixth most polluted city in the nation for fine particulate matter. Previously was sixteenth. YRCAA attributes this to wildfires.

WA Dept response to FOTC for requested review of YRCAA.

Small City rep. Receiving nominations and will move to balloting portion.

June 13, 2019

Mayor Jose Trevino from Granger joins the board.

Jean Mendoza (Citizen): Questions about pages 11 & 12. Numbers don't agree.

Director Hurley: Probably a data entry error.

Testimony on Budget.

Jean Mendoza (Citizen): Sent an email re the budget to the agency and board members with questions. Received no answers. It is difficult to comment on a budget with so many unanswered questions.

Director Hurley: We are not required by law to respond. I looked at the comments and considered them. There is no requirement to respond. I believe she addressed them to board members. We can respond if you direct me to.

August 8, 2019

Jay Hester (Sunnyside Port District) Speaks about relocation of Ostrom's Mushrooms to Sunnyside. Experience with permitting has been exceptional.

Executive Session re Potential Litigation

September 12, 2019

No public comments

October 10, 2019

No public comments

November 14, 2019

No public comments

January 9, 2020

Vicki Baker replaces Norm Childress as County Commissioner

Jean Mendoza (Citizen): Ask for report on update to SIP revisions. Also, requests a report on how the agency is addressing risks from the composting of dead animals in Yakima County.

SIP will be addressed in March.

Composting of animal carcasses? Article in the YHR. More the purview of the YHD and WSDA. YRCAA visited sites, identified no adverse impacts. Have not identified any odor complaints specifically related to the compost. No air testing.

February 13, 2020

Sandy Braden (Citizen): Question for Director Hurley. 20 – 25 acres off of Washington and 64th due north of Ahtanum View Correction area. It appears they have taken out the orchard and there are house size piles of removed trees ready for burning. Appears to require a land clearing permit. There are restrictions, including population limitations.

Director Hurley: It is not land clearing so the restrictions for land clearing do not apply. Has visited and there have been approved burns because it is not land clearing. It is inside the UGA. Land clearing and residential are prohibited within the UGA. Ag burning within a UGA is permissible and permits have been permitted previously. Aware of citizen concerns on the internet. Will have a meeting with the orchardists to resolve issues. Must let stuff dry for at least 30 days before burning.

What type of permit?

Agriculture.

So you are saying that land will be re-planted with something?

Yes

March 12, 2020

Study Session re SIP Need to update Regulation 1

Sandy Braden (Citizen): Watched a news report on KIMA news re Tree Tops Waste Water Pollution. Director Hurley stated the odor was a solid 2, but not enough to warrant any further investigation. What scientific method was used to establish this conclusion?

Mayor Trevino: Is there a process or method where a concerned citizen can ask the agency that question?

Director Hurley: There is no scientific method for determining odor. This state classifies this as a pollutant. Our field agents used a scale with a four point odor evaluation. Its not as simple as Ms. Braden led you to believe. We get this question all the time. It is not a scientific method, but it has been approved. We draw the line at 3, typically causes people to wretch. Tree Top is well aware. We are working with Tree Top. No action. As APOC I get to decide when to take action. Will take a significant financial investment to fix the problem and they know that. There is no certification for the odor evaluation. We do test inspectors sensitivity. Talks about coffee roasters in the Puget Sound Area.

Descriptive Analysis of YRCAA Complaint Reports for Odor and Dust

January 2017 to August 2019

Introduction:

YRCAA states: Our mission is to protect the people and the environment of Yakima County from the effects of air pollution. The Yakima Regional Clean Air Agency is committed to achieving and maintaining healthful air quality throughout our jurisdiction. This is accomplished through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. See <https://www.yakimacleanair.org/about/>

YRCAA fails to do this for the people of the Lower Yakima Valley when it fails to enforce air quality standards for dairy operations. There are no dust control policies for dairies in Yakima County. YRCAA claims a blanket exemption for dairies regarding dust and odor, even when there is clear evidence that dairy emissions impact the health and well-being of neighbors.

WAC 70.94.640 states:

(1) Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter unless they have a substantial adverse effect on public health. In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.

YRCAA never evaluates health impacts, but simply cites the agricultural exemption and ignores health complaints regarding dairy operations. YRCAA incorrectly denies a link between odor, presence of hazardous pollutants and human health.

When people in the Upper Valley complain about dust obscuring the roads the YRCAA acts. When people in the Lower Valley complain about dust from dairies obscuring the roads the YRCAA tells them to call the police department. See Complaint #3842

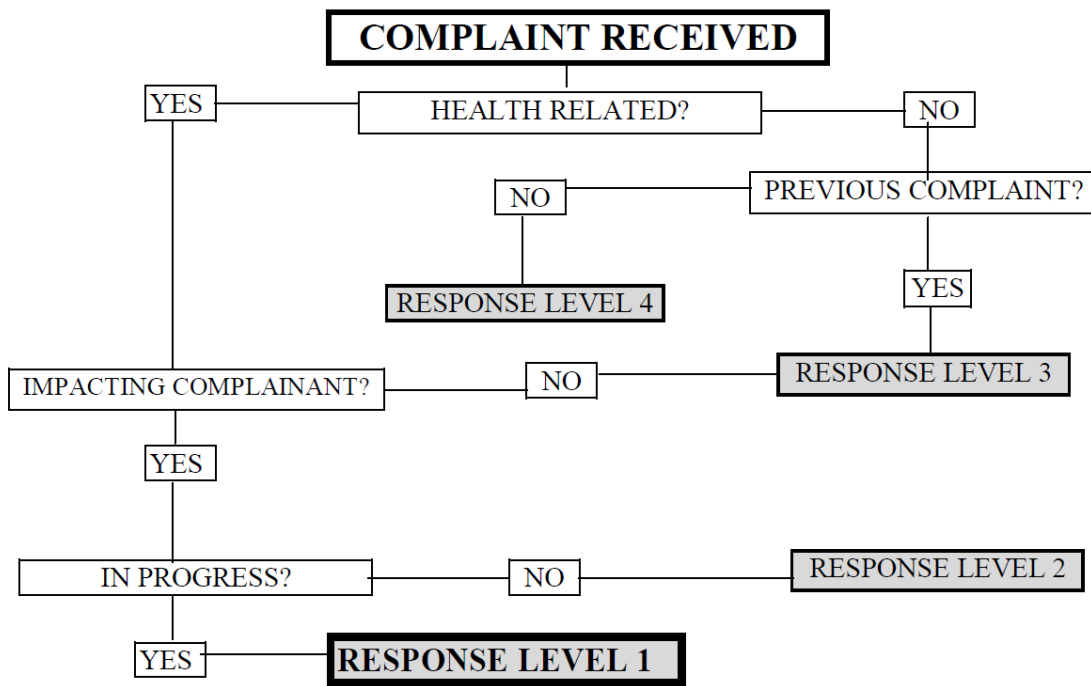
Characterization of Data from YRCAA Complaint Reports re Dust and Odor:

FOTC received 138 Complaint Reports from YRCAA in response to a 2019 Public Records Request. That data is included here in Attachments 4, 5 & 6. Two of the reports had incomplete data. Consequently, FOTC has analyzed 136 reports. Our Excel spreadsheet is Attachment 7.

Thirteen (13) or 9% of the reports had questionable dates and times. The times of incidence occurrence supposedly happened after reports were made, or investigations supposedly took place before the incidents were reported. These are clerical errors, but they confound the data analysis.

The YRCAA Administrative Code Part B provides a flowsheet to guide agency response to complaints on page 5-7. It is copied here:

GENERAL COMPLAINT RESPONSE FLOW CHART



The following response levels will be used in conjunction with the complaint response flow chart.

a. Level 1

Attempt same day site inspection. Request backup if not available for same day response.

b. Level 2

Attempt inspection within 48 hours. Request backup if not available for 48 hour response.

c. Level 3

Attempt site inspection within 7 days. Request backup if not available for 7 day response.

d. Level 4

Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action.

A phone call or a fax may be helpful but, it should be followed up in writing.

To be very clear, the only path to a Level 4 Response happens when the complaint is not health related and there has been no previous complaint. According to FOTC analysis 85

out of 136 or 63% of complaints were assigned Response Level 4. We believe that at least 29 of those assignments were incorrectly done. See yellow highlighting in our spreadsheet. However, in reality, YRCAA made onsite investigations of many complaints that were assigned Level 4 Responses.

There were 89 complaints from the Upper Valley or about 65% of the total which correlates very well with the percentage of people who live there. For the Upper Valley 87% of the complaints concerned dust, 11% concerned odor and 1% concerned “other”. For the Lower Valley there were 47 complaints or 35% of the total. For the Lower Valley 62% of the complaints concerned dust and 28% concerned odor.

For the Upper Valley the average lag time between when an incident allegedly occurred and when the complaint was received (recorded) was 18.18 hours with a median of 4. Half of the complaints were received (recorded) within 4 hours of the time they were sent. For the Lower Valley the average lag time between when an incident allegedly occurred and when the complaint was received (recorded) was 37.92 hours with a median of 17 hours.

For the Upper Valley the average time between when an incident was reported (recorded) and when an investigation was initiated was 26.58 hours with a median of 3.5 hours. For the Lower Valley the average time between when an incident was reported and when an investigation was initiated was 60.25 hours with a median of 24.75 hours.

Lag Times between Occurrence, Report & Investigation

	Upper Valley	Lower Valley
Average Time Between Occurrence and Report	18.18 hrs.	37.92 hrs.
Median Time Between Occurrence and Report	4 hrs.	17 hrs.
Time Between Report and Investigation	26.58 hrs.	60.25 hrs.
Median Time Between Report and Investigation	3.5 hrs.	24.75 hrs.

Compare Upper Valley and Lower Valley Response Levels

	Upper		Lower		
RL-1	7	8%	5	11%	Attempt same day site inspection. Request backup if not available for same day response
RL-2	10	11%	0	0%	Attempt inspection within 48 hours. Request backup if not available for 48 hour response
RL-3	5	6%	7	15%	Attempt site inspection within 7 days. Request backup if not available for 7 day response
RL-4	51	57%	30	64%	Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action.
No Rating	16	18%	5	11%	
Warning Letter	6	7%	2	4%	
NOV	7	8%	3	6%	

Percentage wise slightly more Lower Valley complaints were assigned a Level 1, 3 or 4 Response. Upper Valley complaints were more likely to receive a Level 2 Response or no rating. Upper Valley complaints were more likely to end in a warning letter or a Notice of Violation (NOV).

Comparison of Prolonged Odor Episodes in the Upper Valley and the Lower Valley

Two prolonged episodes of foul odor were documented in the complaints. One occurred in Selah and was related to the Tree Top Apple Processing Plant. The other occurred in the Lower Valley between Sunnyside and Grandview and was related to a cluster of dairies in that area. The ways that YRCAA responded are informative.

Selah:

May 31, 2017 at 3 PM a resident called and YRCAA took the call immediately. According to the record:

CP says that there has been a terrible odor (sewage-like) emanating from Tree Top's wastewater pond. He says it has been particularly bad for the last couple of weeks.

YRCAA began an investigation 23 hours later on 6/1/2019, assigning Response Level 2 which means that there was a health risk that was impacting the complainant, but the problem was not in progress:

Did not smell anything until I parked right across from 1500 Harrison Road, which is the Treetop Treatment facility's address. The odor was at a 2. I noticed they were utilizing sprinklers, which may be making the odor more airborne, as we have had complaints with Treetop in the past regarding the same issue. I am going to go out in the morning, as most of the people calling in are saying it's worst in the morning.

June 1, 2017 at 9:04 AM another resident called and YRCAA recorded the call three hours later at 1200 noon. An investigation began two hours later.

CP says that there has been a horrible "sewage-like" smell in the East Selah area for the last two weeks. She said it was extremely bad this morning.

YRCAA found:

Investigated this issue along with other complaints that were place recently. Odor was not detectable until I was across from 1500 Harrison Rd. At that point, the odor level was a 2.

June 1, 2019 at 9:41 a third resident called and the YRCAA recorded the call at 12:00 noon. The same investigation began two yours later at Response Level 2:

CP says that there has been a terrible smell in East Selah lately. She said she checked with Selah Public Works, to see if their waste treatment plant could have been the cause of the smell, but they said everything is fine.

YRCAA found:

Drove past the Selah waste treatment plant, but did not smell anything bad, I continued to drive on Harrison Road by Tree Top and when I hit 1500 Harrison Road, I could detect and odor that was sewage-like. The odor level was a 2. Treetop had their sprinklers going, so I'm assuming the water is coming from the wastewater ponds, and that is the cause of the smell.

June 5, 2019 at 10:30 AM a fourth resident called and the YRCAA recorded the call 3 ½ hours later at 2:00 PM. The investigation began one half hour later with a Response Level 4.

CP says that there has been a bad odor emanating from Tree Top's wastewater ponds

YRCAA called Tree Top and issued a verbal warning.

Sunnyside/Grandview

July 19, 2019 (Friday) at 7:35 PM a resident left a voice mail message with YRCAA that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says there's "Ambient cow pen dirt from Hornby west to Waneta and further. Particle dirt filling the air around us can be seen on video with lights. It smells like urine but you don't care about that."

According to the report the complaint received a Response Level 3 and an investigation was not begun until eleven days later on July 30, 2019 at 3:00 PM.

July 21, 2019 (Sunday) at 11:30 PM the same resident left a message that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says that "Foul cloud of ambient open pen dirt and lagoon storage. Strong smell of ammonia/urine permitting our property and home. Gagging, sinus headache and inability to breathe even with high power filtering system."

Although the resident clearly states health complaints that are impacting her, the complaint is assigned a Response Level 3 that implies no health risks. An investigation was begun eleven days later, on July 30, 2019 at 3:00 PM.

July 22, 2019 at 11:15 PM the complainant left another message:

CP says that "The ambient pen dirt air was sucked into her home and her sons through open windows around 11:00 PM when she was cooling her house down with the evening air. Horrible dirty feeling ambient pen dirt willed with horrid ammonia and manure AND

The YRCAA recorded the message the next morning but took no action. Initially the assignment was Response Level 3.

July 24, 2019 at 9:35 AM the complainant called again, this time in the morning, but the message was not picked up until 22.5 hours later.

After wonderful rain and thunder showers last night no smells! Wonderful sweet clean air! But tonight, Wednesday, 7/24/2019 9:25, windows open screen doors letting in fresh air until this very moment! Boom ! Ambient pen ammonia stench coming in.

YRCAA assigned a Response Level 4 that signifies no previous complaints. There was no investigation.

July 25, 2019 at 8:00 AM the complainant called and YRCAA documented the call 45 minutes later.

"Awoke to horrid smell of dead cow composting. Velduis Klompe CAFOs is composting turning dead cow compost and it's gross. The ambient air is bringing this cloud of stench to my property this morning! Go to sleep with smells of urine wake up to manure

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 25, 2019 at 8:27 AM the complainant called again and the YRCAA recorded the call one hour later.

"Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"

The YRCAA did not investigate and made a Response Level 4 assignment to the complaint.

July 25, 2019 at 11:15 PM the complainant called and left a message that was picked up the next morning at 9:00 AM.

CP says "Cool nights are once more and very appreciated. However, opening our windows and screened doors is a negative. The ambient pen dirt full of odor from the cafo open pens surrounding our home and the neighbors is restricting the enjoyment of fresh

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 26, 2019 (Friday) at 1:20 AM the complainant left an email message. YRCAA had all day Friday to pick up but they did not record the message until Monday morning on July 29, 2019. Not being able to sleep due to odor qualifies as a health concern but YRCAA made a Response Level 3 assignment and did not investigate.

CP says "Awakened by stench form ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

July 29, 2019 with no time recorded the complainant left an email message that was picked up the next day at 9:55 AM.

CP says "Kelsey, once more Klompe CAFO is composting and the ambient dirt from that is just nasty at my home. The wind was blowing from the east as well. I believe they've been told not to compost in the wind. Kelsey I have photos! This needs to be handled

The YRCAA initiated an "investigation" on July 30, 2019 at 1 PM. This was their investigation:

Dairies and CAFOs in the vicinity of Hornby, Stove, Braden and Tear Roads were contacted and made aware of the complaints

This was the final response for all of the above odor complaints during this episode of foul air. YRCAA is well aware that FOTC research in this area found average ammonia levels that exceed the Minimum Risk Level (MRL) for chronic ammonia exposure. The YRCAA cannot state that composting dead cows next to family homes is an acceptable agricultural practice. YRCAA performed no onsite investigations and took no odor measurements. Based on the evidence no one can state how high the odor or ammonia levels were during this week or what the risks were to complainant health.

Does the YRCAA Agree or Disagree with People Who Complain about Dust & Odor?

Overall, the YRCAA investigations agreed with complainants perceptions 22% of the time, disagreed 39% of the time and took a position in the middle 18% of the time. There was no investigation for 18% of complaints.

The numbers look different when the Upper and Lower Valleys are compared. In the Lower Valley the YRCAA disagreed with the complainants 49% of the time and supported the complaints only 4% of the time. The YRCAA did not investigate 32% of the complaints from the Lower Valley.

YRCAA Support for Upper Valley and Lower Valley Residents

	Upper Valley		Lower Valley		Yakima County	
	# Complaints	%	# Complaints	%	# Complaints	%
No Support	30	34%	23	49%	53	39%
Yes Support	27	30%	2	4%	30	22%
Maybe	18	20%	7	15%	25	18%
No Investigation	10	11%	15	32%	25	18%
NA	4	4%	0	0%	4	3%

When dust and odor complaints are compared there is another large disparity. The YRCAA disagreed with 17% of those who complained about odor and disagreed with 37% of those who complained about dust. The YRCAA agreed with 25% of those who complained about dust and agreed with 17% of those who complained about odor. The shocking finding is that the YRCAA failed to investigate 67% of odor complaints. Given the significant lag time for investigation, especially with respect to odor, this is disturbing.

YRCAA Support for Dust Complaints versus Odor Complaints

	Dust # Complaints	Dust %	Odor # Complaints	Odor %
No Support	40	37%	3	17%
Yes Support	27	25%	3	17%
Maybe	25	23%	0	0%
No Investigation	13	12%	12	67%
NA	4	4%	0	0%

Please see the Attachment 8 Spreadsheet for work documentation.



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)

complaint_number **3532** [Help: find #](#) DAN AP65-01-02 Rev.

Date received Time Date of Destruction

active

Date occurred Time Investigator

received via Investigation Date

received by Investigation Time

violation type Violation Address Zip Code

Pictures City

AOD? NOV? non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text" value="Theresa"/>	First Name <input type="text" value="Don"/>
contact title <input type="text"/>	Last Name <input type="text" value="Davidson"/>
First Name <input type="text" value="Tree top"/>	Address <input type="text" value="341 Archie Rd."/>
Last Name <input type="text" value="Tree Top"/>	Zip Code <input type="text" value="98942"/>
Address <input type="text" value="1500 Harrison Rd."/>	City <input type="text" value="Selah"/>
Zip Code <input type="text" value="98942"/>	Home phone # <input type="text" value="(509) 930-7565"/>
City <input type="text" value="Selah"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text" value="(509) 698-1221"/>	Email <input type="text"/>
Cellphone # <input type="text"/>	

description alleged violation CP says that there has been a terrible odor (sewage-like) emanating from Tree Top's wastewater pond. He says it has been particularly bad for the last couple of weeks.

findings Did not smell anything until I parked right across from 1500 Harrison Road, which is the Treetop Treatment facility's address. The odor was at a 2. I noticed they were utilizing sprinklers, which may be making the odor more airborne, as we have had complaints with Treetop in the past regarding the same issue. I am going to go out in the morning, as most of the people calling in are saying it's the worst in the morning.

actions taken Contacted Treetop preliminarily to make them aware of the complaint. Drove across from wastewater ponds, and did not smell any sewage-like odors there, like I did on 6/2/2017.RL-2



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure **Responsible Party****Complaint Party**contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone #

Description alleged violation CP says that there has been a horrible "sewage-like" smell in the East Selah area for the last two weeks. She said it was extremely bad this morning.

findings Investigated this issue along with other complaints that were placed recently. Odor was not detectable until I was across from 1500 Harrison Rd. At that point, the odor level was a 2.

actions taken Going to go out and investigate early in the morning, as most of the CP's have been saying the smell is much worse in the early morning. Tried to call Theresa, with Treetop on 6/2/2017, to let her know that the smell is definitely coming from treetop, however, there was no answer or voicemail to leave a message.

additional



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help find #](#) DAN AP65-01-02 Rev.Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

contact_name contact title First Name Last Name Address Zip Code City State Home phone # Cellphone #

Complaint Party

First Name Last Name Address Zip Code City Home phone # Cellphone # Email

description alleged violation CP says that there has been a terrible smell in East Selah lately. She said she checked with Selah Public Works, to see if their waste treatment plant could have been the cause of the smell, but they said that everything is fine.

findings Drove past the Selah waste treatment plant, but I did not smell anything bad. I continued to drive on Harrison Road by TreeTop, and when I hit 1500 Harrison Road, I could detect an odor that was sewage-like. The odor level was a 2. TreeTop had their sprinklers going, so I'm assuming the water is coming from the wastewater ponds, and that is the cause of the smell.

actions taken Parked in front of CP's house on 6/5/17 at 10:45am, and did not smell any sewage like smells in the area. Drove across from wastewater ponds, and did not smell any sewage like odors there, like I did on 6/2/2017. RL-2.



Complaint Form

Find or Edit a Complaint

Add a New Complaint

complaint_number **3537** [Help: find #](#) DAN AP65-01-02 Rev.

Date received	<input type="text" value="6/5/2017"/>	Time	<input type="text" value="2:00:00 PM"/>	Date of Destruction	<input type="text"/>	
active	<input type="checkbox"/>					
Date occurred	<input type="text" value="6/5/2017"/>	Time	<input type="text" value="10:30:00 AM"/>	Investigator	<input type="text" value="Kelsey"/>	
received via	<input type="text" value="email"/>				Investigation Date	<input type="text" value="6/5/2017"/>
received by	<input type="text" value="Kelsey"/>				Investigation Time	<input type="text" value="2:30:00 PM"/>

violation type	<input type="text" value="OD"/>	Violation Address	<input type="text" value="1500 Harrison Rd."/>		
		Zip Code	<input type="text" value="98942"/>		
Pictures	<input type="text"/>		City	<input type="text" value="Selah"/>	
AOD?	<input type="text"/>	NOV?	<input type="text"/>	non-disclosure <input type="checkbox"/>	

Responsible Party			Complaint Party		
contact_name	<input type="text" value="Theresa"/>		First Name	<input type="text" value="James"/>	
contact title	<input type="text"/>		Last Name	<input type="text" value="Ingberg"/>	
First Name	<input type="text" value="TreeTop"/>		Address	<input type="text" value="265 Johnson Rd."/>	
Last Name	<input type="text" value="TreeTop"/>		Zip Code	<input type="text" value="98942"/>	
Address	<input type="text" value="1500 Harrison Rd."/>		City	<input type="text" value="Selah"/>	
Zip Code	<input type="text" value="98942"/>		Home phone #	<input type="text"/>	
City	<input type="text" value="Selah"/>	State	<input type="text" value="WA"/>		
Home phone #	<input type="text" value="(509) 698-1221"/>		Cellphone #	<input type="text"/>	
Cellphone #	<input type="text"/>		Email	<input type="text"/>	

description alleged violation	<input type="text" value="CP says that there has been a bad odor emanating form TreeTop's wastewater ponds."/>
findings	<input type="text" value="Called TreeTop and let them know of the complaint."/>
actions taken	<input type="text" value="None. Verbal warning issued. RL-4"/>



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

Complaint Party

contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone # description alleged violation findings actions taken

Complaint Form
[Find or Edit a Complaint](#)
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complaint_number [Help: find #](#) DAN

Date received Time Date of Destruction

active

Date occurred Time Investigator

received via Investigation Date

received by Investigation Time

violation type Violation Address

Zip Code

Pictures

AOD? City

NOV? non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>
First Name <input type="text" value="Unknown"/>	Address <input type="text" value="1920 Braden Road"/>
Last Name <input type="text" value="Unknown"/>	Zip Code <input type="text" value="98930"/>
Address <input type="text" value="Hornby/Stover/Tear Roads"/>	City <input type="text" value="Grandview"/>
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 830-6637"/>
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>
Cellphone # <input type="text"/>	

description alleged violation

findings

actions taken

Complaint Form [Find or Edit a Complaint](#) [Add a New Complaint](#)

complaint_number **3983** [Help: find #](#) DAN AP65-01-02 Rev.

Date received Time Date of Destruction

active

Date occurred Time Investigator

received via Investigation Date

received by Investigation Time

violation type Violation Address

Zip Code

Pictures

City

AOD? NOV? non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>
First Name <input type="text" value="Unknown"/>	Address <input type="text" value="1920 Braden Road"/>
Last Name <input type="text" value="Unknown"/>	Zip Code <input type="text" value="98930"/>
Address <input type="text" value="Hornby/Tear/Stover Roads"/>	City <input type="text" value="Grandview"/>
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 830-6637"/>
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>
Cellphone # <input type="text"/>	

description alleged violation CP says that "The ambient pen dirt air was sucked into her home and her sons through open windows around 11:00pm, when she was cooling her house down with the evening air. Horrible dirty feeling ambient pen dirt filled with horrid ammonia and manure AND

findings

actions taken RL-3 See complaint #3990 for actions taken. RL-4



Complaint Form

Find or Edit a Complaint

Add a New Complaint

complaint_number [Help: find #](#) DAN

Date received Time

Date of Destruction

active

Date occurred Time

Investigator

received via

Investigation Date

received by

Investigation Time

violation type

Violation Address

Zip Code

Pictures

City

AOD?

NOV?

non-disclosure

Responsible Party

Complaint Party

contact_name

First Name

contact title

Last Name

First Name

Address

Last Name

Zip Code

Address

City

Zip Code

Home phone #

City State

Cellphone #

Home phone #

Email

Cellphone #

description alleged violation

findings

actions taken

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Complaint Form Find or Edit a Complaint Add a New Complaint

complaint_number **3986** Help: find # DAN AP65-01-02 Rev.

Date received **7/25/2019** Time **9:30:00 AM** Date of Destruction

active

Date occurred **7/25/2019** Time **8:27:00 AM** Investigator **Kelsey**

received via **email** Investigation Date **7/30/2019**

received by **Kelsey** Investigation Time **1:00:00 PM**

violation type **odor** Violation Address **Braden/Hornby/Waneta/Stover Roads**

Zip Code **98930**

Pictures City **Grandview**

AOD? NOV? non-disclosure

Responsible Party

contact_name

contact title

First Name **Unknown**

Last Name **Unknown**

Address **Braden/Hornby/Waneta/Stover Roads**

Zip Code **98930**

City **Grandview** State **WA**

Home phone #

Cellphone #

Complaint Party

First Name **Kathleen**

Last Name **Rogers**

Address **1920 Braden Rd.**

Zip Code **98930**

City **Grandview**

Home phone # **(509) 840-0521**

Cellphone #

Email **kakaleena1@yahoo.com**

description alleged violation **"Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"**

findings

actions taken **RL-4 See complaint #3990 for actions taken. RL-4**

Complaint Form [Find or Edit a Complaint](#) [Add a New Complaint](#)

complaint_number **3987** [Help: find #](#) DAN AP65-01-02 Rev.

Date received Time Date of Destruction
 active
 Date occurred Time Investigator
 received via Investigation Date
 received by Investigation Time

violation type Violation Address
 Zip Code
 Pictures
 AOD? City
 NOV? non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>
First Name <input type="text" value="Veldhuis Klompe"/>	Address <input type="text" value="1920 Braden Road"/>
Last Name <input type="text" value="Veldhuis Klompe"/>	Zip Code <input type="text" value="98930"/>
Address <input type="text" value="Braden/Stover Roads"/>	City <input type="text" value="Grandview"/>
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 839-6475"/>
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>
Cellphone # <input type="text"/>	

description alleged violation "Awoke to horrid smell of dead cow composting. Veldhuis Klompe CAFOs is composting turning dead cow compost and it's gross. The ambient air is bringing this cloud of stench to my property this morning! Go to sleep with smells of urine wake up to manure

findings

actions taken RL-3 See complaint #3990 for findings and actions taken, RL-4



Complaint Form

[Find or Edit a Complaint](#)

[Add a New Complaint](#)

complaint_number <input type="text" value="3988"/>	Help: find #	DAN <input type="text" value="AP65-01-02 Rev."/>
Date received <input type="text" value="7/26/2019"/> Time <input type="text" value="9:00:00 AM"/>	Date of Destruction <input type="text"/>	
active <input type="checkbox"/>	Investigator <input type="text" value="Kelsey"/>	
Date occurred <input type="text" value="7/25/2019"/> Time <input type="text" value="11:14:00 PM"/>	Investigation Date <input type="text" value="7/30/2019"/>	
received via <input type="text" value="email"/>	Investigation Time <input type="text" value="1:00:00 PM"/>	
received by <input type="text" value="Kelsey"/>		
violation type <input type="text" value="odor"/>	Violation Address <input type="text" value="Stover/Hornby/Tear Roads"/>	
	Zip Code <input type="text" value="98930"/>	
Pictures <input type="text"/>	City <input type="text" value="Grandview"/>	
AOD? <input type="text"/>	NOV? <input type="text"/>	non-disclosure <input type="checkbox"/>
Responsible Party		Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>	
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>	
First Name <input type="text" value="Unknown"/>	Address <input type="text" value="1920 Braden Road"/>	
Last Name <input type="text" value="Unknown"/>	Zip Code <input type="text" value="98930"/>	
Address <input type="text" value="Stover/Hornby/Tear Roads"/>	City <input type="text" value="Grandview"/>	
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 837-6637"/>	
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>	
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>	
Cellphone # <input type="text"/>		
description alleged violation	<input a="" ambient="" and="" appreciated.="" are="" cafo="" cool="" dirt="" doors="" enjoyment="" fresh"="" from="" full="" home="" however,="" is="" more="" negative.="" neighbors="" nights="" odor="" of="" once="" open="" opening="" our="" pen="" pens="" restricting="" screened="" surrounding="" the="" type="text" value="CP says " very="" windows=""/>	
findings	<input type="text"/>	
actions taken	<input type="text" value="RL-3 See complaint # for actions taken. RL-4"/>	

Complaint Form [Find or Edit a Complaint](#) [Add a New Complaint](#)

complaint_number **3989** [Help: find #](#) DAN AP65-01-02 Rev.

Date received 7/29/2019 Time 9:00:00 AM **Date of Destruction**
 active
Date occurred 7/26/2019 Time 1:20:00 AM **Investigator** Kelsey
received via email
received by Kelsey **Investigation Date** 7/30/2019
Investigation Time 1:00:00 PM

violation type odor **Violation Address** Braden, Stover, Hornby, Roads
 Zip Code 98930
Pictures **City** Grandview
AOD? **NOV?** non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text"/>	First Name Kathleen <input type="text"/>
contact title <input type="text"/>	Last Name Rogers <input type="text"/>
First Name Unknown <input type="text"/>	Address 1920 Braden Road <input type="text"/>
Last Name Unknown <input type="text"/>	Zip Code 98930 <input type="text"/>
Address Braden, Stover, Hornby, Roads <input type="text"/>	City Grandview <input type="text"/>
Zip Code 98930 <input type="text"/>	Home phone # (509) 839-6475 <input type="text"/>
City Grandview <input type="text"/> State WA <input type="text"/>	Cellphone # <input type="text"/>
Home phone # <input type="text"/>	Email <input type="text"/>
Cellphone # <input type="text"/>	

description alleged violation CP says " Awakened by stench from ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

findings

actions taken RL-3 See complaint #3990 for findings and actions taken. RL-4



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure **Responsible Party****Complaint Party**contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone #

description alleged violation CP says "Kelsey, once more Klompe CAFO is composting and the ambient dirt from that is just nasty atmy home. The wind was blowing from the east as well. I believe they've been told not to compost in the wind. Kelsey I have photos! This needs to be handled

findings

actions taken RL-3 Dairies and CAFO's in the vicinity of Hornby, Braden, Stover, and Tear Roads were contacted and made aware of the complaints. RL-4



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number **3842** [Help: find #](#) DAN AP65-01-02 Rev.Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

Complaint Party

contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone #

description alleged violation CP says that the heifer pens across the street from his house is causing fugitive dust in the evenings when the cows become more active. The dust comes straight across the street and goes right into his property. He says its so bad it obscures the road.

findings No fugitive dust seen at time of investigation. Dirt in the pens seemed moist.

actions taken None. Told the gentleman to call the police department regarding the dust obscuring the road because it is a traffic safety issue. RL-4

additional comments



Concise Explanatory Statement (CES)

This Concise Explanatory Statement (CES) provides information on the Yakima Regional Clean Air Agency (YRCAA) policy adoption for:

Title: Pilot Project for the Air Quality Management Policy and Best Management Practices for Dairy Operations
Adopted date: February 10, 2011
Effective date: February 10, 2011

This CES provides:

1. A description of the policy;
2. Reasons for adopting the policy;
3. A description of any differences between the draft policy and the adopted policy; and
4. Public comments with the Agency responses to comments.

Description of the Policy

The policy is a pilot project to address fugitive air emissions as contemplated in RCW 34.05.313, which states in part:

“During the development of a rule or after its adoption, an agency may develop methods for measuring or testing the feasibility of complying with or administering the rule and for identifying simple, efficient, and economical alternatives for achieving the goal of the rule. A pilot project shall include public notice, participation by volunteers who are or will be subject to the rule, a high level of involvement from agency management, reasonable completion dates, and a process by which one or more parties may withdraw from the process or the process may be terminated.” The pilot project is expected to begin February 10, 2011 and be complete December 31, 2011. At the completion of the pilot project, YRCAA and the workgroup established to participate in the development of the policy shall:

1. Conduct an effectiveness assessment;
2. Determine the need for modification of the policy;
3. Accomplish needed modifications; and
4. Propose a final policy for adoption to the YRCAA Board of Directors.

Reasons for Adopting the Policy

There are many Dairy Operations in Yakima County which the YRCAA has recognized as significant air pollution sources. YRCAA's primary air quality concern regarding Dairy Operations is the generation of fugitive air emissions from feed, urine, manure and other sources.

In recent years, most dairy operators have instituted various practices to control fugitive air emissions. Such practices are also good animal husbandry and good neighbor practices. Air quality management practices can require a significant commitment of time and resources by owners and operators.

Since air emissions from Dairy Operations are considered to be fugitive emissions (cannot feasibly be collected and passed through a control device), mitigation must be accomplished by prevention rather than control. This policy is intended to use existing regulations and clarify what constitutes "reasonable precautions" to minimize air emissions from Dairy Operations. The primary means to accomplish this is to identify pollutant-specific and system-specific best management practices (BMPs) for minimizing emissions and to cause these practices to be implemented according to flexible, site-specific Air Quality Management Plans.

This policy applies only to commercial Dairy Operations where cows are raised, kept and milked and the potential for significant emissions of air pollutants exists. 100% of the air emissions from dairy operations cannot be eliminated. This policy and all BMPs contained in this policy need to be tested, proven to be effective in mitigating air emissions, and found to be economically and technically feasible.

Description of Differences between the Draft Policy and the Adopted Policy

Revisions to the draft Policy submitted for public comment are summarized. Revisions were made due to public comments received, either individually or as consensus of various comments as determined by staff.

Cover Page

The text of the cover page was revised to indicate the pilot project beginning and ending dates.

Background

The text was revised to:

- Delete irrelevant information;
- Replace certain information with more accurate information;
- Provide a description of the policy;
- State reasons for the policy; and
- Address jurisdiction.

Policy

I. What is the Purpose of the Policy?

Minor changes for clarity purposes were made.

II. Who Must Comply with the Policy?

Minor changes for clarity purposes were made.

III. How Does the Policy Work?

Minor changes for clarity purposes were made such as, determinations by YRCAA and the work group role in case of disputes.

IV. Where and When Must Air Quality Management Plans Be Submitted?

Minor changes for clarity purposes were made.

V. What Must Be Contained in an Air Quality Management Plan (AQMP)?

Minor changes for clarity purposes were made.

VI. How are AQMPs Developed and Approved?

Minor changes:

- Added a statement regarding technical assistance from YRCAA or a technical service provider; and

- Added a statement regarding potential compliance actions only for violations of regulation, not policy.

VII. How and What Changes Can be Made to an Approved AQMP?

Minor changes for clarity purposes were made.

VIII. How Will YRCAA Determine When an AQMP is Adequate?

No changes.

IX. How Will Compliance with and Effectiveness of the AQMP be Determined?

Minor changes to further describe:

- How compliance and effectiveness determinations will be made; and
- For what violations compliance actions may be taken.

Appendix A

Minor change for clarity was made.

Appendix B

Changes were made to:

- Remove references to Appendices D and E;
- Better describe pollutant emissions;
- Better state BMPs; and
- 8 BMPs were removed due to lack of scientific evidence of efficacy.

Appendix C

Changes were made to:

- Remove references to Appendices D and E;
- Better state BMPs; and
- Remove BMPs as in Appendix B.

Description of comments and responses

The Concise Explanatory Statement responds to the identified comments in a Comment-Response sequence. Agency responses are given only for comments regarding the policy content or the policy development process.

The table below lists the names of organizations or individuals who submitted a comment on the policy proposal and where you can find YRCAA’s response to the comment(s).

The first column defines the Commenter Number

The second column identifies the Commenter and Organization, if applicable

The third column assigns a comment/response number:

- The letter **A** refers to comments regarding the **Policy Content**
- The letter **B** refers to comments regarding the **Policy Development Process**,
- The letter **C** refers to comments regarding **Other Topics**
- The Accompanying Numbers (1-23) show the order in which the comments appear.

The format would be:

Commenter Number, Comment Type, Comment Number

Commenter Number	Name and Affiliation	Comment/Response #(s)
1	Nichole M. Embertson, PhD	Note: All comments on point; so numerous, comments will be presented below as submitted, numbered below as submitted and attached to Policy Draft

		Document
2	Mark Tudor	C1
3	Jan Whitefoot Concerned Citizens of the Yakama Reservation Friends of Toppenish Creek	B1, B2, C1, B3, B4, C2, C3, C4, B5, A1
4	Jean Mendoza Community Contribution	C1, A1, C2, A2, A3, A4, C3, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A28.a, A28.b, A28.c, A28.d, A29, A30, A31, C4, C5, C6, C7, C8, C9, C10, C11
5	Don Lewis	A1
6	Colleen Reimer	A1, A2, C1, A3, B1
7	Pius Mwangi Ndegwa, PhD	A1, A2, A3
8	Jerald Gefre	B1, B2, B3, C1, B4
9	James & Linda Dyjak	A1, C1.a, C1.b, C1.c, C1.d, A2, A3, C2.a, C2.b, C2.c, A4.a, A4.b, B1
10	Karen Pilon	C1
11	John Bosma	A1, A2, A3
12	Laurie L. Porter Grad Student, Researching Dairy Operations in the Yakima Valley	C1, A1, A2.a, A2.b, A3, A4, A5, A6, B1, B2, C2.a, C2.b, C2.c, C2.d, C2.e, B3, C3, C4, C5.a, C5.b, C6, C7, C8
13	Charles M. Tebbutt, P.C C.A.R.E.	C1, A1, A2.a, A2.b, A3, A4, A5, A6, B1, B2, C2, C2.a, C2.b, C2.c, C2.d, C2.e, B3, C3, C4, C5.a, C5.b, C6, C7, C8
14	Jim Leier	C1, B1, B2
15	Yakama Nation Dept. of Natural Resources	A1, A1.a, A2, A3, A4, A5, A6, A7, A8, A9, A9.a, A9.b, A9.c
16	Larry G Fendell	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, B1, C13, C14
17	Eleanor Hungate	C1, C2, C3, A1, A2, A3, A4
18	D'Ann L Williams, DrPH Meghan F Davis, DVM, MPH Ana M Rule, PhD Keeve E Nachman, PhD, MHS	A1, A2, A2.a, A2.b, A2.c, A2.d, A3, A4, A5, A6, B1, A7, A7.a, A7.b, A8, A8.a, A8.b, A9-A24
19	John L Cox	C1, A1, C2, B1, A2
20	Steven Rowe Northwest Dairy Assoc.	A1, A1.a, A1.b, A1.c, A1.d, A2, A2.a, A2.b, A2.c, A3, A3.a, A3.b, A4, A5, A5.a, A5.b, A5.c, A5.d, A5.e, A6, A6.a, A6.b, A6.c
21	Fred & Ruth St. Hilaire	B1, B2.a, B2.b, C1, C2, B3, C3
22	Helen Reddout C.A.R.E.	B1, B2, C1, B3, B4, C2
Commenter Number	Name and Affiliation	Comment/Response #(s)
23	William J Weida Socially Responsible Agricultural Project	A1, A2, A3, C1, C2, A4, A4.a, A4.b, A4.c, A4.d, A4.e, A4.f, A4.g, C3
END OF COMMENTS RECEIVED		

YRCAA accepted comments between November 8, 2010 and 5 p.m. December 09, 2010. The following section provides verbatim comments that were received during the public comment period. No grammar or spelling corrections have been attempted. Agency responses can be found immediately following each comment.

Commenter #1

Comments #NME1 – NME32

BACKGROUND

Most dairy farms are diversified crop and animal production systems. Some feeds are purchased, but dairy producers usually grow their own forages (whole plant feeds such as hay or silage). Most dairy farmers sell their bull calves and many raise heifers as replacement animals. The advantage of raising heifers on farm is that it helps prevent introduction of diseases when animals are introduced to the milking herd. In a typical herd, mature cows calve every 12 to 14 months, producing a female calf 50 percent of the time. Milk production increases for about 10 weeks and then decreases for the remainder of lactation. Typically, the lactation period lasts about 10 to 12 months. Cows are bred artificially when behavioral and physiological signs of ovulation occur about 60 to 120 days after calving. Lactation continues until two months prior to the next predicted calving. A typical herd with 100 lactating cows may also include 18 dry cows and 86 growing heifers (Dunlap et al., 2000) for a total inventory of 204 head. Young dairy calves consume casein or soy-based milk replacer until adjusted to grain and eventually forage-based diets as they mature. Lactating cattle in peak production consume diets with as much as 60 percent of dry material from grains and high-energy by-products and 40 percent from forages (whole plant crops such as hay or silage). Lactating cattle at lower levels of production and mature cattle between lactations consume diets comprised mostly of forages.

While there are many small dairy operations in Yakima County, the Yakima Regional Clean Air Agency (YRCAA) has recognized Dairy Operations with inventories of over 500 head as significant air pollution sources. There are many Dairy Operations located in Yakima County which are able to support inventories in excess of 500 head. Smaller dairies may also be significant. YRCAA's primary air quality concern regarding Dairy Operations is the generation of fugitive emissions from feed, urine and manure.

YRCAA began working with local beef cattle feedlots in 1993 to minimize dust emissions. As a result, fugitive dust plans were developed and implemented. Since then, the plans, and their effectiveness, have improved each year. YRCAA staff met with owners of heifer replacement and calving operations in March of 2001 to discuss fugitive dust control plans. As a result, a policy was developed to serve as a vehicle for applicable dairy heifer feeding operations to acknowledge requirements and to demonstrate their commitment to continued improvement of effective fugitive dust control. That policy was developed using the same regulated stakeholder and public stakeholder involvement process.

Comment [NME1]: This is a strange definition/review at the beginning of this section, I am not sure what the purpose of it is. It is also a broad generalization of dairy operations. Think about moving it to the end and adding a leading sentence that explains what it is.

Comment [NME2]: Why is this capitalized throughout? No need.

Comment [NME3]: Does that mean that only operation over 500 head are subject to your AQMP? You might want to clarify that here.

Comment [NME4]: Why? Based on what criteria? Give reference...based on the definition listed in RCW 70.94.030'.

Comment [NME5]: You stated in the first sentence this was not the case. Think about making this a "however" statement at the end of the first sentence. For instance: "...recognized dairy operations with inventories of over 500 head as significant air pollution sources, however, smaller operation can still be noteworthy contributors."

Comment [NME6]: Insert as "such as" statement here (aka, list emissions of concern).

In recent years, most operators have instituted various practices to control fugitive emissions. Such practices are also good animal husbandry and good neighbor practices. Air Quality Management measures can require a significant commitment of time and resources by owners and operators.

Since emissions from Dairy Operations are considered to be fugitive emissions, this policy is intended to use existing regulations and clarify what constitutes "reasonable precautions" to minimize emissions from Dairy Operations. The primary mechanism for doing this is to identify pollutant and area-of-operation specific best management practices (BMPs) for minimizing emissions and implement these practices according to flexible, site-specific Air Quality Management Plans developed by each Dairy Operation. Each plan must be submitted along with completed registration forms and must be approved by YRCAA. Annual updates of the plans will be required.

This policy applies only to Dairy Operations where cows are confined for feeding and milking and the potential for significant emissions of air pollutants exists. It is recognized that 100% of the air emissions from dairy operations cannot be eliminated. Additionally, all solutions or practices need to be economically and technically feasible.

Comment [NME7]: I would just caution this statement – we have a very hard time updating plan on an annual basis due to time, funding, and practicality constraints. Before you make this a requirement, consider who will be doing this work, how many plans there will be, and what constitutes an update. You may want to consider changing this to “Annual review” or “annual update determined by review” instead of “update”.

Comment [NME8]: Than the policy doesn't apply to operations that also graze cattle? If so, some of your BMPs and recommendations are not valid. If you do want to include grazing (encouraged), then add that in here.

Comment [NME9]: How is this defined/determined?

POLICY

I. What is the Purpose of the Policy?

The purpose of this policy is to provide guidance for effective prevention and control of fugitive air emissions from Dairy Operations. Components of the purpose are:

1. To achieve sufficient prevention and control of emissions from Dairy Operations to assure compliance with applicable laws and regulations;
2. To achieve prevention and control of emissions by describing a menu of operation and pollutant-specific best management practices (BMPs) for Dairy Operations that will be implemented through the use of flexible, site-specific Air Quality Management Plans;
3. To clarify what constitutes "reasonable precautions to prevent" emissions as required by WAC 173-400-040(3); and
4. To inform owners and operators on effective prevention and control of emissions and provide a means by which Dairy Operations can demonstrate that they are taking reasonable precautions to protect the air quality in Yakima County.

II. Who Must Comply with the Policy?

1. All Dairy Operations where animals are confined for feeding and milking and the potential for significant emissions of air pollutants exists; and All commercial dairies will be considered as potentially significant sources of air pollution for purposes of gathering initial information and determining emissions. It may be that some dairies will only report every three years. Most will report annually.

III. How Does the Policy Work?

1. A Dairy Operation must prepare an Air Quality Management Plan (AQMP) and submit it to YRCAA for approval, along with completed annual registration forms, and pay a fee;
2. A plan must identify best management practices (BMPs) and operational procedures to be used to control emissions of various pollutants from each area of operation;
3. YRCAA and the dairy operators are expected to work together in good faith toward development of an AQMP which is acceptable to both the Operation and the YRCAA;
4. A Dairy Operation must fully implement an approved AQMP according to the criteria and/or implementation schedules outlined in their plans;
5. A Dairy Operation may make modifications to an approved AQMP as long as the effectiveness of the plan is not diminished; and
6. YRCAA may initiate negotiations with a Dairy Operation to modify an approved plan, if that plan is not sufficiently effective in minimizing fugitive emissions.

Should a dispute arise as to compliance with this policy, YRCAA may request the dairy workgroup that developed this policy to review the dispute and provide input as to an acceptable outcome.

IV. Where and When Must an AQMP be Submitted?

Comment [NME10]: Is this regardless of size? If so, you should state this, as your introductory statement might make someone think that only operations larger than 500 cows would need to apply.

Comment [NME11]: Only commercial? What about non-commercial dairies? You may want to define your word for commercial, or take it out.

Comment [NME12]: While this is an important statement, it doesn't warrant a number in this section based on the title "Who must comply". Consider wrapping it into the previous number.

Comment [NME13]: While I like the flexibility and voluntary nature of this idea, I foresee that you will run into a lot of issues if the dairy operator is supposed to prepare their AQMP themselves. A lack of knowledge, understanding, honesty, and/or assistance may inhibit their ability to properly fill out the AQMP you have designed. If your goal is simply to accumulate a list or survey of what BMPs are currently in place, then this is okay. If your goal is to optimize current BMPs and/or have producers install new ones, you are going to have some difficulty. You may want to provide a technical assistance source (YRCAA?), state they can solicit professional help, or be sure that these documents fulfill all criteria that can be later regulated by the appropriate organization (if that is your goal).

Comment [NME14]: List those areas here.

1. Dairy Operations must submit plans to the YRCAA;
2. Existing Dairy Operations must submit plans annually, no later than February 15th; and
3. New or expanding Dairy Operations must file notice with YRCAA, which includes an Air Quality Management Plan for the new facility or addition. This plan must be approved prior to operating the facility.

Comment [NME15]: Can you do this legally? I worry this may cause some issues. Dairies typically only file with WSDA or contact their CD (if expanding). I can understand the need for this information as it directly relates to submission of an AQMP, but not for general purposes.

V. What Must Be Contained in an AQMP?

1. A description of the operation, including:
 - a. A map, aerial photo or drawing of the operation, which adequately represents the layout of the operation and provides enough detail to allow YRCAA to adequately review the feasibility and appropriateness of various BMPs for the facility;
 - b. A description of the operational capacity of the operation, including the maximum number of cattle which could be confined;
 - c. A description of the lands where nutrient byproducts from the operation are applied and the application method(s) used ;
 - d. Any site-specific features or characteristics which would prevent or limit the use of any BMP; and
 - e. Any site-specific features or characteristics which would require BMP flexibility or adaptation to meet the needs of the operation.

2. Pollutants and pollutant groups to be addressed under the plan.

Of the following eight pollutants and pollutant groups, those targeted for emission reduction must be identified in the AQMP:

- a. Direct Particulate Matter;
 - b. Ammonia (NH₃);
 - c. Volatile Organic Compounds (VOCs);
 - d. Oxides of Nitrogen (NO_x);
 - e. Hydrogen Sulfide (H₂S);
 - f. Odor;
 - g. Methane (CH₄); and
 - h. Nitrous Oxide (N₂O).
3. A description of BMPs to be used under the Plan to reduce emissions of the targeted pollutants.
 - a. The description must include which BMPs will be applied for emission reductions

Comment [NME16]: What is "direct particulate matter"? Do you mean PM10? Course PM? Dust?

from the following physical areas:

- i. milking parlors;
- ii. sorting alleys;
- iii. feed alleys;
- iv. dry lots and free stalls;
- v. lands where nutrients are applied;
- vi. storage lagoons;
- vii. compost areas;
- viii. feed storage areas;
- ix. unpaved roadways; and
- x. any other area or process where emissions may occur.

b. The description must include which BMPs will be applied for emission reductions from the following systems:

- i. nutrition and feeding;
- ii. housing;
- iii. manure management;
- iv. land application (both fertilizer and manure application); and
- v. pasture

c. The descriptions must also include:

- i. a description of the equipment and materials to be used, including a description of the normal operational capacity or application rate of any equipment;
- ii. an operational plan for implementation and operation of each BMP;

The operational plan must describe the criteria the operation will use to determine when and for which areas of the operation to implement each BMP and the criteria for selecting specific BMPs. It is recognized that operations and conditions are variable and that the same BMP may be implemented differently by individual operations. This variability makes the description of how BMPs will be implemented an especially important component of an operation's AQMP.

- iii. a description of which pollutant or pollutant group will be reduced as a result of implementing each BMP;
 - iv. a method of monitoring and recording the implementation of each BMP; and
 - v. the person responsible at the facility for the Operation's AQMP and its implementation.
4. A schedule for future BMP implementation, if applicable.

If an operation intends to implement additional BMPs in the future, target dates for implementation of each BMP should be included in the AQMP.

VI. How are AQMPs Developed and Approved?

1. An Operation is responsible for preparing an AQMP and submitting the plan or update to YRCAA for approval on or before February 15th. Professional assistance may be

Comment [NME17]: This only applies if you change your definition in the introduction to include pasture systems (pasture is not typically considered a "confined" situation).

Comment [NME18]: Used for what? Land application? Manure handling? Please elaborate.

used in developing and reviewing the plan;

2. Within 30 days, YRCAA staff must review the plan and notify the Operation of plan approval in writing or request additional information or propose alternative practices to approve the plan. Failure of YRCAA to notify the Operation or request additional information shall constitute approval;
3. Operations must respond to agency requests for information or modification of the plan within 30 days;
4. The approval process may include good faith discussion, evaluation, collection of information, and other efforts to resolve differences of opinion about the plan, so long as reasonable progress toward the development and approval of the Operation's AQMP is being made; and
5. If agreement on an Operation's AQMP cannot be reached after thorough good faith evaluation of alternatives and consideration of plan effectiveness, costs, and other pertinent matters, YRCAA may initiate compliance action.

The purpose of good faith negotiation is to share information and resolve differences of opinion regarding an Operation's AQMP. Both the Operation and YRCAA need to be able to exchange information freely and in good faith. Information obtained by YRCAA in the course of negotiation is not obtained for the purpose of any future enforcement activity.

VII. How and What Changes Can be Made to an Approved AQMP?

An Operation may make modifications to an approved AQMP as long as the modification(s) do not pose a potential to diminish the effectiveness of the plan. Substantive modifications to a plan must be documented and YRCAA must be notified of the changes. Substantive modifications include but are not limited to:

1. significant changes in operational procedures;
2. changes in BMP selection; and
3. changes in criteria used to determine BMP implementation.

Non substantive changes are changes which do not have the potential to diminish the effectiveness of an implemented plan. Such changes may be made without notification to YRCAA, but must be included in the next annual AQMP update.

VIII. How Will the YRCAA Determine When an AQMP is Adequate?

In considering whether an AQMP is adequate to achieve the purpose of this policy, YRCAA may consider:

1. whether the plan utilizes BMPs identified in Appendix B of this policy;

Comment [NME19]: I thought all plan review was done by YRCAA? Be more specific if you mean technical review, not final review.

Comment [NME20]: Such as? State what the penalties for not completing and submitting the plan are (if there are any). State what the compliance action is and who will carry it out.

Comment [NME21]: May want to add a line item referring to the discontinuance of an approved BMP.

2. the ability of the proposed BMPs to maintain conditions which adequately minimize emissions;
3. other measures in the plan which may be effective in minimizing emissions, but which are not recognized BMPs;
4. the adequacy of the operational plan, including the criteria used to begin, end, and apply the proposed BMPs;
5. evidence that proposed measures have been effective in similar conditions; and
6. whether the plan addresses all requirements of Section V of this policy.

IX. How Will Compliance and Effectiveness of the AQMP be Determined?

1. Compliance - After an AQMP has been approved, an Operation will be inspected to determine if the BMPs and their operational plans are in effect. If inspection determines that the AQMP is not fully implemented or reasonable precautions are not being taken to prevent emissions, a Notice of Violation may be issued.
2. Effectiveness - After the plan is in place, inspection results may be used to evaluate the effectiveness of the plan in reducing emissions. If inspection indicates that the plan is not effective, YRCAA will request information from the Operation or propose additional or alternative BMPs. As with the development of the initial plan, YRCAA and the Operation will work together in good faith to revise the AQMP to increase its effectiveness.

Comment [NME22]: By whom? YRCAA? WSDA? DOE? EPA? Who carries out the penalty and compliance review?

Comment [NME23]: How will you quantify effectiveness? Is it a visual inspection only or will you take actual measurements of emissions? Giving an inspection plan or idea of how you will measure these things would be good.

APPENDIX A

STATUTORY AND REGULATORY REFERENCE

This Section is intended to provide the regulatory framework for Dairy Operations. Other statutes or regulation may apply, but the references listed below have the most significant bearing on the industry.

A. STATUTORY AUTHORITY

1. The Washington Clean Air Act (the Act), RCW 70.94.011 states that it is public policy to preserve, protect and enhance the air quality for current and future generations and the intent is to protect human health and safety, including the most sensitive members of the population.
2. Dairy Operations are sources of air pollution per RCW 70.94.030 and subject to the provisions of the Act except as exempted in Sections 640.
3. RCW 70.94.141 empowers Local Authorities to:
 - a. Adopt and amend its rules;
 - b. Issue orders and take administrative actions to enforce the Act;
 - c. Require access to information specific to the emission and control of air pollutants;
 - d. Secure necessary scientific and technical services;
 - e. Prepare and develop comprehensive plans to prevent and control air pollution;
 - f. Encourage voluntary cooperation to achieve the purposes of the Act;
 - g. Encourage and conduct studies, investigation and research relating to air pollution causes, effects, prevention, abatement and control; and
 - h. Advise, consult and cooperate with agencies, departments, educational institutions, political subdivisions, industries, other states, inter-local agencies, the United States government, and with interested persons or groups.
4. RCW 70.94.151 authorizes local authorities to:
 - a. Classify air pollution sources; and
 - b. Require registration, reporting and payment of registration fees.
5. RCW 70.94.152 authorizes local authorities to require submittal of application to construct or modify an air pollution source and approve such application prior to construction or modification.
6. RCW 70.94.154 authorizes and describes a Reasonably Available Control Technology (RACT, as defined in 70.94.030(20)) determination.
7. RCW 70.94.380 mandates Local Authorities to have requirements for the control of air emissions that are no less stringent than those of the state.

Comment [NME24]: All dairy operations?, or just those large enough or close enough to neighbors to cause a problem? You may be challenged on this statement.

B. STATE REGULATIONS

Dairy Operations are sources of air pollution and are subject to the provisions of WAC 173-400 and WAC 173-460, which require controls to minimize emissions.

C. LOCAL REGULATIONS

YRCAA Regulation 1, Section 1.03 declares agency policy to be secure and maintain air quality by:

1. Protecting human health and safety;
2. Preventing injury to plant and animal life and property;
3. Fostering comfort and convenience;
4. Promoting economic and social development;
5. Facilitating the enjoyment of natural attractions;
6. Preventing or minimizing the transfer of air pollution to other resources;

7. Ensuring equity and consistency with the Federal Clean Air Act (FCAA) and the Washington Clean Air Act (WCAA);
8. Educating and informing the citizens of Yakima County on air quality matters;
9. Maintaining accurate and current policies, regulations, and rules;
10. Performing administrative actions in a timely and effective manner;
11. Cooperating with the local governments, the Yakama Nation, organizations or citizens on air quality matters;
12. Developing strategies to avoid, reduce or prevent air pollution through innovative solutions, early planning and integration of air pollution control in the work of other agencies and businesses;
13. Preparing guidelines which interpret, implement and enforce regulations; and
14. Providing reasonable business and technical assistance to the community.

Section 1.04 declares that all activities, persons and businesses are subject to Regulation I, unless granted a variance or specifically exempted in the regulation.

Section 1.05 provides for the appointment of an advisory council to advise and consult with the Board.

Section 2.03 adopts and incorporates certain state and federal codes and regulations that may be applicable to dairy operations.

Section 3.00 requires operations and maintenance plans to prevent avoidable emissions.

Section 4.01 requires any source with a significant emission, as defined in Table 4.01-2 to register the source annually with the agency and pay the appropriate registration fee.

Section 5.02 provides for civil penalties to be assessed to any person who violates any of the provisions of YRCAA Regulation 1, the WCAA, any permit, order or condition of approval issued by the agency up to \$12,000 per day per violation.

APPENDIX B – POLLUTANT-SPECIFIC BEST MANAGEMENT PRACTICES

The purpose of this Appendix is to present a list of best management practices (BMPs) as they apply to reducing emissions from specific air pollutants or pollutant groups. BMPs as they apply to specific dairy operation systems are presented in Appendix C. BMP descriptions are presented in Appendix D. Factors to consider in selecting and implementing BMPs are presented in Appendix E.

General Principles

- The principle mechanism by which most BMPs operate is to maintain conditions which prevent emissions of pollutants addressed by the use of the BMPs; and
- Nothing in this policy should be construed to limit the ability of an Operation to be innovative or to use effective management practices that differ from those offered in this policy.

Following is a list of various BMPs for consideration in reducing emissions from each pollutant or pollutant group. The BMPs have not been prioritized for practicality, economic feasibility, ease of use, or efficacy. These are important factors to consider in the successful selection and implementation of BMPs.

I. Ammonia (NH₃)

Ammonia (NH₃) is formed when urea in the urine and the urease enzyme found in feces and manure laden soil are combined together. The two hydrolyze to form NH₃. The reaction is very quick and the peak to volatilization is from 2 to 10 hours. Volatilization of NH₃ depends primarily on four factors: the protein (N) content in the feed, manure management strategies, the pH or the manure or soil, and the meteorology in general (i.e., temperature and wind speed). The lifetime of gaseous NH₃ is about 24 hours, which typically deposits near its source. This deposition can lead to eutrophication of surface water, soil acidification, airborne fertilization, and changes in ecosystems.

It is the objective of an NH₃ BMP to reduce NH₃ emissions and thus, its negative effects. Tradeoffs in NH₃ reductions must be carefully considered. Tradeoffs are actions which reduce emissions of one pollutant, but cause an increase in another pollutant emission. Tradeoffs could result due to things such as changes in pH or a shift to aerobic conditions. Therefore, the most effective method of reducing NH₃ is to target the source itself. In this case, the source is nitrogen (N) input into the dairy systems. BMPs which reduce NH₃ follow.

1. Reduce the amount of dietary protein (N) in the ration to match, rather than exceed, the animal's needs.
2. Practice phase feeding.
3. Increase animal efficiency.
4. Proper ventilate buildings.
5. Use straw bedding in drylot pens.
6. Keep animals from urinating on freestall beds.
7. Scrub exit air from enclosed barns with biofilters.

Comment [NME25]: Reference?

8. Remove manure from freestall barns and drylot pens frequently.
9. Modify alleyway floor surface to prevent the mixing of urine and feces.
10. Provide shade for cattle in drylots.
11. Incorporate wood chips into the surface layer of drylots.
12. Use surface treatments in drylots that bind or inhibit NH_3 such as urease inhibitors.
13. Maximize the removal of solids from waste influent.
14. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
15. Reduce the pH of lagoons and manure piles to below 6.
16. Apply N fertilizer or manure directly to the soil surface or below the surface rather than on top of plant leaf or residue. Do not use broadcast sprinklers for manure application.
17. Inject or incorporate fertilizer or manure into soil as soon as possible after application (up to 48 hrs) or apply fertilizer in a controlled-release or stabilized form.
18. Apply acidic fertilizers with non-precipitating anions (ammonium nitrate or ammonium chloride) to calcareous soils and place 2 to 3 inches deep.
19. Apply manure during cool weather (i.e., in the morning rather than afternoon) and on still rather than windy days whenever possible.
20. Analyze manure and soil prior to application to match application rates with crop requirements and soil type.
21. Stock only the appropriate number of animals on pasture.
22. Irrigate pastures immediately after grazing.

Comment [NME26]: This is a BMP for grazing cattle in pastures.

Comment [NME27]: These two only apply if you are including grazing into your AQMP criteria. Otherwise, delete them.

II. Nitrous Oxide (N_2O)

Emissions of N_2O result from two different biological processes. There is a very small amount of N_2O produced during nitrification (the biological, aerobic process of converting ammonium to nitrate) though this source is relatively insignificant. The primary pathway of N_2O formation is the anaerobic process of denitrification (the conversion of nitrate to N_2 or nitrogen gas), in which N_2O is an obligatory intermediate product. Therefore, many of the emission reduction strategies are associated with minimizing these anaerobic conditions. BMPs which reduce N_2O follow.

1. Do not apply water to dirt pens after sustained dry periods (>30 days).
2. Remove manure from pens at frequent intervals.
3. Use nitrification inhibitors such as DMPP on drylot pens.
4. Manage compost so that the temperature rises above 65° C during the initial stages of composting.
5. Apply nitrogen fertilizer in accordance with agronomic recommendations suggested by soil test results.
6. Place fertilizer or manure as close to plant roots as possible without damaging them.
7. Do not over-irrigate.
8. Avoid furrow irrigation. Use sprinklers or other uniform application system.
9. Use cover crops which prevent buildup of soil mineral N.
10. Manage stocking rates using rotational grazing.
11. Move cattle pastures often for uniform grazing and manage pasture plants to increase yield and nitrogen uptake.
12. Move water, mineral, and shade to distribute cattle evenly over the pasture.
13. Inject manure and/or incorporate immediately (within 48 hrs) after application.

Comment [NME28]: Define.

Comment [NME29]: Only include if you are requiring grazing operation to have an AQMP, otherwise remove.

III. Hydrogen Sulfide (H₂S)

H₂S is produced in anaerobic environments from the microbial reduction of sulfate and/or the decomposition of sulfur-containing organic matter in manure. Most atmospheric H₂S is oxidized to sulfur dioxide (SO₂), which is then either dry deposited or oxidized to aerosol sulfate and removed primarily by wet deposition. The residence time of H₂S and its reaction products is of the order of days. BMPs which reduce H₂S follow.

1. Properly manage and minimize overfeeding sulfur containing feeds in the diet.
2. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
3. Prevent excessive manure pack build up and excess moisture.
4. Keep freestall beds and drylot pen surfaces dry.
5. Remove manure from drylots frequently.
6. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
7. Encourage purple sulfur bacterial formation in anaerobic lagoons with a surface aerator or

circulator.

8. Compost solid manures rather than stockpile.
9. Inject or incorporate manure at application to an appropriate depth when soil moisture is favorable.

IV. Volatile Organic Compounds (VOC)

VOCs vaporize easily at room temperature and include fatty acids, nitrogen heterocycles, sulfides, amines, alcohols, aliphatic aldehydes, ethers, *p*-cresol, mercaptans, hydrocarbons, and halocarbons. The major constituents of dairy VOC emissions that have been identified include organic sulfides, disulfides, C₄ to C₇ aldehydes, trimethylamine, C₄ amines, quinoline, dimethylpyrazine, and C₃ to C₆ organic acids, along with lesser amounts of aromatic compounds and C₄ to C₇ alcohols, ketones, and aliphatic hydrocarbons. Fresh manure and fermentation of feedstuffs have been identified as the primary sources of VOC emissions on dairy farms. BMPs which reduce VOC emissions follow.

1. Properly manage and minimize overfeeding nitrogen in the diet.
2. Properly manage and minimize overfeeding sulfur in the diet.
3. Properly manage (i.e. cover, confine, and reduce leaks in silage bags) ensiled feedstuffs.
4. Store feed in a weatherproof storage structure during the wet season.
5. Remove spilled and unused feed from feeding area on a regular basis.
6. Remove exposed, uneaten feed from bunks within 24 hours of rain events.
7. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
8. Remove manure from barns and drylot pens frequently.
9. Keep freestall beds and drylot pen surfaces dry.
10. Remove manure from barns and drylot surfaces frequently (<12 h).
11. Keep freestall beds stocked with fresh bedding.
12. Use bedding with larger particle sizes in drylots to promote aerobic conditions in fresh excreta.
13. Knockdown and remove fence line manure buildup so that it is never greater than 12 inches in height.
14. Do not store wet manure solids for more than 72 hours. Treat via compost/aeration, digestion, or anaerobic lagoon instead.
15. Separate solids from lagoon influent.
16. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
17. Apply manure on a frequent basis using injection or immediate (w/in 24 h) incorporation of manure.

18. Do not use sprinklers or broadcast surface application.

V. Odor

Odor from dairies is not caused by a single species, but is rather the result of a large number of contributing compounds including NH_3 , VOCs, and H_2S . Hundreds of compounds may contribute to odor from a dairy operation. A further complication is that odor involves a subjective human response. Though research is under way to relate olfactory response to individual odorous gases, odor measurement using human panels appears to be the method of choice now and for some time to come. Since odor can be caused by hundreds of compounds and is subjective in human response, estimates of odor inventories are not currently possible. Odor is a common source of complaints from people living near livestock operations, and it is for local impacts that a reliable method for odor measurement should be pursued. BMPs which reduce odor emissions follow.

1. Properly manage and minimize overfeeding sulfur and nitrogen containing feeds in the diet.
2. Cover odorous feeds such as silage and fermented feedstuffs.
3. Maintain the surface moisture content of drylot pens at or below 26% to minimize odor.
4. Remove manure from barns and pens frequently to reduce build-up.
5. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
6. Compost solid manure.
7. Inject or incorporate manure rather than surface apply with wagon or big gun sprinkler.
8. Use windbreaks to trap or redirect odor.

VI. Particulate Matter (PM)

This policy considers particulate matter as PM_{10} and $\text{PM}_{2.5}$. PM_{10} is commonly defined as airborne particles with aerodynamic equivalent diameters (AEDs) less than 10 μm . Similarly, $\text{PM}_{2.5}$ refers to particles with aerodynamic equivalent diameters (AEDs) less than 2.5 μm . Dairies can contribute directly to primary PM through several mechanisms, including: animal activity; animal housing fans; air entrainment from soil and manure; and indirectly to secondary PM by emissions of NH_3 , NO_x , and H_2S , which are converted to aerosols through reactions in the atmosphere. Particles produced by gas-to-particle conversion generally are small and fall into the $\text{PM}_{2.5}$ size range. Key variables affecting the emissions of PM_{10} include the amount of mechanical and animal activity on the soil-manure surface, the moisture content of the surface, and the fraction of the surface material in the 0-10 μm size range.

The diameter of PM is critical to its health and radiative effects. $\text{PM}_{2.5}$ can reach and be deposited in the smallest airways (alveoli) in the lungs, whereas larger particles tend to be deposited in the upper airways of the respiratory tract. Smaller particles are also most effective in attenuating visible radiation, causing regional haze. BMPs which reduce PM emissions follow.

1. Do not mix feeds during windy times.
2. Cover feed stuffs via enclosures, feed bags, and the like.

Comment [NME30]: Many of the BMPs listed are for coarse (>10 μm) particulates. This is typically referred to as "dust". You may want to list this category for cohesiveness.

3. Maintain proper ventilation in closed buildings.
4. Maintain the surface moisture content of drylot pens at ~26% to minimize dust and odor.
5. Provide shade in pens to distribute manure and increase the soil moisture of the pen.
6. Make sure dirt pens are compact. Remove the top manure layer for drylots.
7. Apply surface mulches to drylots.
8. Keep compost moist to aid in compost process.
9. Store manure in a liquid form, instead of stockpiles.
10. Use windbreaks to trap or redirect particulates.
11. Reduce field traffic.
12. Reduce tillage, use a no-till system.
13. Use cover crops rather than bare/fallow field management.
14. Inject or incorporate manure rather than surface-apply with wagon or big gun sprinkler.
15. Use cross-fencing in drylot pens.

VII. Oxides of Nitrogen (NO_x)

Nitrification in aerobic soils appears to be the dominant agricultural pathway to Nitric Oxide (NO). Direct emissions of NO from dairy manure are believed to be relatively minor, but a fraction of manure nitrogen applied to soils as fertilizer can be emitted as NO.

The fraction of fertilizer nitrogen released as NO depends on the amount and form of nitrogen (reduced or oxidized) applied to soils, the vegetative cover, temperature, soil moisture, and agricultural practices such as tillage. A small fraction of other reduced nitrogen compounds in animal manure can also be converted to NO by microbial action in soils.

NO and nitrogen dioxide (NO₂) are rapidly interconverted in the atmosphere and the sum of all oxidized nitrogen species (except N₂O) in the atmosphere is often referred to as NO_x. The residence time of NO_x is of the order of days in the lower atmosphere, with the principal removal mechanism involving wet and dry deposition. In terms of environmental effects, NO_x is an important (and often limiting) precursor in tropospheric ozone (O₃) production. Furthermore, NO₃⁻ aerosol is a contributor to PM_{2.5}, and nitrogen deposition in the forms of HNO₃ and aerosol NO₃⁻ can have ecological consequences. Following are BMPs which reduce emissions of NO_x.

1. Replace or retrofit internal combustion engines.
2. Utilize alternatives to outdoor burning.

VIII. Methane (CH₄)

Comment [NME31]: While I agree with both of these BMPs, you didn't mention them anywhere in your introduction above. You may want to give a leading introduction to the contribution of combustion processes and burning to NO_x.

CH₄ is produced by microbial degradation of organic matter under anaerobic conditions. The primary source of CH₄ from livestock production is enteric fermentation in ruminant animals. Ruminants (sheep, goats, camels, cattle, and buffalo) have unique, four-chambered stomachs. In one chamber, called the rumen, bacteria break down grasses and other feedstuff and generate CH₄ as one of several byproducts. The production rate of CH₄ is affected by energy intake, which is in turn affected by several factors such as quantity and quality of feed, animal body weight, and age.

CH₄ is also emitted during anaerobic microbial decomposition of manure. The most important factor affecting the amount produced is how the manure is managed, because some types of storage and treatment systems promote an oxygen-depleted (anaerobic) environment. Metabolic processes of methanogens lead to CH₄ production at all stages of manure handling. Liquid systems tend to encourage anaerobic conditions and produce significant quantities of CH₄, while more aerobic solid waste management approaches may produce little or none. Higher temperatures and moist conditions also promote CH₄ production.

Methane is destroyed in the atmosphere by reaction with the hydroxyl (•OH) radical. Because of its long residence time (~8.4 years), CH₄ becomes distributed globally. Methane is a greenhouse gas and contributes to global warming with a potential 23 times that of CO₂. Following are BMPs which reduce emissions of CH₄.

1. Increase the level of starch in the diet.
2. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
3. Remove manure from freestall barns and drylot pens frequently.
4. Do not stockpile manure under anaerobic conditions.
5. Separate solids from lagoon influent.
6. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
7. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
8. Install and properly maintain a methane digester.

APPENDIX C – SYSTEM-SPECIFIC BEST MANAGEMENT PRACTICES

The purpose of this Appendix is to present a list of BMPs as they apply to reducing emissions from specific dairy systems. BMP descriptions are presented in Appendix D. Factors to consider in selecting and implementing BMPs are presented in Appendix E.

I. Nutrition

1. Reduce the Amount of Dietary Protein (N) in the Ration to Match, Rather than Exceed, the Animal's Needs.
2. Increase the Level of Starch in the Diet.
3. Properly Manage and Minimize Overfeeding of Sulfur-containing Feed.
4. Practice Phase-Feeding.
5. Increase Animal Efficiency.

II. Feed Management

1. Properly Manage Ensiled Feedstuffs.
2. Store Feed in a Weatherproof Storage Structure During the Wet Season.
3. Remove Spilled and Unused Feed from Feeding Area.
4. Do Not Mix Feed During Windy Times.

III. Housing – Freestall Barns

1. Ensure Proper Ventilation.
2. Scrub Exit Air from Enclosed Buildings.
3. Properly Manage Bedding by Type and Stocking Rate.
4. Use Large Particle Bedding Material in Drylot Pens.
5. Design Freestalls to Limit Urinating on Bedding Material.
6. Treat Recycled Lagoon Water Used for Flushing.
7. Remove Manure from Barns Frequently.
8. Modify Alleyway Floors to Separate Urine and Feces.

IV. Housing – Drylot Pens

1. Provide Shade for Cattle.
2. Remove Manure Frequently.
3. Use Straw Bedding.
4. Incorporate Wood Chips in Surface Layer.
5. Use Surface Treatments that Bind or Inhibit NH_3 .
6. Use Nitrification Inhibitors.
7. Avoid Over-application of Water to Pen Surface After Sustained Dry Periods.
8. Avoid Standing Water.
9. Maintain the Surface Moisture Content at or Below 26%.
10. Knock Down and Remove Fence Line Manure.

V. Grazing Management

1. Stock Appropriate Number of Animals.
2. Use Rotational Grazing.
3. Move Water and Feeding Areas Frequently.
4. Lightly Irrigate Immediately after Grazing.
5. Manage Pasture Plants to Increase Yield and Nitrogen Uptake.
6. Inject Manure into Pasture.

VI. Manure Management

1. Maximize Removal of Solids from the Waste Stream.
2. Cover or Allow Crust on Lagoon.
3. Maintain Covered Lagoons to Prevent Leakage.
4. Scrub Exhaust of Enclosed Waste Containers.
5. Install and Properly Maintain a Methane Digester.
6. Reduce the pH of Lagoons and Manure Piles Below 6.

Comment [NME32]: Again, only include this section if grazing is included in an AQMP.

7. Manage Compost Temperature and Moisture Levels.
8. Prevent Excess Manure Build-up and Moisture.
9. Encourage Purple Sulfur Bacterial Formation in Anaerobic Lagoons.
10. Compost Solid Manure.

VII. Land Application - Fertilizer

1. Apply N Fertilizer Directly to or Below the Surface Rather Than on Top of No-Till Residue.
2. Inject or Incorporate Fertilizer into Soil within 24 Hours of Application.
3. Apply Liquid Urea Instead of Granular Urea.
4. Apply Acidic Fertilizers to Calcareous Soils and Place 2 to 3 Inches Deep.
5. Use Urease Inhibitors.
6. Apply Ammonia Fertilizer Only to Acidic Soils.
7. Apply N Fertilizer According to Agronomic Recommendations Based on Soil Test Results.
8. Place Fertilizer as Close as Possible to (without damaging) Plant Roots.

VIII. Land Application - Manure

1. Analyze Manure and Soil and Match Application Rates to Crop Requirements and Soil Type.
2. Do Not Over-irrigate.
3. Avoid Furrow Irrigation, Switch to Sprinklers or a More Uniform Application System.
4. Utilize Cover Crops.
5. Apply Using Injection or Incorporate within 24 Hours.
6. Apply During Cool Weather and on Still Rather than Windy Days.
7. Dilute with Irrigation or Rain Water.

8. Use Windbreaks to Trap or Redirect Odor and PM.

Response: All comments were regarding policy content. Each comment was evaluated individually and many resulted in changes the original text.

Commenter #2

Comment # 2.C1:

I have lived in the Yakima Valley for 40 plus years and am glad to finally see some attention given to the effects of the large Dairy operations on our clean air and quality of life. I have a 1000 cow dairy ½ mile east of me and 900 FT. East of my Mother's home. When they spray to brown lagoon water I cannot even go out in my yard. We have an office located at my Mothers farm and one cannot open the doors because of the stench and Flies. Even when the brown water is not being sprayed one smells the lagoons constantly. Especially with our consistent westerly winds. The nitrate levels at my Mother's home well have been climbing. The latest MCL is 19.7 well above the 10 MCL threshold.

This is but one example of the effects of the large concentration of Cows in the lower Yakima Valley. All one need to do is drive from Yakima to the lower Valley and you notice the consistent smell that permeates the Lower Valley when you approach Granger. I agree that everyone deserves the right to make a living, but when it negatively effects the quality of many individuals' lives and our drinking water there needs to be checks and balances developed.

It is my hope that serious consideration is given to addressing the many issues that the Large Dairy operations are causing.

No Response

Commenter #3

Comment #3.B1:

Why is there not one public member, or environmental representative or legitimate health representative on the Clean Air task force working with the dangers of Dairy feedlot emissions in Yakima County?

Response: Participants in the YRCAA Dairy Emissions Work Group were chosen by the Air Pollution Control Officer to best accomplish the purpose of the Work Group.

Comment #3.B2:

Why is the Yakama Nation not included on these proceedings?

Response: The Work Group now includes a representative of the Yakama Nation.

Comment #3.C1:

list?

No Response

Comment #3.B3:

How can you say you represent all people when there are no public members represented?

Response: It is because we represent all people that YRCAA is undertaking this effort.

Comment #3.B4:

Why was Tony Veiga invited as a stakeholder?

Response: He represents members of the Washington State Dairy Federation.

Comment #3.C2:

This is an environmental Justice issue.

No Response

Comment #3.C3:

How is it legal or fair to exclude the public with your negotiations on the affects of CAFOs in the Yakima Valley?

No Response

Comment #3.C4:

We do not believe the Yakima Valley Clean Air board is qualified to represent the public.

No Response

Comment #3.B5:

We are formally requesting a Seattle EPA, Environmental Justice representative be allowed to be part of Clean Air Proceedings along with two public representatives.

Response: Such a request should be made by you directly to EPA.

Comment #3.A1:

A public comment period is not sufficient enough.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #4

Comment #4.C1

I have read the *Air Quality Management Policy and Best Management Practices for Dairy Operations* several times and am submitting my comments for your consideration.

First and foremost let me propose an analogy. As a practicing Catholic it is heart breaking for me to tithe every Sunday, knowing that much of this money will be spent defending the Church in court and compensating victims of abuse by a handful of wicked priests. I think we have a similar situation here. For my purposes I will use the term *Rogue Dairymen* to describe those farmers who have no sense of human decency, who spray manure into the air during 30 mph winds, who poison birds and drop them onto their neighbors homes, who dispose of diseased calves by dumping them on public lands or the waterways in the dead of night. If it were not for the *Rogue Dairymen* we would, in my opinion, not require these contentious discussions at all.

It appears to me that the dairy industry desires collegial discussions over best practices for air quality management. Those discussions have a place. However, this document, in my mind, is first and foremost a way to protect the public health in a civilized manner. With that in mind policies must be clear, measurable and impose accountability. The intent of the Washington Clean Air Act “is to protect human health and safety, including the most sensitive members of the population.” Highlighting the most sensitive members

of the population really places high expectations on the Yakima Clean Air Authority. Please remember that I have both *Rogue Dairymen* and dying children in mind when my words appear harsh.

No Response

Critique of the Best Management Practices

Comment #4.A1

Is the AQMP any different from the BMP's already in place for dairies in Washington State?

Response: YRCAA is not fully aware of BMPs already in place. Implementation of this policy will discover which BMPs are already in place.

Comment #4.C2

Is there discussion about coordinating inspections conducted by the WSDA and the YRCAA, and if so, what are the implications for public safety?

No Response

Comment #4.A2

It appears that the WSDA has had problems funding their inspection program. How will this be different for the YRCAA?

Response: Dairies will pay a fee adequate to fund YRCAA work.

Comment #4.A3

Air Quality research considers carbon dioxide, nitrous oxides and methane to be the major contributors to greenhouse gasses. Should carbon dioxide be included in the Air Quality Management Policy and Best Management Practices for Dairy Operations?

Response: YRCAA selected only those GHGs with the greatest warming potential, nitrous oxide and methane.

Comment #4.A4

There have been situations in which large herds of cattle have been "depopulated" due to disease. Is there an air quality plan to address pollution if large numbers of animals are incinerated?

Response: State regulations require best available control technology for incineration.

Comment #4.C3

LeBlanc et al,(2006) state, "The high density of cattle within farms, increasing concentration of dairy farms in regional clusters, and the movement of animals at different stages of life and within the production cycle may increase the propagation of infectious disease within and between farms." What is the status of testing for disease on the dairies of the Yakima Valley?

No Response

Comment #4.A5

Is there a focus of BMP's that requires education of dairy workers so that they do not carry infectious diseases to their families and communities?

Response: No, worker safety and public health are addressed by other state agencies.

In Appendix B, Section IV- Volatile Organic Compounds the Best Management Practices are:

Comment #4.A6

1. Properly manage and minimized overfeeding nitrogen in the diet. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4A7

2. Properly manage and minimize overfeeding sulfur in the diet. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A8

3 Properly manage (i.e. cover, confine, and reduce leaks in silage bags) ensiled feedstuffs. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A9

4. Store feed in a weatherproof storage structure during the wet season. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A10

5. Remove spilled and unused feed from feeding area on a regular basis (at least once every 2 weeks). *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A11

6. Remove uneaten feed from bunks within 24 hours of rain events. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A12

7. Scrub exit air from enclosed barns and manure storage facilities with biofilters. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A13

8. Remove manure from barns and drylots frequently. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A14

9. Keep freestall beds and drylot pen surfaces dry. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A15

10 Remove manure from barns and drylot surfaces frequently (<12 H). *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A16

11. Keep freestall beds stocked with fresh bedding. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A17

12. Use bedding with larger particle sizes to promote aerobic conditions in fresh excrets. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A18

13. Knockdown and remove fence line manure buildup so that it is never greater than 12 inches in height. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A19

14. Do not store wet manure solids for more than 72 hours. Treat via compost/aeration, digestion, or anaerobic lagoon instead. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A20

15. Separate solids from lagoon influent. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A21

16. Cover lagoons or allow a natural crust to form on top of the lagoon surface. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A22

17. Apply manure on a frequent basis using injection or immediate (w/in 24H) incorporation of manure. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A23

18. Do not use sprinklers or broadcast surface application. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Enforcement of the Best Management Practices

Comment #4.A24

Section III. 1. "A Dairy Operation must prepare an Air Quality Management Plan and submit it to YRCAA for approval, along with completed annual registration forms, and pay a fee." *The Yakima Clean Air Authority has publicly stated that they lack the expertise to determine whether broadcasting manure into the air during heavy winds is*

dangerous to the public health. How will the YRCAA analyze these documents in order to approve them for effectiveness?

Response: See Section IX.

Comment #4.A25

Section III. 3. “YRCAA and the dairy operators are expected to work together in good faith toward development of an AQMP which is acceptable to both the Operation and the YRCAA” *Can you insert language that addresses the Rogue Dairyman? For example, if a dairyman makes false statements to the YRCAA, how will this be handled?*

Response: No, it is common knowledge that making false or misleading statements to this agency is a violation of state (WAC 173-400-105(7)) and YRCAA (Regulation 1, 1.07.B.1) regulations.

Comment #4.A26

“Should a dispute arise as to compliance with this policy, YRCAA may request the dairy workgroup that developed this policy to review the dispute and provide input as to an acceptable outcome” *I recall discussion at one of the monthly meetings for the YRCAA Board regarding the status of the working group. This statement gives that group a great deal of regulatory and judicial authority. Is that the intent?*

Response: The authority given to the work group is limited to providing input. No decision-making authority is given.

Comment #4.A27

Section VI. 2. “Failure of the YRCAA to notify the Operation or request additional information shall constitute approval.” *It is unfair to keep an operation waiting for approval for an extended period of time. However, thirty days is not very long. Given the YRCAA’s acknowledged lack of expertise in dairy operations, the possibility that a hazardous facility could receive approval by default exists.*

Response: First, YRCAA staff and the Air Pollution Control Officer have a combined experience of over 50 years of dealing with dairy operations. Second, anything is possible, but what you suggest is highly unlikely. YRCAA staff have been doing what we do successfully for over 42 years.

Comment #4.A28

Section VI. 5. “The purpose of good faith negotiation is to share information and resolve differences of opinion regarding an Operator’s AQMP. Both the Operator and YRCAA need to be able to exchange information freely and in good faith. Information obtained by YRCAA in the course of negotiation is not obtained for the purpose of any future enforcement activity.” *This is a compelling but idealistic model. Keeping Rogue Dairyman in mind, can you define Good Faith?*

Response: *Honesty; a sincere intention to deal fairly with others.*

I believe there is precedent in labor law. From my point of view the following constitute a lack of Good Faith:

4.A28.a *Giving false testimony or false statements to the YRCAA or the public*

4.A28.b *Concealing relevant information*

4.A28.c *Intimidation of potential witnesses to hazardous practices*

4.A28.d *Bribery or coercion (These need to be defined)*

Response: YRCAA agrees.

Comment #4.A29

Section IX. 1. “Compliance – After an AQMP has been approved, on Operation will be inspected to determine if the BMPs and their operational plans are in effect.” *Who will conduct the inspections, how often and how will this be funded?* “

Response: YRCAA staff, no less than once per year, funded by fees remitted with the AQMP.

Comment #4.A30

If inspection determines that the AQMP is not fully implemented or reasonable precautions are not being taken to prevent emissions, a Notice of Violation may be issued.” *What happens if the Operation chooses to ignore the Notice of Violation?*

Response: Depending on the specifics of the case, a civil penalty may be issued.

Comment #4.A31

Section IX. 2. “Effectiveness – After the plan is in place, inspection results may be used to evaluate the effectiveness of the plan in reducing emissions. If inspection indicates that the plan is not effective, YRCAA will request information from the Operation or propose additional or alternative BMPs.” *Will this evaluation be done based on analysis of air quality or assessing implementation of BMPs based on paper work or by some other method? It appears that this section needs clarification.*

Response: The evaluation will be accomplished as any of the 325+ other full compliance evaluations conducted by YRCAA annually and will be based on credible evidence.

Hazards to the Public Health

Comment #4.C4

Please let me contribute some information describing zoonotic disease relevant to confined animal feeding operations and most specifically dairy operations. The Dairy Industry acknowledges the following pathogens that may cause infectious diseases on the farm:

- Mycobacterium avium sp. paratuberculosis which causes Johnes disease.
- Salmonella
- E. coli
- Rotavirus
- Coronavirus
- Coccidiosis
- Cryptosporidiosis
- Leptospirosis
- Clostridial Disease
- Mycoplasma which causes tuberculosis
- Contagious mastitis – often a staphylococcus aureus
- Foot & Mouth Disease
- Bovine Viral Diarrhea (BVD)
- Infectious Bovine Rhinotracheitis (IBR)
- Bovine Respiratory Syncytial virus (BRSV)
- Bovine Leukemia Virus (BLV)

- Clostridial Disease

Many of these infections can be passed on to humans.

No Response

Comment #4.C5

Here is some relevant information with source citations.

Bovine Tuberculosis

In January 2008, animal health officials from USDA and the California Department of Food and Agriculture (CDFA) expanded the epidemiological investigation of a large central California dairy herd that was infected with bovine tuberculosis (TB). The disease confirmation was made in December 2007 following whole-herd tuberculin skin testing. The herd, composed of 5,016 dairy cattle, was depopulated.

The ensuing investigation of this index herd resulted in the identification of 3,209 potentially exposed cattle that had moved to 143 other premises or to slaughter before officials knew that the herd was infected. Additional investigations to determine the origin of this herd's infection identified 110 cattle from 56 premises as potential sources for the disease.

Epidemiological investigations conducted on the index herd during 2008 identified two other large dairy herds in California as TB-infected. One of these herds, which contained 1,014 dairy cattle, was depopulated. The other herd, composed of more than 12,000 cattle, is undergoing a test-and-removal program to rid the herd of TB. The resulting investigations of these 2 herds identified at least 14,410 potentially exposed cattle that, between 2003 and 2008, had moved to 354 other premises or to slaughter (whereupon they were subject to inspection by USDA's Food Safety and Inspection Service to ensure food safety). These movements required investigatory activities in 16 U.S. States and Canada.

During calendar year (CY) 2008, USDA and CDFA officials conducted 271 herd tests for TB involving more than 377,000 cattle in California alone in response to this outbreak. Nearly \$20 million in Federal funds was used to purchase known exposed cattle, depopulate infected herds, and cover expenses for personnel assigned to conduct herd testing, epidemiological investigations, and identification.

Epidemiological investigations and further herd test activities continue in 2009.

2008, USDA Animal Health Report

Salmonella

Eleven characteristics of Salmonella and salmonellosis to keep in mind

1. Salmonella infection of a farm is maintained primarily by transmission of the agent from the feces of infected animals to the mouths of susceptible animals.
2. Salmonella infection and subsequent clinical disease (the two are not synonymous) is a result of:
 - 1) The innate resistance of the host animal.
 - 2) The infectious dose received by the animal.

- 3) The infectivity and virulence of the particular strain of the organism.
3. Salmonella infects anything in the livestock environment that has an intestinal tract.
4. The majority of salmonella infections in a herd over time are subclinical; the clinical infections are only the tip of the iceberg, even during outbreaks of clinical disease.
5. Septicemic animals shed the agent in oral and nasal secretions and urine as well as feces. These animals don't necessarily have clinical signs associated with enteric salmonellosis at the time.
6. Salmonella has a complex relationship with its animal host, which is only beginning to be understood.
7. Salmonella are a small part of an extremely competitive, complex, dynamic microbial environment in intestinal tracts and this competition is a very important part in resistance to infection.
8. Salmonella are usually killed by exposure to the volatile fatty acids of fully functioning normal ruminants.
9. Salmonella survives for long periods under environmental conditions common on the livestock farm.
10. Salmonella replicates in moist environments (< 85% dry matter) even with scarce nutrients.
- 11. Salmonella Typhimurium DT104 in livestock is a significant zoonotic disease risk for in-contact people, particularly young children.**

(Washington State University, 2009)

Johne's Prevalence is Up Dramatically!

According to USDA, 22 percent of U.S. dairy herds were infected in 1996 with Mycobacterium paratuberculosis, the cause of Johne's disease. That number jumped to 68 percent in 2007. Among herds with 500+ cows, the number of infected herds is at an alarming 95 percent. Random sourcing for dairy replacements in expanding herds is a major contributor to this significant increase.

Healthy Cows for a Healthy Future in Johne's Disease Newsletter 2010

Infectious Diseases in Humans in Yakima County

Campylobacteriosis

Rates per 100,000 population	2003	2004	2005	2006	2007
Yakima County	53.1	38.7	50.6	87.1	52.7
Washington State	15.5	14	16.7	15.6	15.7

Cryptosporidiosis

Rates per 100,000 population	2003	2004	2005	2006	2007
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Yakima County	< 5 cases	< 5 cases	3.1	2.6	6.4
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Washington State	1.1	1	1.5	1.5	2.1
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Giardiasis

Rate per 100,000	2003	2004	2005	2006	2007
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Yakima County	11.5	12.7	12.2	13.4	20.1
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Washington State	7.1	7.2	7	7.1	9.1
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Salmonellosis (Non-Typhoid)

Cases per 100,000 population	2003	2004	2005	2006	2007
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Yakima County	24.3	15.4	22.7	14.7	14.5
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Washington State	11.5	10.7	10	9.8	11.7
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From the 2007 Washington State Communicable Disease Report

No Response

Economics – Who pays the price?

Comment #4.C6

Do the dairies of the Yakima Valley provide health insurance for workers and their families?

No Response

Comment #4.C7

Tuberculosis and multi-drug resistant tuberculosis are major health concerns. The Mycobacterium organism can live for up to eight weeks in moist feces and is most often an airborne infection. The signs and symptoms of the disease may not emerge until years after exposure. Government, and in our case county government, is mandated to pay for treatment. A single case of multi-drug resistant TB can cost tax payers a million dollars a year.

No Response

Comment #4.C8

Do dairies test workers for various zoonotic diseases?

No Response

Comment #4.C9

If there is an outbreak of contagious disease in a local dairy herd, who is responsible for measures to protect the public health?

No Response

Comment #4.C10

What measures are in place to deal with “depopulation” of thousands of cattle in Yakima County and who pays for these actions?

No Response

Comment #4.C11

Concluding Remarks

I thank everyone who has taken the time to read my contribution to the discussion regarding the *Air Quality Management Policy and Best Management Practices for Dairy Operations* in the Yakima Valley. This work required many hours of research. Please consider this a community contribution to the analysis with scientific weight that equals the work, whether paid or voluntary, that has been contributed from the agricultural sector.

References

Chalk, P. (2001) The US Agricultural Sector: A New Target for Terrorism? *Rand Objective Analysis. Effective Solutions*. Retrieved from www.rand.org

Gay, J.M. (1999, updated 2009) Bovine Herd Salmonellosis. Field Investigation Unit. Washington State University. Retrieved from www.vetmed.wsu.edu

Johne’s Disease Newsletter (2010) Voluntary Johne’s Disease Control Program Revised. Retrieved from www.agr.wa.gov

LeBlanc, S.J., Lissermore, K.D., Kelton, D.F. Duffield, T.F. & Leslie, K.E. (2006) Major Advances in Disease Prevention in Dairy Cattle. *Journal of Dairy Science* (89) pp. 1267-1279.

U.S. Department of Agriculture. (2010) Questions and Answers about Johne’s Disease in Cattle. Retrieved from www.aphis.usda.gov/publications/.../faq_johnes_cattle3-06.pdf

U.S. Department of Agriculture (2009) 2008 Animal Health Report. *Agricultural Animal and Plant Health Inspection Service Veterinary Services Centers for Epidemiology and Animal Health* . Retrieved from <http://USanimalhealth.aphis.usda.gov>

Washington State Department of Health (2008) *2007 Washington State Communicable Disease Report*. Retrieved from www.doh.wa.gov

No Response

Commenter #5

I am a farmer residing and operating in the western end of Benton County. I spend a great deal of time doing business in and out of the eastern end of Yakima County and, as a result, travel past several 500+ cow dairy operations. It is with significant pleasure that I come to realize you and the YRCAA are trying to address the issue of emissions from these operations. I have repeatedly experienced such overwhelming ureaic emissions along the county road as to cause me concern over whether I was even going to manage to exit the other end of the cloud. In my personal opinion these emissions are often so bad as to present a driving hazard. I would like to point out that these experiences came in direct connection with the sprinkler application of liquid wastes at the dairy sites. Somehow that aeration process or the spraying of that waste through the circulating air and especially during the warmth of Summer exacerbates the already bad situation at hand. These experiences have only served to make me wonder how people living in homes within such emission areas can even tolerate it. Their lives and fortunes have been affected in many instances. In light of a general acceptance of the issue of people suffering from second hand smoke from a cigarette smoker, we definitely face a situation with these dairy emissions of something far more hazardous to the health.

Comment #5.A1

I would leave it to your expertise to address the greater issues but offer this letter as a suggestion that all sprinkler application of liquid wastes be ended as a matter of public health, itself.

Response: YRCAA supports your suggestion and BMPs to that effect are on the list in the policy appendices.

Commenter #6

Comment #6.A1

1. The copy of the draft on Dairy Emissions does not include an enforcement section. Is there such a thing? The entire document reads as to what "should" be done and what "should be" contained in Best Management Practices but I see these statements as ideals rather than "shall be" "must be" and will be enforced and by whom? The Purpose of the Policy section states the policy is to..."provide guidance for effective prevention and control of air contaminant emissions at dairy operations."

ADD "enforcement" after guidance.

Response: During the pilot project phase of the policy-making, enforcement of the policy is not contemplated. However, violation of existing regulations may be addressed by enforcement action.

Comment #6.A2

2. Section V: What must be contained in an AQMP (Air Quality Management Plan). The proposed policy suggests that a description of the area via a map, aerial photo or

drawing is adequate. My suggestion is that the dairy owners/operators must be required to obtain and provide this information by using Geographic Information System software (GIS). This system will provide much more detailed geographical information such as distance to schools, recreation areas, residences, rivers, streams and wells for the dairy operation. It is the absence of this specific information that has allowed dairies to contaminate air and water and therefore dump their raw untested manure wherever there appears to be an open field, particularly on the Yakama Nation Reservation.

Response: YRCAA supports your suggestion.

Comment #6.C1

If the Best Management Practices are to become believable, they must include ALL aspects of the dairy operation which definitely includes the dumping of dead animals and manure. Presently, once the manure is dumped, it is no longer the responsibility of the dairy operator/owner; therefore a Best Management Practice must include origination and destination.

No Response

Comment #6.A3

3. Disputes are to be resolved by the dairy work group that developed this policy? This does not comport with environmental justice practices nor good common sense. The Yakima Regional Clean Air Agency can not be a partner to the dairies and then be counted on for enforcement or resolution of disputes.

Response: The authority given to the work group is limited to providing input. No decision-making authority is given.

Comment #6.B1

4. FINAL COMMENT: The stated VISION of the Yakima Clean Air Organization is "An unceasing commitment to build and maintain partnerships in the continuous improvement of air quality for all [emphasis added]current and future generations in Yakima County." Why was the Public not considered to be part of the partnership building of the group that developed this policy? Elsewhere in your agency's mission it is stated ..."Constituency is made up of private individuals, business and industry and public offices."

The exclusion of the public in the development of this policy is an egregious practice and an absolute violation of your own stated VISION and CONSTITUENCY. This policy development smacks of cronyism and a perpetuation of the "good old boys" network. Permitting a few weeks of public comment does not constitute public input. Furthermore, denying the public participation in the policy development is not a Best Management Practice for a Governmental entity.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #7

I have read the policy document and I think you have done a great job. I am sorry I did not realize the process was moving a long this quickly - otherwise, I would have tried to give you some feedback a lot earlier. In any event, I have three main points that I wanted to bring to your attention:

Comment #7.A1

1. Background: You seem to indicate a threshold herd size of 500 cows. I think it is important to include all dairies at this point until we have more information on what size of operations needs to be exempted from regulations. If all the producers did their bit to control emissions, the sum total would be GREAT!

Response: The policy text has been changed to include all dairies.

Comment #7.A2

2. Pollutants to be addressed: In my opinion, this list is too long. If this policy focused on a few pollutants that either regulated (e.g. ammonia and hydrogen sulfide) or that distort citizens perception (e.g. particulate matter and odor), that approach may be more effective. The rest could be incorporated in future in steps depending need. On the other hand, controlling these four pollutants will effectively control emissions of all others.

Response: YRCAA included all pollutants listed as pollutants of concern in the 2003 National Academy of Sciences Report. Dairies may choose to target any or all of the pollutants.

Comment #7.A3

3. How compliance and effectiveness will be determined: This is likely to be problematic because it is SUBJECTIVE! The producers could implement all the BMPs on the list but will not be in a position to demonstrate (or know) how much they have reduced the respective emissions, i.e. will not be sure when they are in compliance or not. In the same breath, the AGENCY will be in a similar dilemma. I am not sure if the workgroup considered the 'point system' introduced in Idaho a few years ago. In this approach, every BMP was assigned 'points' and compliance was reached when the producer had earned a predetermined number of points based on which BMPs were implement on their operation. The workgroup may want to study the Idaho system some more.

Response: A point system is under development and will be tested during the pilot phase of the policy development.

Commenter #8**Comment #8.B1**

Leaving the public out of these proceedings was a travesty!

Response: The public was not left out of these proceedings.

Comment #8.B2

You claim that having the public involved in the Clean Air Task Force proceedings would have somehow interfered with a consensus. What you seem to be saying is that there is a conflict of interest between the CAFO/dairy industry and the public which would slow the proceedings? Hogwash! I thought we lived in a democracy where all entities had an EQUAL say!

Response: Your opinion is welcomed and important.

Comment #8.B3

Why not leave the CAFO/dairy industry out of the proceedings rather than the taxpaying/impacted public?? That would speed things up!

Response: Your opinion is welcomed and important.

Comment #8.C1

Leaving the public out of the proceedings would lead one to think that our local government officials are in bed with the industry. Perhaps it is time for the Feds to step in again as they did with the water contamination issue, then perhaps we would get some equal representation and reasonable action to protect the public.

No Response

Comment #8.B4

Comments from the public AFTER policy has been formulated by the industry and local government is not equal representation and should not be tolerated by the public or public servants.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #9

Comments on YRCAA Draft Air Quality Management Policy and Best Management Practices For Dairy Operations

Comment #9.A1

Leading up to the creation of the Dairy Emissions Workgroup and the YRCAA Draft Air Quality Management Policy and Best Management Practices For Dairy Operations I asked Mr. Pruitt in May of 2010 to “consult with a recognized third-party expert to determine what constitutes substantial adverse effect on public health as per RCW 70.94.640 from odors and fecal dust”.

His reply was “Bear in mind that if a violation is determined, we must consult with a recognized third-party expert in the activity prior to issuing any notice of violation.”

What determines "substantial adverse effect on public health" and what determines if a violation is determined and by who? YRCAA or a third party? This needs to be clarified in your policy.

Response: This subject is not intended to be addressed by the policy. Substantial adverse effect on public health should be determined by a person with public health expertise.

Comment #9.C1.a Are there any off site monitors in place in the lower valley to measure and record fecal dust from the dairies going into the neighboring homes?

No Response

Comment #9.C1.b If there are none are you going to install some?

No Response

Comment #9.C1.c Are there any off site monitors in place in the lower valley to measure and record offsite odors and VOC , some of which are odorless?

No Response

Comment #9.C1.d Does YRCAA have any test equipment capable of testing for fecal dust, odor or VOC coming offsite into the neighboring homes?

No Response

Comment #9.A2

If the answer is no, what are you going to use for a base line to measure your successes or failure of your BMPs?

Response: See Section IX.

Comment #9.A3

There is nothing in your plan to control offsite drift of fecal matter dust, odor or VOC.

How do you plan on controlling offsite drift of fecal matter dust, odor or VOC?

Response: BMPs will prevent, not control, emissions.

Comment #9.C2.a Dust and odor does not wait around for hours and days for YRCAA to come out and investigate. How will it be investigated ?

No Response

Comment #9.C2.b Are odor complaints, pictures and video of fecal dust by the neighbors good enough to warrant a violation or does YRCAA have to see and smell it? Remember Hydrogen Sulfide (H₂S) paralyzes the nerve cells of the nose to the point where your inspector would not be able to smell the gas. Methane (CH₄) is extremely difficult to detect without gas detection instruments because it is odorless and again your inspector will not be able to smell it.

No Response

Comment #9.C2.c Are you going to install offsite testing monitors and are YRCAA inspectors going to have portable test equipment? Having your inspectors measuring odor and gases using their noses is not going to work. In fact it could make them sick and is probably illegal for you to send them out without protective clothing and masks.

No Response

Comment #9.A4.a All dairies are required to have a NMP which is unique to each dairy. Are you going to verify the BMPs for each dairy against their NMP to insure there is no conflict between their NMP and your BMPs for that particular dairy?

Response: BMPs which prevent air emissions will have no effect on NMP activities.

Comment #9.A4.b Also Yakima County has placed requirements against dairies in their MDNS. Are you going to verify your BMPs for that particular dairy against the MDNS from Yakima County?

Response: No.

Comment #9.B1

Are these documents and BMPs going to be in Spanish also? We have a large population of Latinos who also need to know what is going on in this valley.

Response: YRCAA has no such plan.

Commenter #10

Comment #10.C1

I think it's about time something is done to control the emissions from dairies – there are too many animals in a space and that needs to be changed. The air (just as water) belongs to all of us and the consumer should be protected from harm. I think this is the role of the Clean Air Agency. There must be cooperation with the dairy industry but at the same time Clean Air must be sure to enforce regulations and protect the people of this valley. The dairy industry cannot be trusted to enforce itself – it won't happen.

No Response

Commenter #11

Comment #11.A1 The scoring of BMPs is important not only because it gives us a more objective guide, but also because it tells us the degree of importance you place on specific BMPs. I anticipate we may disagree on some, and the dialogue that results should lead to improvements, so it is important that the scoring be flexible and easily updated. I understood that Idaho only addressed ammonia because almost all of the BMPs that reduce those emissions also mitigate many other pollutants, though not to the same degree. Scoring each BMP separately for each pollutant will make for a more complicated system, and probably will make implementation more difficult.

Response: The scoring will be difficult, but not impossible. The scoring system will be tested and updated throughout the pilot phase.

Comment #11.A2 I strongly suggest you develop a very specific policy on the release of information such as the Air Quality Management Plans, inspection reports etc. and that you have that reviewed by legal council. I assume the state AG office is available to you? Producers are going to be very reluctant to cooperate if they don't know what can and cannot become public information.

Response: Certain information which will be contained in an AQMP is exempt from disclosure by RCW 42.56.610.

Comment #11.A3 With respect to the manual you anticipate developing, I suggest that your description of BMPs be very general and intentionally vague. There is going to be a lot of difference between producers in how these are implemented based on equipment available, facility restrictions, economic resources etc. I do think that a comment on which pollutants are targeted by each BMP and how it is mitigated, would be valuable to both dairy producers and the general public.

Response: The manual will be developed during the pilot phase in keeping with your suggestions.

Commenter #12

Comment #12.C1 1. I am wondering how it is that the YRCAA has the authority to write this policy, when previous phone conversations have led me to believe that agriculture (including dairies) is exempt from the rules as they are currently written and that that is why the YRCAA has not been able to act on complaints in the past. What has changed that has provided YRCAA with the statutory authority to write policy on this issue at this time?

No Response

Comment #12.A1 2. Please include a section with definitions of key terms. This is very important. There are many terms in the policy that will impact the effectiveness of the policy. For example; Best Management Practices, Economically Feasible, Technically Feasible, Reasonably Available Control Technology, Fugitive Dust, etc...

Response: The final policy should have a definitions section.

Comment #12.A2.a 3. This policy looks very similar to what the dairies already do under their Dairy Nutrient Waste Management Plans, is there anything new or different here? If not, how can this be effective in reducing emissions?

Response: This policy addresses air emissions and the Nutrient Management Act deals with discharges to water and soils.

Comment #12.A2.b Will these plans be available for public review under FOIA?

Response: Certain information which will be contained in an AQMP is exempt from disclosure by RCW 42.56.610.

Comment #12.A3 4. What qualifications will be required of the person or persons that will be the experts on determining health effects of dairy emissions;

Response: Response: This subject is not intended to be addressed by the policy. Substantial adverse effect on public health should be determined by a person with public health expertise.

Comment #12.A4 and thus what the appropriate levels of emissions will be allowed?

Response: EPA has the responsibility to set such standards.

Comment #12.A5 Who will determine if the policy is sufficient to “...protect human health and safety, including the most sensitive members of the population” RCW 70.94.011

Response: Protection of public health should be determined by a person with public health expertise.

Comment #12.A6 (It seems to me that you will need to include someone on the board who is a public health specialist or epidemiologist in addition to your specialist from WSU, probably a specialist from a school of public health who is well versed in animal agriculture issues).

Response: We would welcome any information from such a person capable making a facility-specific determination.

Comment #12.B1 5. Will you include representation from the community and from the environmental organizations or community based organizations to be on the advisory council to the board from this point forward?

Response: Yes.

Comment #12.B2 6. Will you provide the draft policy in Spanish and allow time for anyone who would need to respond in Spanish? (This may require extending the comment period)

Response: No.

Comment #12. 7. Where will you find funding for both

- C2.a implementation of the policy,
- C2.b assisting dairy operators to develop and implement their plans, and for
- C2.c inspections and enforcement as necessary?
- C2.d How will the funding be distributed between development of plans, inspections, and enforcement?
- C2.e Will it be equally distributed amongst these?

No Response

Comment #12.B3 8. Will you cooperate with Yakama Nation in developing the policy on air quality matters as is stated on page A-2, number 11, under section C-Local Regulations?

Response: Yes.

Comment #12.C3 9. Will you ensure that you follow RCW 70.94.380 which “...mandates local authorities to have requirements for the control of air emissions that are no less stringent than those of the state.” page A-1, number 7.

Response: Yes.

Comment #12.C4 10. If the federal government adopts a policy on air emissions from dairies that is more stringent than what the YRCAA policy is, will you be required to make changes to your policy that reflect this and meet federal standards?

Response: Yes.

Comment #12.C5.a 11. Please describe what the exemptions are that are under RCW 70.94.030 Sections 640?

No Response

Comment #12.C5.b p.A-1, Section A, number 2.

No Response

Comment #12.C6 12. Have any of you read up on the literature of health effects from emissions from Dairy operations? There is beginning to be some interesting literature on the topic. I can forward you a literature review on air emissions from the Oregon Task Force if you are interested. I will forward it to you in another email.

No Response

Comment #12.C7 This is all my comments for now; I may have some more comments to add later. Again, I appreciate that this matter is now receiving the appropriate attention; I hope that you will look at all the comments from the public and make appropriate revisions as necessary.

No Response

Comment #12.C8 I also hope that you will reconsider having some additional members added to the advisory board so that the policy is written with a broader representation that should include the public, public health advisors, environmental activists, and community based organizations.

No Response

Commenter #13

Comment #13.C1 - Note: the following letter was received in a form which did not allow the breakdown or arrangement of comments by topical relevance, so the letter is presented in its entirety as a single “other” comment. However, the following response is offered.

Response: Your opinion is welcomed and important. Bear in mind:

The policy is not:

- A rule or regulation;
- Subject to the rulemaking requirements of RCW 34.05, the Administrative Procedure Act;
- Intended to satisfy any person, group or the subject industry sector;
- Intended to be implemented outside the jurisdiction of YRCAA; and
- A final policy until after:
 - the pilot phase or trial implementation period is completed;
 - an effectiveness assessment has been completed;
 - need for modification has been determined;
 - needed modifications have been accomplished; and
 - the policy is resubmitted to the Board for approval and approval is accomplished.

The policy (including the process) is:

- A pilot program as contemplated in RCW 34.05.313;
- Authorized by RCW 70.94.141;
- A means to:
 - assure a uniform degree of compliance with existing rules; and
 - minimize air pollutant emissions.
- A means of defining “reasonable precautions” as used in WAC 173-400-040(3)(a), which states:

(3) Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

Law Offices of Charles M. Tebbutt, P.C.

451 Blair Blvd., Eugene, OR 97402
Ph: 541-344-3505, Fax: 541-344-3516
charlie.tebbuttlaw@gmail.com

December 8, 2010

Via E-Mail (gary@yrcaa.org) & U.S. Mail

Gary Pruitt
Executive Director & Air Pollution Control Officer
Yakima Regional Clean Air Agency
329 North First Street,
Yakima, WA 98601-2303

Dear Mr. Pruitt:

On behalf of the Community Association for Restoration of the Environment ("CARE"), the Law Offices of Charles M. Tebbutt, P.C., submits these comments concerning the Yakima Regional Clean Air Agency's ("YRCAA") proposed Air Quality Management Policy and Best Management Practices for Dairy Operations (the "Policy").

The goals that should have guided YCRAA in its drafting of the Policy are well known and longstanding. The intent of the Washington Clean Air Act is to "secure and maintain levels of air quality that protect human health and safety, including the most sensitive members of the population[.]" R.C.W. § 70.94.011. To that end, it is the purpose of the statute to "safeguard the public interest" through, among other things, "improv[ing] cooperation between state and federal government, public and private organizations, and the concerned individual." *Id.* (emphasis supplied). In addition, YCRAA's own mission is to "build and maintain *partnerships* in the continuous improvement of air quality for all current and future generations in Yakima County."

YCRAA's proposed Policy on Dairy Operations clearly and directly contradicts these legislative goals both substantively and procedurally. Substantively, the Policy is incredibly weak: it essentially authorizes dairies - the regulated industry - to decide how, when, and to what extent they wish to comply with the "requirements" of the rule. The Policy requests dairy owners and operators to, on their own initiative, formulate *what they believe* are the Best Management Practices ("BMPs") they can utilize in reducing fugitive air emissions.¹ They are then to submit these BMPs to YCRAA in the form of an "Air Quality Management Plan" (AQMP). Telling of the process through which the Policy was created (see below), dairies are authorized by the Policy to *unilaterally modify* their approved AQMPs *without notice* to YCRAA, so long as the

¹ Notably absent from the Policy are the sections that actually describe the BMPs and tell the dairies how to select appropriate BMPs.

dairy determines that the modification does not diminish the effectiveness of the AQMP.²

The inadequacies do not stop there. The Policy also allows YCRAA to essentially *do nothing* with regard to approving or enforcing an AQMP. As part of the “approval” process, if YCRAA does not respond to a proposed AQMP within 30 days, the plan is automatically approved. Considering that the Policy was basically drafted by the dairy industry (see below) in conjunction with YCRAA personnel, the inclusion of this “do-nothing” provision further indicates the extent of dairy control over the process. In terms of enforcement, there are absolutely no provisions contained in the Policy that require YCRAA to initiate compliance actions against noncomplying dairies. Instead, in all instances YCRAA “may” initiate enforcement of the Policy.³ There is also no provision governing the timing or procedures for inspections of dairy facilities. YCRAA apparently will be able to determine its own schedule of inspections, as well as creating the guidelines used by inspectors to ascertain compliance with the Policy. If one of these inspections should take place, YCRAA is empowered to issue a notice of violation *only* where an AQMP “is not *fully* implemented[.]” (emphasis added). Partial implementation of an AQMP is apparently sufficient to constitute compliance under YCRAA’s Policy. This language is far from appropriate.

Overall, it would be quite challenging to devise a weaker means of controlling fugitive air emissions from dairy operations than the scheme concocted by YCRAA.

Procedurally, a number of shortcomings plagued the process utilized by YCRAA, and partly explain why the proposed Policy ended up being so incredibly weak. In drafting the Policy, YCRAA decided to include *only* dairy owners and operators in its workgroup along with agency personnel. It did not include members of the concerned and interested public, nor did it include any member of the environmental community.⁴ Instead, YCRAA allowed the dairy industry to use its overwhelming and disproportionate representation to create a Policy that *does nothing* to reduce fugitive air emissions. Just like the dairy industry did when it strong-armed the outcome of the Washington CAFO permits in 2006, here it has specifically tailored YCRAA’s Policy to create the illusion of environmental compliance while ensuring that it can continue “business as usual.”

Outside of these procedural inadequacies, environmental justice issues abound. At no

² Only “substantive” modifications need be reported to YCRAA. Those modifications include “significant changes in operational procedures; changes in BMP selection; and changes in criteria used to determine BMP implementation.” It appears that dairy owners and operators hold the power to determine whether a modification constitutes one of the enumerated categories of substantive modifications.

³ Even more concerning is a provision governing the use of information by YCRAA in enforcement actions, should one ever arise. The provision states that “Information obtained by YCRAA in the course of [AQMP proposals] is not obtained for the purpose of any future enforcement activity.” Thus, YCRAA will be left in an informational vacuum should it take any enforcement action.

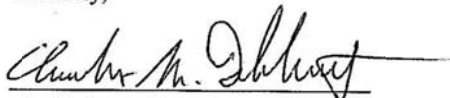
⁴ Indeed, in creating an advisory council to create policy, the local authority must appoint at least one member “whom shall serve as a representative of the environmental community.” RCW 70.94.240. YCRAA decided only to include members of the regulated industry, in blatant disregard of the statute’s requirements.

time were members of the Yakama Nation, who have consistently borne the brunt of dairy pollution, allowed access to the Policy workgroup. Neither were the region's Hispanic residents, who were likely unaware of proceedings because of the lack of Spanish-translated public notice. *See El Pueblo Para El Aire Y Agua Limpio v. County of Kings*, Superior Court of California, County of Sacramento, No. 366045, Dept. 14, p. 10 (1991) (inadequate public participation in environmental decision-making by public officials when public notice was given only in English; translation and publication in Spanish was justified given that large portion of the interested population was monolingual in Spanish and were denied meaningful participation). These two segments of the region's population have been unjustifiably denied their constitutional due process rights of notice and meaningful participation in this matter.

Given the vast procedural and substantive shortcomings of the Policy, CARE insists that YCRAA immediately scrap the current plan, form a new workgroup that includes representatives from the Yakama Nation, the region's Hispanic population, members of the environmental community, and other interested persons, and redraft the proposed Policy so that it *actually* deals with the issues of fugitive emissions and noxious odors from dairy operations. The regulated industries cannot and should not be allowed to draft their own rules and regulations. CARE also requests that YCRAA hold a public hearing on this matter, allowing those members of the community who are unable to effectively communicate their thoughts through the written word the opportunity to voice their concerns orally before the board. Spanish translators should also be available at the hearing.

It is time to put an end to the dairy industry's complete domination of the Washington regulatory agencies that are supposed to be protecting public health, welfare and the environment. You have the power to take steps in the right direction. The proposed Policy does nothing more than allow the industry to avoid accountability by claiming that they are heavily regulated, when in fact the regulations are so vague as to be meaningless. Please start over and make the process one that protects public health rather than the industry that has decimated, and continues to decimate, the lower Yakima Valley.

Sincerely,



Charles M. Tebbutt,
Law Offices of Charles M. Tebbutt, P.C.
451 Blair Blvd.
Eugene, OR 97402
541-344-3505

cc: Governor Christine Gregoire
Dennis McLerran, Regional Administrator, U.S. EPA, Region 10
Ted Sturdevant, Director, Washington Dept. of Ecology

Commenter #14

Comment #14.C1 I'm submitting comments regarding the proposed – AIR QUALITY MANAGEMENT POLICY and BEST MANAGEMENT PRACTICES for DAIRY OPERATIONS. The Policy needs to protect the public's interests, and it must meet the intent of the Washington Clean Air Act.

No Response

Comment #14.B1 The Policy was NOT DRAFTED WITH Adequate public participation. As a result, I believe it will be ineffective in protecting the public's right to clean, healthy air.

Response: Your opinion is welcomed and important.

Comment #14.B2 Your agency needs to start-over with public participation in developing a POLICY to protect clean air.

Response: Your opinion is welcomed and important.

Commenter #15

Re: Comments regarding *Proposed Air Quality Management Policy and Best Management Practices for Dairy Operations, November 2010*.

Comment #15.A1 1. With regard to "Policy, Section II, Who Must Comply with the Policy?" page 3. We suggest language that more specifically denotes that dairies located within the Yakama Nation Reservation will not be subject to expectations or enforcement of compliance with the policy. This would necessarily describe the jurisdictional boundary of YRCAA within Yakima County. E.g., *as with all policies, the jurisdiction of the YRCAA is within Yakima County excluding Yakama Nation Reservation Lands.*

Response: Text added on page 2 to address.

Comment #15.A1.a a. If it is the intent of YRCAA to encourage voluntary practices among dairy farmers on the Yakama Nation Reservation lands, that should be stated plainly and become a matter of consultation with the Yakama Nation leadership.

Response: If it is the desire of the Yakama Nation leadership to encourage or discourage voluntary practices, YRCAA is willing to consult. Otherwise, YRCAA will neither encourage, nor discourage, such voluntary practices.

Comment #15.A2 2. Intent and Purpose of the Proposed Policy: The issue of what could be described as, "actual improvements expected" is unclear. At this time, there is no encompassing data to quantify or even tell us for certain which emissions are currently present due to the dairy operations in the Yakima Valley. Moreover, there is no U.S. policy to limit emissions of certain contaminants. Therefore we do not have a

means to measure the exact reductions these proposed best management practices will provide, nor is there a measure of compliance, specifically, with Clean Air Act Standards. This issue could be explained more fully in the policy and a statement(s) made that logically answer the expectations and constraints of these proposed practices.

Response: The intent of the pilot project is to identify and implement economically and technically feasible BMPs known to be effective at reducing air emissions. There is no intent to quantify such reductions. See response #15.A6.

Comment #15.A3 3. It is unclear whether this policy applies only to dairies with 500 head or greater and if this is a total population or a mature cow population.

Response: Policy text has been changed to include all dairies.

Comment #15.A4 Also, it clearly excludes feedlots and grazing systems but includes several BMPs applicable only to grazing systems. This needs clarification.

Response: Policy text has been changed to clarify.

Comment #15.A5 Are the dairy heifer feeding operations covered under the existing fugitive dust control plan along with beef feedlots because you are assuming no emissions from these types of operations?

Response: No.

Comment #15.A6 4. The plan calls for describing the criteria for selection of the implemented BMP and which pollutant group will be reduced as a result of implementation. There are serious flaws in this component. It cannot be reasonably expected for operators to have this information without prior monitoring. It is generally accepted that further studies are needed to collect viable data.

Response: YRCAA agrees that further studies are needed and are being conducted. However, by policy YRCAA is pursuing the recommendation of the National Academy of Sciences: "Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on the character, amount, and dispersion of these air emissions, and on their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system."

Comment #15.A7 At this time we do know that there are many variables to measuring these emissions, including but not limited to diurnal and seasonal fluctuations, climatic influences and animal stress factors. An operator may, in good faith be implementing practices from the BMP "menu" for a pollutant emission that he in fact contributes very little to and ignoring the real problem from that particular site. We can't know this without intensive monitoring and data collection.

Response: Facility-specific problems will be discovered through implementation of the pilot project and any AQMP which does not address the real problem will not be approved.

Comment #15.A8 The policy calls for describing the method of monitoring the implementation of each BMP, which essentially is monitoring the functionality of the practice rather than monitoring the expected reduction in emissions.

Response: Agreed.

Comment #15.A9 5. Several of the BMPs are not applicable to dairies and several contradict each other, so it is important to understand the emission constituents at each site before establishing a policy to reduce them.

Response: YRCAA already understands the emission constituents of concern for dairies as a sector. Facility-specific emissions of concern will be discovered during the pilot project.

Comment #15.A9.a A major concern is that several practices designed to protect air quality may negatively affect water quality; therefore it is extremely important to provide a full technical manual of all these practices including the potential unintended environmental consequences to other natural resources.

Response: Agreed and planned.

Comment #15.A9.b This was also recommended in The National Research Council of the National Academies report on Air Emissions from Animal Feeding Operations; Current Knowledge, Future needs:

“Recommendation: Regulatory and management programs to decrease air emissions should be integrated with other environmental (e.g., water quality) and economic considerations to optimize public benefits.”ⁱ

For example; there are consequences to injecting manure if you are in a floodplain or high water table area and excessively well drained soils. Also several practices discourage applications on fields with crop residue, yet conservation tillage is encouraged for natural resource protection.

“Recommendation: Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on their character, amount, and

dispersion of these air emissions, and their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system.”ⁱⁱ

Response: Agreed and planned.

Comment #15.A9.c These issues warrant an evaluation of this plan with a more holistic view to account for those unintended consequences and including a complete technical manual which operators can use to guide them to implementing practices that will provide the most environmental benefit, and not just to collect ranking points.

Response: Agreed and planned. As with most efforts, once you decide what the right thing is, you must decide how and when to do the right thing. This agency now has a principle of doing the right thing, at the right time, the right way, the first time, every time.

ⁱ http://milk.procon.org/sourcefiles/EPA_AFO_Final_Report.pdf

ⁱⁱ Ibid

Commenter #16

Comment #16.C1

RCW 43.21C

Assure all people Of Washington a safe, healthful, productive, and aesthetically and culturally pleasing surrounding.

Maintain environment which supports diversity and individual choice The legislature recognizes that each person has fundamental and inalienable rights to a healthy environment.

No agency of the government has the authority to allow or permit any operation that creates trespass, nuisance, that creates health effects and environmental effects upon other citizens. This is the taking of Private Property under any color of the Law.

No Response

Comment #16.C2

Quality of the Environment cannot be EXEMPT

No Response

Comment #16.C3

WAC 173-400 regulations for air pollution sources

No Response

Comment #16.C4

THE RIGHT TO FARM ACT DOES NOT GIVE A PERSON THE RIGHT TO POLLUTE, AIR WATER, NOISE.

No Response

Comment #16.C5

This policy does nothing for the people that live around a dairy, but it gives the dairy another layer of paper that they can point at and say we are so over regulated and we are complying with YRCAA policy.

No Response

Comment #16.C6

This is written buy the dairy for the dairy and give the public nothing.
This policy is nothing more THAN A LOT OF SMOKE AND MIRRORS.
THIS POLICY IS AS CLOSE AS YOU CAN GET TO PROTECTIONISM

No Response

Comment #16.C7

The civil rights and property rights of people who have to live by the dairies who by the way,most of the time moved in on them and changed their way of life need to be addressed.

No Response

Comment #16.C8

At the very least the dairies are a public nuisance and trespass on peoples property and are a threat to public health.

No Response

Comment #16.C9

Policies are not enforceable as are BMP's and NMP's but are feel good measures that are used as a means to skirt the real issues taking place.

No Response

Comment #16.C10

POLITICS HAVE NO PLACE IN RULE MAKING, it should be all about what is good for the publics health and well being not about what is good for a certain group.

No Response

Comment #16.C11

They just want to be good neighbors, they need to look up the term. If they say it enough then it must be true.

No Response

Comment #16.C12

The YRCAA has stated that they are trying to do something about air quality around calfos, and this policy is about not doing anything, but it looks good on paper and nothing else.

No Response

Comment #16.B1

START OVER AND DO IT RIGHT OR DO'NT DO ANYTHING AS YOU HAVE DONE IN THE PAST.

Response: YRCAA disagrees that we have done nothing in the past and believes that a pilot project to determine what best to do in the future is appropriate.

Comment #16.C13

I thought YRCAA was about clean air not BMP. You need to make up your minds on what you are to be doing.

No Response

Comment #16.C14

All we asked for was a third party with the expertise to help YRCAA because Gary stated they did not have the expertise to do anything about air quality around calves, and this is what we got, a worthless policy.

No Response

Commenter #17

I wish to comment as a citizen on the proposed guidelines for the regulation of large dairy operations in Yakima Valley. As to my background, I received a MA from the University of Washington in Economics with two special fields, Public Finance and Natural Resources. During my years as an academic I was a Junior Agricultural Economist at Washington State University and a Senior Research Associate at the Institute for Social and Economic Research at the University of Alaska.

Comment #17.C1 From an economic standpoint granting an emissions permit to a dairy introduces two serious inefficiencies. First, there is a transfer of significant costs from the dairy owner to those citizens who will be harmed by the pollution. Second, the market for bulk dairy product will be distorted in favor of polluting operations against non-polluting operations. It is a basic principle of economics that all the external costs of production need to be internalized to the owners to the extent that there is no longer any profit derived from polluting. Clean air is simply not to be squandered for anyone's profit.

No Response

Comment #17.C2 It is a breach of public trust for the YRCAA to protect emitters from litigation by putting up a legal buffer in the form of this regulation. Under current rules and law the owners of concentrated feedlot operations have an unlimited liability for the deleterious effects on the health of those exposed to their pollution. Section I of the Draft implies that YRCAA will take on much of the burden of liability. What is actually stated is that YRCAA will accomplish or achieve compliance with the Clean Air Act. Those words can be construed to mean that YRCAA shoulders much of the burden of liability, because that liability cannot simply vaporize. The issue of liability needs to be addressed frankly in this regulation, in terms that a court will understand.

The Washington Department of Ecology has a memorandum of understanding with the Washington Department of Agriculture with respect to the regulation of dairy operations. Washington Department of Agriculture clearly has the experience and capacity to regulate farm operations.

No Response

Comment #17.C3 I suggest that the YRCAA approach the Washington Department of Agriculture about drafting another memorandum on dairy regulation in order to reduce

the duplication and cost of government enforcement. YRCAA's primary responsibility to protect regional air quality might continue to be done with air monitoring and the issuance of notices of violation.

No Response

Comment #17.A1 In Section VI of the draft there is a statement that the failure of YRCAA to act within a limited time frame constitutes approval of plans submitted by the dairy.

The YRCAA should not give away that authority. There may be reasons and conditions for delays and extensions.

Response: Agreed. Text was changed to address.

Comment #17.A2 In the same section the authority of YRCAA to enforce standards is obviated if the information about a violation is obtained through cooperation on the part of the polluter. It is often the case that enterprises are required to provide information that leads to enforcement and I believe that needs to be the case with dairies given the difficulty the agency would have in getting information by direct observation.

Response: No authority is obviated or waived. This passage merely states what is the purpose and what is not the purpose of good faith negotiations. Enforcement action will be taken when called for according to agency enforcement policy.

Comment #17.A3 Also in this section, the descriptor "adequate" grates with my sense of what is necessary to "achieve" compliance. It tells me that YRCAA is aiming for the lowest permissible level of compliance.

Response: It is unclear how one could arrive at such a perception.

Comment #17.A4 Lastly, scale is not addressed anywhere in the document. Scale needs to come into the picture. What YRCAA would permit for one large dairy enterprise cannot possibly be acceptable for eighty or so similarly sized dairies.

Response: YRCAA implements laws, rules and policies on an agency-to-facility basis, not on an agency-to-sector basis.

Commenter #18

Thank you for the opportunity to comment on the document entitled, "Air Quality Management Policy and Best Management Practices for Dairy Operations." The following comments are presented as the opinions of individual members of the faculty and student researchers at Johns Hopkins Bloomberg School of Public Health (JHSPH) and do not necessarily reflect the position of the School or University. Among the authors of this comment and colleagues here at the school, we have extensive expertise relating to the protection of the health of persons residing in agricultural communities in proximity to large-scale poultry, swine, dairy cattle and other animal production facilities.

We would like to express our support to the Yakima Regional Clean Air Agency (YRCCA) for proposing policies to control emissions from dairies. However, it is our position that the proposed policy, as described in the December 3rd version of the draft,

has numerous shortcomings that will likely limit its ability to reduce emissions, and therefore to protect public health.

Comment #18.A1 In particular, it is our professional judgment that employment of best management practices, in the absence of well-designed monitoring, measurement and enforcement plans, is likely to achieve little in the way of mitigating community exposures.

Response: Your opinion is welcomed and important.

The following bulleted points encompass some fundamental issues identified during our review of the proposed draft policy:

Comment #18.A2 The proposed policy for minimizing emissions does not include any requirement for monitoring, and as a result, offers no evidence upon which to:

- .a Characterize baseline emissions (in terms of pollutants and their respective magnitudes)
- .b Determine what types of best management practices are needed to reduce emissions
- .c Establish goals for reductions
- .d Determine whether emissions reduction goals have been met, and evaluate whether employed BMPs have been effective or useful in achieving those goals Without real data to bolster AQMP development and evaluation, it is unlikely that determination of whether emissions reductions have been achieved can be made with any certainty. Further, if reductions cannot be demonstrated, it is unclear how YRCAA can determine that potential community risks stemming from air emissions have been mitigated.

Response: The decision to develop and implement this policy is based largely on the findings and recommendations of the National Academy of Sciences found in its 2003 report, Air Emissions from Animal Feeding Operations; Current Knowledge, Future Needs. There exists no means to absolutely measure the effects of taking an aspirin to relieve a headache. That fact doesn't prevent one from doing so. The aforementioned report states:

“Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on the character, amount, and dispersion of these air emissions, and on their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system.”

Comment #18.A3 The approval process for AQMPs is unlikely to result in significant emission reductions without a data-driven methodology for plan approval. The currently proposed approval process appears to be largely subjective and disproportionately influenced by the burden placed upon dairy operations.

Response: Your opinion is welcomed and important. However, YRCAA disagrees.

Comment #18.A4 There does not appear to be a clear description of an enforcement plan intended to address compliance failures in regards to implementation plans or for violations of approved plans.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

Comment #18.A5 There is a lack of mention of involvement of the community in the proposal. Mechanisms should be in place to perform inspections and issue citations based on community complaints, and the community should be engaged and given a voice in the policy approval process.

Response: Citizen complaints, alleging dairy violations of existing laws, rules or orders, have and will be addressed according to agency compliance assurance policy. Policy approval authority is given only to the agency governing Board of Directors.

Comment #18.A6 There does not appear to be a plan for providing dairy operators with technical assistance in AQMP development. Dairy operators may lack the technical expertise necessary to evaluate the appropriateness of BMPs for reducing specific pollutants, and in some cases, operators may lack the knowledge needed to determine the nature of pollutant emissions from the various components of dairy production. If operators are expected to develop plans that will be successful in reducing emissions, it is important that the State or someone else make available someone with the appropriate expertise, even if a fee is charged for these services.

Response: Agreed. However, it is not within the intent of this policy to establish business relationships. YRCAA staff can provide technical assistance and can refer operators to technical service providers.

In addition to these points, we have attached an appendix detailing specific comments corresponding to noted excerpts of the text from the draft policy document.

Comment #18.B1 Based on our review of the draft policy document, it is our recommendation that the YRCCA revise the document and provide a second public comment period for the revised proposal. Please contact us if our technical expertise can assist in this process.

Response: As a pilot project, this is exactly what is planned. Once the pilot project is completed, YRCAA staff will revise the policy, based on an improved knowledge base, and present a final draft policy for public comment and consideration for Board approval. Section III.C of the policy plan states:

“The development of this policy is in itself a pilot program. This process will enable both dairy operators and the YRCAA to determine how effective the practices and standards are before formalizing the Policy by Board adoption. After an assessment of the effectiveness of the Policy, the need for any adjustments will be determined and decisions made whether an amended Policy should be put into dairy-specific regulations.

The pilot phase will make the ultimate adoption of regulations, if necessary, less subject to dispute over what is needed and effective.”

Sincerely,

D'Ann L. Williams, DrPH Sr. Research Specialist

Department of Environmental Health Sciences, Division of Environmental Health Engineering Johns Hopkins Bloomberg School of Public Health

Meghan F. Davis, DVM, MPH

Sommer Scholar and Center for a Livable Future Pre-Doctoral Fellow
Department of Environmental Health Sciences, Division of Environmental Health Engineering Johns Hopkins Bloomberg School of Public Health

Ana M. Rule, Ph.D. Research Associate
Department of Environmental Health Sciences, Division of Environmental Health Engineering Johns Hopkins Bloomberg School of Public Health

Keeve E. Nachman, Ph.D., M.H.S. Assistant Scientist
Departments of Environmental Health Sciences and Health Policy and Management Johns Hopkins Bloomberg School of Public Health
Director, Farming for the Future Program Johns Hopkins Center for a Livable Future Johns Hopkins University

Appendix: Specific Comments (organized by page and section numbers)

Page 3: How Does the Policy Work?

Comment #18.A7 The draft policy document does not specify how compliance with the AQMP will be assessed.

- .a** The policy should detail a formalized evaluation strategy that hinges upon the collection and examination of air monitoring data collected using accepted measurement methods. If requested, we would be willing to advise the YRCAA on accepted methods to assess real-time air emissions. We also would like to offer our help to evaluate any strategies proposed by the YRCAA to address real-time measurements of air emissions for policy evaluation.

Response: The policy does not contemplate, nor does it support, air monitoring of fugitive emissions.

- .b** In the event of a dispute regarding the compliance of a particular dairy operation with an approved plan, resolution should be conducted by a neutral and objective mediator and should involve all stakeholders, including members of the community. It is inadvisable that the outcome of the dispute be determined or influenced by the Dairy Workgroup.

Response: YRCAA will make all determinations as to compliance with the policy. Requesting the work group to provide input to such determinations in no way relieves YRCAA from that authority or responsibility.

Pg 5 c. iii. (A description of BMPs to be used under the plan to reduce emissions of targeted pollutants.)

Comment #18.A8 The methods that this policy will use rely on self-monitoring and self-report; as such, acceptable monitoring methods and protocols must be adequately

described, defined and used. Standardized and uniform monitoring reports must be generated by objective parties and should be based on current scientific understanding.

- .a Specifically what are the standards and parameters that will be monitored to reduce emissions?

Response: The policy does not intend to establish standards and parameters. Rather it intends to identify and implement known practices which reduce emissions and verify the practices are utilized, either by actual observation or by credible recordkeeping.

- .b We recommend penalties for a failure to monitor and report effectiveness of BMPs.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

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VI. How are AQMP Developed and Approved?

Comment #18.A9 The failure of the YRCAA to notify dairies about their submitted AQMP should not constitute approval. If the YRCAA receives the AQMP plans on February 15th, 30 days may not be sufficient to thoroughly evaluate all of the submitted plans. A phased approval process should be implemented. Deadlines could begin on February 15th and continue until all dairies have been completely evaluated. This could begin with the largest facilities to provide the YRCAA with adequate time to completely evaluate AQMPs and work with dairies to ensure the efficiency and feasibility of the submitted AQMPs. Acceptance of AQMPs should be officially stated by written correspondence between agency/dairy.

Response: YRCAA agrees and text has been changed. However, review/approval of a plan and a full compliance evaluation of compliance with the policy are two entirely separate processes.

VII. How and What Changes Can be Made to an Approved AQMP?

Comment #18.A10 The use of the term "non-substantive changes" is ambiguous and may lead to confusion or abuse. The policy should require that all changes in dairy management, BMPs, AQMP and other processes must be made in writing and submitted to YRCAA and receive approval before being made. Alternatively, a precise definition of non-substantive change should be provided.

Response: YRCAA believes the descriptions of substantive and non-substantive changes are adequate for the pilot project. However, knowledge gained in the pilot phase may cause revisions to be made.

Comment #18.A11 Failure to comply with YRCAA notification regarding changes to approved AQMP should be subject to a defined schedule of penalties. Disincentives should be clearly stated in writing and details must be written which describe the steps that the YRCAA will take to correct and/or enforce this policy.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

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How will YRCAA Determine When an AQMP is Acceptable?

Comment #18.A12 What are the specific methods to be used to determine compliance?

Response: Actual observation and/or review of recordkeeping.

Comment #18.A13 How will implementation be evaluated or measured?

Response: Actual observation and/or review of recordkeeping.

Comment #18.A14 How will effectiveness be evaluated?

Response: As described in Section IX.1.

Comment #18.A15 What are the target values?

Response: There are no target values.

Comment #18.A16 The YRCAA should keep and review the records of community complaints to aid in selection of specific BMPs for currently identified problems at specific locations.

Response: Agreed.

Appendix A - Pg A-2

Comment #18.A17 Why would a variance be awarded or any facility exempted from Regulation 1?

Response: YRCAA is not aware of any reason.

Comment #18.A18 There should be no exemptions to Regulation 1.

Response: Agreed.

Comment #18.A19 What constitutes a violation of the AQMP?

Response: Failure to comply with either the operational plan or the AQMP.

Comment #18.A20 Is the determination of a violation up to the discretion of the YRCAA, the local police or other agencies?

Response: YRCAA.

Appendix B - Pg B1 - B8

Comment #18.A21 The BMP recommendations are incomplete and do not provide sufficient guidance to producers for criteria to select on BMP over another. We recommend providing scientific references or links to agricultural extension documents describing techniques and expected efficacy in more detail. Before policy

implementation, we recommend that YRCAA provide a review of BMPs and training for implementation for producers and their operators on BMP.

Response: During the pilot project, YRCAA anticipates development of a manual, complete with enough information to allow informed decisions as to BMP selection. Training sessions and technical assistance will also be offered.

Community Concerns:

Comment #18.A22 This policy makes no provisions for resolving community complaints. This is a major omission of the current draft policy. Steps must be developed which describe the steps that community members must take to submit complaints, who will address these complaints, what support community members can anticipate to address their complaints and concerns, and what clearly defined steps will occur between the YRCAA or enforcing agency and dairy indicated in the complaint.

Response: The policy is not intended to rewrite existing YRCAA policy for complaint response, compliance assurance and enforcement.

Community Health:

Comment #18.A23 These BMPs which are designed to prevent violations of the CAA target chemicals and particulate matter. However, these policies will not fully address odors and hazardous biological agents, endotoxins, and allergens, which are important unregulated contaminants. Exposures to these unregulated contaminants have been associated with health effects in agricultural workers and communities which are exposed to industrial scale animal facilities. These health effects include but are not limited to asthma, sinusitis, rhinitis and upper airway diseases, eye and nasal membrane irritation; in addition, malodor has been associated with disturbance of psychosocial factors and reduced quality of life.

Response: Agreed.

Environment and Agricultural Engineering:

These facilities impact air and water quality and can have major impacts on local and regional environmental quality.

Comment #18.A24 This draft policy does not adequately lay out the combined use of any or all of these BMP to effect emissions. Many of the BMPs that are recommended to reduce emission for one pollutant may increase the emissions of others; may be inconsistent with other programs, such as NPDES; or may impact animal health. For example, to reduce fugitive dust emissions, policy recommendations include maintaining the surface moisture content of drylot pens to minimize dust and odor, and to control the emissions of NH₃ it is recommended to avoid over-applications of water to drylot pens after sustained dry periods. These are mutually exclusive practices and these contradictions in BMPs must be thoroughly evaluated for each individual facility this policy to be effective.

Response: Agreed.

Commenter #19

Comment #19.C1 As you and I know, air knows no boundaries and is free to move about. Consequently even people that are not in close proximity to the source of air emissions, such as my family living in Richland, Washington are impacted by these dairy emissions. And I suspect the holistic impact of the air emissions from the dairy operations have unknown and latent effects on the local and regional environment and ecology - affecting also the water, flora and fauna. Quality of life or well-being goes beyond the immediately obvious, observable, and known health effects due to the recognized air emissions from dairy operations. Aesthetics, haze, odor and other human values also suffer. And yes, I do use and enjoy dairy products.

No Response

Comment #19.A1 I agree with the policy to use BMP to mitigate and regulate the air emissions from dairy operations, as I feel these operators or anyone else does not have the carte blanche right to pollute the air we breathe.

Response: Thanks.

Comment #19.C2 Our regulatory bodies and officials (local, regional, state and federal) who have responsibility to look out for the public and environment have been far too slow in addressing the issue.

No Response

Comment #19.B1 I feel the BMP should be periodically reviewed (say every 5 years) and updated as new information, methods and technologies become available to deal with the problem.

Response: Agreed, but more frequently.

Comment #19.A2 I also feel that long-term air quality monitoring for specific air pollutants produced by dairy operations need to be implemented and/or expanded in order to measure trends in pollutant concentration and performance of the BMP. If you don't measure how do you know? At least a portion of this AQ monitoring cost should be borne by the dairy operators.

I wish to close by acknowledging and thanking all those involved in trying to improve the quality of air, including the dairy operators, their trade association and the YRCAA. Much more can be accomplished in shorter time if we all work together with a common goal in mind.

Response: Agreed, however air monitoring for fugitive emissions is not feasible. In terms of working together, YRCAA believes that those working together should remain focused on the interest of air quality and avoid taking hard positions.

Commenter #20

Northwest Dairy Association appreciates the opportunity to submit these comments to the Draft Air Quality Management Policy and Best Management Practices for Dairy Operations. The Northwest Dairy Association (NDA) is an integrated milk marketing and processing cooperative that is owned by approximately 525 dairy producers. NDA is

the dominant agricultural dairy cooperative in the State of Washington and is comprised of many dairies that will be affected by the YRCAA's draft policy.

Comment #20.A1 Because of the importance of this policy to NDA's members, NDA requests that the YRCAA carefully consider the approach it is taking, as well as the content and implementation of its proposed policy. NDA supports identifying and implementing appropriate and feasible best management practices that are cost-effective and designed to reduce dairy emissions. We welcome the opportunity to work with the YRCAA to refine the draft policy and best management practices, as well as to develop a worksheet to assist dairies in implementing the policy. We do not, however, believe that it is appropriate or reasonable to finalize this policy now for the following reasons:

Response: Agreed, the pilot project will allow for development of a worksheet, a manual, technical assistance and training sessions.

.a First, without the worksheet, which YRCAA agrees is a critical component to implementation of the plan, dairies are deprived of an opportunity to understand how the policy and the selection of best management practices for the plan will be implemented and evaluated by the YRCAA.

Response: Agreed.

.b Second, the regulation of the air constituents proposed in policy, without consideration of whether those constituents exceed regulatory thresholds, seems to go beyond the federal or state Clean Air Acts.

Response: YRCAA disagrees. See RCW 70.94.141.

.c Third, finalizing this policy before EPA has concluded its national dairy emissions study is premature and subjects dairies in the Yakima area to air quality requirements that do not exist for dairies anywhere else in the country.

Response: YRCAA disagrees. California, Oregon and Idaho have regulatory requirements for dairies. Although the policy is not expected to be final until sometime in 2012, it will then be only a policy, not regulation.

.d To the extent that these plans require Yakima dairies to spend money developing and implementing plans that are not required elsewhere, the Yakima dairies are placed at a competitive disadvantage in the marketplace.

Response: With the increased expectation from major retailers that suppliers be environmentally conscious, it would seem to provide a competitive advantage.

While we understand that it is important for the dairy industry and the YRCAA to move forward with reasonable measures that will improve air quality in the Yakima area, we do not believe that the YRCAA's policy is a reasonable approach at this time. We offer our comments as an alternate approach, which allows the YRCAA to make progress reducing dairy emissions, without creating unreasonable expectations or objectives.

Response: Acknowledged, not agreed.

Comment #20.A2 We suggest that the policy and management practices remain in draft form, with the revisions identified below, and

.a that the policy be implemented as a pilot project for a period of 12 months. This approach provides an opportunity for the YRCAA to implement and evaluate the policy and its associated best management practices over an entire annual weather cycle.

Response: Agreed and planned.

.b As part of the pilot project, the plans created by dairies who participate in the pilot project and inspections conducted as part of the pilot project should not be subject to the Public Records Act.

Response: Agreed, see RCW 42.56.610.

.c Inspections conducted on dairies that prepare plans as part of the pilot project should be inspections for purposes of evaluating the pilot project, not inspections of dairies for purposes of determining compliance with the dairy's individual plan.

Response: Agreed, in part. Without determining compliance with AQMPs, the project itself cannot be adequately evaluated. YRCAA however, has no intent, even after the policy is final, to take any enforcement action for failure to comply with the policy.

Comment #20.A3 As part of the pilot project, the YRCAA should work with the dairy industry to develop a worksheet and scoring system that will facilitate preparation of the plans.

Response: Agreed and planned.

.a Once that worksheet is developed, NDA will work with the dairies in the Yakima Valley to identify volunteer dairies willing to prepare plans based on the worksheet and implementation of the plans.

Response: YRCAA disagrees with the chronological order.

.b The YRCAA will be able to inspect those dairies after implementation of the plans to evaluate the effectiveness of the pilot project and to then determine how best to finalize the policy.

Response: Agreed and planned.

Consistent with our comments above, we offer the following specific text revisions to the draft policy and best management practices:

Comment #20.A4 Background: We suggest deleting most of the background text, which is unnecessary. Additionally, dairies are highly individualized businesses and practices can seldom be summarized. For that reason, we suggest the following revised text:

“YRCAA began working with local beef cattle feedlots in 1993 to minimize dust emissions by developing and implementing fugitive dust plans. Since then, the plans and their effectiveness have improved each year. In 2001, YRCAA worked with heifer replacement and calving operations to develop a fugitive dust control policy for dairy heifer feeding operations. Because dairy operations generate fugitive emissions, YRCAA has developed this draft policy using the same approach it has taken for cattle feedlots, heifer replacement, and calving operations. Implementation of the policy will constitute “reasonable precautions” to minimize emissions from dairy operations. This draft policy only applies to dairies where cows are confined for feeding and milking and where

significant emissions of air pollutants exist. This policy specifically acknowledges that air emissions from dairy operations cannot be eliminated and that all management practices must be economically and technically feasible. As part of the development of the final policy, YRCAA will work with dairies to develop a pilot project, which will voluntarily implement the draft policy through developing and implementing flexible, site-specific Air Quality Management Plans. The Plans will be developed by each dairy.”

Response: The text has been changed.

Comment #20.A5 Policy: NDA requests the following revisions to this section of the draft policy:

.a Replace the text of the first sentence with the following: “The purpose of this policy is to provide guidance for the effective prevention and control of air contaminant emissions at dairy operations that confine cows for feeding and milking and have significant dairy emissions.”

Response: No text change. Addressed in Section II.

.b Replace all references to “Dairy Operations” to “dairy operations regulated by this policy.”

Response: No text change. Addressed in Section II.

.c II.1: Delete the text and replace with the following: “Dairy operations that confine cows for feeding and milking and have significant dairy emissions.”

Response: No change.

.d Delete II.2 which goes far beyond the requirements of the federal or Washington Clean Air Act. The pilot study and EPA’s national air study will provide sufficient information from which to determine which dairies should be regulated by the YRCAA policy consistent with applicable statutory and regulatory authority.

Response: There is no II.2.

.e IV.2: Delete existing text and replace with the following: “Once the draft policy is finalized, existing dairy operations regulated by this policy must submit plans annually, no later than February 15th.”

Response: No change.

.f V.2: Replace the first sentence with the following text: “The following pollutants are targeted for emission reduction and must be identified in the AQMP. The YRCAA acknowledges that neither the federal Clean Air Act nor Washington’s Clean Air Act regulates these pollutants unless they exceed regulatory thresholds set forth in the federal Clean Air Act and/or Washington’s Clean Air Act. Nothing in this plan should be interpreted as making any statement or finding that any dairy preparing an AQMP exceeds any regulatory threshold for any constituent identified in the plan or in this policy.”

Response: No change.

.g VI.5: This section should be deleted. The failure to comply with the policy should not give rise to any compliance/enforcement action because the policy is not a rule.

Response: Text changed, not deleted.

.e IX.1: The last sentence should be deleted from this section for the same reasons as those stated in Section VI.5 above.

Response: Text changed, not deleted.

Comment #20.A6 Appendix B: NDA strongly objects to the narrative descriptions summarizing the various air pollutants, which is unnecessary and, in some cases, inaccurate or misleading. NDA requests that the narrative descriptions be deleted.

Response: Not deleted.

Alternatively, text revisions to Appendix B are as follows:

.a I. Ammonia: Delete the entire first paragraph after the words “temperature and relative humidity in specific.”

Response: Not deleted.

.b V. Odor: Delete the following sentence: “Odor is a common source of complaints from people living near AFOs, and it is for local impacts that a reliable method for odor measurement should be pursued.” This draft policy does not and should not propose to measure odor. Consequently, recommendations for future actions involving odor measurement should be deleted from this draft policy so that people reading the policy do not mistakenly presume that dairies subject to this policy are responsible for developing a method to measure odor.

Response: Agreed. Text deleted.

.c VIII. Methane: Revise the text in the third paragraph, third sentence to read as follows: “Methane is a greenhouse gas that, under certain circumstances, contributes to global warming.”

Response: Text added.

Commenter #21

Our comments are on your process and lack of inclusion of the public.

Comment #21.B1 1. Include Helen Reddout, CARE (Community Association for the Restoration of the Environment) as a contributing voice and source of information from the perspective of those who are impacted by poor air quality. Helen's experience should be utilized and respected. The board needs to have an information and listening session with Helen.

Response: Attempts to arrange a meeting with Helen in July, 2010 failed.

Comment #21.B2.a 2. Reach out in written form and publicly invite the Yakama Nation to be a recognized part of the process.

Response: A Yakama Nation representative has been appointed to the work group.

.b Invite a Tribal Council Member to be an active member of your process. Include them in the talks and in the informational meetings.

Response: A Yakama Nation representative has been appointed to the work group.

Comment #21.C1 Even though you do not have authority on the Reservation, you are not able to stop Yakima County air from polluting Yakama Reservation air.

No Response

Comment #21.C2 There are dairies from off the Reservation, under the jurisdiction of Yakima County, that are dumping polluted, liquid feces and urine within the boundaries of the Yakama Reservation bringing fecal bacteria into the air.

No Response

Comment #21.B3 Including the Yakama Tribe in your process, listening to Tribal concerns and recognizing the Tribal Government and peoples of the Reservation would be beneficial and might help lower the level of anger in the community.

Response: Agreed and in progress.

Comment #21.B3 3. Reach out and invite a Hispanic community leader, giving the Hispanic Community a voice in the process. The Hispanic community is hugely impacted by this issue.

Response: We would welcome a Hispanic community leader.

Comment #21.C3 4. Stop the negative comments towards Jan Whitefoot, Jim and Larry in your in house emails to each other. Regardless of their positions, it was unfair to accuse them of wanting to get rid of all dairies. That has not been and is not true. Some of the Board's email responses re: valid concerns from frustrated citizens who feel they do not have a voice, have been less than professional. This has stirred up more anger and frustration.

No Response

Commenter #22

Comment #22.B1 This letter is to inform you that the Community Association for Restoration of the Environment (CARE) vehemently objects to the policy making process the Yakima Valley Regional Clean Air Agency (YRCAA) developed and implemented to create the Draft Air Quality Management Policy and Best Management Practices (BMPs) for Dairy Operations. Specifically, CARE is opposed to the work group that was formed to develop the policy because it consulted only dairy industry stakeholders and not one representative from the public or the affected community.

Response: Acknowledged.

Comment #22.B2 As stated in the YRCAA Public Notice for the Draft Air Quality Management Policy and BMPs for Dairy Operations:

Public concerns about the possible health effects of air emissions from dairy operations have grown with the increasing size and geographic concentration of these operations ... Emissions from dairies are a significant concern, not only for new residents in these areas, but for many long-time residents ...

Despite this, it appears the policy work group consulted only "local dairy operator expertise" and "local dairy technical service provider expertise." The work group did not consult area residents, the impacted community, or public health and environmental experts.

As you are aware, it is the policy of the YRCAA to "secure and maintain levels of air quality" that will not only "protect human health and safety and prevent injury to plant and animal life and property," but also to "*cooperate with the local governments, the Yakama Nation, organizations or citizens on air quality matters.*" Regulation 1 of the YRCAA, Section 1.03 (A) 1,2, and 11 (March 2000).

It is unclear as to how consulting only with the regulated industry to draft its own regulations furthers this policy objective.

Response: First, in addition to the end users of the policy, also involved were two scientists with direct expertise in air emissions from dairies. Second, the policy was written by the YRCAA Air Pollution Control Officer. Third, as of December 27, 2010, comments received during the public comment period have resulted in significant changes in policy text. Lack of trust in the policy-making process is not with the influence of YRCAA. Trust is a belief born of experience and those which are most critical have little or no experience with YRCAA. Fourth, neither this pilot project policy, nor the final policy is a regulation.

Comment #22.C1 Further, it is the role and responsibility of the Board of Directors to "consult, cooperate, or contract with other agencies, departments, educational institutions, governments, and *interested persons or groups.*" Id. at 1.05 (B) 11. By not cooperating and consulting with citizens and other interested persons or groups aside from the dairy industry in the development of the Draft Policy, the Board has excluded those persons who prompted this action.

The Board has clearly failed in its responsibility to consult, cooperate, or contract with other agencies, departments, educational institutions, governments, and interested persons or groups in developing said policy. The Board has also failed to meet its responsibility to cooperate with the local governments, the Yakama Nation, organizations or citizens on air quality matters.

No Response

Comment #22.B3 By this letter, we formally request that the YRCAA retract the Public Notice for the Draft Air Quality Management Policy and BMPs for Dairy Operations and reconvene the policy workgroup.

Response: Request denied.

Comment #22.B4 The policy workgroup should be reconvened to consult with an equal number of representatives from the public health and environmental communities, affected citizens, and interested persons or groups as dairy industry consultants.

Response: YRCAA disagrees.

Comment #22.C2 The YRCAA should seek input from these stakeholders and make revisions to the Draft Policy based on this input prior to reissuing the Public Notice.

No Response

Commenter #23

According to your draft policy statement, the purpose of this policy is to "provide guidance for effective prevention and control of air contaminant emissions at Dairy Operations." (p. 3)

Comment #23.A1 In order to do this, one would presume that BMP's would be suggested, applied, and then the emissions would be monitored to determine if the BMPs did, indeed, "provide guidance for effective prevention and control of air contaminant emissions at Dairy Operations." (p. 3)

In fact, the draft goes on to say that this process will "achieve prevention and control of emissions by describing a menu of operation and pollutant-specific best management practices (BMPs) for Dairy Operations [and] ..inform [dairy] owners and operators on effective prevention and control of emissions and provide a means by which Dairy Operations can demonstrate that they are taking reasonable precautions to protect the air quality in Yakima County. (page3)

Response: A presumption that effective air monitoring of fugitive emissions is feasible is fallacious.

Comment #23.A2 Clearly, none of this can be accomplished if the results of the actual application of BMPs are not monitored.

However, instead of incorporating an emissions monitoring regime into this draft policy, and instead of dealing with "the possible health effects of air emissions from dairy operations" which, you have explicitly stated, is the rationale for this exercise, on page B-5 you use the claim that "estimates of odor inventories are not currently possible" (B-5) to avoid instituting a monitoring regime in this proposed policy.

Response: A presumption that effective air monitoring of fugitive emissions is feasible is fallacious.

Comment #23.A3 The health effects of dairy emissions are related to ammonia, hydrogen sulfide, and a number of other constituents, all of which can be monitored very accurately and are monitored very accurately in many other areas of the United States. I would call your attention to Cerex Corporation which manufactures instruments that do this type of monitoring. Their instruments are in use today in many industrial applications monitoring precisely the same constituents that, in dairy emissions, pose a health hazard to the neighbors of the dairy.

Response: Such instruments are useful in determining whether or not a pollutant is present. However, for measuring the rates of fugitive emissions, they are useless.

Comment #23.C1 The draft's claim about the difficulty of measuring odor is being used, in a very transparent way, as a straw man to avoid any other monitoring of dairy emissions.

No Response

Comment #23.C2 This remarkable lack of curiosity about the measurable constituents of dairy odor on the part of an agency that bills itself as a "Regional Clean Air Agency" allows those harmful constituents to be spread to the neighbors of the dairy where they can constitute a health hazard and where they do constitute a trespass on the private property of the neighboring

owners. If these types of emissions occurred in an urban area, no one would tolerate them. In fact, a number of Cerex machines are currently used to monitor oil and chemical plants in close proximity to urban areas--in real time--to insure that harmful emissions are not released in these areas.

No Response

Comment #23.A4 Section B follows this misleading use of odor with a flawed discussion of several BMPs, in each case conveniently omitting those things that would actually control emissions. For example:

- .a The list of BMPs is nothing different than what is done right now and the dairies still produce huge emissions of odorous gases.

Response: YRCAA disagrees.

- .b The list ignores the difference between dry manure and wet manure systems.

Response: YRCAA disagrees.

- .c The BMP that suggests regular removal of manure from the barns completely ignores where that manure goes after removal and what emissions result from that choice of storage.

Response: Agreed.

- .d The windbreak BMP does not acknowledge the time required to grow a tree-line (the most popular form of windbreak in the bread-basket states) or where the windbreak would be located to (a) allow for dilution of air pollutants inside the bam (ventilation) and (b) to cause the exhausted air pollutants from the bam to go somewhere other than the neighbors house.

The only real way to achieve (b) is to capture the gases and shoot them up an exhaust stack. But how do you capture gases from a bam with no walls or an open feedlot? You don't.

Response: Agreed.

- .e The BMP to cover odorous feeds such as silage and fermented feedstuffs is just stupid. You can't ferment something unless it is covered. The silage HAS to be covered to prevent exposure to oxygen so it won't spoil and grow mold.

Response: Disagree.

- .f The BMP to maintain the surface moisture content of drylot pens at or below 26% to minimize odor completely ignores the fact that the worst smelling manure systems are lagoons that are submerged in water 24/7 and also ignores the fact that neither the owner of the facility nor the BMP checker could reliably measure the moisture content of a whole dry-lot pen - but they could easily wander around a find a spot where moisture was less than 26%.

Response: Agreed.

- .g The BMP to cover lagoons or allow a natural crust to form on top of the lagoon surface ignores the fact, already well established, that the dairy industry simply refuses to pay to cover their lagoons and won't pay to cover their lagoon unless they get a government subsidy to do so.

Response: No response.

And on it goes.

Comment #23.C3 The problem here is quite obvious-you have a system of dairy production that is responsible for dangerous emissions that pose a health hazard to people around the dairies. But you also have no political will to fix the problem. So you propose a system of BMPs that is already in use and is already failing to control the problem. And then you set up a straw man to justify not monitoring your new initiative to so you won't have data on how badly it failed. This misguided and unfortunate exercise needs to be called exactly what it is-a sham.

No Response

From: [Berkey, Jacob \(ECY\)](#)
To: [Caudill, Anya \(ECY\)](#)
Subject: FW: Yakima SIP
Date: Thursday, May 20, 2021 11:57:43 AM
Attachments: [YRCAA Hx Attachment K Misinterpreted Laws, Rules, Regulations.docx](#)
[YRCAA Hx Attachment J Timeline for YRCAA.docx](#)
[YRCAA Hx Attachment I Dear Director Bellon V-signed March 2019.pdf](#)
[YRCAA Hx Attachment H Dear Director Bellon III-signed.pdf](#)
[YRCAA Hx Attachment G Response to Literature Review.docx](#)
[YRCAA Hx Attachment F WA Dairy Commission Literature Review.pdf](#)
[YRCAA Hx Attachment E Ammonia Levels in Yakima County FOTC.pdf](#)
Importance: High

Hi Anya,

I have added these additional appendices to the comment to eComments. Apologies for the delay.

JB

From: Jean Mendoza
Sent: Friday, April 23, 2021 5:47 PM
To: Berkey, Jacob (ECY)
Subject: Yakima SIP

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link

Dear Mr. Berkey,

Just now I submitted comments on the Yakima County SIP along with four attachments. Here are the other seven attachments.

Thanks

Jean Mendoza

Jean Mendoza

Attachments from email



Whatcom Conservation District

6975 Hannegan Road, Lynden, WA 98264 Phone: (360) 354-2035 x 3 Fax: (360) 354-4678
e-mail: wcd@whatcomcd.org

August 2, 2013

Washington Dairy Products Commission
Washington Dairy Center
4201 198th St. SW
Lynnwood, WA 98036

Attn: Janet Lester and Celest Piette
RE: Scientific literature review

Dear Washington Dairy Products Commission,

As per your request, I have conducted a non-bias, scientific review of the best available literature assessing the potential for human health effects due to the application of dairy manure during times of burn bans in the Yakima Basin. That review, entitled "*Review: Summary of the Existing Science Regarding Public Health Effects from the Spreading of Dairy Manure, With an Emphasis on Effects in Eastern Washington and the Yakima Basin*" is enclosed.

My overall finding and professional opinion is that based on scientific principles, understanding, and review of available literature, that there is no validity to disallowing manure application during times of burn bans. Furthermore, the literature does not support the conclusion that dairy manure applied at agronomic rates to farm fields is a significant hazard to community health in the Yakima region. With the use of best management practices, any potential concerns with air pollutants from manure application can be actively mitigated to avoid potential transport to neighboring areas.

Please feel free to contact me at any time for follow up, expansion, or question of any of the information or opinion provided.

Respectfully,

Nichole M. Embertson, Ph.D.
Nutrient Management and Air Quality Specialist
Whatcom Conservation District
O: (360) 354-2035 x 126

Enclosed: "*Review: Summary of the Existing Science Regarding Public Health Effects from the Spreading of Dairy Manure, With an Emphasis on Effects in Eastern Washington and the Yakima Basin*"

cc: Jay Gordon and Dan Wood, Washington State Dairy Federation

Review: Summary of the Existing Science Regarding Public Health Effects from the Spreading of Dairy Manure, With an Emphasis on Effects in Eastern Washington and the Yakima Basin

August 2, 2013

Nichole M. Embertson, Ph.D.
Nutrient Management and Air Quality Specialist, Whatcom Conservation District

Purpose and Scope

Community members in Yakima, WA raised concerns over perceived health implications of emissions from application of dairy manure during burn bans in the Yakima Basin. They have requested that spraying or spreading of manure (all livestock species) be disallowed during times of burn bans. It is postulated that the community members believe that there is a link between burn bans, manure application, and community health. The purpose of this review and professional assessment is to examine this postulation and assess its validity.

The scope of this review focuses only on dairy and dairy manure. Additionally, this review only looks at the emissions from the application of dairy manure to crop land, not emissions from the dairy operations themselves (i.e., housing, manure storage, etc.).

Summary Opinion

It is the assessment of this reviewer, based on scientific principles, understanding, and review of available literature, that there is no validity to disallowing manure application during times of burn bans. Furthermore, the literature does not support the conclusion that dairy manure applied at agronomic rates to farm fields is a significant hazard to community health in the Yakima region. With the use of best management practices, any potential concerns with air pollutants from manure application can be actively mitigated to avoid potential transport to neighboring areas.

Overview of Yakima Dairy Manure Application Practices

The dairy industry in the Yakima Basin area of Washington State is composed of primarily large scale (average size is 1,200 milk cows) drylot operations. Manure is handled as a liquid when collected from freestall barns, milking parlors, and/or feed alleys and stored in single or multiple stage lagoon systems. Often times the collected liquid manure is sent through a solid separation process where solids are removed from the liquid stream and stockpiled, composted, or dried. The majority of liquid manure is stored and then used on farm as a fertilizer product for crops. Solid manures are recycled on-farm as stall bedding, exported off farm (the majority, >80%, is exported to other agricultural industries), or applied to farm fields. Following best practices, the majority of manure is applied to fields at agronomic rates using crop appropriate technologies. In the Yakima Basin, the primary crop rotation for dairy fields is a winter triticale/corn silage rotation. Other common crops grown in dairy production are corn, alfalfa, sudan grass (in rotation), and/or timothy hay. The crop type will dictate the manure application schedule and application technology. For the triticale/corn rotation, which comprises the majority of dairy

based crop land (>75%), manure is applied via injection (liquid) or incorporation (solids) prior to corn planting, and a drop hose irrigation or drag hose surface application of liquid manure to triticale. For triticale, application is generally conducted once in late Feb/early March and post cutting in April with dilute manure (low concentration) using a low-pressure drop hose system. For corn, a heavy application is conducted just prior to planting in May/April using injection or incorporation and a second application using dilute manure in June. A post-harvest, pre triticale planting application is conducted using no-till liquid application technologies in September/October. Forage crops (excluding alfalfa) are usually applied to after each cutting (Feb/Mar, July, and Sept) throughout the growing season using drop hose irrigation or near-surface application technology. A small percentage (<5%) of other crops and less desirable application technologies such as honey wagons (tanks) and Big Gun sprinklers are used for application, but the land acreage applying these technologies is small (<3%). All dairy operations must apply nutrients (i.e., manure) according to their Dairy Nutrient Management Plan which outlines agronomic guidance and application restrictions. Restrictions include when not to apply (i.e., wind >10 mph, inversions, high temperatures, etc.), what local criteria (i.e., schools, neighbors, wells, etc.) and setbacks need to be taken into consideration when applying, and best methods for reducing nutrient losses via volatilization.

This information on application timing and technology is vital in assessing the potential emissions from land application of manure. Different technologies can vary in volatilization losses by 50% (i.e., Big Gun verses injection), and timing influences the degree to which emissions may occur due to meteorological conditions (i.e., temperature, wind speed, etc.). In general, the technologies, timing, and application restriction guidance followed by the majority of dairy operations in Yakima meet the best management practices guidelines encouraged by University guidance and research for maximum reduction of emissions during application for ammonia, dust and odor (Smith et al., 2009; Webb et al, 2010; Rotz et al., 2011; Brandt et al., 2011).

Burn Bans and Manure Application

Conditions that constitute a burn ban are defined in RCW 70.94.473, but typically a burn ban is put into effect when atmospheric conditions are predicted to cause fine particulates (PM_{2.5}) in the atmosphere to exceed a specified value due to decreased mixing and subsequent stagnation of air. Burn bans are instated to protect area residents from the negative health effects of an increase in particulates in the local atmosphere. On assessment of burn bans in Yakima within the previous five years (2008-2013), it is observed that the majority of burn bans occur during the winter months (October-February) when seasonal temperature inversions are common, or during the height of fire season (August) when atmospheric particulates are increased due to wildfires and air stagnation is possible. The Department of Ecology (ECY) lists woodstoves as the number one contributor to burn bans in the winter months, and wildland fires in the summer due to PM_{2.5} production; conclusions which are supported in other, similar regions (Ward and Lange, 2009). Agricultural practices, such as manure application, which does not typically occur outside of the growing season during the winter months, do not directly contribute PM_{2.5} to the atmosphere. Rather emissions from manure and nitrogen-based chemical fertilizers are considered a precursor to PM_{2.5} when ammonia from applied nitrogen volatilizes and comes in contact with available nitrous and sulfuric acid gases that are released into the atmosphere from vehicles and combustion processes (NO_x and SO_x) to form fine particulates through chemical reaction.

Depending on atmospheric conditions and geographic location, this pathway contributes less than 10% of the total secondary PM_{2.5} production in the atmosphere (Hristiv, 2011).

In Yakima, the amount of ammonia volatilized in the winter from dairy manure application is comparatively very low. This is due to multiple factors. Primarily, manure is not typically applied from November to February to the crops grown in dairy production in Yakima, WA. When manure is applied, ammonia volatilization is variable based on manure type and concentration, application technology (losses range from 5% (injection or incorporation) to 50% (non-incorporated, surface applied) (AWMFH, 1998)), and weather conditions, particularly wind speed and precipitation (Misselbrook et al, 2005). Based on the typical manure application practices in the Yakima basin, the loss rate for ammonia during times of winter burn bans will be very low. Additionally, production of dust and odor will also be low in the winter months based on application technology type (irrigation type) and soil moisture (high) (Brandt et al., 2011). Ammonia volatilization is significantly reduced during cold weather due to a thermal reduction in biological and chemical processes in manure and the soil. Manure application and volatilization potential will increase during the hot summer months and losses will be greater due to converse factors, but burn bans outside of wildfires are not typical due to a lack of determinant meteorological conditions.

Emissions from Manure Application

Dairy manure is composed of a ratio of macro and micro nutrients. The primary ones being organic nitrogen, ammonia nitrogen, phosphorous, potassium, minerals, other organics, and pathogens such as fecal coliform. From an air quality perspective, the primary concerns are with forms of nitrogen that can volatilize (ammonia), hydrogen sulfide produced during anaerobic storage of liquid manure, dust and bioaerosols from dry manures, and odorant compounds. The emission rate and concentration of each of these compounds is highly variable based on the type of manure (liquid, soil, compost), upstream manure management practices, manure application technology (i.e., fertigation, drop hose pressure, injection, surface application, aeration, etc.), meteorological conditions (i.e., wind speed, ambient temperature, relative humidity, etc.), soil temperature moisture and pH, vegetative surface cover, time of year in crop cycle, and more.

In relation to human health concerns and dairy manure application, the primary emissions we will look at are ammonia, coarse particulate matter (dust), and odor.

Ammonia and PM_{2.5}. Ammonia is produced from applied manure when conditions such as temperature, pH, and oxygenation allow hydrolysis of urea (in urine) and urease (in feces and soil) to form ammonia gas. For land applied manure, this reaction is catalyzed by the increased surface area and exposure of manure to aerobic conditions on the soil surface. Ammonia volatilization typically peaks within hours to days of application depending on manure type (solid versus liquid), application technology, and meteorological conditions (i.e., wind speed, temperature, precipitation, etc.) (Amon et al., 2006; Hristov et al., 2009; Leytem and Dungan, 2009). Compared to manure, chemical based nitrogen fertilizers, used in almost all other agricultural cropping systems, can have a higher ammonia volatilization potential when not applied properly.

When in gaseous form, ammonia has a relatively short lifespan of a few hours and usually deposits near its source via wet (rain) or dry deposition depending on meteorological conditions. While manure does not directly produce PM_{2.5}, while still suspended in the atmosphere,

ammonia from manure can react with nitrous and sulfuric acids produced from vehicle and combustion processes (NO_x and SO_x) to chemically form PM_{2.5}.

Dust (PM₁₀). Course particulate matter (PM₁₀), often times referred to as dust, is produced when mechanical action breaks down solid particles into smaller, mobile sizes. Dust is composed of a variety of compounds based on its nature and origin (i.e., soil, manure, etc.). Most course PM will settle out close to its origin depending on factors such as particle size, wind speed and direction, relative humidity, and temperature. The potential for production of airborne course dust from applied manure comes from dry/solid manures, compost, and aerosolized liquids and depends on the moisture content, application method, and particle size. In general, most studies show that the general trend is for a reduction in dust and bioaerosol concentration with distance from the source (Dungan, 2010). Transport of PM₁₀ can vary from a distance of 40 feet with liquid manure application with a “Big Gun” sprinkler, while other methods such as a tank spreader failed to have transport up to 10 feet and injection showing no transport at all (Hutchison et al., 2008). Dry manure may transport to greater distances depending on wind speed and manure characteristics such as moisture and particle size. In general, application methods that have a larger droplet size or inject or incorporate manures, will have a low prevalence of creating dust and subsequent airborne bioaerosols (Millner, 2009). Studies have shown that odors, gases, and biological material can be attached to airborne course PM (Cambria-Lopez et al., 2010). However, while biologically derived aerosols (bioaerosols), such as fecal and bacterial origin dust, may be present in manure applied to fields, survivability of pathogens through the manure storage period, treatment, and application process is low (McGarvey et al., 2004; Ravva et al., 2006; Grewal et al., 2006). Factors such as decreased relative humidity, increased temperature, and high solar irradiance, common conditions in the Yakima Region, as well as and increased oxygenation greatly reduce the survivability of microorganisms in applied manure (Dungan, 2010). The typical source of dust from agricultural practices comes from housing, grain harvesting, and airborne soil particles from tillage and traffic over dry and/or fallow crop fields rather than manure application (Lee et al., 2006). Dust emanating from these sources is regulated and must be limited via reasonable best management practices.

Odor. Odor is typically referred to as a nuisance pollutant, rather than criteria pollutant, because it is not characterized as a direct threat to public health by EPA and therefore not federally regulated. There is no argument that manure has an odor to it. However, characterization of the odor is very difficult. This is because odor is a highly variable compound composed of sometimes hundreds of individual odorants/compounds. The odor profile and intensity of a manure will vary depending on many factors including animal diet, manure handling practices, manure type, application technology, and ambient conditions (i.e., temperature, relative humidity, etc.). In addition, the offensiveness of and reaction to an odor will significantly differ between individuals making characterization difficult (Schiffman, 1998; Schiffman et al., 2004; Schiffman and Williams, 2005). Therefore, instead of discussing odorants as an individual air pollutant, we tend to talk about the major constituents of odors and address those directly such as ammonia, hydrogen sulfide, or volatile organic compounds (VOC).

Manure Application and Health Effects

All of the pollutants emitted by manure have the potential to effect human health, but the thresholds and concentrations at which those impacts can occur are typically very low away from their source. While there is a large database of studies related to the health effects of agricultural practices on farm workers, very few studies are available on the direct health effects of dairy

manure application on surrounding communities. In fact, a comprehensive review of scientific studies conducted by O'Conner et al. (2010) looked at the associations between animal feeding operations and measures of health of individuals living near animal feeding operations and found that there were very few applicable studies (0.2%) and no compelling evidence for a consistent, strong association between the clinical measures of disease and proximity to animal feeding operations. Additionally, the majority of studies conducted look at the emissions from the operational and housing facilities, not land application. The lack of relevant studies stems from the difficulty of conducting a scientifically relevant health related study that looks at multiple facilities and community areas, is long term, and is statistically relevant and replicable. Additionally, a study surveying quality of life characteristic of residents living near and far from animal feeding operations concluded that emotional considerations, not physiological ones, played a large part in perception of the impact of those facilities on health (Schmalzried and Fallon, 2007). Of the few relevant studies available, most are largely inconclusive and/or found no direct, replicable connection between farm exposure and health effects (Merchant et al., 2004; Heederik et al., 2007; Murayama et al., 2010). In fact, a study examining the exposure of residents in the Yakima Valley to airborne cow allergen, ammonia and PM found concentrations magnitudes below the Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH) standards for exposure limits (Williams et al., 2011). In some cases, children born on farms with constant exposure have lower incidences of diagnosed allergies than non-farm raise children (Merchant et al., 2004).

Pollutant Exposure Limits

In order to protect people from the detrimental effects of pollutants, the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) have created exposure limits for different categories of people. Of the pollutants of concern with land application of manure, only ammonia and coarse dust have exposure limits. Odor does not have an exposure limit because it is compiled of a variety of different compounds, each with its individual exposure limits when applicable.

Ammonia. Due to the side effects of ammonia exposure, the American Conference of Governmental Industrial Hygienists (ACGIH) and National Institute for Occupational Safety and Health (NIOSH) has recommended an 8 hour maximum exposure limit of 25 ppm to protect against the chronic effects of ammonia exposure for those working in close proximity, such as on-farm workers. A 15 min short term exposure limit of 35 ppm has been established by ACGIH and also adopted by OSHA to reduce irritant effects of ammonia exposure (i.e. eye and upper respiratory tract irritation). Due to possible cumulative health effects over time, the recommended daily long term occupational exposure limit of ammonia for agricultural workers is 7 ppm (Donham et al., 2000) , and 300 parts per billion (ppb) for community exposure (this accounts for sensitivity in the elderly and infants) (Merchant et al., 2003). Downwind measures of ammonia from applied manure rarely exceed concentrations in parts per billion (ppb) (Williams et al., 2011) and will vary greatly based on application practices, as has been discussed.

Dust (PM₁₀). The health concern over dust is from direct respiration. Permissible 8-hour exposure limits to total dust is 15 mg/m³ (CAL/OSHA). No threshold limits have been set for bioaerosols in manure. If present in manure, bioaerosols have the potential to be transported from land applied liquid and dry manures. The transport distance will vary depending on wind speed, wind direction, relative humidity, temperature, manure application equipment type, and manure type (Dungan, 2010; Dungan and Leytem, 2011). Typically, the number of pathogens in the

manure decreases with storage length or treatment, or are killed upon exposure to temperature, sunlight and/or oxygen at application (McGarvey et al., 2004; Ravva et al., 2006; Grewal et al., 2006; Hutchison et al., 2008; Dungan, 2010), thus limiting the potential for transport during manure application.

Odor. The emission that has the strongest self-reported dose response is to odor; yet clinical measures showed no consistent association between odor concentration and reported symptoms (O'Conner et al., 2010), and no exposure limits are imposed for general odor (some individual odorants do have exposure limits). This is characteristic of psychophysiological response to odorants (i.e., the odorant compounds stimulate receptors in the nasal cavity which ultimately lead to the brain registering the response and producing a physiological response based on physiological determination). Studies have shown that the brain can produce a variety of various responses to odors based on the sensation/perception of the odor, and the chemical nature of the odorant (Schiffman et al., 2004), which makes addressing odor complaints very difficult. Common symptoms and complaints from exposure to odorants range broadly from watery eyes, throat irritation, headache, to nausea (Schiffman, 1998). The response rate by an individual will vary greatly based on previous exposure, learned behavior/association, perception of the effect of odorant (adaptation (reduction in response rate over time) versus sensitization (increase in response rate over time)), and general well-being (Schiffman, 1998; Schiffman et al., 2004; Schiffman and Williams, 2005). In many cases, individuals will report adverse effects of odorants well below the levels that cause irritation or toxicological symptoms (Schiffman and Williams, 2005).

Conclusion

Limited data is available on the direct effects of land application of dairy manure on public (not worker) health, but data extrapolated from studies looking at emission rates of ammonia, dust (including bioaerosol), and odor from land application methods, OSHA/NIOSH exposure limit thresholds, and dairy manure application practices in Yakima, concludes that there is likely no significant benefit to public health from exclusion of land application of dairy manure in the Yakima Region, particularly during burn bans. Of the emissions from land applied dairy manure that have the potential to effect local atmospheric conditions and communities, only ammonia is of significance due to its potential to react with nitrous and sulfuric acids in the atmosphere to chemically form PM_{2.5}. Of lesser significance is coarse particulate matter and odor which tend to be either low due to the moisture content and application methods of manure or not a substantiated threat to human health in the Yakima Region, respectively. It is recommended that the use of best available land application practices continue to be employed with land applying dairy manure in the Yakima Region to reduce any excess emissions.

References

- AWMFH. 2008. Agricultural Waste Management Field Handbook. USDA-NRCS. 201-VI-AWMFH.
- Amon, B., V. Kryvoruchko, T. Amon, and S. Zechmeister-Boltenstern. 2006. Methane, nitrous oxide and ammonia emissions during storage and after application of dairy cattle slurry and influence of slurry treatment. *Agr. Ecosyst. Environ.* 112:153-162.
- Baker, J.B., R.J. Southard, J.P. Michelle. Agricultural Dust Production in Standard and Conservation Tillage Systems in the San Joaquin Valley. *J. Environ. Qual.* 34:1260-1269.
- Brandt, R.C., H.A. Elliott, M.A.A. Adviento-Borbe, E.F. Wheeler, P.J.A. Kleinman, and D.B. Beegle. 2011. Field Olfactometry Assessment of Dairy Manure Land Application Methods. *J. Environ. Qual.* 40:431-437.
- Cambra-Lopez, M., A.J.A. Aarnink, Y. Zhao, S. Calvet, and A.G. Torres. 2010. Airborne particulate matter from livestock production systems: A review of an air pollution problem. *Environmental Pollution.* 158:1-17.
- Donham, K J., D. Cumro, S. J. Reynolds, and J. A. Merchant. 2000. Dose-response relationships between occupational aerosol exposures and cross-shift declines of lung function in poultry workers: recommendations for exposure limits. *J. Occup. Environ. Med.* 42:260-269.
- Dungan, R.S. 2010. Board-Invited Review: Fate and transport of bioaerosols associated with livestock operations and manures. *J. Anim. Sci.* 88:3693-3706.
- Dungan R.S., and A.B. Leytem. 2011. Ambient Endotoxin Concentrations and Assessment of Offsite Transport at Open-lot and Open-freestall Dairies. *J. Environ. Qual.* 40:462-467.
- Ebner, P. 2007. CAFOs and Public Health: Pathogens and Manure. Purdue Extension. ID-356:1-4.
- Grewal, K. S. Rajeev, S. Sreevatsan, and F. Michel. 2006. Persistence of *Mycobacterium avium* subs. Paratuberculosis and other zoonotic pathogens during simulated composting, manure packing, and liquid storage of dairy manure. *Appl. Environ. Microb.* 72:565-574.
- Heederik, D., T. Siggaard, P.S. Thorne, J.N. Kline, R. Avery, J.H. Bonlokke, E.A. Chrischilles, J.A. Dosman, C. Duchaine, S.R. Kirkhorn, K. Kulhankova, and J.A. Merchant. 2007. Health effects of airborne exposures from concentrated animal feeding operations. *Environ. Health Perspect.* 115:298-302.
- Hoppin, J.A., D.M. Umbach, G.J. Kullman, P.K. Henneberger, S.J. London, M.C.R. Alavanja., D.P. Sandler. 2007. Pesticides and other agricultural factors associated with self-reported farmer's lung among farm residents in the Agricultural Health Study. *Occup. Environ. Med.* 64:334-342.
- Hristov, A.N. 2011. Technical note: Contribution of ammonia emitted from livestock to atmospheric fine particulate matter (PM_{2.5}) in the United States. *J. Dairy. Sci.* 94:3130-3136
- Hristov, A.N., S. Zaman, M. Vander Pol, P. Ndegwa, L. Campbell, and S. Silva. 2009. Nitrogen Losses from Dairy Manure Estimated through Nitrogen Mass Balance and Chemical Markers. *J. Environ. Qual.* 38:2438-2448.
- Hutchison, M.L., S.M. Avery, and J.M. Monaghan. 2008. The airborne distribution of zoonotic agents from livestock waste spreading and microbiological risk to fresh produce from contaminated irrigation sources. *J. Appl. Microbiol.* 105:848-857.
- Lau, A., S. Bittman, and G. Lemus. 2003. Odor Measurements for Manure Spreading Using a Subsurface Deposition Applicator. *J. of Enviro. Sci. and Health.* B38(No. 2):233-240.
- Lee, S., A. Adhikari, S.A. Grinshpun, R. McKay, R. Shukla, and T. Reponen. 2006. Personal Exposure to Airborne Dust and Microorganisms in Agricultural Environments. *Journal of Occupational and Environmental Hygiene.* 3:118-130.
- Leytem, A.B., R.S. Dungan, and D.L. Bjorneberg. 2009. Case Study: Seasonal and Spatial Distribution of Ambient Ammonia Concentrations Measured at a Large Open-Lot Dairy. *The Professional Animal Scientist.* 25:786-793.

- McGarvey, J.A., W.G. Miller, S. Sanchez, and L. Stanker. 2004. Identification of bacterial populations in dairy wastewaters by use of 16S rRNA gene sequences and other genetic markers. *Appl. Environ. Microb.* 70:4267-4275.
- Merchant, J. A., J. Kline, K. J. Donham, D. S. Bundy, and C. J. Hodne. 2003. Human health effects. p.121-145. *In* Iowa concentrated animal feeding operation air quality study. University of Iowa, Ames, Iowa.
- Merchant, J.A., A. L. Naleway, E.R. Svendsen, K.M. Kelly, L.F. Burmeister, A.M. Stromquist, C.D. Taylor, P.S. Thorne, S.J. Reynolds, W.T. Sanderson, and E.A. Chrischilles. 2004. Asthma and farm exposure in a cohort of rural Iowa children. *Environ. Health Perspect.* 113:350-356.
- Millner, P. 2009. Bioaerosols associated with animal production operations. *Bioresource Technol.* 100:5379-5385.
- Mirabelli, M.C., S. Wing, S. W. Marshall and T. C. Wilcosky. 2006. Asthma symptoms among adolescents who attend public schools that are located near confined swine feeding operations. *Pediatrics.* 118:e66.
- Misselbrook, T.H., F.A. Nicholson, and B.J. Chambers. 2005. Predicting ammonia losses following the application of livestock manure to land. *Bioresource Technol.* 96:159-168.
- Murayama, M., Y. Kakinuma, Y. Maeda, J.R. Rao, M. Matsuda, J. Xu, P.J.A. Moore, B.C. Millar, P.J. Rooney, C.E. goldsmith, A. Loughrey, M. Ann S. McMahon, D.A. McDowell, and J.E. Moore. 2010. Molecular identification of airborne bacteria associated with aerial spraying of bovine slurry waste employing 16S rRNA gene PCR and gene sequencing techniques. *Ecotoxicology and Environmental Safety.* 75=3:443-447.
- Ngo, M.A., K.E. Pinkerson, S. Freeland, M. Geller, W. Ham, S. Cliff, L.E. Hopkins, M.J. Kleeman, U.P. Kodavanti, E. Meharg, L. Plummer, J.J. Recendez, M.B. Schenker, C. Sloutas, S. Smiley-Jewell, C. Haas, J. Gutstein, and A.S. Wexler. 2010. Airborne particles in the San Joaquin Valley may affect human health. *California Agriculture.* 64:12-16.
- O'Connor, A.M., B. Auvermann, D. Bickett-Weddle, S. Kirkhorn, J. M. Sargeant, A. Ramirez, and S. G. Von Essen. 2010. The association between proximity to animal feeding operations and community health: A systematic review. *PLoS ONE.* 5(3):e9530.
- Osornio-Vargas, A.R., J. Serrano, L. Rijas-Bracho, J. Miranda, C. Garcia-Cuellar, M.A. Reyna, G. Flores, M. Zurk, M. Quintero, I. Vazquez, Y. Sanchez-Perez, T. Lopez, and I. Rosas. 2011. In vitro biological effects of airborne PM_{2.5} and PM₁₀ from a semi-desert city on the Mexico-US border. *Chemosphere.* 83:618-626.
- Purdy, C.W., R.N. Clark, and D.C. Straus. 2009. Ambient and indoor particulate aerosols generated by dairies in the southern High Plains. *J. Dairy. Sci.* 92:6033-6045.
- Ravva, S.V., C.Z. Sarreal, B. Duffy, and L.H. Stanker. 2006. Survival of *Escherichia coli* O157:H1 in wastewater from dairy lagoons. *J. Appl. Microbio.* 101:891-902.
- Rotz, C.A., P.J.A. Lkeinman, C.J. Dell, T.L. Veith, and D.B. Beegle. 2011. Environmental and Economic Comparisons of Manure Application Methods in Farming Systems. *J. Environ. Qual.* 40:438-448.
- Schiffman, S.S. 1998. Livestock odors: implications for human health and well-being. *J. Anim. Sci.* 76:1343-1355.
- Schiffman, S.S. and C.M. Williams. 2005. Science of odor as a potential health issue. *J. Environ. Qual.* 34:129-138.
- Schiffman, S.S., J.M. Walker, P. Dalton, T.S. Lorig, J.H. Raymer, D. Shusterman, and C.M. Williams. 2000. Potential health effects of odor from animal operations, wastewater treatment, and recycling of byproducts. *J. Agromed.* 7:7-81.
- Schmalzried, H.D. and L.F. Fallon Jr. 2007. Large-Scale Dairy Operations: Assessing Concerns of Neighbors About Quality-of-Life Issues. *J. Dairy Sci.* 90:2047-2051.
- Smith, E., R. Gordon, C. Bourque, A. Campbell, S. Genermont, P. Rochette, and M. Mkhabela. 2009. Simulated management effects on ammonia emissions from field applied manure. *J. Environ. Man.* 50:2531-2536.
- Ward, T. and Lange, T. 2009. The impact of wood smoke on ambient PM_{2.5} in northern Rocky Mountain valley communities. *Environmental Pollution.* 158:723-729.
- Webb, J., B. Pain, S. Bittman, and J. Morgan. 2010. The impacts of manure application methods on emissions of ammonia, nitrous oxide and on crop response-A review. *Agriculture, Ecosystems and Environment.* 137:39-46.

Williams, D.L., P. N. Breysse, M. Cc McCormack, G. B. Diette, S. McKenzie, and A. S Geyh . 2011. Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment. *Environ. Health*. 10:72.

Yates, S.R., L.L. McConnell, C.J. Hapeman, S.K. Papiernik, S. Gao, and S.L. Trabue. 2011. Managing Agricultural Emissions to the Atmosphere: State of the Science, Fate and Mitigation, and Identifying Research Gaps. *J. Environ. Qual.* 40:1347-1358.

Study Finds Elevated Ammonia Levels at Lower Yakima Valley Site Near Large CAFO Dairies

May 10, 2019

The Friends of Toppenish Creek (FOTC) share with the public the results of yearlong air testing for ammonia at a site in the Lower Yakima Valley (LYV) near a large concentrated animal feeding operation (CAFO) dairy. The study was paid for with a grant from Legends Casino and private donations.

The FOTC study measured average ammonia levels for two week periods from February, 2018 to February, 2019. Due to the type of sampling we do not know the peak ammonia levels. Control samples were measured at a site in the Upper Yakima Valley, far from any CAFOs. The average of all LYV samples in the study exceeded the Minimum Risk Level (MRL) for chronic ammonia exposure.

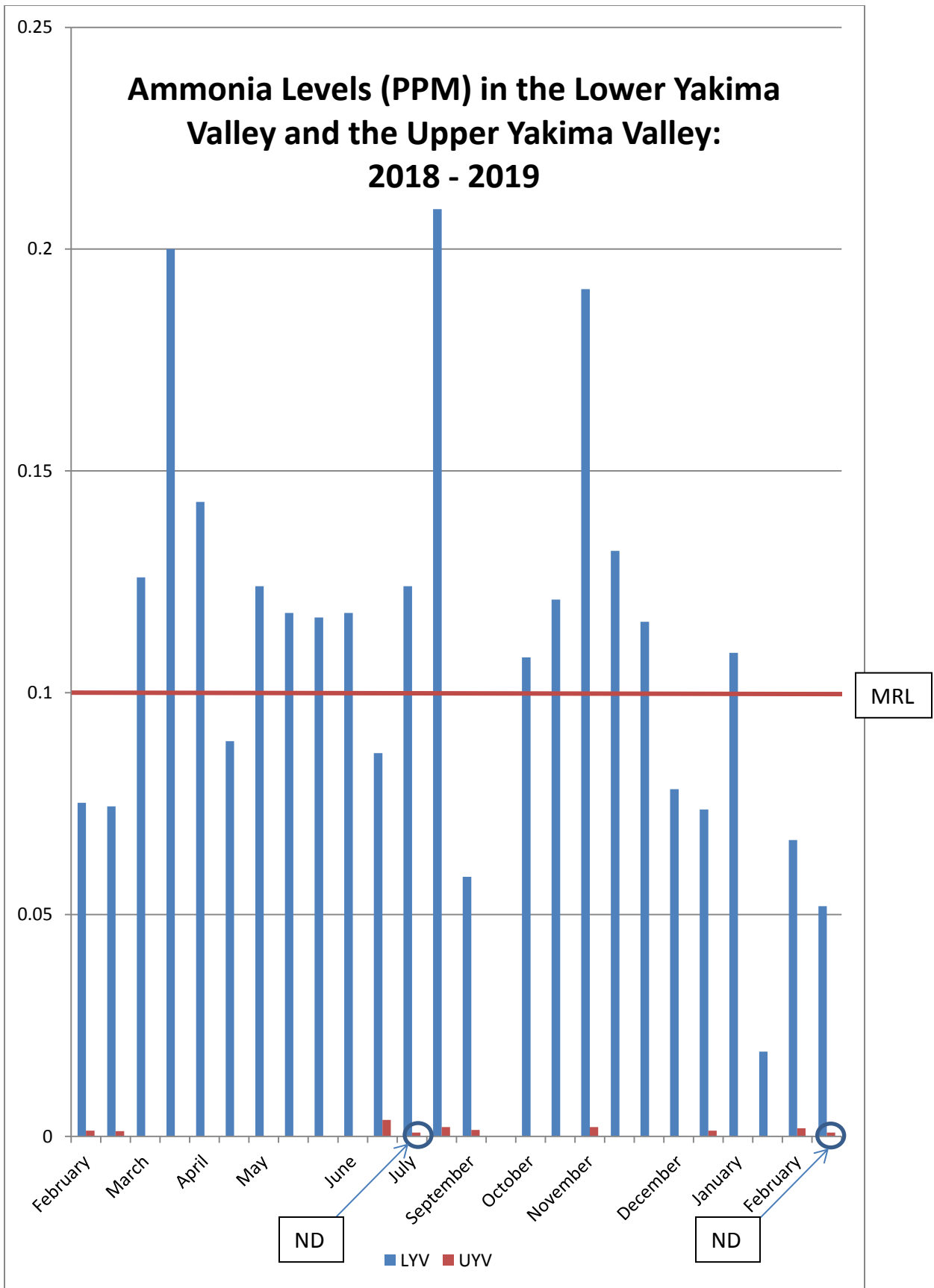
The average of all samples at the LYV site was 0.1092 parts per million (ppm) with a range of 0.0191 ppm to 0.209 ppm. The average of all samples at the UYV site was 0.0016 ppm. Ammonia levels in the lower valley averaged sixty eight times higher than those in the upper valley.

The Agency for Toxic Substances and Disease Registry (ATSDR) at the Center for Disease Control (CDC) has determined that the Minimum Risk Level (MRL) for long term (≥ 1 year) exposure to ammonia is 0.10 ppm. According to the CDC, "An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure."

The FOTC data agrees with findings from a University of Washington study of asthmatic LYV children that found 24 hour ammonia levels ranging from .00027 ppm to .3175 ppm. That study concluded (page 84), "Ammonia may serve as a marker for the complex airborne emissions from CAFOs, and the observed decreases in lung function may have resulted from exposure to one or more co-pollutants with established respiratory system toxicity, such as endotoxin, particulate matter or hydrogen sulfide."

The FOTC data agrees with the results of a Yakima Air Winter Nitrate Study by Ecology that found high levels of ammonia lead to high levels of fine particulate matter in Yakima County. That study stated (page 111), "Given the backdrop of excess gaseous ammonia, there is usually sufficient reactive nitrogen in the valley to produce elevated levels of particulate nitrate if the right meteorological conditions take hold."

Ammonia Levels (PPM) in the Lower Yakima Valley and the Upper Yakima Valley: 2018 - 2019



Date	LYV $\mu\text{g}/\text{m}^3$	LYV ppm	UYV $\mu\text{g}/\text{m}^3$	UYV ppm
2/8/2018	56.4	0.0752	1.0	0.00133
2/22/2018	55.8	0.0744	0.9	0.00120
3/8/2018	94.6	0.126		
3/22/2018	150	0.200		
4/5/2018	107	0.143		
4/19/2018	66.8	0.0891		
5/3/2018	92.8	0.124		
5/17/2018	88.5	0.118		
5/31/2018	87.6	0.117		
6/14/2018	88.3	0.118		
6/28/2018	64.8	0.0864	2.8	0.00373
7/12/2018	93.2	0.124	ND	0.0009
7/26/2018	157	0.209	1.6	0.00213
9/20/2018	43.9	0.0585	1.1	0.00147
10/4/2018	81.1	0.108		
10/18/2018	90.4	0.121		
11/1/2018	143	0.191	1.6	0.00213
11/15/2018	99.1	0.132		
11/29/2018	86.8	0.116		
12/13/2018	58.7	0.0783		
12/27/2018	55.3	0.0737	1.0	0.00133
1/10/2019	82	0.109		
1/24/2019	14.3	0.0191		
2/6/2019	50.1	0.0668	1.4	0.00187
2/20/2019	38.9	0.0519	ND	0.0009

This bar graph depicts ammonia levels gathered by the Friends of Toppenish Creek from a home in the Lower Yakima Valley and a control home in the Upper Yakima Valley in 2018 and 2019. The red horizontal line is the ATSDR Minimum Risk Level of 0.1 ppm.

Data was reported in micrograms per cubic meter. Conversion to parts per million – PPM was performed using the Lenntech Calculator at <https://www.lenntech.com/calculators/ppm/convert-part-per-million.htm>

* For graphing purposes we entered values of .0009 ppm for non-detect (ND) readings in the Upper Yakima Valley on 7/12/2018 and 2/20/2019. The Inter-Mountain Labs reporting limit for ammonia is .0008 micrograms per cubic meter or .00107 parts per million.

Quality Assurance:

The FOTC study used a low-cost, passive, radiello diffusion sampler that was developed by the National Atmospheric Deposition Program (NADP) for their Ammonia Monitoring Network (AMoN). Product data is available at <https://www.sigmaaldrich.com/technical-documents/articles/analytical/environmental/air-sampling-ammoniaradiello.html>

FOTC followed a modified EPA Method 325 sampling protocol. (There was only one site and one control site in our study, while the EPA Method 325 recommends multiple sites.) Temperatures were recorded using WA State Dept. of Ecology web-based data.

Samples were sent in batches to Inter-Mountain Labs in Sheridan Wyoming and analyzed under standard lab protocols. All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories.

One sample, collected on September 6, 2018, showed no readings and was rejected for summary data analysis since this made no sense in this study setting.

References:

ATSDR, U. (2004). Toxicological profile for ammonia. *US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry*. Available at <https://www.atsdr.cdc.gov/toxprofiles/tp126.pdf>

Environmental Protection Agency (2015) Method 325A—Volatile Organic Compounds from Fugitive and Area. Available at <https://www.epa.gov/sites/production/files/2016-07/documents/m-325a.pdf>

Environmental Protection Agency (2015) Method 325B—Volatile Organic Compounds from Fugitive and Area. Available at <https://www.epa.gov/sites/production/files/2016-07/documents/m-325b.pdf>

Loftus, C. (2015c). *Industrial Animal Agriculture in the Yakima Valley, Air Pollution, and Pediatric Asthma Morbidity* (Doctoral dissertation). Available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1

Puchalski, M. A., Rogers, C. M., Baumgardner, R., Mishoe, K. P., Price, G., Smith, M. J., ... & Lehmann, C. M. (2015). A statistical comparison of active and passive ammonia measurements collected at Clean Air Status and Trends Network (CASTNET) sites. *Environmental Science: Processes & Impacts*, 17(2), 358-369. Available at <https://pubs.rsc.org/en/content/getauthorversionpdf/c4em00531g>

VanReken, T., T. Jobson, B. Lamb, H. Liu, and S. Kaspari (2014), The Yakima Air Wintertime Nitrate Study (YAWNS) final report, Washington State Department of Ecology. Available at <https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>



Friends of Toppenish Creek

January 31, 2019

Maia Bellon
Director WA State Dept. of Ecology
PO Box 47600
Olympia, WA 98504-7600
maia.bellon@ecy.wa.gov

Dear Director Bellon,

On June 10, 2016 the Friends of Toppenish Creek asked the WA State Dept. of Ecology to undertake a formal review of the Yakima Regional Clean Air Agency (YRCAA) as authorized by RCW 70.94.405. On August 31, 2016 your office responded with reasons for not conducting a review at that time. This letter is a follow up to your response.

In 2016 Ecology stated:

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 review your concerns.

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.

The Friends of Toppenish Creek have done our best to stay engaged. This is a time consuming task with few successes. We have brought factual information to the table time and again. Our words have been dismissed without any acknowledgement of their validity.

Grandview resident Kathleen Rogers has decided to stop attending meetings of the YRCAA Board of Directors. In October, 2017 she informed the Board:

Dear Sirs,

Something is happening to YRCAA and I'm not sure you are aware of the impact.

Keith Hurley is becoming a dictator not a director. He is dictating who and what can come to you the board by eliminating public comment rights, and also suggesting he is the only one allowed to speak on any subject a citizen may have brought to his attention.

He is no longer allowing Hasan and others to attend or speak. The very science behind this whole organization! It's now being run by a "physical fitness" graduate!

We are better than this, the board is better than this. YRCAA has lost direction, and the reason for its existence.

A \$1,000,000.00 budget was granted for what?

I believe the board needs to take a deep long look at what is happening.

I'll never attend again until I know the citizens can be heard and can participate!

Thank you for your time,

Kathleen Rogers

Ecology listed three sound reasons for not investigating YRCAA in 2016, namely:

- A. The YRCAA has taken actions to address emissions from Yakima Valley dairies*
- B. Air monitoring efforts and scientific studies are underway*
- C. YRCAA has taken steps to address questions concerning possible conflict of interest with the YRCAA Board of Directors*

We will provide recent information on each of these reasons below. But first let us highlight the difference in expectations for the people we try to represent and for those who administer policy from the Cities of Yakima and Olympia.

Last fall there were weeks when the air in the Yakima Valley was not just unhealthy but hazardous to breathe. This was due to wildfires and occurred during harvest. Farmworkers continued to work 16 hour days seven days a week in order to bring in the crops. During

this time Yakima dairies continued to spray manure into the air. Those who “represent the public” sat in their air conditioned offices and suggested that maybe the workers should wear face masks. People with bureaucratic power made decisions that will, in the long run, shorten the lives of those they appear to consider insignificant. This is wrong.

Our technical concerns are outlined below.

Sincerely,

Jean Mendoza

Executive Director, Friends of Toppenish Creek

3142 Signal Peak Road
White Swan, WA 98952

Yakima County Air Quality Issues, the YRCAA and Ecology Response

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

In September, 2018 the YRCAA rescinded the Air Quality Management and Best Management Practices Policy for Dairies. The YRCAA has stopped addressing emissions from Yakima Valley dairies. Here is a timeline of related events:

2002: YRCAA approved Confined Beef Feeding Operations Dust Control Policy

2002: YRCAA approved Confined Heifer Operations Dust Control Policy

2010: YRCAA discussion re AQMP for Dairies begins

2011: YRCAA QMP Pilot project begins – Citizens were excluded from planning

2013: AQMP for Dairies adopted by YRCAA Board – See citizen comments Attachment 30

2014: First AQMP for Dairies Report to YRCAA Board – only two members attended the presentation – See Attachment 31

2015: No Report

2016: No Report

2017: No Report - YRCAA did not follow the AQMP for Dairies Plan; did not inspect dairies as promised - See Attachment 11

2018: AQMP for Dairies rescinded.

See Attachment 32 for additional details.

In short, the YRCAA:

1. Created an AQMP for Dairies that had no air monitoring
2. Did not inspect dairies as promised
3. Did not report to the YRCAA Board of Directors as promised
4. Ignored input from citizens who donated their time on the YRCAA Ag Task Force
5. Provided false information to the YRCAA Board regarding Ag Task Force meeting discussions and citizen statements at those meetings.

Fourteen years ago Les Ornelas, YRCAA Executive Director, speaking to the WSU AD Workshop in Sunnyside, WA stated:

Now, I receive the largest number of odor complaints currently for my jurisdiction against feedlots, dairies, other kinds of chicken farmers, and other sorts of activities

like this. We have people in the field who have been trained to evaluate odors, to be able to discern from a level 1, 2, 3 or 4 (4 typically is the one that causes a gag reflex). We go out and respond to all these numerous complaints every year and we have not yet issued a citation to any of the dairy people on odors in Yakima County, even though we have hundreds and some years over a thousand complaints.

Since Mr. Ornelas made this statement nothing has changed. YRCAA has never issued a citation against a dairy for odor or for emissions that endanger human health. The only citations have been for violation of burn permits.

B. Air monitoring efforts and scientific studies are underway

Ecology cited two pending studies in your letter.

1. A study of air winter nitrates in the Lower Yakima Valley using a monitor in Sunnyside has been completed. The Main Findings in the five page report, *Analysis of Aerosol Nitrate in the Yakima Valley in the Winter of 2015/2016*, are:
 - a. *Average aerosol nitrate levels were lowest in Yakima and highest in Toppenish, with Sunnyside in between*
 - b. *On average, nitrate accounted for about one quarter of the PM 2.5 mass at Yakima and Toppenish, and a third at Sunnyside*
 - c. *Elevated nitrate levels occurred in both valleys simultaneously, on days with high relative humidity, low temperatures and low winds. This suggests common sources of aerosol nitrate precursors in both valleys.*
 - d. *Nitrate levels in the upper valley were slightly higher than the average of the previous 5 winters.*
 - e. *While Yakima experienced slightly lower PM 2.5 than recent years, Toppenish had more PM 2.5.*

Please note that the YRCAA has failed to post either the original YAWN Study or the second study from the LYV on the YRCAA web site. See Attachment 20. FOTC considers this a deliberate attempt to hide important information from the public.

2. In the Fall/Winter of 2014 and the Summer/Fall of 2015 the Agency for Toxic Substances and Disease Registry (ATSDR) conducted air sampling at homes on the Yakama Reservation near concentrated animal feeding operations. Your letter stated that the results of this study were expected in the spring of 2017. It is now near the spring of 2019 and the people of the Lower Yakima Valley are still waiting. FOTC believes that powerful interests have succeeded in preventing the publication of this study. We have submitted a request for information under the Freedom of

Information Act. By the time the data is released it will be nearly five years after the testing and critics will be able to say the data is no longer valid.

Ecology stated in your letter, "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." This is not entirely correct:

1. Williams et al (2011) measured bovine allergens in homes near Yakima County dairies. They found:
These findings demonstrate that dairy operations increase community exposures to agents with known human health effects. This study also provides evidence that airborne biological contaminants (i.e. cow allergen) associated with airborne particulate matter are statistically elevated at distances up to three miles (4.8 km) from dairy operations.
2. Loftus et al (2015a) studied children with asthma in the Lower Yakima Valley. They found:
This study provides evidence that PM2.5 in an agricultural setting contributes to elevated asthma morbidity. Further work on identifying and mitigating sources of PM2.5 in the area is warranted.
3. Loftus et al (2015b) studied children with asthma in the Lower Yakima Valley. They found:
Ammonia concentrations were elevated in this community and strongly predicted by proximity to animal feeding operations. Ammonia's association with acute lung function decrements in children with asthma in the surrounding community may be causal or, alternatively, ammonia may be a marker for other pollutants from animal feeding operations associated with respiratory effects.
4. Joo et al (2015) measured emission of air contaminants from two large dairy barns in the Lower Yakima Valley. The found:
The overall average daily NH₃ emissions ranged from 15.1 to 36.7 g d⁻¹ AU⁻¹ (20.3 to 49.5 g d⁻¹ cow⁻¹) with a mean of 21.6 g d⁻¹ AU⁻¹ (29.0 g d⁻¹ cow⁻¹). Emissions of H₂S, on the other hand, ranged from 0.0 to 1.5 g d⁻¹ AU⁻¹ (0.0 and 2.0 g d⁻¹ cow⁻¹) with a mean of 0.51 g d⁻¹ AU⁻¹ (0.69 g d⁻¹ cow⁻¹).
5. There is abundant research regarding the impact of concentrated animal feeding operations on human respiratory health. See Attachment 32

6. The Friends of Toppenish Creek are currently in the last stages of collecting ammonia samples from a site in the Lower Yakima Valley. We will share the results with Ecology when that study is complete.

In March of 2017 the YRCAA staff presented the YRCAA Board with a \$14,404 proposal to study ammonia levels at four sites in the county. In spite of the fact that five citizens spoke in favor of the project and only the dairy federation spoke against it the project was rejected by the YRCAA Board. One member of the Board, Norm Childress who is now a county commissioner, argued that 'If we find a problem, then we have to do something about it.' Dr. Steven Jones, who earns a significant amount of his income from the dairy industry participated in the discussions and complained that the citizens had made personal attacks against him. See YRCAA Board Meeting Summaries for March & April, 2017.

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

In 2016 the Friends of Toppenish Creek complained to the YRCAA Board of Directors that Board Member Steven Jones has a conflict of interest and should not be allowed to serve on the board or vote on issues related to the dairy industry because he derives a significant portion of his income from dairy. See Attachments 8 & 10

The question was presented to the WA State Attorney General's Office. That office stated that

RCW 70.94.100(6) and WAC 173-400-220(2) do not prevent a board member of an air pollution control authority from holding a position on the board if he/she earns a portion of his/her income from an industrial sector that the board regulates. However, a majority of the members of the board must represent the public interest, and must not earn a significant portion of their income from the industries subject to regulation.

However,

If a board member has a potential conflict of interest, the member may not participate in the matter in which the conflict exists.

And

If a board member has a potential conflict of interest, the member may not vote on an action involving the conflict.

Please know:

1. Dr. Jones was one of two YRCAA board members on the selection committee for a new YRCAA Executive Director in 2016. See Attachment 34
2. Dr. Jones was one of two board members who received the 2014 AQMP for Dairies Report
3. As noted above, Dr. Jones participated in the 2017 discussions regarding testing of the ambient air for ammonia, a known emission from dairy operations
4. Dr. Jones recused himself from discussion of the AQMP for Dairy Operations at the August, 2018 YRCAA Board meeting. But he seconded the board motion to rescind the policy at the October meeting and voted on the measure.

FOTC states here that the YRCAA Directors have placed themselves above the law by permitting these actions. It is extremely difficult to stay engaged with an agency that acts as though they are supreme rulers and have the authority to override federal and state regulations while ignoring the wishes of the people.

In addition to Ecology's three 2016 reasons for delaying action:

D. The Yakima Regional Clean Air Agency has misinterpreted the role of public participation in the Federal and State Clean Air Acts (CAA).

The U.S. Environmental Protection Agency (2018) states:

For regulatory programs, EPA often has discussions early in the rulemaking process with government partners (federal, state, local and tribal) and with interested parties such as affected industries, environmental groups, and communities. After a rule is complete, EPA works with government partners and stakeholders to achieve effective implementation.

But the YRCAA has attempted to prevent Yakima County Citizens from engaging in policy making and CAA implementation.

1. The YRCAA ignored citizen request to join the selection committee for a new YRCAA Director. See Meeting Summary for the YRCAA Board Meeting Aug. 11, 2016
2. The YRCAA ignored citizen concerns about the make-up of a selection committee for the YRCAA Executive Director See Meeting Summary for the YRCAA Board Meeting September 8, 2016 and Attachment 34.
3. The YRCAA has not responded to clearly described concerns and messages from citizens. See Attachments 1 through 20.
4. The YRCAA has placed barriers in the path of citizens who wish to dialogue with the agency. See Attachment 16.
5. The YRCAA staff has given the YRCAA Board incorrect information. See Attachments 11 & 20.

6. In 2014 the YRCAA invited citizens to participate in an advisory group to guide formation of a plan to address high levels of fine particulate matter in Yakima County – the *PM Advance Program Path Forward*. The EPA looks for citizen advisory groups when they approve such plans. In the 2015 the plan YRCAA stated:

A stakeholder group has been assembled to participate in a “Clean Air Task Force.” Interests represented include: Industrial Sources; General Public; Construction; Citizen Environmental Groups; Municipalities; Academia; Agriculture; Economic Development; Hearth Products; Forestry; Transportation; Adjoining Air Jurisdictions; Public Health; and more. The list of persons participating is shown in Appendix E.

The group has met routinely since August of 2014 and has participated in the control strategy development and selection of additional reduction measures and programs. Additional reduction measures and programs to be implemented immediately are detailed in Appendix F. The group will remain active and will meet no less frequently than semi-annually. (Emphasis added)

Contrary to the YRCAA promises, the advisory group has not met since 2015. The same advisory group is listed in every annual report, in spite of the fact that several members have retired and no longer live in the area. See Attachments 35 – 38.

7. The YRCAA has stated that citizens will not be allowed to attend meetings in which the agency discusses revisions and updates to the WA State Implementation Plan (SIP) for Yakima County. This effectively eliminates citizen input. It is nearly impossible for lay people to participate in discussions that are 18 months in the making when they only receive a summary overview of the content and have 30 days to study the material.

EPA’s *The Plain English Guide to the Clean Air Act* states:

Often, when EPA is working on a major rule, the Agency will hold hearings in various cities across the country, at which the public can comment. You can also submit written comments directly to EPA for inclusion in the public record associated with that rule. Or, for instance, you can participate in development of a state or tribal implementation plan. Commenting on a state or tribal plan could be worthwhile since approaches for cleaning up pollution could have direct effects on the way you and your family live. (Emphasis added)

To summarize, the YRCAA no longer addresses emissions from CAFO dairies, ignores and hides valuable research, presents erroneous information as fact, flaunts the law regarding conflict of interest and makes it very difficult for citizens to engage in air policy for Yakima County. The Friends of Toppenish Creek ask Ecology to consider opening an investigation into the YRCAA as authorized by RCW 70.94.405.

Sincerely,

The Friends of Toppenish Creek

References:

- Joo, H., Ndegwa, P. M., Wang, X., Heber, A. J., Ni, J. Q., Cortus, E. L., ... & Chai, L. (2015). Ammonia and hydrogen sulfide concentrations and emissions for naturally ventilated freestall dairy barns. *Transactions of the ASABE*, 58(5), 1321-1331. Available at https://www.researchgate.net/profile/Xiang_Wang13/publication/289545522_Ammonia_and_hydrogen_sulfide_concentrations_and_emissions_for_naturally_ventilated_freestall_dairy_barns/links/56effe9d08ae52f8ad7f8844/Ammonia-and-hydrogen-sulfide-concentrations-and-emissions-for-naturally-ventilated-freestall-dairy-barns.pdf
- Loftus, C., Yost, M., Sampson, P., Arias, G., Torres, E., Vasquez, V. B., ... & Karr, C. (2015a). Regional PM_{2.5} and asthma morbidity in an agricultural community: a panel study. *Environmental research*, 136, 505-512. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4425279/>
- Loftus, C., Yost, M., Sampson, P., Torres, E., Arias, G., Vasquez, V. B., ... & Bhatti, P. (2015b). Ambient ammonia exposures in an agricultural community and pediatric asthma morbidity. *Epidemiology (Cambridge, Mass.)*, 26(6), 794. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587379/>
- Loftus, C. (2015c). *Industrial Animal Agriculture in the Yakima Valley, Air Pollution, and Pediatric Asthma Morbidity* (Doctoral dissertation). Available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1
- U.S. Environmental Protection Agency (2007) The Plain English Guide to the Clean Air Act. Available at <https://www.epa.gov/sites/production/files/2015-08/documents/peg.pdf>
- Williams, D. L., Breyse, P. N., McCormack, M. C., Diette, G. B., McKenzie, S., & Geyh, A. S. (2011). Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment. *Environmental Health*, 10(1), 72. Available at <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-10-72>
- Yakima, City of (2019) Yakima Public Affairs Channel – Yakima Regional Clean Air Agency. Available at <http://205.172.45.10/CablecastPublicSite/search?channel=2&query=yakima%20regional%20clean%20air%20agency>

Attachments:

1. Hydrogen Sulfide
2. VOC
3. Excel Dairy
4. Emissions Data from Two Freestall Dairies in Washington State
5. Letter re Article in the Toppenish Review Independent
6. Article in the Toppenish Review Independent
7. PNAS Importance of Deposition of Reduced Nitrogen
8. Letter re Conflict of Interest I
9. Environmental Health Perspectives – Preterm Births and PM 2.5
10. Letter re Conflict of Interest II
11. Letter re Ag Task Force I
12. Letter re Ag Task Force II
13. Letter to Attorney General
14. E-mail correspondence with YRCAA Board Chairman
15. Air Pollution and Public Health
16. Community Forums
17. Apology
18. Letter re Conflict of Interest III
19. Letter re State Implementation Policy
20. Letter re Accuracy of Information
21. Letter to YHD re Manure Spraying I
22. YHD E-mails re Manure Spraying I
23. Letter from YHD re Manure Spraying
24. Letter from DOH re Manure Spraying

25. Letter to YHD re Manure Spraying II
26. YHD E-mails re Manure Spraying II
27. Letter to YHD re Manure Spraying III
28. DOH E-mails re Manure Spraying
29. FOTC Statement re Rejection of Manure Spraying Petition
30. Public Comments re AQMP Policy for Dairies
31. AQMP for Dairies 2014 Report to YRCAA Board of Directors
32. Research Related to Public Health and Animal Feeding Operations
33. Letter from Rep. Johnson to WA Attorney General re Conflict of Interest
34. Regarding Selection of a YRCAA Executive Director
35. YRCAA PM Advance 2014
36. YRCAA PM Advance 2015
37. YRCAA PM Advance 2016
38. YRCAA PM Advance 2017
39. Letter from YRCAA re SIP



Friends of Toppenish Creek

March 4, 2019

Dear Director Bellon,

On January 31, 2019 the Friends of Toppenish Creek sent you a request to investigate the Yakima Regional Clean Air Agency (YRCAA) as authorized by RCW 70.94.405. We now ask you to add these further concerns to that request.

We apologize for the ongoing nature of this complaint. But . . . YRCAA continues to marginalize the citizenry and postpone actions that would improve air quality in Yakima County.

In Brief:

1. It is increasingly difficult for citizens to engage the YRCAA Board of Directors, the group responsible for air quality in Yakima County.
2. The YRCAA has concealed information from the public regarding the eligibility of private citizens to serve on the YRCAA Board.
3. The YRCAA has made statements that are incomplete, misleading and, in some critical situations, untrue.

In Depth

1. It is increasingly difficult for citizens to engage the YRCAA Board of Directors, the agency responsible for air quality in Yakima County. Citizens have to work very hard in order to be heard.

A. For several years people have asked permission to address the YRCAA Board of Directors at the end of Board Meetings, instead of the beginning. Citizens believe this would give us an opportunity to elaborate on and sometimes correct misleading statements made by the YRCAA staff.

Example:

- In March, 2017 the YRCAA Director gave a report on the YRCAA Agricultural Task Force. We could not comment at the meeting even though we knew that the Board did not hear the entire story. The Public Comment Period preceded the Director's Report.
We asked to be put on the agenda regarding the Agricultural Task Force in May, August and October. Our request was not approved and our concerns were not heard in a public meeting. We sent a letter outlining our concerns and none of the Board Members responded.

B. Citizens can only address issues that are on the agenda and only for three minutes. We are not allowed to introduce other concerns that relate to air quality. In order to do that, we must ask to be put on the agenda ahead of time. (FOTC acknowledges that YRCAA has no legal obligation to let citizens address the YRCAA Board of Directors.)

Examples:

- In the spring of 2018 Sandy Braden from FOTC stood up to speak at an YRCAA Board meeting. She was told to stop because her subject was not on the agenda. Subsequently two other citizens approached the podium with 1. A concern about enforcement of burn bans, and 2. Information about Climate Change. Neither had requested time and neither subject was on the agenda. The Board decided to make a one-time exception and subsequently allowed the two gentlemen and Ms. Braden to speak.
- On January 22, 2019 Sandy Braden asked the YRCAA to put a question regarding burn permits on the agenda.
 - On February 13, 2019 Director Hurley informed her:
I am writing to inform you that no Board Member elected to place your request on the February 2019 agenda. As always you are still welcome to come and speak during the public comment period.
 - Ms. Braden went the extra mile and contacted a board member and an alternate to learn why they did not ask to have the discussion placed on the agenda. Neither had received the information. (Attachment 1)
 - The Large City Representative on the Board, Carmen Mendez, subsequently asked the Director to put the discussion on the agenda and this is scheduled to happen in March.
- On January 24, 2019 Jean Mendoza sent the YRCAA Board of Directors an e-mail describing incorrect information from the August, 2018 and September, 2018 Board Meetings. (Attachment 1)

- On February 1, 2019 Director Hurley responded by e-mail but did not offer to make any public corrections.
- On February 8, 2019 Ms. Mendoza asked to be placed on the February 14, 2019 agenda so she could explain the federal law and ask the YRCAA Board to advocate for Yakima County citizens. She also asked that Ms. Braden be placed on the agenda to present concerns about burn permits.
 - Mr. Hurley replied that none of the Board Members asked to have these discussions placed on the agenda.
 - On February 16, 2019 Ms. Mendoza forwarded the February 8, 2019 e-mail to each Board Member at their YRCAA e-mail addresses with this message:

It has come to my attention that some of you may not be receiving e-mails from the Friends of Toppenish Creek. Would you kindly reply to this forward and let me know that you have received it?

- None of the Board Members responded. FOTC can only assume that they are either not receiving their e-mails or have agreed to ignore us.

2. The YRCAA has concealed information from the public regarding the eligibility of private citizens to serve on the YRCAA Board.

Norm Childress, the Mayor of Grandview, served on the YRCAA Board of Directors as the Small City Representative for several years. In November, 2018 Mr. Childress was elected to serve as a Yakima County Commissioner. The Commissioners decided that he would represent the County Commission beginning in 2019. This left the Small Cities Position vacant.

On November 28, 2018 the YRCAA posted a legal notice in the Yakima Herald Republic stating that the City Selection Committee, a legally defined group of small city mayors, would select a replacement.

YRCAA did not inform the City Selection Committee or the public that this position could be filled by a private citizen as stated in the YRCAA Administrative Code Part A:

1.3 Board Composition and Selection

Pursuant to RCW 70.94.100, the Board shall be comprised of two appointees of the city selection committee, at least one of whom shall represent the city with the largest population in the county, and two representatives to be designated by the board of county commissioners. If then, the Board consists of an even number; the seated members shall elect an additional member who shall be either a member of one of the governing bodies of the towns or cities, or a private citizen residing in the authority.

No one was selected by the City Selection Committee. We do not know why. On February 9, 2019 the legal notice was posted once more. There was no statement about the eligibility of private citizens to serve.

At the February 14, 2019 YRCAA Board Meeting two of the members asked Director Hurley whether a private citizen could fill that position. He replied that he did not know. He anticipates that the position will be filled for the April, 2019 Board Meeting.

In summary, the YRCAA has been aware of a vacancy on the Board of Directors since November 2018. That position will not be filled until April, 2019 at the earliest. That position could be filled by a private citizen but no one has been informed of this option.

3. The YRCAA has made statements that are incomplete, misleading and, in some critical situations, untrue.

A. On April 12, 2018 the YRCAA Board of Directors held a study session for *Review of legal costs and exposure related to the Air Quality Management Policy for Dairy Operations*. The Executive Memorandum for this study session described a 2011 civil action in which the Citizens for Sustainable Development sued the YRCAA for failure to comply with the law regarding public records requests. YRCAA stated that the costs to the agency and ultimately the tax payers was ~ \$180,000 (See Attachment 2, YRCAA April Board Packet)

- The memorandum did not relate why the civil action was initiated in the first place; what the Citizens for Sustainable Development alleged in their law suit
- The YRCAA staff did not show the board the redacted documents at the heart of that law suit. They had been so severely blacked out that there was no information whatsoever.
- There was no acknowledgement of the community's right to study data from the industries that send pollutants into the Yakima County air
- There was no discussion about how to avoid lawsuits by complying with the Public Records Act

B. In 2014 the YRCAA agreed to participate in an EPA program entitled PM Advance with a goal of reducing emissions of particulate matter using a community based approach. This involved creation of a community advisory group. In the 2015 Update to EPA the YRCAA stated, "The group will remain active and will meet no less frequently than semi-annually." (Page 10/35). In fact the advisory group did not meet after 2015 but the YRCAA sent updates in 2016 and 2017 citing the advisory group and listing members who no longer work or live in the area.

- In the 2016 Update, YRCAA stated:

A stakeholder group has been assembled to participate in a “Clean Air Task Force.” Interests represented include: Industrial Sources; General Public; Construction; Citizen Environmental Groups; Municipalities; Academia; Agriculture; Economic Development; Hearth Products; Forestry; Transportation; Adjoining Air Jurisdictions; Public Health; and more. The list of persons participating is shown in Appendix E.

The group has met routinely since August of 2014 and has participated in the control strategy development and selection of additional reduction measures and programs. Additional reduction measures and programs to be implemented immediately are detailed in Appendix F. The group will remain active and will meet no less frequently than semi-annually.

- The 2017 Update states (Page 36/36) “The group affirmed existing funding mechanisms and agreed that all should be maintained.” and “The group was unable to identify any significant additional funding mechanisms.”
- But the advisory group has not met since 2015.

C. As of February 28, 2019 there is inaccurate and misleading information on the YRCAA website:

- The YRCAA Fact Sheet , *Animal Feeding Operations*, states:
 - Concentrated Animal Feeding Operations are facilities that require federal National Pollutant Discharge Elimination System (NPDES) water quality permits, irrespective of size. This is not true
 - Calving operations, dairy operations and poultry operations are regulated within YRCAA’s jurisdiction. This is not true
 - Animal Feeding Operations (AFOs) are required to register initially and annually with YRCAA. This is not true. (Attachment 3)
- The YRCAA Fact Sheet, *New Source Review*, states that:
 - Dairy operations require New Source Review. To the best of our knowledge this is not true. If it were true then dairies would have to estimate emissions of toxic air pollutants as defined in WAC 173-240 (Attachment 4)
- Under *About YRCAA* the website states:
 - “Board Meetings are traditionally held the second Wednesday of each month.” This is not true.
 - “Bill Kramer was the first Executive Director/Air Pollution control Officer (APCO) for the Authority from 1967 to 1972. Bob Crossland served from 1972 to 1989 and Tom Silva served from 1989 to 1995. Les Ornelas served from 1995 to March, 2006. Lawrence Odell served from April to October, 2006, and Gary Pruitt assumed the directorship in October, 2006, and

continues to serve to the present time.” This is not true. Keith Hurley has been YRCAA Director since 2017

- “The YRCAA is delegated to enforce certain Federal Regulations, the Washington Clean Air Act, State Regulations and YRCAA Regulations, within the boundaries of Yakima County. This applies to all areas of Yakima County except for Yakama Indian Reservation lands, which are overseen by the Environmental Protection Agency, and fall under the Federal Air Rules for Reservations (FARR) regulations.” We believe this is untrue. We believe that FARR has not been implemented on the Yakama Reservation.
- “The air pollutant of greatest concern is particulate matter. The county's sunny climate, pollution-trapping mountains and valleys, along with the growing population, all contribute to the problem.” This is misleading. According to the Yakima Air Winter Nitrate Study approximately 33% of the particulate matter in the Sunnyside area is due to animal agriculture, but YRCAA leaves out this important information.
- Under Community Forum YRCAA states:
 - “Meetings shall be audio recorded and a written meeting summary shall be prepared by Agency staff.”
 - Why is this important?
 - YRCAA conducted a Community Forum in December 2018.
 - At the meeting FOTC understood YRCAA to state that Chapter 34.05 RCW prevents the YRCAA from allowing the public to participate in or attend discussion of the upcoming SIP revision; that the public would have an opportunity to comment after the revisions are completed. (Attachment 1)
 - In an e-mail Director Hurley disagreed and stated, “At the December Community Forum I *did not* state that ‘Chapter 34.05 RCW prevents the YRCAA from allowing the public to participate in or attend discussion of the upcoming SIP revisions.’ Nor did I say ‘the public would have an opportunity to comment after the revisions are complete.’ What was said by me is that this agency will follow the procedures outlined in RCW 34.05 and those procedures clearly allow for public participation.” (Attachment 1)
 - The December 2018 Meeting Summary for the YRCAA Community Forum did not cover this discussion, nor did it cover other significant discussions. As far as the summary was concerned those discussions did not take place.
 - When FOTC suggested that Community Forums should be recorded to avoid “he said, she said” neither YRCAA nor the Board responded.

- This means that, by default, the agency is assumed to be telling the truth and citizens are assumed to be insufficiently informed and make accurate statements
- When FOTC came across the posting on the YRCAA website that mandates recording of the meetings we thought we had discovered a way to defend ourselves. We asked for an audio tape. The YRCAA said they would make one
- We made a trip to the agency and paid for a CD.
- The CD we received contained a recording of the December 2018 YRCAA Board meeting.
- We called and asked again for a recording of the Community Forum. We were told that would be forthcoming
- A few days later we received a phone call to let us know that the Community Forum had not been recorded.
- This gives new meaning to the term “bureaucratic runaround”. This is not good government.
- In spite of the assertion that the public can attend SIP discussions the YRCAA has yet to tell FOTC when these will be scheduled.

D. On January 21, 2019 FOTC Executive Director Jean Mendoza sent Director Hurley a letter with questions and concerns related to the December, 2018 Community Forum. (Attachment 1) That letter included this observation which had previously been shared with the former YRCAA Director, Gary Pruitt.

Section 3.08 B Specific Dust Controls in YRCAA Regulation 1 states on page 3-44::

4. Requirements.

a. Visible Emissions. Sources are required to comply with subsection 3.01C1a.

b. Preventing Particulate Matter from Becoming Airborne. Sources are required to comply with subsection 3.01C1b.

c. Odor. Sources are required to comply with subsection 3.01C1d.

d. Emissions Detrimental to Persons or Property. Sources are required to comply subsection 3.01C1e.

e. Fugitive Dust. Sources are required to comply with subsection 3.01C2c.

But Section 3.01 had been repealed. See page 3-3 of Regulation 1

Mr. Hurley simply replied “Section 3.01 was repealed by Amendment 1 in December of 2003.” He did not acknowledge a need to correct this longstanding deficiency.

This means that YRCAA appears to have specific dust control regulations in place that address visibility, fine particulate matter, odor, harm to person or property and fugitive dust but in fact does not.

E. In July of 2013 the YRCAA Board of Directors approved an *Air Quality Management Policy for Dairies*. That policy stated in section X:

X. When and How Will This Policy Be Evaluated?

- 1. This policy will be evaluated as needed and no less frequently than every two years;*
- 2. The evaluation of the policy will be conducted jointly by YRCAA staff and the Agricultural Task Force and will be based on its effectiveness at reducing air emissions and reasonableness of implementation; and*
- 3. The YRCAA Board of Directors will approve any changes to the policy.*

The policy was only evaluated once, in 2014. At that time there were recommendations but the recommendations were never approved by the Board of Directors.

There were also recommendations regarding frequency of dairy inspections. These were not formalized by the board and were not carried out in practice. Consequently dairies with a score of "D" were not inspected every six months as proposed. But this is the impression given to the public.

Sincerely,

Jean Mendoza

Jean Mendoza

Executive Director, Friends of Toppenish Creek

cc.

Environmental Protection Agency

Attachments:

1. FOTC – YRCAA E-Mails 2019
2. Complete Board Packet April 2018
3. Animal Feeding Operations
4. New Source Review

Response to Review: Summary of the Existing Science Regarding Public Health Effects from the Spreading of Dairy Manure, With an Emphasis on Effects in Eastern Washington and the Yakima Basin

This is a rebuttal and critique of a *literature review* that was submitted by Dr. Nichole Embertson of the Whatcom County Conservation District and the Washington Dairy Federation to the Yakima Regional Clean Air Agency in August of 2013. Her *literature review* was in response to a petition from fifty citizens to ban the land and aerial application of manure during inversions that trigger a burn ban. You will see that the *literature review* is a biased presentation with the intent to deceive the Yakima Regional Clean Air Agency and the people who live in the Yakima Valley.

Research Misconduct

“Some researchers are so at odds with the core principles of science that they are treated very harshly by the scientific community and by institutions that oversee research. Anyone who engages in these behaviors is putting his or her scientific career at risk and is threatening the overall reputation of science and the health and welfare of the intended beneficiaries of research.

Collectively these actions have come to be known as scientific misconduct. A statement developed by the U.S. Office of Science and Technology Policy, which has been adopted by most research funding agencies, defines misconduct as ‘fabrication, falsification or plagiarism in proposing, performing or reviewing research or in reporting research results.’ According to the statement, the three elements of misconduct are defined as follows:

- *Fabrication is ‘making up data or results’*
- *Falsification is ‘manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.’*
- *Plagiarism is ‘the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.’*

In addition, the federal statement says that to be considered research misconduct actions must represent a ‘significant departure from accepted practices,’ must have been committed intentionally or knowingly, or recklessly’ and must be ‘proven by a preponderance of evidence.’ According to the statement, ‘research misconduct does not include differences of opinion.’”

(Statement from the National Academy of Sciences, 2009)

What is a Literature Review?

“Definition: A literature review is an assessment of a body of research that addresses a research question. Purpose: A literature review identifies what is already known about an area of study. It may also identify questions a body of research does not answer and make a case for why further study of research questions is important to a field.” (Harvard Graduate School of Education, n.d.)

Response to Review: Summary of the Existing Science Regarding Public Health Effects from the Spreading of Dairy Manure, With an Emphasis on Effects in Eastern Washington and the Yakima Basin paragraph by paragraph

Purpose & Scope

The author states, “It is postulated that the community members believe that there is a link between burn bans, manure application, and community health. The purpose of this review and professional assessment is to examine this postulation and assess its validity.” The community members believe that there is a relationship between feces and infectious disease. That is why we teach children to wash their hands after using the bathroom. The community members believe that there is a relationship between particles in the air and respiratory disease. The community members believe that the purpose of burn bans is to protect human health, especially during air inversions.

The author states, “The scope of this review focuses only on dairy and dairy manure. Additionally, this review only looks at the emissions from the application of dairy manure to crop land, not emissions from the dairy operations themselves (i.e. housing, manure storage, etc.)”. Much of the literature in this review describes animal waste in general and is not specific to the dairy industry. Some of the studies address waste from hog operations. Much of the literature in this review looks at all aspects of animal agriculture and dairy operations, not just manure application. It would be difficult to find sufficient relevant studies restricted to application of dairy manure to the land. The inclusion of health problems and complaints due to hog operations and other sources of air pollution is understandable and acceptable.

Summary Opinion

The author states, “Furthermore, the literature does not support the conclusion that dairy manure applied at agronomic rates to farm fields is a significant hazard to community health in the Yakima region. With the use of best management practices, any potential concerns with air pollutants from manure application can be actively mitigated to avoid potential transport to neighboring areas.”

Thirteen of the forty references in the *literature review* address community health. Twelve of these references document elevated health risks related to concentrated animal feeding operations and/or air pollution. Only one agrees with Dr. Embertson’s statement.

Donham et al (2007) state, with respect to poultry workers, “Significant dose-response relationships were observed between exposures and pulmonary function decrements over a work shift.”

Heedrick et al (2007) state, “This working group, which was part of the *Conference on Environmental Health Impacts of Concentrated Animal Feeding Operations: Anticipating Hazards—Searching for Solutions*, concluded that there is a great need to evaluate health effects from exposures to the toxic gases, vapors, and particles emitted into the general environment by CAFOs.”

Merchant et al (2003) contributed 25 pages to the *Iowa Concentrated Animal Feeding Operation Air Quality Study* in which they documented the significant health problems related to CAFOs. They cited four studies on community health, all of which showed adverse health effects from CAFOs:

Merchant et al (2004) state, “The high prevalence of asthma health outcomes among farm children living on farms that raise swine (44.1%, $p = 0.01$) and raise swine and add antibiotics to feed (55.8%, $p = 0.013$), despite lower rates of atopy and personal histories of allergy, suggests the need for awareness and prevention measures and more population-based studies to further assess environmental and genetic determinants of asthma among farm children.”

Mirabelli et al (2006) state, “Estimated exposure to airborne pollution from confined swine feeding operations is associated with adolescents’ wheezing symptoms.”

Ngo et al (2010) state, “We have observed seasonal variability in particle mass and composition along with small, significant changes in some markers of inflammation and cell viability. This type of field study, which characterizes ambient particulate-matter mixtures found in agricultural regions and determines health outcomes in animal inhalation models, helps provide new insights into how particulate matter affects agricultural workers and residents living in the San Joaquin Valley.”

O’Conner et al (2010) performed a literature review for the United Soybean Board and the National Pork Board looking for an association between animal feeding operations (AFOs) and health effects in neighbors. They found 4,908 pieces of research and rejected 4,899 before completing their analysis. Based on only nine studies they concluded, “There was inconsistent evidence of a weak association between self-reported disease in people with allergies or familial history of allergies. No consistent dose response relationship between exposure and disease was observable.”

Osornio-Vargas et al (2010) state, “Compelling evidence indicates that exposure to urban airborne particulate matter (PM) affects health. However, how PM components interact with PM-size to cause adverse health effects needs elucidation, especially when considering soil and anthropogenic sources. We studied PM from Mexicali, Mexico, where soil particles contribute importantly to air pollution, expecting to differentiate in vitro effects related to PM-size and composition. . . . We conclude that PM-size and PM-related soil or anthropogenic elements trigger specific biological-response patterns.”

Schiffman (1998) performed a literature review that found over a hundred studies showing adverse health effects related to odor.

Schiffman and Williams (2005) cited over a hundred studies showing adverse health effects related to air pollution from confined animal feeding operations and proposed that technological solutions will be needed to protect neighbors.

Schiffman et al (2000) state, "Complaints of health symptoms from ambient odors have become more frequent in communities with confined animal facilities, wastewater treatment plants, and biosolids recycling operations. The most frequently reported health complaints include eye, nose, and throat irritation, headache, nausea, diarrhea, hoarseness, sore throat, cough, chest tightness, nasal congestion, palpitations, shortness of breath, stress, drowsiness, and alterations in mood. Typically, these symptoms occur at the time of exposure and remit after a short period of time. However, for sensitive individuals such as asthmatic patients, exposure to odors may induce health symptoms that persist for longer periods of time as well as aggravate existing medical conditions."

Schmalzreid and Fallon (2007) surveyed people living near two new 700 cow dairies. 87% felt that their property values were affected and 83% felt that these values had decreased. 47% feared that their drinking water would be affected and 69% felt that the quality of life was reduced. 92% had concerns about the smell of manure and 81% found the smell unpleasant. 70% felt that flies were a nuisance and 64% felt that the fly problem was bad. The authors argued that the neighbor's perceptions were not based on reality.

Williams et al studied bovine allergens and particulate matter in homes near Yakima County dairies. They state, "These findings demonstrate that dairy operations increase community exposures to agents with known human health effects. This study also provides evidence that airborne biological contaminants (i.e. cow allergen) associated with airborne particulate matter are statistically elevated at distances up to three miles (4.8 km) from dairy operations."

Overview of Yakima Dairy Manure Application Practices

Dr. Embertson states, "Following best practices, the majority of manure is applied to crops at agronomic rates using crop appropriate technologies." According to the Washington State Dept. of Agriculture 11% of the fields owned by dairy operations have soil nitrate levels greater than 45 parts per million, a sign of manure/fertilizer over application. In a county with 120,000 milk cows plus calves, replacement heifer's, and cattle for slaughter 11% is significant. This means that one out of ten dairies endangers public and environmental health by not following agronomic application guidelines.

Dr. Embertson details how and when manure is applied to the fields in Yakima County but she does not live here. Our observations differ. We know that manure is applied to bare fields during the months November, December, January and February. And these are the times when hospital admission rates for asthma are highest.

Can Dr. Embertson support the statement "A small percentage (<5%) of other crops and less desirable application technologies such as honey wagons (tanks) and Big Gun sprinklers are used for application, but the land acreage applying these technologies is small (<3%)." It is our observation that this type of application is very common in the lower Yakima Valley. If she cannot provide supporting references, then she is fabricating data.

Dr. Embertson states, "All dairy operations must apply nutrients (i.e. manure) according to their Dairy Nutrient Management Plan which outlines agronomic guidance and application restrictions. Restrictions include when not to apply (i.e. wind > 10 mph, inversions, high temperatures, etc.) what local criteria (i.e. schools, neighbors, wells, etc.) and setbacks need to be taken into consideration when applying and best methods for reducing nutrient losses via volatilization."

The *Dairy Nutrient Management Act* applies to water pollution, not air pollution. There is a small paragraph in the 2012 NRCS *Conservation Practice Standard for Nutrient Management* that addresses air pollution. It simply says "Do not apply poultry litter, manure, or organic by-products of similar dryness/density when there is a high probability that wind will blow the material offsite."

We find no restrictions for applying manure during inversions, high temperatures or winds > 10 mph in the WA State NMP requirements. Although these recommendations are found in recommendations from Purdue University and Michigan State University they are not part of the YRCAA *Air Quality Management Policy for Dairies and Best Management Practices*. The closest that this document comes to regulating manure application is a vague "Apply during cool weather and on still rather than windy days." It is a fact that neighbors have complained to YRCAA when one of the authors of the YRCAA *Air Quality Management Policy and Best Management Practices for Dairies* sprayed manure into the air during 40 mph winds.

Dr. Embertson states, "In general, the technologies, timing, and application restriction guidance followed by the majority of dairy operations in Yakima meet the best management practice guidelines encouraged by University guidance and research for maximum reduction of emissions during application for ammonia, dust and odor (Smith et al, 2009; Webb et al, 2010; Rotz et al, 2011; Brandt et al, 2011)." None of the references cited examines best management practices in the Yakima Valley. They only define dairy best management practices and manure application in general. They do not state that dairy operations in the Yakima Valley follow BMP guidelines.

Smith et al (2009) used a simulation model to analyze various types of manure spreading with respect to ammonia losses. They found that putting lime on the soil to raise the pH increases NH₃ emissions. Delaying manure spreading till later in the day reduces NH₃ losses. Rainfall and incorporating manure into the soil immediately reduce NH₃ emissions. It is our observation that farmers in the Yakima Valley apply manure to the fields at all hours of the day and do not routinely incorporate manure into the soil after application. There is little rain in the Yakima Valley with annual precipitation of around 8 inches per year.

Webb et al (2010) reviewed the literature to determine the "impacts of manure application methods on emissions of ammonia, nitrous oxide and crop response." They recommend open slot injection or trailing shoe application methods and note that incorporation into the soil is the most effective way to reduce ammonia emissions. We are unaware of any studies that detail how many operations in the Yakima Valley utilize these methods of application. Sufficient to say, we see frequent aerial applications of manure and flooding of fields with manure.

Rotz et al (2011) created and tested a dairy farm model to determine optimal feeds to meet fiber, energy and protein needs for six sub groups of dairy animals. We do not see how this relates to ammonia, dust and odor during manure application.

Brandt et al (2008) measured odor in the ambient air after different types of manure application to the land. They did not assess the "Big Gun" approach and did not assess human health or agronomic rates. They found differences in effect ranging from worst to best: surface broadcast > aeration infiltration > surface + chisel incorporation > direct ground injection = shallow disk injection > control (no application).

Burn Bans and Manure Application

Wood stoves may be the number one contributor to excess PM 2.5 in most areas of Washington State and in the Rocky Mountains. This does not mean that agricultural activities do not exacerbate the situation. Neither YRCAA nor the dairy industry has done the research needed to quantify the contribution of animal agriculture to PM 2.5 in the Lower Yakima Valley. The situation here is quite different from most parts of the state. The fact that smoke from wood stoves is the major contributor to PM 2.5 in Ellensburg, for example, does not mean that this is the major contributor in Sunnyside. The research by Ward and Lange (2009) is not from "a similar region". The northern Rocky Mountains of Montana do not have high concentrations of dairy cows.

The statement, ". . . emissions from manure and nitrogen-based chemical fertilizers are considered a precursor to PM 2.5 when ammonia from applied nitrogen volatilizes and comes in contact with available nitrous and sulfuric acid gases that are released into the atmosphere from vehicles and combustion processes (NOx and SOx) to form fine particulates through chemical reaction." is incorrect. Ammonia reacts with nitric acid, not nitrous acid to form particulate matter.

Dr. Embertson states, "Depending on atmospheric conditions and geographic location, this pathway contributes less than 10% of the total secondary PM 2.5 production in the atmosphere (Hristov, 2011). She omits Hristov's ensuing comments, "In certain areas and in cool weather, farm animal contribution to atmospheric PM 2.5 concentration may be as much as 20%." His graphics show that this scenario is especially true in the Pacific Northwest. (Please see pp. 3130 and 3133 of Hristov's Technical Notes)

Dr. Embertson states, ". . . manure is not typically applied from November to February to the crops grown in dairy production in Yakima, WA." This is simply untrue. Year round application is one of the main reasons that citizens requested a ban on manure spreading during inversions.

Dr. Embertson states, "Ammonia volatilization is significantly reduced during cold weather due to thermal reduction in biological and chemical processes in manure and the soil." However, Hristov (2011, p. 3133) states, "In the cooler months, the formation of ammonium nitrate is favorable, and hence the presence of ammonia can significantly increase PM 2.5 concentrations." His graphs show that around 19% of particulate matter in the northwest can be attributed to agricultural animals. May we suggest

that this may be even higher in the lower Yakima Valley where we have a winter nitrate problem and an overabundance of ammonia from concentrated animal feeding operations?

Emissions from Manure Application

Ammonia and PM 2.5

Dr. Embertson states, "Ammonia is produced from applied manure when conditions such as temperature, pH, and oxygenation allow hydrolysis of urea (in urine) and urease (in feces and soil) to form ammonia gas. For land applied manure, this reaction is catalyzed by the increased surface area and exposure of manure to aerobic conditions on the soil surface. Ammonia volatilization typically peaks within hours to days of application depending on manure type (solid versus liquid), application technology, and meteorological conditions (i.e. wind speed, temperature, precipitation, etc.) (Amon et al, 2006; Hristov et al, 2009; Leytem and Dungan, 2009)". The referenced study by Hristov et al does not address manure type, application technology or meteorological conditions. Their study was a laboratory testing of a new way to estimate ammonia losses using various chemical markers. Leytem and Dungan (2009) did not address land applied manure, manure type, application technologies or meteorological conditions. They measured ammonia concentrations during different seasons at open lots, compost yards and lagoons on a 10,000 cow dairy in southern Idaho.

It is important to note that Amon et al state in their abstract, "Ammonia emissions mainly occurred after field application."

Hristov (2009) states "Ammonia emitted from animal feeding operations is an air pollutant contributing to the formation of fine particulate matter (PM2.5), considered a major environmental risk to human health."

Dust (PM 10)

Dr. Embertson states, "However, while biologically derived aerosols (bioaerosols), such as fecal and bacterial origin dust may be present in manure applied to fields, survivability of pathogens through the manure storage period, treatment, and application process is low (McGarvey et al, 2004; Ravva et al 2006; Grewal et al, 2006). It would help to define "low".

When they used aerobic plate counts McGarvey et al found bacterial counts of 2,100,000,000 CFU/g in manure, 1,900,000CFU/ml in separator pit water and 280,000 CFU/ml in lagoon water. When they used anaerobic plate counts they found bacterial counts of 6,900,000,000 CFU/g in manure, 5,500,000 CFU/ml in separator pit water and 670,000 CFU/ml in lagoon water.

Ravva et al (2006) only studied the ability of E coli O157:H7 to survive in dairy wastewater with or without aerators. They found low survival rates, possible due to competition from other organisms.

Grewal et al, (2006) studied *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella* spp., and *Mycobacterium avium* subsp. *paratuberculosis* (*Mycobacterium paratuberculosis*) under different

manure treatments. In liquid manure and pack treatments, some of these microorganisms were detectable up to 28 days. *M. paratuberculosis* DNA was detectable through day 56 in all treatments and up to day 175 in liquid storage treatments.

Dr. Embertson did not address components of dust that have a greater impact on human health than bacteria. These include: the particles themselves, feed materials, endotoxins, fungi and viruses.

Manure Application and Health Effects

Dr. Embertson states, "In fact a comprehensive review of scientific studies conducted by O'Conner et al (2010) looked at the associations between animal feeding operations and measures of health of individuals living near animal feeding operations and found that there were very few applicable studies (0.2%) and no compelling evidence for a consistent, strong association between the clinical measures of disease and proximity to animal feeding operations."

The truth is that O'Conner et al (2010) performed a literature review for the United Soybean Board and the National Pork Board looking for an association between animal feeding operations (AFOs) and health effects in neighbors. They found 4,908 pieces of research and rejected 4,899 before completing their analysis, using just nine pieces of research.

The petitioners referenced 106 pieces of research that describe adverse health effects from confined animal feeding operations. Dr. Embertson simply chose to ignore most of these studies when she considered manure application and health effects.

Dr. Embertson states, "Additionally a study surveying quality of life characteristics of residents living near and far from animal feeding operations concluded that emotional considerations, not physiological ones played a large part in perception of the impact of those facilities on health. (Schmalzreid and Fallon, 2007)."

Let us put this study in context. It was published in the Journal of Dairy Science and represents an attempt to understand concerns of neighbors. The study is based on a thirteen question survey that assessed public perceptions of property values, water quality, flies, odor and demographics. There were no questions regarding physiological symptoms experienced by neighbors or their emotional responses to a nearby CAFO. In addition, this study analyzed neighbors' response to two 700 cow dairies. We can state with confidence that people in the Yakima Valley would not be complaining about one or two isolated 700 cow dairies. The number of dairy cows in the Lower Yakima Valley (120,000) is almost 100 times greater than the 1,400 cows in the survey by Schmalzreid and Fallon.

Dr. Embertson states, "Of the few relevant studies available, most are largely inconclusive and/or found no direct, replicable connection between farm exposure and health effects (Merchant et al, 2004; Heedrick et al, 2007; Muryama et al, 2010)"

In fact, Merchant et al (2004) studied four asthma outcomes in children who live in rural Iowa. The outcomes are doctor-diagnosed asthma, asthma/medication for wheeze, current wheeze and cough with exercise. They found a significant association between living on a hog CAFO and these four symptoms. The association was even stronger for hog CAFOs that fed antibiotics to the swine:

- Do not live on farm/do not raise swine – 33.6% have asthma symptoms
- Live on farm/do not raise swine – 26.2% have asthma symptoms
- Live on farm raising swine, 1–499 head – 42.9% have asthma symptoms
- Live on farm raising swine, 500+ head – 46% have asthma symptoms
- Live on farm raising swine and adding antibiotics to feed – 55.8% have asthma symptoms

The reference to Heedrick et al (2007) is difficult to address because this is another literature review that happens to come from Europe where CAFOs are more stringently regulated. There are abundant references to European studies that document adverse health effects related to animal feeding operations. They state, “This working group, which was part of the Conference on Environmental Health Impacts of Concentrated Animal Feeding Operations: Anticipating Hazards—Searching for Solutions, concluded that there is a great need to evaluate health effects from exposures to the toxic gases, vapors, and particles emitted into the general environment by CAFOs. Research should focus not only on nuisance and odors but also on potential health effects from microbial exposures, concentrating on susceptible subgroups, especially asthmatic children and the elderly, since these exposures have been shown to be related to respiratory health effects among workers in CAFOs.”

Muryama et al (2010) did not study farm exposure and health effects. Theirs was a laboratory analysis of air “immediately adjacent to the agricultural spreading of bovine slurry”. They found 16 bacterial genera in the air. “Only a few” were found to cause illness in humans and none were “previously described” as being passed by inhalation. For these reasons the authors concluded that none of the bacteria in the applied manure “pose a significant health and safety threat.”

Pollutant Exposure Limits

Ammonia

Dr. Embertson documents exposure limits for ammonia of 300 parts per billion for chronic exposure based on the 2003 work of Merchant et al. In 2012 the Agency for Toxic Substances and Disease Registry established minimum risk levels of 1.7 parts per million (ppm) for acute exposure and 100 parts per billion (ppb) for chronic exposure. (ATSDR, 2012)

Dr. Embertson states, “Downwind measures of ammonia from applied manure rarely exceed concentrations in parts per billion (ppb) (Williams et al, 2011)”. The referenced study had nothing to do with wind direction or manure application. It did not even mention these parameters. Dr. Williams states, “This does not represent my work.” (Personal conversation, Sept. 2013)

Dust (PM10)

Dr. Embertson cites the research of McGarvey et al, 2004; Ravva et al, 2006; Grewal et al, 2006, Hutchison et al, 2008; and Dungan, 2010. All of these studies addressed bacteria in agricultural wastes and dust. None of them looked at the physiological impact of particulate matter per se.

The Environmental Protection Agency (EPA) states, "Major concerns for human health from exposure to PM-10 include: effects on breathing and respiratory systems, damage to lung tissue, cancer, and premature death. The elderly, children, and people with chronic lung disease, influenza, or asthma, are especially sensitive to the effects of particulate matter. Acidic PM-10 can also damage human-made materials and is a major cause of reduced visibility in many parts of the U.S. New scientific studies suggest that fine particles (smaller than 2.5 micrometers in diameter) may cause serious adverse health effects. As a result, EPA is considering setting a new standard for PM-2.5. In addition, EPA is reviewing whether revisions to the current PM-10 standards are warranted." A list of the extensive research that has been done in this area is available from the Environmental Protection Agency at <http://www.epa.gov/ncer/publications/workshop/11-30-2005/pmcentersabstract.pdf>

Conclusion

Dr. Embertson's conclusion is not supported by the data she provided in her literature review. There is substantial evidence to support the hypothesis that adding more contaminants to air that is already dangerous for vulnerable people increases health risks to the community. She simply chose to ignore it.

Dr. Embertson has omitted research on several relevant factors that impact this discussion. She has not discussed the work that the Washington State Department of Ecology is doing in the Yakima Valley regarding surprisingly high levels of nitrates in the winter air (Van Recken et al, 2013). She has ignored research performed by the University of Washington that found high levels of ammonia in homes near CAFOS in the Yakima Valley (Turcios et al, 2004). She has ignored the fact that Yakima County has a higher rate of pre-term births than Washington State as a whole and that pre-term delivery has been associated with elevated PM 2.5 in the ambient air (Washington State Dept. of Health, 2013b). She has ignored the recent finding of a high incidence of anencephaly in this region which has not yet been explained. She has ignored the higher rates of certain infectious diseases in the Yakima Valley (Washington State Dept. of Health, 2013c). She has omitted the fact that Yakima County has one of the highest rates for asthma hospitalization in Washington State (Washington State Department of Health, 2013a). She did not cite research linking inversions to impaired health in spite of the fact that a recent, well-known study in Utah shows a strong connection between prolonged inversions and hospitalization for asthma. (Beard et al, 2011). She ignored the 106 pieces of research provided by the petitioners to support their request. She did not address sulfur dioxide, hydrogen sulfide, endotoxins or volatile organic compounds.

Thank you for reading and considering this material

Jean Mendoza

References:

- Agency for toxic Substances and Drug Research (n.d.) Minimum Risk Levels for Hazardous Substances. Retrieved from http://www.atsdr.cdc.gov/mrls/pdfs/atsdr_mrls_july_2013.pdf
- Beard, J.D., Beck, C., Graham, R., Packham, S.C., Traphagan, M., Giles, R.T. & Morgan, J.G. (2011) Winter Temperature Inversions and Emergency Department Visits for Asthma in Salt lake County, Utah, 2003 – 2008. *Environmental Health Perspectives* 120 (10). pp. 1385 – 1890. Retrieved from <http://ehp.niehs.nih.gov/wp-content/uploads/2012/09/ehp.1104349.pdf>
- Environmental Protection Agency (n.d.) *Particulate Matter (PM 10)* Retrieved from <http://www.epa.gov/airtrends/aqtrnd95/pm10.html>
- Environmental Protection Agency (n.d.) *The PM Center Program 2005 – 2010 Overviews and Abstracts*. Retrieved from <http://www.epa.gov/ncer/publications/workshop/11-30-2005/pmcentersabstract.pdf>
- Harvard Graduate School of Education (n.d.) *The Literature Review: A Research Journey 3rd Edition*. Retrieved from <http://guides.library.harvard.edu/literaturereview>
- National Academy of Sciences (2009) *On Being A Scientist: A Guide to Responsible Conduct in Research*. The National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=12192
- Turcios, L.R., Armstrong, J.L., Yost, M.G. & Karr, C. (2004) Airborne Total Dust, PM 2.5, and NH3 and Residential Proximity to Confined Animal Feeding Operations (CAFOs) and Rural Roadways. University of Washington School of Public Health. Retrieved from <http://deohs.washington.edu/sites/default/files/research/posters/undergraduate/lilian-turcios.pdf>
- Van Recken, T. et al (2013) *The Yakima Wintertime Nitrate Study (YAWNS): Motivations and Preliminary Results*. Washington State University. Retrieved from http://lar.wsu.edu/nw-airquest/docs/20130207_meeting/20130207_YAWNS_VanReken.pdf
- Washington State Department of Health (2013a) The Burden of Asthma in Washington State: 2013 Update. Retrieved from <http://www.doh.wa.gov/Portals/1/Documents/Pubs/345-240-AsthmaBurdenRept13.pdf>
- Washington State Department of Health (2013b) Preterm Delivery for Singleton Births. Retrieved from http://www.doh.wa.gov/Portals/1/Documents/Pubs/160-015_MCHDataReportPrenatalDeliv.pdf
- Washington State Department of Health (2013c) Communicable Disease Surveillance Data. Retrieved from <http://www.doh.wa.gov/DataandStatisticalReports/DiseasesandChronicConditions/CommunicableDiseaseSurveillanceData/AnnualCDSurveillanceReports.aspx>

Timeline for Yakima Regional Clean Air Agency Policymaking Re Dairies

We present this timeline for YRCAA actions to help the reader better understand what has happened in Yakima County regarding dairy air quality over the past 50 years.

1967

The Yakima Regional Clean Air Authority, later the Yakima Regional Clean Air Agency, is formed per RCW 70.94.081

1997

YRCAA adopts a Beef Cattle Feedlot Air Policy

2002

YRCAA approves Confined Heifer Operations Dust Control Policy

2010

YRCAA discussion re AQMP for Dairies begins

Publication of *Emission Data from Two Dairy Freestall Barns in Washington*. Study performed in the LYV by WA State University for the National Air Emissions Monitoring Study.

2011

John Hopkins study, *Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment*. The lead author presents the study to the YRCAA. There is no agency action.

February, YRCAA published public comments for the AQMP for dairies.

February, YRCAA Board of Directors approved the AQMP for dairies as a pilot research project.

2012

Presentation of Draft AQMP for Dairies at YRCAA Board Meeting

2013

May, Citizens present a petition to ban spreading and spraying of manure during burn bans and air inversions. The YRCAA Director recommends rejecting the petition and the YRCAA Board agrees.

June, the YRCAA Board of Directors approves an *Air Quality Management Policy and Best Management Practices for Dairy Operations (AQMP)*.

November, FOTC presents a critique of the Literature Review used to rebut a need for Ban on Spraying Manure during Inversions

2014

YRCAA adopts a *PM Advance Program Path Forward*

January, YRCAA forms an Agricultural Task Force and a Dairy Work Group

The Yakima Air Winter Nitrate Study is completed

November, Board Study Session to review *Report to the YRCAA Board of Directors of the July, 2013 to October 2014 Policy Implementation Period* – two board members hear the report.

Publication of Ecology's *2011 County Emissions Inventory*.

Additional air monitor placed in Sunnyside.

2015

YRCAA Board of Directors tables a proposed Five-Year Strategic Plan

University of Washington publishes studies on asthmatic children in the Yakima Valley.

FOTC asked the YRCAA to address Global Warming and Climate Change.

2016

FOTC asks the WA Dept of Health and the Yakima Health District for an “expert opinion on when and under what conditions it is safe to apply manures, especially aerosolized manures, to cropland when human and animal exposures and health risks are taken into consideration.” To date there has been correspondence but there have been no substantive answers.

FOTC responds to an article in two local newspapers that quotes the YRCAA Director and states that ammonia emissions from animal agriculture are insignificant.

FOTC analyzes ammonia emissions in Yakima County and shares the study with YRCAA. The YRCAA takes no action.

FOTC files a Civil Rights Complaint to the EPA re YRCAA

FOTC asks Ecology to investigate the YRCAA under RCW 70A.15.3100

FOTC complains about conflict of interest for a YRCAA Board Member

2017

Steve George from the Yakima Dairy Federation tells the YRCAA Board of Directors that he can speak for the dairy farmworkers.

YRCAA denies a second petition to ban manure spraying during burn bans and inversions.

2018

AQMP for Dairies rescinded

2019

FOTC repeats a request for Ecology to investigate YRCAA. The request is denied.

WA State helps a mushroom operation, with known odorous air emissions, to relocate from the west side of the state to the Sunnyside area.

The EPA Office of Civil Rights External Compliance comes to an agreement with the YRCAA regarding engagement of Spanish speaking residents.

2020

University of Washington publishes studies on asthmatic children in the Yakima Valley.

Laws Misinterpreted by YRCAA

RCW 70A.15.1070

Causing or permitting air pollution unlawful—Exception.

Except where specified in a variance permit, as provided in RCW [70A.15.2310](#), it shall be unlawful for any person to cause air pollution or permit it to be caused in violation of this chapter, or of any ordinance, resolution, rule or regulation validly promulgated hereunder.

RCW 70A.15.2000

Air pollution control authority—Board of directors—Composition—Term.

(6) Wherever a member of a board has a potential conflict of interest in an action before the board, the member shall declare to the board the nature of the potential conflict prior to participating in the action review. The board shall, if the potential conflict of interest, in the judgment of a majority of the board, may prevent the member from a fair and objective review of the case, remove the member from participation in the action.

RCW 70A.15.3150

Penalties.

(2) Any person who negligently releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who at the time negligently places another person in imminent danger of death or substantial bodily harm is guilty of a gross misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for up to three hundred sixty-four days, or both.

(3) Any person who knowingly releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who knows at the time that he or she thereby places another person in imminent danger of death or substantial bodily harm, is guilty of a class C felony and shall, upon conviction, be punished by a fine of not less than fifty thousand dollars, or by imprisonment for not more than five years, or both.

(4) Any person who knowingly fails to disclose a potential conflict of interest under RCW [70A.15.2000](#) is guilty of a gross misdemeanor, and upon conviction thereof shall be punished by a fine of not more than five thousand dollars.

RCW 70A.15.4530

Odors or fugitive dust caused by agricultural activities consistent with good agricultural practices exempt from chapter.

Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter **unless they have a substantial adverse effect on public health.** In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.

RCW 70A.15.6200

Legislative declaration—Intent.

The legislature recognizes that:

Acid deposition resulting from commercial, industrial or other emissions of sulphur dioxide and nitrogen oxides pose a threat to the delicate balance of the state's ecological systems, particularly in alpine lakes that are known to be highly sensitive to acidification;

Failure to act promptly and decisively to mitigate or eliminate this danger may soon result in untold and irreparable damage to the fish, forest, wildlife, agricultural, water, and recreational resources of this state;

There is a direct correlation between emissions of sulphur dioxides and nitrogen oxides and increases in acid deposition;

Acidification is cumulative; and

Once an environment is acidified, it is difficult, if not impossible, to restore the natural balance.

It is therefore the intent of the legislature to provide for early detection of acidification and the resulting environmental degradation through continued monitoring of acid deposition levels and trends, and major source changes, so that the legislature can take any necessary action to prevent environmental degradation resulting from acid deposition.

WAC 173-400-040

General standards for maximum emissions.

(4) **Fugitive emissions.** The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

If the emissions unit has been identified as a significant contributor to the nonattainment status of a designated nonattainment area, the owner or operator shall be required to use reasonable and available control methods, which shall include any necessary changes in technology, process, or other control strategies to control emissions of the air contaminants for which nonattainment has been designated.

(5) **Odors.** Any person who shall cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of her or his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

(6) **Emissions detrimental to persons or property.** No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

(8) **Concealment and masking.** No person shall cause or allow the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

(9) **Fugitive dust.**

The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions.

The owner or operator of any existing source or activity that generates fugitive dust that has been identified as a significant contributor to a PM-10 or PM-2.5 nonattainment area is required to use reasonably available control technology to control emissions. Significance will be determined by the criteria found in WAC [173-400-113\(4\)](#).

WAC 173-400-075

Emission standards for sources emitting hazardous air pollutants.

National emission standards for hazardous air pollutants (NESHAPs). 40 C.F.R. Part 61 and Appendices (in effect on the date in WAC [173-400-025](#)) are adopted. The term "administrator" in 40 C.F.R. Part 61 includes the permitting authority.

The permitting authority may conduct source tests and require access to records, books, files, and other information specific to the control, recovery, or release of those pollutants regulated under 40 C.F.R. Parts 61, 62, 63 and 65, as applicable, in order to determine the status of compliance of sources of these contaminants and to carry out its enforcement responsibilities.

Source testing, monitoring, and analytical methods for sources of hazardous air pollutants must conform with the requirements of 40 C.F.R. Parts 51, 60, 61, 62, 63 and 65, as applicable.

WAC 173-400-220

Requirements for board members.

Public interest. A majority of the members of any ecology or authority board shall represent the public interest. A majority of the members of such boards, shall not derive any significant portion of their income from persons subject to enforcement orders pursuant to the state and federal clean air acts. An elected public official and the board shall be presumed to represent the public interest. In the event that a member derives a significant portion of his/her income from persons subject to enforcement orders, he/she shall delegate sole responsibility for administration of any part of the program which involves these persons to an assistant.

Disclosure. Each member of any ecology or authority board shall adequately disclose any potential conflict of interest in any matter prior to any action or consideration thereon, and the member shall remove themselves from participation as a board member in any action or voting on such matter.

Define significant income. For the purposes of this section, "significant portion of income" shall mean twenty percent of gross personal income for a calendar year. In the case of a retired person, "significant portion of income" shall mean fifty percent of income in the form of pension or retirement benefits from a single source other than Social Security. Income derived from employment with local or state government shall not be considered in the determination of "significant portion of income."

WAC 173-400-260

Conflict of interest.

All board members and officials acting or voting on decisions affecting air pollution sources, must comply with the Federal Clean Air Act, as it pertains to conflict of interest (Section 128).

YRCAA Regulation 1

https://www.yakimacleanair.org/site/files/file_manager/page/shared/YRCAA%20Regulation%201-%202020%20FINAL.pdf

1.07 General Provisions

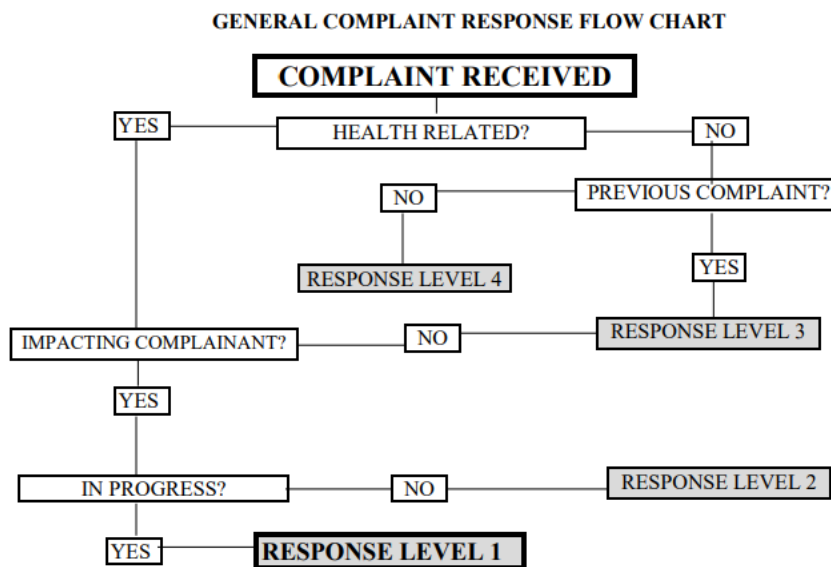
B. FALSE OR MISLEADING INFORMATION. 1. False Statements. No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70A.15 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.

YRCAA Administrative Code B

5.6 Complaint Response The agency receives complaints about alleged air pollution violations routinely via voice mail, phone, e-mail, mail and in person. These complaint response guidelines are used to promote uniform complaint response and to help maximize complaint response efforts. The flow chart is used to channel generic types of complaints to pre-selected response levels. The general nature of the policy may cause some complaints to be assigned at an inappropriate response level. In these cases, professional judgment and initiative should be used to reassign the complaint to the appropriate level. Complaints involving other governmental agencies should be referred to the appropriate agency. Complaints involving imminent danger to life or health will be responded to immediately, regardless of the following guidance. 5.6.1 Receipt and Entry When staff receives a complaint, it will be immediately entered into a database and forwarded to the Complaint Manager. The Complaint Manager will determine if: a. It alleges an actual air pollution violation over which the agency has jurisdiction; b. The alleged violator is identified; c. The complainant is identified; d. The location of the alleged violation is

identified; and e. The date and time of the alleged violation is identified. 5.6.2 Invalid Complaints If the complainant did not or will not supply all the above information, the complaint will not be considered a valid complaint and no response action will be conducted, except to update the database with, “insufficient information to qualify as a valid complaint.”

5.6.3 Response Levels The complaint will be immediately forwarded to the Complaint Manager to determine the appropriate response level. The Complaint Manager will assign the complaint to appropriate staff for response. The following response levels will be used in conjunction with the complaint response flow chart. a. Level 1 Attempt same day site inspection. Request backup if not available for same day response. b. Level 2 Attempt inspection within 48 hours. Request backup if not available for 48 hour response. c. Level 3 Attempt site inspection within 7 days. Request backup if not available for 7 day response. d. Level 4 Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action. A phone call or a fax may be helpful but, it should be followed up in writing.



1.6.4 Tracking The Administrative Assistant will track assignment, response and resolution of each complaint and update the database. a. Data Entry The complaint database will be updated as soon as possible after the response action is completed, no later than three working days. b. Review An updated copy of the complaint form will be forwarded to the Complaint Manager for review. The Complaint Manager will determine if the complaint was addressed adequately and either file the complaint or assign for further action. a. Enforcement Complaints resulting in Notices of Violation will be updated and copies maintained in the enforcement file. Any questions or problems will be referred to the Compliance Division Supervisor for resolution.

5.7.4 Off-Premises Observation

- a. Observations of areas surrounding the facility before entering may reveal a variety of signs of operational practices and pollutant emissions which can aid in the pre-entry evaluation. These include, but are not limited to:
 - i. Obvious vegetation damage near the facility;
 - ii. Odors downwind of the facility;
 - iii. Deposits on vehicles parked near the facility;
 - iv. Other signs of fugitive dust downwind of the facility;
 - v. Fugitive emissions near facility boundaries;
 - vi. Mud or dirt tracked onto public roads or streets; and
 - vii. Proximity of potential receptors.
- b. If odors are present, the weather conditions (including wind speed and direction) should be noted in the compliance evaluation report. Once inside the facility, olfactory fatigue may reduce the compliance evaluator's ability to detect these odors.
- c. In addition to observing the facility surroundings prior to entry, the compliance evaluator should also perform visible emission observations. Although some emission points may not be visible from a location outside the facility property lines, those that are should be read and recorded prior to entry.

5.8 Evidence is the data used by the Agency to support or establish the truth of an allegation. It can be any information or proof which clarifies or helps establish the truth. During the course of an inspection, compliance staff may make observations, conduct interviews, obtain statements, obtain or copy documents, take photographs and collect samples. All of these may become evidence. There are five different types of evidence:

- a. Testimonial Observations made from personal knowledge, derived from a person's sense of smell, touch, sight, taste or hearing;
- b. Direct The object, item or thing itself (e. g., physical material samples);
- c. Documentary A document having significance due to its content (e. g., reports, logs, notifications, manuals);
- d. Demonstrative Something other than the above which is prepared or selected to support, illustrate or otherwise make some fact clearer or easier to understand (e. g., photographs, diagrams, maps, summaries, video tapes); and
- e. Judicially Noticed Matters about which there could be no dispute and become evidence by virtue of their being officially noticed by an administrative or court judge (e. g., YRCAA regulations, scientifically accepted facts, geographic locations, matters of common knowledge).

5.8.1 Evidence Collection An inspection is the process whereby evidence is legally collected and documented. The Agency's case is dependent on the evidence gathered during an inspection. It is

imperative that sufficient evidence be gathered to support a finding and that all pertinent circumstances supporting a compliance determination be clearly documented in the body of an inspection report. Responsibilities in the collection of evidence include:

- a. Substantiating facts with items of evidence, including samples, photographs, copies of documents, statements from witnesses and personal observations;
- b. Collecting evidence in a manner that can be substantiated in legal proceedings;
- c. Documenting the collection of supporting evidence in a clear and detailed manner; and
- d. Maintaining the chain of custody and integrity of physical samples. The following sections are divided into the first four of five types of evidence discussed previously (judicially noticed evidence is only substantiated by courts of law). In each section the most common forms of evidence collection are addressed along with procedures for collection, preservation and documentation.

5.8.2 Testimonial

a. Employee Observations made by an employee during an inspection are the most common form of testimonial evidence. They are indirectly supported by the qualifications of the person making the observations. In some cases, Agency personnel may be considered expert witnesses based on individual education and experience. Quite often, the observations of the employee are the only evidence supporting an alleged violation, so it is imperative that all applicable observations be documented in the inspection report.

b. Statements On occasion it may be necessary to obtain a formal statement from a person or persons who may have first hand knowledge of relevant facts. A statement of fact is signed and dated by the person who can testify to those facts in court. The principal objective of obtaining a statement is to record in writing, clearly and concisely, relevant factual information so that it can be used as documentary support. The following are recommended procedures to follow when considering whether to take a statement:

i. Determine the need for a statement. Will it provide useful information? Is the person making the statement qualified to do so by personal knowledge?

ii. Determine the facts and record those which are relevant and which the person can verify under oath. Make sure all information is factual and first hand. Avoid taking statements that cannot be corroborated.

iii. The person preparing a statement should:

1. Use a simple narrative style;
2. Avoiding stilted language;
3. Narrate the facts in the words of the person making the statement;

4. Use the first person singular; and 5. Present the facts in chronological order including all relevant dates and times, unless the situation calls for other arrangements.

iv. YRCAA staff should:

1. Document why the person is qualified to make the statement;
2. Have the person sign and date the statement; and
3. Always provide a copy of the statement to the signer.

5.8.3 Direct The collection of material samples is often necessary to establish a "substance specific" violation (e. g. asbestos). The Agency's successful processing of enforcement actions is dependent on samples carefully collected, preserved and presented. The integrity of evidence must be established on all material objects collected, and records must support the integrity of the evidence. This section outlines the recommended procedures for collecting and handling samples.

a. Consent Samples may always be taken from public property but consent is required to collect samples from private property. As long as the employee is allowed to sample it is considered voluntary and consensual. Absence of an expressed denial constitutes consent. Expressed consent is not necessary.

b. Split Samples A portion of the recovered sample should be offered to a facility responsible person so they can conduct an independent analysis. Whenever a split sample is taken, Agency personnel should try to select homogeneous materials so the samples will be as similar as possible.

c. Equipment All sample containers must be clean prior to recovering a sample to eliminate cross contamination of the specimen. To ensure the accuracy of collection instruments or devices used to obtain a sample, the equipment must be properly calibrated before and after the sampling. Documentation of the calibration should be included in the inspection report.

d. Identification All evidence must be clearly identified and labeled or tagged to show:

- i. The date and time collected;
- ii. The name of the person collecting the evidence;
- iii. The name and address of the premises involved;
- iv. The specific location where the evidence was collected. Photo documentation, where possible, will strengthen the integrity of the evidence; and
- v. Identify the sample with a distinct numbering system.

e. Chain of Custody For the laboratory analysis of a sample to be admissible as evidence, a logical and documented connection must be shown between the samples taken and the analytical

results reported. This connection is shown by using the chain of custody procedures which document sample integrity from the time the sample was taken to the time it is analyzed. Agency personnel taking the samples are responsible for assuring that the chain of custody procedures are observed. Every person handling Agency samples or any other materials collected as evidence must follow the chain of custody requirements. Whenever possible, employees who collect the samples should deliver the samples to the laboratory and request the analysis themselves thus, limiting the number of persons handling the sample. To establish and maintain an effective chain of custody on evidence, the sample collector should follow four general rules:

- i. Evidence should be handled by as few persons as possible;
- ii. Evidence handling procedures must ensure the evidence is not contaminated or altered;
- iii. The names of all persons handling evidence, and the date and time of such handling, must be recorded to show continuous custody and control from collection to presentation. There should be no gaps in the accountability; and
- iv. Physical evidence must be secured in a locked area with limited accessibility to keep the evidence from being tampered with or lost.

f. Chain of Custody Form Records must support the integrity of the evidence. Every person handling the evidence must be identified to show continuity of custody. Persons completing the Chain of Custody must handle it as a legal document. When the sample is transferred from one person or agency to another, both the sample and the form become links in the chain of custody of evidence. The lower portion of the form is a record of transfer and receipt of the sample, and thus is a written account of all persons responsible for routing, processing and storing of the sample. The following entries on the form must be completed:

- i. Relinquished by - The person giving up the sample must sign the form.
- ii. Received by - The person receiving the sample must sign the form.
- iii. Firm/Agency - Name of the laboratory performing the analysis.
- iv. Date - Date the sample is submitted to the laboratory.
- v. Time - Time the sample is delivered to the laboratory.
- vi. Analysis - Type of analysis requested.

To establish and maintain an effective chain of custody on evidence, the sample collector should follow four general rules:

- i. Evidence should be handled by as few persons as possible;
- ii. Evidence handling procedures must ensure the evidence is not contaminated or altered;

iii. The names of all persons handling evidence, and the date and time of such handling, must be recorded to show continuous custody and control from collection to presentation. There should be no gaps in the accountability; and

iv. Physical evidence must be secured in a locked area with limited accessibility to keep the evidence from being tampered with or lost.

f. Chain of Custody Form Records must support the integrity of the evidence. Every person handling the evidence must be identified to show continuity of custody. Persons completing the Chain of Custody must handle it as a legal document. When the sample is transferred from one person or agency to another, both the sample and the form become links in the chain of custody of evidence. The lower portion of the form is a record of transfer and receipt of the sample, and thus is a written account of all persons responsible for routing, processing and storing of the sample. The following entries on the form must be completed:

i. Relinquished by - The person giving up the sample must sign the form.

ii. Received by - The person receiving the sample must sign the form.

iii. Firm/Agency - Name of the laboratory performing the analysis.

iv. Date - Date the sample is submitted to the laboratory.

v. Time - Time the sample is delivered to the laboratory.

vi. Analysis - Type of analysis requested.

5.8.4 Documentary Documentation is a general term referring to all print and mechanical media produced, copied or taken by Agency personnel to provide evidence of facility operating conditions. Types of documentation include inspection reports, checklists, drawings, flow sheets, maps, lab analyses of samples, chain of custody records, statements, copies of records, printed materials and photographs. Any documentation gathered or produced in the course of the inspection process may eventually become part of an enforcement proceeding. To this end, it is the employee's responsibility to produce documentation that is legible, concise, objective, accurate and complete. All documents taken or prepared by Agency personnel should be noted and related to specific inspection activities. (For example, photographs taken at a sampling site should be listed, described and related to the specific sample number.)

a. Photographs Clear photographs of relevant subjects provide an objective record of conditions at the time of inspection and therefore are valuable support to other evidence. To be admissible as evidence generally an employee must be able to testify that any given photograph "fairly and accurately represents" what he/she saw at the site on that date. When a situation arises that dictates the use of photographs, the employee should obtain consent to take photographs from the facility representative. As long as the employee is allowed to photograph it is considered voluntary and consensual. Absence of an expressed denial constitutes consent;

expressed consent is not necessary. The employee must be tactful in handling any concerns or objections about the use of a camera. If the facility representative denies the employee permission to take photographs, the employee should request the facility to provide a photographer. Photographs may always be taken from areas of public access (e.g., outside the fence, from the road, from the parking lot, etc.) as long as no equipment is used that might extend over or onto private property. Photographs are only as good as the documentation accompanying the photographs, because the employee must be able to convince a Hearings Board, a judge or a jury that the photographs fairly and accurately represent what the employee saw at a given facility on a given date. To build the documentation necessary for this purpose, the employee should enter notes about each photograph in the inspection report in its proper place in the chronology of the inspection, and in a separate photo record log. When taking a photograph, the employee should visualize how the photographs will look to the general public or in a courtroom. Evidence may be strengthened by photographs when the picture tells its story with a minimum of explanation. There are several guidelines that should be considered:

i. **Direction** It is helpful to photograph a subject from a point that will indicate direction and location of the subject;

ii. **Center of Interest** There should be only one major subject or center of interest in a scene. When taking photographs, the employee should eliminate or subordinate all secondary elements and focus on the main element. Be sure the subject actually fills the view finder;

iii. **Simple Background** The background should be kept simple, so as not to distract attention from the main subject;

iv. **Scale** If the subject is unknown or unfamiliar to viewers, the employee should include some familiar object to indicate comparative size (e.g., a person, a car, a pen);

v. **Location or Context** It is sometimes useful to photograph a subject from a point where the location of the subject will be clear in relation to other features;

vi. **Motion** If action or movement is implied by the photograph, more space should be allocated in the direction of the action than away from it;

vii. **Tones** Make sure the background is tonally distinct from the subject. Imagine how tones will look when reduced to gray; and

viii. **Safety** In areas where there is a danger of explosion, flash photographs should not be taken. If there is a danger of electrical shock, photographs should be taken from a distance known to be safe. A photo log should be maintained for all photographs taken during an inspection, and the entries made at the time the photographs are taken. These entries are to be numerically identified so that after the photos are downloaded to a file, they can be serially numbered corresponding to the logbook description. The log entries should include the name of the photographer, a description of film used (i.e., its ID number and ASA number), date,

location, a brief description of the subject being photographed and the registration number of the source or complaint number. If printed, prints should be numbered and identified corresponding to the photo log. Employees should not write on the front of the print.

b. Records Agency personnel are authorized to obtain copies of any facility records necessary to complete the inspection report. When employees are called to testify in court, they must be able to positively identify each particular document and state its source and the reason for its collection. The employee should initial, date, number and record the facility's name on each record, and reference these items in the field notes. Originals should be returned to the proper personnel or to their correct location.

c. Printed Material Brochures, literature, labels and other printed matter may provide important information regarding a facility's condition and operations. These materials may be collected as documentation, if, in the employee's judgment, they are relevant. All printed matter should be identified with the date, employee's initials and related sample numbers. Reference to these materials should be made in the field notes.

5.8.5 Demonstrative Schematic drawings, flow sheets, maps, charts and other graphic records can be useful as supporting documentation. They can provide graphic clarification of location relative to the overall facility, relative height and size of objects and other information which, in combination with samples, photographs and other documentation, can produce an accurate, complete evidence package. Drawings can provide graphic clarification of a site location relative to an overall facility and the parameters of an emission or contamination. A drawing can be entered directly into the inspection report itself; this integrates it clearly with other notes in chronological order. Drawings should be free of unnecessary details. Basic measurements and compass points should be included as necessary to provide a scale for interpretation. Some types of drawings are:

a. General sketch of the facility;

b. Sketch showing where photos and/or samples were taken;

c. Sketch showing where potential violations are observed; and

d. Sketch showing the layout of a particular part of a facility, which was the major focus of the inspection. Although, not as accurate or credible as a photograph, drawings and diagrams are good backup methods when photography cannot suffice. Sometimes a photograph would contain so much detail that the crucial features are not clear or would require too much explanation. In such cases a good, simple schematic drawing or diagram can be useful. The drawing should contain notations of the approximate dimensions of the subject. The level of accuracy of the drawing should also be noted (e.g., "estimated" or "measured with steel tape"). All such visual notes should be referenced to show where the subject was observed in the facility. All drawings should be labeled "not to scale".

Comment 2

Friends of Toppenish Creek

Hello Ecology,

Please consider this a request from the Friends of Toppenish Creek for a public meeting on the Yakima Regional Clean Air Agency State Implementation Plan.

Would you send us guidelines for this meeting so we can effectively participate?

Thank you.

Jean Mendoza

Submittal 3

Coleen Anderson

I just recently learned about your open meeting to give comments on your proposed SIP. I understand that YRCAA is our local organization tasked with enforcing the federal and state air quality laws. As you know, President Biden has set targets lowering GHG emissions 50-52% by 2030 from 2005 levels, achieving net zero greenhouse gas emissions by no later than 2050, and limiting global warming to 1.5 degrees Celsius. On the State level, Governor Inslee has set goals to reduce greenhouse gas emissions by 2030 to 45% below 1990 levels, by 2040 to 70% below 1990 levels, and by 2050 to 95% below 1990 levels to achieve net zero emissions. These targets are grounded in analysis that explored sectors of the economy that produce CO₂ and non-CO₂ greenhouse gases: electricity, transportation, buildings, industry, and lands. I would like to see YRCAA pledge its alliance with these targets in ALL of these sectors. These goals and targets should be included in the current SIP. Currently neither in its SIP nor on its website does YRCAA commit to these incremental reductions over time nor does it express its desire to adhere to the federal and state targets. I would like assurances that the local agency is in line with our nation's goals.

The only specific pollution sources the SIP includes are the dry-cleaning Industry and various burning scenarios. The only time CAFOs are mentioned is with regard to "dust from cattle feeding operations." Besides particulate matter and lowering air quality in the areas around them, CAFOs also emit greenhouse and methane gases and contribute to climate change. The EPA attributes manure management as the fourth leading source of nitrous oxide emissions and the fifth leading source of methane emissions. It can only be assumed that these and other greenhouse gas emissions from CAFOs will rise and continue to contribute to climate change and unhealthy air quality. As an example, one way emissions could be curtailed is that before CAFO permits are renewed, they would be required to install anaerobic digesters to capture the CO₂, methane and gases that are being emitted from their operations. I don't know if your agency has the authority to make those kinds of rules, but if it does it needs to start focusing on them now. Insofar as your agency is empowered to create rules and regulations, or to approve permits, the urgency of these federal, state and local emissions reduction goals should be emphasized. Until emissions from CAFOs are controlled, we are spinning our wheels in reaching our targets.

References:

Center for Disease Control:

https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf

Submittal 4

Caudill, Anya (ECY)

From: Sandy Braden <sbraden09@gmail.com>
Sent: Tuesday, August 03, 2021 7:41 PM
To: Caudill, Anya (ECY)
Subject: Fwd: Yakima Regional Clean Air Agency-incompetency or hearsay?

Follow Up Flag: Follow up
Flag Status: Flagged

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Hi Anya,

Here is some documented information providing proof of what I spoke of today on the SIP conference call where I addressed the YRCAA's inefficiency and in particular, Keith Hurley's failure as a competent, knowledgeable leader of the agency.

I submitted this information to Amanda McKinney, the new Yakima County Commissioner for her perusal. I did not receive a response from her. Nor did I receive any indication that the YRCAA was going to address any of my concerns. The agency does not like to hear any citizen complaints.

Thank you.

Sandy Braden

The following YPAC video is of the February 13th, 2020 YRCAA meeting. During the public comment section, toward the end of the session, please listen carefully to what Keith Hurley says about the previous burning of trees being done in the past in the West WA and 64th Avenue location. This site is within the Urban Growth Area of Yakima. Also, note what he says to my direct question about what the future use is for the specific land in question. This video is not hearsay. It is factual, recorded, official proof.

Mr. Hurley clearly does not know that the above mentioned land is zoned as Small Convenience Center (SCC), not Suburban Residential (SR). The zoning was changed on March 18th, 2008, Ordinance NO. 2008-10. Walter and Virginia Mick were the land owners at that time. Parcels numbered 18133332403, 18133332404 and 18133332405 are listed as their properties. All three parcels are zoned as SCC and can not have crops planted on them because of their zoning

classification.

**ORDINANCE NO. 2008-10**

AN ORDINANCE relating to land use regulation and zoning, rezoning, with conditions, three parcels of property located in the vicinity of the SE Corner of S 64th Avenue and W Washington Avenue, Yakima, Washington from Suburban Residential, (SR) to Small Convenience Center (SCC) as more fully described herein, and approving, with conditions, the recommendation of the Hearing Examiner for the City of Yakima regarding the same, Walter Mick, and Virginia Mick, identified as the applicants herein

WHEREAS, by application dated April 18, 2007, Walter and Virginia Mick requested the rezone of Yakima County Assessor's Parcel Nos 181333-32403, 181333-32404 and 181333-32405, located in the vicinity of the SE Corner of S 64th Avenue and W Washington Avenue, Yakima, Washington (hereinafter "Subject Property"), from Suburban Residential, (SR), to Small Convenience Center, (SCC), and

WHEREAS, on October 11, 2007 and continued on October 19, 2007, the Hearing Examiner for the City of Yakima conducted an open-record public hearing regarding the requested rezone, and

WHEREAS, on November 2, 2007 the Hearing Examiner issued Hearing Examiner's Recommendation regarding CPA Amend #1-07, Rezone #3-07, and EC #11-07, (the "recommendation") recommending that the Subject Property be rezoned from Suburban Residential, (SR) to Small Convenience Center (SCC), and

WHEREAS, at a closed-record public hearing held on March 18, 2008, the City Council considered the requested rezone, including the documents and other evidence which comprise the record developed before the Hearing Examiner, the Hearing Examiner's Recommendation, and the statements and comments of interested persons, and

WHEREAS, the City Council finds that the considerations of the Hearing Examiner in response to the requirements and criteria of Yakima Municipal Code ("YMC") § 15.23 030(E) and § 15 15 040(5) are correct and appropriate, and that the same should be adopted by the City Council as its findings herein; and

WHEREAS, the City Council finds that it is in the best interest of the City to enact the following to approve the requested rezone, **Now Therefore**,

BE IT ORDAINED BY THE CITY OF YAKIMA:

Section 1 The property located in the vicinity of the SE Corner of S 64th Avenue and W Washington Avenue, Yakima, Washington (Yakima County Assessor's Parcel Nos 181333-32403, 181333-32404 and 181333-32405), legally described in Exhibit "A", attached hereto and incorporated herein by this reference, is hereby rezoned from Suburban Residential, (SR), to Small Convenience Center, (SCC)

Section 2. The findings within the November 2, 2007 Hearing Examiner's Recommendation (UAZO RZ #3-07, EC #11-07) regarding this rezone are hereby adopted by the City Council as its findings in support hereof pursuant to YMC § 15 23 030(F), and are incorporated herein by this reference as if fully set forth herein.

<https://videos.yakimawa.gov/CablecastPublicSite/show/9766?channel=2>

The next following video is an official YPAC video of March 14th, 2019, where the Don Lyon smoke complaint from the North Wenas and Wickstrom Lane road areas is discussed by Mr. Hurley, the YRCAA Board and me. Again, this not hearsay. It is, in fact, officially recorded by the YRCAA YPAC system.

<https://videos.yakimawa.gov/CablecastPublicSite/show/9156?channel=2>

During that public comment session, I bring up the fact that Dustin Harrington was the burn inspector who finally showed up after Mr. Lyon called the YRCAA four times for someone to check out the smoke issues with the burn in question. Mr. Harrington spoke with, but did nothing to penalize the persons doing the burning. Rodney and Jody Lakey were the individuals on Wickstrom Lane road who initiated the burning, according to Mr. Lyon. Their land parcel numbers are: 18142412413 and 18142421406.

Mr. Harrington chose to ignore the fact that the type of permit that the Lakey family had purchased from a local hardware store was not the correct permit for what they were burning and the size of the wood that was piled up. According to Mr. Lyon, it took a loader tractor to pile up the wood being burned. The type of permit needed apparently was an Agricultural permit, not a \$58.00 residential permit. Hardware stores don't sell AG permits. I was told by Brittany, the Helm's Hardware store permit agent, that one can only secure an AG permit from the YRCAA, not a local hardware store.

Don and Nyla Lyon sold their North Wenas Road property in December of 2019 because they did not wish to deal with the smoke issues in that area and how it was affecting their abilities to breathe. The lack of meaningful, competent support from the YRCAA had a major impact on their departure from the Yakima Valley.

I recently located Don Lyon at his new home in Hayfield, MN. I spoke to him about his past air quality complaint here in the Yakima Valley.

If you wish to talk to Mr. Lyon to verify my comments about his negative experience with the efficiency of the YRCAA, please call him at 1-507-671-5399.

Respectfully,
Sandy Braden

Submittal 5

Dean Effler

YRCAA: state implementation plan

1. I would ask Department of Ecology to ask the legislature to Revise the make up of the voting membership of YRCAA. More than 50% of the members should be community members without financial or family links to industries that contribute to air pollution. The other 50% would be industry representatives and county commissioners. Scientists who work for YRCAA should be attending the board meetings as an informational source but not as a voting member. This allows the board to go beyond scientific reports, wood smoke, and wood stoves to address air quality problems that effect citizens' health, well being, and their ability to enjoy their private property. Right now the YRCAA does not address the air quality conditions in all parts of the county and ignores those conditions that are most unhealthy and contribute most to the dissatisfaction of private citizens. As long as the industry dominates the YRCAA board these complaints will go unaddressed. At a minimum there should be at least one community member on the board who is not working in the agriculture industry or is a family member of someone who works in the agriculture industry. Ideally that citizen member should be someone who lives in a rural neighborhood where most of the air quality complaints come from.
2. The YRCAA needs to reconsider their stand to ignore citizen science that is done by individuals or community groups. FOTC did a valid preliminary study of ammonia levels at a residence near CAFOs. This study which included controls in the upper Yakima Valley showed average ammonia levels over a year to be 66 times higher in the lower valley than in the upper valley. Despite the fact that this information contributed to the understanding of the YAWNS study it was ignored by YRCAA. The EPA encourages citizen science but YRCAA does not.
3. YRCAA needs to work with citizen groups to obtain money to measure air quality in residential areas near agricultural pollution sources so that it can be known whether neighbors are exposed to unhealthy air. As long as the board is dominated by industry this will never happen.
4. When citizens complain about a health issue regarding pollution that is occurring right at the moment of the complaint, having an onsite visit within 48 hours is not adequate. Their policy should be changed to 12-24hrs for health complaints.

Dean Effler MD, FAAP

2334 Cook Rd.

Yakima, WA 98908

509-952-9574

Fotc94@gmail.com

[HTTPS://aq.ecology.commentinput.com/?id=VgTMj](https://aq.ecology.commentinput.com/?id=VgTMj)

Anya Caudill, Air Quality Program

Washington State Department of Ecology

P.O.Box 47600

Olympia, WA 98504-7600

Submittal 6

Friends of Toppenish Creek

Please see attached comments

August 6, 2021

Dear WA State Dept. of Ecology.

Please consider these comments regarding the Yakima Regional Clean Air Agency State Implementation Plan from the Friends of Toppenish Creek.

These are the facts:

Air quality in Yakima County is worsening

Concentrated animal feeding operations (CAFOs), mostly dairies, are significant contributors to Yakima County air pollution

The Yakima Regional Clean Air Agency does not regulate CAFO dairies as required by Washington air laws (See Attachment A)

The Yakima Regional Clean Air Agency ignores citizen complaints related to dairy CAFOs.

For these reasons FOTC requests these additions to the YRCAA SIP:

1. A delineation of qualifications for the position of Air Pollution Control Officer. The person who holds this position must have enough knowledge to lead Yakima County in addressing air pollution. Over the years citizens have asked the YRCAA to address climate change. At one time FOTC asked the agency to discuss reactive nitrogen in the atmosphere. The man who was director at that time laughed at us and told the board – everyone knows that the atmosphere is 80% nitrogen. End of story. I hope you agree that denial is no longer an adequate response to global warming and stonewalling is not a required skill for the APCO.
2. A statement that the YRCAA will address climate change in Yakima County as required by RCW 70A.45 and environmental justice as required by E2SSB 5141, the HEAL Act.
3. A requirement in the SIP for YRCAA to either perform the research needed to understand dairy emissions, or accept research performed by citizens or research institutions.
4. A requirement in the SIP for YRCAA to characterize emission of volatile organic compounds in Yakima County – because research confirms VOC emissions from LYV dairies exceed statutory thresholds under both WAC 173-400 and WAC 173-460.
5. A policy that addresses emissions from dairies as required by RCW 70A.15.1005, RCW 70A.15.3050 & WAC 173-400-100 (1) (j).
6. A policy that addresses emissions from composting operations, as required by WAC 173-400-100 (1) (l).
7. A statement that the YRCAA shall enforce the laws, as opposed to the current statement that YRCAA may enforce the laws. See Section 2.01 B & Section 2.01 E. FOTC made this request in July 2020 during the first review of YRCAA Regulation 1. YRCAA replied, “Enforcement discretion is and should remain with the duly appointed APCO.” What this means in fact is that the decision whether to investigate a complaint lies entirely with one

man. The current APCO has no training in the law, in science, in public health or in agriculture. If citizens go to court to complain about lack of investigation, there is a legal defense imbedded in the proposed SIP, that says the YRCAA regulations allow the APCO to choose which air quality violations to address. This probably could not stand up in court, but citizens would have to struggle through years of litigation to secure justice. Why not do the right thing at the start and write a SIP that is not arbitrary and capricious?

8. A change to Section 2.05 Appeals. Delete Section C and replace it with a process in which the YRCAA Board of Directors hears appeals of YRCAA action. This is more appropriate than forcing citizens to appeal to the WA State Pollution Control Hearings Board over complaints that can easily be addressed at the local level. Let us explain.

YRCAA Administrative Code Part B instructs YRCAA staff on decision making when responding to a citizen complaint about poor air quality. There are four levels of response.

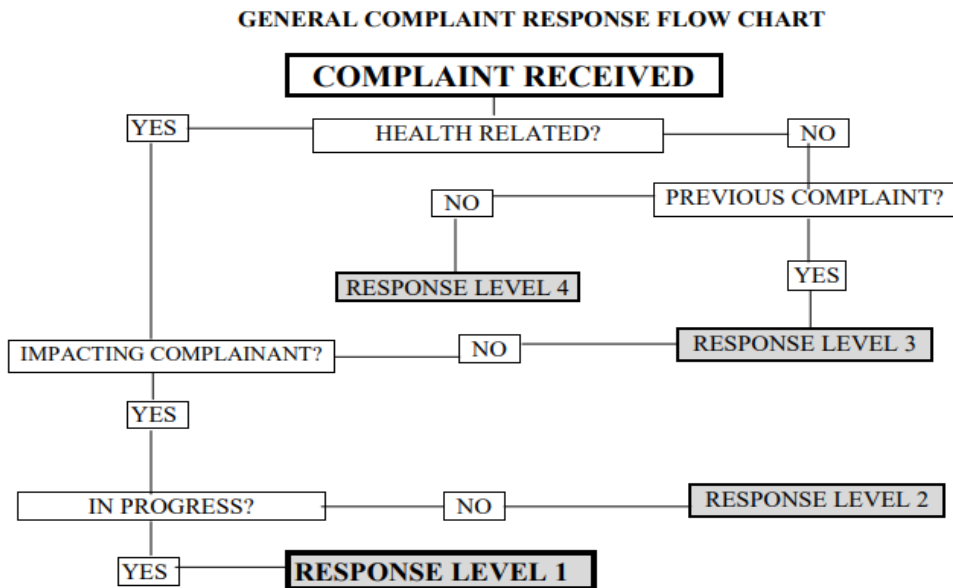
Level 1 Attempt same day site inspection. Request backup if not available for same day response.

Level 2 Attempt inspection within 48 hours. Request backup if not available for 48 hour response

Level 3 Attempt site inspection within 7 days. Request backup if not available for 7 day response.

Level 4 Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action. A phone call or a fax may be helpful but, it should be followed up in writing.

Here is the Decision Tree.



You can see that the only time there should be a level 4 response is when there is no threat to the citizen's health and there have been no previous complaints about the facility. In fact, the YRCAA staff frequently log a level 4 response when citizens complain of physical symptoms and there are previous complaints against the facility. (See Attachment B

What can citizens do when our legitimate concerns are dismissed so easily? The APCO ridicules our protests. It is hard to complain to the board of directors due to the complicated rules for public comments and the board's policy of not responding to citizen comments. Under the current policy the only option is for the citizen to lodge a complaint with the WA State Pollution Control Hearings Board. No one will go to the trouble of hiring an attorney and appealing to the PCHB over an issue like this. Would the PCHB even accept such an appeal? The YRCAA Board of Directors has the power, and we believe the duty, under RCW 70A.15.2040 (2) to "hold hearings relating to any aspect of or matter in the administration of this chapter." This makes for better government and keeps local issues at the local level where the people affected can participate.

9. Finally, FOTC believes that the YRCAA misinterprets RCW 70A.15.4530, the exemption for odor and fugitive dust. YRCAA claims the agency cannot regulate odor and dust from agriculture in any manner whatsoever, because of this law. That is incorrect. Ecology does this all the time in other parts of the state. To rectify that mis-interpretation we ask for additional language in the SIP that requires YRCAA to spell out what are acceptable agricultural practices and what are not. We ask the SIP to require a health screening process to be used by inspectors when responding to a dust or odor complaint.

YRCAA must decide whether it is an acceptable agricultural practice to:

- a. Spray manure into the ambient air during an inversion, when the air is unhealthy
- b. Compost manure inside the pens and corrals where animals live
- c. Compost hundreds of animal carcasses in one place at one time.
- d. Store lime uncovered in the open air
- e. Stack and stockpile manure untreated for years at a time
- f. Turn compost during windy days
- g. Ignore nutrient management plans

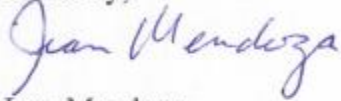
We suggest that YRCAA staff should screen for health risks by asking citizens the following questions when they complain of air pollution:

- a. What symptoms are you experiencing? (headache, nausea, watering eyes, shortness of breath, chest pain, rash, etc.)
- b. Do you have any chronic illnesses? (asthma, emphysema, heart disease, organ transplant)
- c. Have you had to take medication because of the poor air quality? (nitroglycerin, inhaler, Tylenol, steroids)

- d. Do you have the ability to measure your pulse oximetry or inhaled volume using an incentive spirometer? Are their changes from your baseline?
- e. Are there small children in your home?
- f. Do the children show symptoms of respiratory distress?

We live in an area of intensified, technology dependent farming, but the current regulations are designed for farming fifty years ago. YRCAA Regulation 1 must demonstrate the capacity to address and manage intensive farming and public health in a technological age.

Sincerely,



Jean Mendoza

Executive Director, Friends of Toppenish Creek
3142 Signal Peak Road
White Swan, WA 98952

Comment 8

From: [Jean Mendoza](#)
To: [Caudill, Anya \(ECY\)](#)
Subject: YRCAA SIP Attachments
Date: Friday, August 06, 2021 1:44:45 PM

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Attachments available until September 5, 2021.

Hello Anya,

I was not able to include attachments to the FOTC comments, so I am sending them to you. I know this is a lot of material, but we are so used to having our statements questioned by the YRCAA that we go to great lengths to provide supporting information.

Thanks

Jean Mendoza

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Friends of Toppenish Creek

August, 2021

To Whom it May Concern:

Here is information from the Friends of Toppenish Creek regarding the air situation in Yakima County. Although more research is always helpful, and FOTC will continue to do the research, the evidence is clear. The Yakima Regional Clean Air Agency ignores the research and ignores citizen input. For this reason, FOTC and our friends in the community respectfully ask for a closer look at air quality in Yakima County.

- Incidence rates and deaths from COVID 19 are worse in Yakima County compared to the rest of Washington State¹. Ecological research from Harvard finds increased morbidity and mortality from COVID 19 in counties with higher levels of fine particulate matter².
- Incidence rates for cardiovascular disease are elevated in Yakima County³. The EPA has confirmed a direct connection between heart disease and PM 2.5 air pollution⁴.
- Yakima County has the worst levels of PM 2.5 in Washington State and levels in the lower county are worse than levels in the upper county^{5,6,7}.
- Air quality in Yakima County is worsening and borders on non-compliance^{5,6,7}.
- Data from Airpact V shows high levels of nitrogen deposition in the Lower Yakima Valley, compared to the rest of the state, with the worst numbers during the month of August^{8,9}.
- Data from the National Atmospheric Deposition Program shows increasing ammonia deposition at sites around Yakima County¹⁰.

-
1. Attachment 1: COVID 19 Demographics for Yakima County
 2. Attachment 2: Abstract - Wu, X., Nethery, R. C., Sabath, B. M., Braun, D., & Dominici, F. (2020). Exposure to air pollution and COVID-19 mortality in the United States. *MedRxiv*. <https://www.medrxiv.org/content/medrxiv/early/2020/04/27/2020.04.05.20054502.full.pdf>
 3. Attachment 3 MI Data Washington Health Tracking Network. Available at <https://fortress.wa.gov/doh/wtn/WTNPortal/>
 4. Attachment 4: Excerpt from EPA's Integrated Science Assessment for Particulate Matter. Available at <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534>
 5. Attachment 5: FRM & FEM Monitor Reports for Yakima County
 6. Attachment 6: Design Values for Yakima County
 7. Attachment 7: Tile Plot Data for Yakima County
 8. Attachment 8: Airpact V Maps for August 2016 to 2020

- The Yakima Air Winter Nitrate Study found that over 30% of fine particulate matter in Yakima County is due to ammonium nitrate and a smaller but significant portion is due to ammonium sulfate. Yakima County has elevated PM 2.5 during the winter months^{11,12}.
- A study by the Agency for Toxic Substances and Disease Registry in the small reservation town Harrah, where two heifer feeding operations lie to the north and west of the town, found hydrogen sulfide levels above the odor threshold; found PM 2.5 levels midway between levels in the City of Yakima (lower) and levels in the City of Toppenish (higher)¹³.
- A study by John Hopkins University found elevated levels of bovine allergens, associated with airborne particulate matter at distances up to three miles from dairy operations¹⁴.
- A study by the University of Washington found increased ammonia levels in the LYV with higher levels near CAFO dairies. The study found decreased pulmonary function in asthmatic children during periods with elevated ammonia levels¹⁵.
- A study of emissions from two LYV dairy barns estimated emissions of particulate matter, ammonia, hydrogen sulfide, and volatile organic compounds¹⁶. The results suggest that these dairy emissions should be regulated in Yakima County. They are not.
- Data from the Washington Health Tracking Network describes levels of fine particulate matter above EPA cutoffs for compliance. YRCAA dismisses this data because it comes from multiple sources¹⁷.
- The WA State Dept. of Agriculture estimates that 35% of all nitrogenous by-products produced by dairy cows volatilize and end up in the ambient air¹⁸.

-
9. Attachment 9: Airpact V Maps for 2020
 10. Attachment 10: Ammonia Deposition for South & Central WA
 11. Attachment 11: Excerpts from Yakima Air Winter Nitrate Study. Available at <https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>
 12. Attachment 12: Ammonia Production due to Animal Confinement
 13. Attachment 13: Excerpts from ATSDR Health Evaluation in Harrah, WA. Available at https://www.atsdr.cdc.gov/HAC/pha/YakamaReservation/Yakama_Reservation_HC-508.pdf
 14. Attachment 14: Abstract from John Hopkins Study of Bovine Allergens in Yakima. Available at <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-10-72>
 15. Attachment 15: U of W Studies of Asthmatic Children in the LYV. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4425279/>
https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1
 16. Attachment 16: Emissions from LYV Dairy Barns WSU. Study available at [ASAE Journal | US EPA ARCHIVE DOCUMENT](#)
 17. Attachment 17: Emails re Yakima County Compliance and PM 2.5 Levels
 18. Attachment 18: WSDA Quote from the LYV Groundwater Management Area Program, Volume I, page 25. Available at <https://www.yakimacounty.us/DocumentCenter/View/22177/GWMA-VolumeI-July2019>

- An FOTC study in the LYV found ammonia levels 63 times higher than levels in a control setting in the UYV¹⁹.
- A study by the Latino Community Fund listed air quality among the highest priorities for families that live in the LYV²⁰.
- FOTC has asked Yakima County to dissolve the Yakima Regional Clean Air Agency and allow the WA State Dept. of Ecology to regulate Yakima County air^{21,22,23}, because:
 - Yakima County has public health problems that the YRCAA refuses to address²¹.
 - Yakima County air emissions contribute to climate change and the YRCAA refuses to address climate change²¹.
 - The YRCAA does not comply with Washington laws regarding air quality regulation²⁴.
 - The YRCAA supports dairy interests and ignores citizen concerns²¹.
 - Air quality in the LYV is bad and getting worse.

It is difficult to summarize these issues for people who spend your professional lives in climate controlled offices. If your home smelled like a sewer, if you had spent the past year burying friends who died during the pandemic, we are sure you would feel the urgency of the situation. The research has been done. What else can we do to convince agencies such as the EPA and Ecology to enforce the laws of the land and protect air quality in Yakima County?

Sincerely,

The Friends of Toppenish Creek

19. Attachment 19: Ammonia Emissions in the LYV. FOTC study.
 20. Attachment 20: LCF Survey of LYV Priorities.
 21. Attachment 21: FOTC Arguments for Dissolving the YRCAA
 22. Attachment 22: FOTC PP Presentation to Yakima County re YRCAA
 23. Attachment 23: Citizen Testimony before YRCAA Board Meetings
 24. Attachment 24: Rules & Regulations with which YRCAA does not comply

Citations:

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Descriptive Analysis of YRCAA Complaint Reports for Odor and Dust

January 2017 to August 2019

Introduction:

YRCAA states: Our mission is to protect the people and the environment of Yakima County from the effects of air pollution. The Yakima Regional Clean Air Agency is committed to achieving and maintaining healthful air quality throughout our jurisdiction. This is accomplished through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. See <https://www.yakimacleanair.org/about/>

YRCAA fails to do this for the people of the Lower Yakima Valley when it fails to enforce air quality standards for dairy operations. There are no dust control policies for dairies in Yakima County. YRCAA claims a blanket exemption for dairies regarding dust and odor, even when there is clear evidence that dairy emissions impact the health and well-being of neighbors.

WAC 70.94.640 states:

(1) Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter unless they have a substantial adverse effect on public health. In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.

YRCAA never evaluates health impacts, but simply cites the agricultural exemption and ignores health complaints regarding dairy operations. YRCAA incorrectly denies a link between odor, presence of hazardous pollutants and human health.

When people in the Upper Valley complain about dust obscuring the roads the YRCAA acts. When people in the Lower Valley complain about dust from dairies obscuring the roads the YRCAA tells them to call the police department. See Complaint #3842

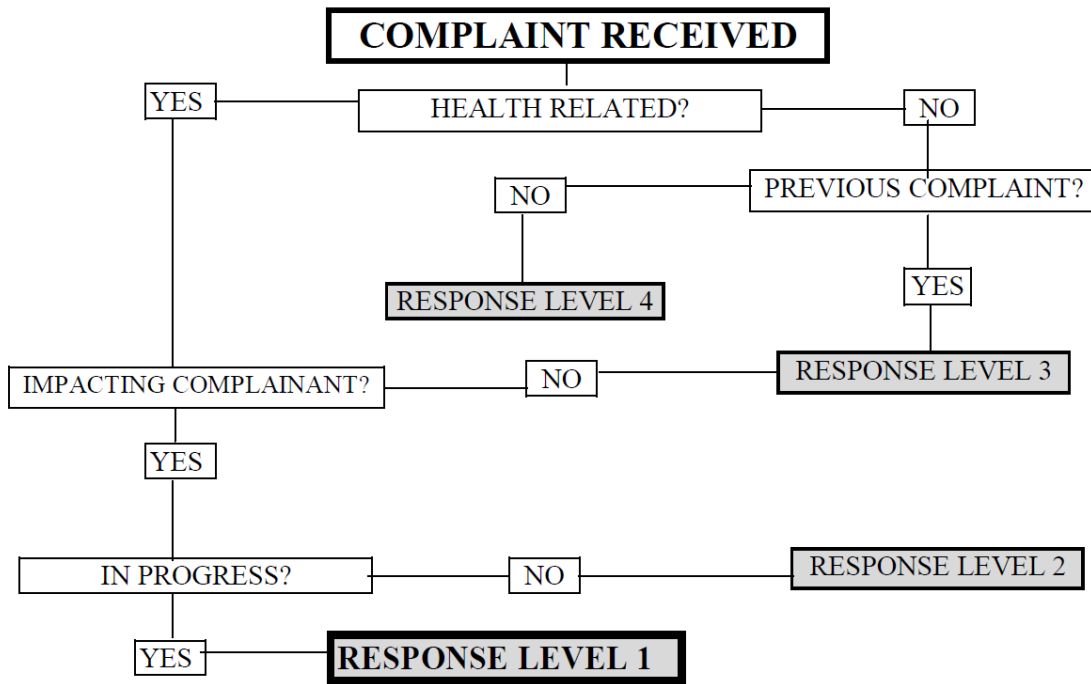
Characterization of Data from YRCAA Complaint Reports re Dust and Odor:

FOTC received 138 Complaint Reports from YRCAA in response to a 2019 Public Records Request. That data is included here in Attachments 4, 5 & 6. Two of the reports had incomplete data. Consequently, FOTC has analyzed 136 reports. Our Excel spreadsheet is Attachment 7.

Thirteen (13) or 9% of the reports had questionable dates and times. The times of incidence occurrence supposedly happened after reports were made, or investigations supposedly took place before the incidents were reported. These are clerical errors, but they confound the data analysis.

The YRCAA Administrative Code Part B provides a flowsheet to guide agency response to complaints on page 5-7. It is copied here:

GENERAL COMPLAINT RESPONSE FLOW CHART



The following response levels will be used in conjunction with the complaint response flow chart.

a. Level 1

Attempt same day site inspection. Request backup if not available for same day response.

b. Level 2

Attempt inspection within 48 hours. Request backup if not available for 48 hour response.

c. Level 3

Attempt site inspection within 7 days. Request backup if not available for 7 day response.

d. Level 4

Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action.

A phone call or a fax may be helpful but, it should be followed up in writing.

To be very clear, the only path to a Level 4 Response happens when the complaint is not health related and there has been no previous complaint. According to FOTC analysis 85

out of 136 or 63% of complaints were assigned Response Level 4. We believe that at least 29 of those assignments were incorrectly done. See yellow highlighting in our spreadsheet. However, in reality, YRCAA made onsite investigations of many complaints that were assigned Level 4 Responses.

There were 89 complaints from the Upper Valley or about 65% of the total which correlates very well with the percentage of people who live there. For the Upper Valley 87% of the complaints concerned dust, 11% concerned odor and 1% concerned “other”. For the Lower Valley there were 47 complaints or 35% of the total. For the Lower Valley 62% of the complaints concerned dust and 28% concerned odor.

For the Upper Valley the average lag time between when an incident allegedly occurred and when the complaint was received (recorded) was 18.18 hours with a median of 4. Half of the complaints were received (recorded) within 4 hours of the time they were sent. For the Lower Valley the average lag time between when an incident allegedly occurred and when the complaint was received (recorded) was 37.92 hours with a median of 17 hours.

For the Upper Valley the average time between when an incident was reported (recorded) and when an investigation was initiated was 26.58 hours with a median of 3.5 hours. For the Lower Valley the average time between when an incident was reported and when an investigation was initiated was 60.25 hours with a median of 24.75 hours.

Lag Times between Occurrence, Report & Investigation

	Upper Valley	Lower Valley
Average Time Between Occurrence and Report	18.18 hrs.	37.92 hrs.
Median Time Between Occurrence and Report	4 hrs.	17 hrs.
Time Between Report and Investigation	26.58 hrs.	60.25 hrs.
Median Time Between Report and Investigation	3.5 hrs.	24.75 hrs.

Compare Upper Valley and Lower Valley Response Levels

	Upper		Lower		
RL-1	7	8%	5	11%	Attempt same day site inspection. Request backup if not available for same day response
RL-2	10	11%	0	0%	Attempt inspection within 48 hours. Request backup if not available for 48 hour response
RL-3	5	6%	7	15%	Attempt site inspection within 7 days. Request backup if not available for 7 day response
RL-4	51	57%	30	64%	Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action.
No Rating	16	18%	5	11%	
Warning Letter	6	7%	2	4%	
NOV	7	8%	3	6%	

Percentage wise slightly more Lower Valley complaints were assigned a Level 1, 3 or 4 Response. Upper Valley complaints were more likely to receive a Level 2 Response or no rating. Upper Valley complaints were more likely to end in a warning letter or a Notice of Violation (NOV).

Comparison of Prolonged Odor Episodes in the Upper Valley and the Lower Valley

Two prolonged episodes of foul odor were documented in the complaints. One occurred in Selah and was related to the Tree Top Apple Processing Plant. The other occurred in the Lower Valley between Sunnyside and Grandview and was related to a cluster of dairies in that area. The ways that YRCAA responded are informative.

Selah:

May 31, 2017 at 3 PM a resident called and YRCAA took the call immediately. According to the record:

CP says that there has been a terrible odor (sewage-like) emanating from Tree Top's wastewater pond. He says it has been particularly bad for the last couple of weeks.

YRCAA began an investigation 23 hours later on 6/1/2019, assigning Response Level 2 which means that there was a health risk that was impacting the complainant, but the problem was not in progress:

Did not smell anything until I parked right across from 1500 Harrison Road, which is the Treetop Treatment facility's address. The odor was at a 2. I noticed they were utilizing sprinklers, which may be making the odor more airborne, as we have had complaints with Treetop in the past regarding the same issue. I am going to go out in the morning, as most of the people calling in are saying it's worst in the morning.

June 1, 2017 at 9:04 AM another resident called and YRCAA recorded the call three hours later at 1200 noon. An investigation began two hours later.

CP says that there has been a horrible "sewage-like" smell in the East Selah area for the last two weeks. She said it was extremely bad this morning.

YRCAA found:

Investigated this issue along with other complaints that were place recently. Odor was not detectable until I was across from 1500 Harrison Rd. At that point, the odor level was a 2.

June 1, 2019 at 9:41 a third resident called and the YRCAA recorded the call at 12:00 noon. The same investigation began two hours later at Response Level 2:

CP says that there has been a terrible smell in East Selah lately. She said she checked with Selah Public Works, to see if their waste treatment plant could have been the cause of the smell, but they said everything is fine.

YRCAA found:

Drove past the Selah waste treatment plant, but did not smell anything bad, I continued to drive on Harrison Road by Tree Top and when I hit 1500 Harrison Road, I could detect an odor that was sewage-like. The odor level was a 2. Treetop had their sprinklers going, so I'm assuming the water is coming from the wastewater ponds, and that is the cause of the smell.

June 5, 2019 at 10:30 AM a fourth resident called and the YRCAA recorded the call 3 ½ hours later at 2:00 PM. The investigation began one half hour later with a Response Level 4.

CP says that there has been a bad odor emanating from Tree Top's wastewater ponds

YRCAA called Tree Top and issued a verbal warning.

Sunnyside/Grandview

July 19, 2019 (Friday) at 7:35 PM a resident left a voice mail message with YRCAA that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says there's "Ambient cow pen dirt from Hornby west to Waneta and further. Particle dirt filling the air around us can be seen on video with lights. It smells like urine but you don't care about that."

According to the report the complaint received a Response Level 3 and an investigation was not begun until eleven days later on July 30, 2019 at 3:00 PM.

July 21, 2019 (Sunday) at 11:30 PM the same resident left a message that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says that "Foul cloud of ambient open pen dirt and lagoon storage. Strong smell of ammonia/urine permitting our property and home. Gagging, sinus headache and inability to breathe even with high power filtering system."

Although the resident clearly states health complaints that are impacting her, the complaint is assigned a Response Level 3 that implies no health risks. An investigation was begun eleven days later, on July 30, 2019 at 3:00 PM.

July 22, 2019 at 11:15 PM the complainant left another message:

CP says that "The ambient pen dirt air was sucked into her home and her sons through open windows around 11:00 PM when she was cooling her house down with the evening air. Horrible dirty feeling ambient pen dirt willed with horrid ammonia and manure AND

The YRCAA recorded the message the next morning but took no action. Initially the assignment was Response Level 3.

July 24, 2019 at 9:35 AM the complainant called again, this time in the morning, but the message was not picked up until 22.5 hours later.

After wonderful rain and thunder showers last night no smells! Wonderful sweet clean air! But tonight, Wednesday, 7/24/2019 9:25, windows open screen doors letting in fresh air until this very moment! Boom ! Ambient pen ammonia stench coming in.

YRCAA assigned a Response Level 4 that signifies no previous complaints. There was no investigation.

July 25, 2019 at 8:00 AM the complainant called and YRCAA documented the call 45 minutes later.

"Awoke to horrid smell of dead cow composting. Velduis Klompe CAFOs is composting turning dead cow compost and it's gross. The ambient air is bringing this cloud of stench to my property this morning! Go to sleep with smells of urine wake up to manure

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 25, 2019 at 8:27 AM the complainant called again and the YRCAA recorded the call one hour later.

"Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"

The YRCAA did not investigate and made a Response Level 4 assignment to the complaint.

July 25, 2019 at 11:15 PM the complainant called and left a message that was picked up the next morning at 9:00 AM.

CP says "Cool nights are once more and very appreciated. However, opening our windows and screened doors is a negative. The ambient pen dirt full of odor from the cafo open pens surrounding our home and the neighbors is restricting the enjoyment of fresh

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 26, 2019 (Friday) at 1:20 AM the complainant left an email message. YRCAA had all day Friday to pick up but they did not record the message until Monday morning on July 29, 2019. Not being able to sleep due to odor qualifies as a health concern but YRCAA made a Response Level 3 assignment and did not investigate.

CP says "Awakened by stench form ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

July 29, 2019 with no time recorded the complainant left an email message that was picked up the next day at 9:55 AM.

CP says "Kelsey, once more Klompe CAFO is composting and the ambient dirt from that is just nasty at my home. The wind was blowing from the east as well. I believe they've been told not to compost in the wind. Kelsey I have photos! This needs to be handled

The YRCAA initiated an "investigation" on July 30, 2019 at 1 PM. This was their investigation:

Dairies and CAFOs in the vicinity of Hornby, Stove, Braden and Tear Roads were contacted and made aware of the complaints

This was the final response for all of the above odor complaints during this episode of foul air. YRCAA is well aware that FOTC research in this area found average ammonia levels that exceed the Minimum Risk Level (MRL) for chronic ammonia exposure. The YRCAA cannot state that composting dead cows next to family homes is an acceptable agricultural practice. YRCAA performed no onsite investigations and took no odor measurements. Based on the evidence no one can state how high the odor or ammonia levels were during this week or what the risks were to complainant health.

Does the YRCAA Agree or Disagree with People Who Complain about Dust & Odor?

Overall, the YRCAA investigations agreed with complainants perceptions 22% of the time, disagreed 39% of the time and took a position in the middle 18% of the time. There was no investigation for 18% of complaints.

The numbers look different when the Upper and Lower Valleys are compared. In the Lower Valley the YRCAA disagreed with the complainants 49% of the time and supported the complaints only 4% of the time. The YRCAA did not investigate 32% of the complaints from the Lower Valley.

YRCAA Support for Upper Valley and Lower Valley Residents

	Upper Valley		Lower Valley		Yakima County	
	# Complaints	%	# Complaints	%	# Complaints	%
No Support	30	34%	23	49%	53	39%
Yes Support	27	30%	2	4%	30	22%
Maybe	18	20%	7	15%	25	18%
No Investigation	10	11%	15	32%	25	18%
NA	4	4%	0	0%	4	3%

When dust and odor complaints are compared there is another large disparity. The YRCAA disagreed with 17% of those who complained about odor and disagreed with 37% of those who complained about dust. The YRCAA agreed with 25% of those who complained about dust and agreed with 17% of those who complained about odor. The shocking finding is that the YRCAA failed to investigate 67% of odor complaints. Given the significant lag time for investigation, especially with respect to odor, this is disturbing.

YRCAA Support for Dust Complaints versus Odor Complaints

	Dust # Complaints	Dust %	Odor # Complaints	Odor %
No Support	40	37%	3	17%
Yes Support	27	25%	3	17%
Maybe	25	23%	0	0%
No Investigation	13	12%	12	67%
NA	4	4%	0	0%

Please see the Attachment 8 Spreadsheet for work documentation.



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN

Date received	<input type="text" value="5/31/2017"/>	Time	<input type="text" value="3:00:00 PM"/>	Date of Destruction	<input type="text"/>	
active	<input type="checkbox"/>					
Date occurred	<input type="text" value="5/31/2017"/>	Time	<input type="text" value="3:00:00 PM"/>	Investigator	<input type="text" value="Kelsey"/> <input type="button" value="v"/>	
received via	<input type="text" value="phone"/> <input type="button" value="v"/>				Investigation Date	<input type="text" value="6/1/2017"/>
received by	<input type="text" value="Kelsey"/> <input type="button" value="v"/>				Investigation Time	<input type="text" value="2:04:00 PM"/>

violation type	<input type="text" value="OD"/> <input type="button" value="v"/>	Violation Address	<input type="text" value="1500 Harrison Rd."/>		
		Zip Code	<input type="text" value="98942"/>		
Pictures	<input type="text"/>		City	<input type="text" value="Selah"/>	
AOD?	<input type="text"/>		NOV?	<input type="text"/>	
			non-disclosure	<input type="checkbox"/>	

Responsible Party		Complaint Party		
contact_name	<input type="text" value="Theresa"/>	First Name	<input type="text" value="Don"/>	
contact title	<input type="text"/>	Last Name	<input type="text" value="Davidson"/>	
First Name	<input type="text" value="Tree top"/>	Address	<input type="text" value="341 Archie Rd."/>	
Last Name	<input type="text" value="Tree Top"/>	Zip Code	<input type="text" value="98942"/>	
Address	<input type="text" value="1500 Harrison Rd."/>		City	<input type="text" value="Selah"/>
Zip Code	<input type="text" value="98942"/>	Home phone #	<input type="text" value="(509) 930-7565"/>	
City	<input type="text" value="Selah"/>	Cellphone #	<input type="text"/>	
State	<input type="text" value="WA"/>	Email	<input type="text"/>	
Home phone #	<input type="text" value="(509) 698-1221"/>			
Cellphone #	<input type="text"/>			

description alleged violation CP says that there has been a terrible odor (sewage-like) emanating from Tree Top's wastewater pond. He says it has been particularly bad for the last couple of weeks.

findings Did not smell anything until I parked right across from 1500 Harrison Road, which is the Treetop Treatment facility's address. The odor was at a 2. I noticed they were utilizing sprinklers, which may be making the odor more airborne, as we have had complaints with Treetop in the past regarding the same issue. I am going to go out in the morning, as most of the people calling in are saying it's the worst in the morning.

actions taken Contacted Treetop preliminarily to make them aware of the complaint. Drove across from wastewater ponds, and did not smell any sewage-like odors there, like I did on 6/2/2017.RL-2



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time

violation type	<input type="text" value="OD"/>	Violation Address	<input type="text" value="1500 Harrison Rd."/>
		Zip Code	<input type="text" value="98942"/>
Pictures	<input type="text"/>	City	<input type="text" value="Selah"/>
AOD?	<input type="text"/>	NOV?	<input type="text"/>
		non-disclosure	<input type="checkbox"/>

Responsible Party	Complaint Party
contact_name <input type="text" value="Theresa"/>	First Name <input type="text" value="Ruth"/>
contact title <input type="text"/>	Last Name <input type="text" value="Collins"/>
First Name <input type="text" value="TreeTop"/>	Address <input type="text"/>
Last Name <input type="text" value="Treetop"/>	Zip Code <input type="text" value="98942"/>
Address <input type="text" value="1500 Harrison Rd."/>	City <input type="text" value="Selah"/>
Zip Code <input type="text" value="98942"/>	Home phone # <input type="text" value="(509) 248-4246"/>
City <input type="text" value="Selah"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text" value="(509) 698-1221"/>	Email <input type="text"/>
Cellphone # <input type="text"/>	

description alleged violation CP says that there has been a horrible "sewage-like" smell in the East Selah area for the last two weeks. She said it was extremely bad this morning.

findings Investigated this issue along with other complaints that were placed recently. Odor was not detectable until I was across from 1500 Harrison Rd. At that point, the odor level was a 2.

actions taken Going to go out and investigate early in the morning, as most of the CP's have been saying the smell is much worse in the early morning. Tried to call Theresa, with Treetop on 6/2/2017, to let her know that the smell is definitely coming from treetop, however, there was no answer or voicemail to leave a message.

additional

Complaint Form

complaint_number DAN

Date received	<input type="text" value="6/1/2017"/>	Time	<input type="text" value="12:00:00 PM"/>	Date of Destruction	<input type="text"/>
active	<input type="checkbox"/>				
Date occurred	<input type="text" value="6/1/2017"/>	Time	<input type="text" value="9:41:00 AM"/>	Investigator	<input type="text" value="Kelsey"/>
received via	<input type="text" value="voice mail"/>				
received by	<input type="text" value="Kelsey"/>				
Investigation Date	<input type="text" value="6/1/2017"/>				
Investigation Time	<input type="text" value="2:04:00 PM"/>				

violation type	<input type="text" value="OD"/>	Violation Address	<input type="text" value="1500 Harrison Rd."/>		
		Zip Code	<input type="text" value="98942"/>		
Pictures	<input type="text"/>				
		City	<input type="text" value="Selah"/>		
AOD?	<input type="text"/>				
		NOV?	<input type="text"/>		
		non-disclosure	<input type="checkbox"/>		

Responsible Party		Complaint Party	
contact_name	<input type="text" value="Theresa"/>	First Name	<input type="text" value="Veronica"/>
contact title	<input type="text"/>	Last Name	<input type="text" value="Santangelo"/>
First Name	<input type="text" value="TreeTop"/>	Address	<input type="text" value="603 Jamie Drive"/>
Last Name	<input type="text" value="TreeTop"/>	Zip Code	<input type="text" value="98942"/>
Address	<input type="text" value="1500 Harrison Rd."/>		
Zip Code	<input type="text" value="98942"/>	City	<input type="text" value="Selah"/>
City	<input type="text" value="Selah"/>	State	<input type="text" value="WA"/>
Home phone #	<input type="text"/>		
Cellphone #	<input type="text"/>		
		Home phone #	<input type="text" value="(509) 697-6672"/>
		Cellphone #	<input type="text"/>
		Email	<input type="text"/>

description alleged violation CP says that there has been a terrible smell in East Selah lately. She said she checked with Selah Public Works, to see if their waste treatment plant could have been the cause of the smell, but they said that everything is fine.

findings Drove past the Selah waste treatment plant, but I did not smell anything bad. I continued to drive on Harrison Road by TreeTop, and when I hit 1500 Harrison Road, I could detect an odor that was sewage-like. The odor level was a 2. TreeTop had their sprinklers going, so I'm assuming the water is coming from the wastewater ponds, and that is the cause of the smell.

actions taken Parked in front of CP's house on 6/5/17 at 10:45am, and did not smell any sewage like smells in the area. Drove across from wastewater ponds, and did not smell any sewage like odors there, like I did on 6/2/2017. RL-2.



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number **3537** [Help: find #](#) DAN AP65-01-02 Rev.

Date received Time Date of Destruction

active

Date occurred Time Investigator

received via Investigation Date

received by Investigation Time

violation type Violation Address Zip Code

Pictures City

AOD? NOV? non-disclosure

Responsible Party	Complaint Party
contact_name <input type="text" value="Theresa"/>	First Name <input type="text" value="James"/>
contact title <input type="text"/>	Last Name <input type="text" value="Ingberg"/>
First Name <input type="text" value="TreeTop"/>	Address <input type="text" value="265 Johnson Rd."/> Zip Code <input type="text" value="98942"/>
Last Name <input type="text" value="TreeTop"/>	City <input type="text" value="Selah"/>
Address <input type="text" value="1500 Harrison Rd."/> Zip Code <input type="text" value="98942"/>	Home phone # <input type="text"/>
City <input type="text" value="Selah"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text" value="(509) 698-1221"/>	Email <input type="text"/>
Cellphone # <input type="text"/>	

description alleged violation CP says that there has been a bad odor emanating from TreeTop's wastewater ponds.

findings Called TreeTop and let them know of the complaint.

actions taken None. Verbal warning issued. RL-4



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

contact_name contact title First Name Last Name Address Zip Code City State Home phone # Cellphone #

Complaint Party

First Name Last Name Address Zip Code City Home phone # Cellphone # Email description alleged violation findings actions taken

Complaint Form Find or Edit a Complaint Add a New Complaint

complaint_number **3982** DAN AP65-01-02 Rev.

Date received 7/22/2019	Time 3:00:00 PM	Date of Destruction
active <input type="checkbox"/>		
Date ocured 7/21/2019	Time 11:30:00 PM	Investigator Kelsey
received via email		Investigation Date 7/30/2019
received by Kelsey		Investigation Time 1:00:00 PM

violation type odor	Violation Address Hornby/Stover/Tear Roads
	Zip Code 98930
Pictures	City Grandview
AOD?	NOV? <input type="checkbox"/> non-disclosure <input type="checkbox"/>

Responsible Party	Complaint Party
contact_name	First Name Kathleen
contact title	Last Name Rogers
First Name Unknown	Address 1920 Braden Road
Last Name Unknown	Zip Code 98930
Address Hornby/Stover/Tear Roads	City Grandview
Zip Code 98930	Home phone # (509) 830-6637
City Grandview State WA	Cellphone #
Home phone #	Email kakaleena1@yahoo.com
Cellphone #	

description alleged violation	CP says that "Foul cloud of ambient open pen dirt and lagoon storage. Strong smell of ammonia/urine permitting our property and home. Gagging, sinus headache and inability to breath even with high power filtering system."
findings	
actions taken	RL-3 See complaint #3990 for findings and actions taken.

Complaint Form
[Find or Edit a Complaint](#)
[Add a New Complaint](#)

complaint_number [Help: find #](#) DAN

Date received <input type="text" value="7/24/2019"/>	Time <input type="text" value="8:30:00 AM"/>	Date of Destruction <input type="text"/>	
active <input type="checkbox"/>			
Date occurred <input type="text" value="7/22/2019"/>	Time <input type="text" value="11:15:00 PM"/>	Investigator <input type="text" value="Kelsey"/>	
received via <input type="text" value="email"/>		Investigation Date <input type="text" value="7/30/2019"/>	
received by <input type="text" value="Kelsey"/>		Investigation Time <input type="text" value="1:00:00 PM"/>	

violation type <input type="text" value="odor"/>	Violation Address <input type="text" value="Hornby/Tear/Stover Roads"/>
	Zip Code <input type="text" value="98930"/>
Pictures <input type="text"/>	City <input type="text" value="Grandview"/>
AOD? <input type="text"/>	NOV? <input type="text"/> non-disclosure <input type="checkbox"/>

Responsible Party	Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>
First Name <input type="text" value="Unknown"/>	Address <input type="text" value="1920 Braden Road"/>
Last Name <input type="text" value="Unknown"/>	Zip Code <input type="text" value="98930"/>
Address <input type="text" value="Hornby/Tear/Stover Roads"/>	City <input type="text" value="Grandview"/>
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 830-6637"/>
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>
Cellphone # <input type="text"/>	

description alleged violation

findings

actions taken



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure **Responsible Party****Complaint Party**contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone # description alleged violation findings actions taken

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Complaint Form [Find or Edit a Complaint](#) [Add a New Complaint](#)

complaint_number **3986** [Help: find #](#) DAN AP65-01-02 Rev.

Date received 7/25/2019 Time 9:30:00 AM **Date of Destruction**
 active
Date occurred 7/25/2019 Time 8:27:00 AM **Investigator** Kelsey
 received via email **Investigation Date** 7/30/2019
 received by Kelsey **Investigation Time** 1:00:00 PM

violation type odor **Violation Address** Braden/Hornby/Waneta/Stover Roads
 Zip Code 98930
 Pictures City Grandview
 AOD? NOV? non-disclosure

Responsible Party

contact_name
 contact title
First Name Unknown
Last Name Unknown
 Address Braden/Hornby/Waneta/Stover Roads
 Zip Code 98930
 City Grandview State WA
 Home phone #
 Cellphone #

Complaint Party

First Name Kathleen
Last Name Rogers
 Address 1920 Braden Rd.
 Zip Code 98930
 City Grandview
 Home phone # (509) 840-0521
 Cellphone #
 Email kakaleena1@yahoo.com

description alleged violation "Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"

findings

actions taken RL-4 See complaint #3990 for actions taken. RL-4



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

contact_name contact title First Name Last Name Address Zip Code City State Home phone # Cellphone #

Complaint Party

First Name Last Name Address Zip Code City Home phone # Cellphone # Email description alleged violation findings actions taken



Complaint Form

[Find or Edit a Complaint](#)

[Add a New Complaint](#)

complaint_number <input type="text" value="3988"/>	Help: find #	DAN <input type="text" value="AP65-01-02 Rev."/>
Date received <input type="text" value="7/26/2019"/> Time <input type="text" value="9:00:00 AM"/>	Date of Destruction <input type="text"/>	
active <input type="checkbox"/>		
Date occurred <input type="text" value="7/25/2019"/> Time <input type="text" value="11:14:00 PM"/>	Investigator <input type="text" value="Kelsey"/>	
received via <input type="text" value="email"/>	Investigation Date <input type="text" value="7/30/2019"/>	
received by <input type="text" value="Kelsey"/>	Investigation Time <input type="text" value="1:00:00 PM"/>	
violation type <input type="text" value="odor"/>	Violation Address <input type="text" value="Stover/Hornby/Tear Roads"/>	
	Zip Code <input type="text" value="98930"/>	
Pictures <input type="text"/>	City <input type="text" value="Grandview"/>	
AOD? <input type="text"/>	NOV? <input type="text"/>	non-disclosure <input type="checkbox"/>
Responsible Party		Complaint Party
contact_name <input type="text"/>	First Name <input type="text" value="Kathleen"/>	
contact title <input type="text"/>	Last Name <input type="text" value="Rogers"/>	
First Name <input type="text" value="Unknown"/>	Address <input type="text" value="1920 Braden Road"/>	
Last Name <input type="text" value="Unknown"/>	Zip Code <input type="text" value="98930"/>	
Address <input type="text" value="Stover/Hornby/Tear Roads"/>	City <input type="text" value="Grandview"/>	
Zip Code <input type="text" value="98930"/>	Home phone # <input type="text" value="(509) 837-6637"/>	
City <input type="text" value="Grandview"/> State <input type="text" value="WA"/>	Cellphone # <input type="text"/>	
Home phone # <input type="text"/>	Email <input type="text" value="kakaleena1@yahoo.com"/>	
Cellphone # <input type="text"/>		
description alleged violation	<input a="" ambient="" and="" appreciated.="" are="" cafo="" cool="" dirt="" doors="" enjoyment="" fresh"="" from="" full="" home="" however,="" is="" more="" negative.="" neighbors="" nights="" odor="" of="" once="" open="" opening="" our="" pen="" pens="" restricting="" screened="" surrounding="" the="" type="text" value="CP says " very="" windows=""/>	
findings	<input type="text"/>	
actions taken	<input type="text" value="RL-3 See complaint # for actions taken. RL-4"/>	



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure **Responsible Party****Complaint Party**contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone #

description alleged violation CP says " Awakened by stench from ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

findings

actions taken RL-3 See complaint #3990 for findings and actions taken. RL-4



Complaint Form

[Find or Edit a Complaint](#)[Add a New Complaint](#)complaint_number [Help: find #](#) DAN Date received Time Date of Destruction active Date occurred Time Investigator received via Investigation Date received by Investigation Time violation type Violation Address Zip Code Pictures City AOD? NOV? non-disclosure

Responsible Party

Complaint Party

contact_name First Name contact title Last Name First Name Address Last Name Zip Code Address City Zip Code Home phone # City State Cellphone # Home phone # Email Cellphone # description alleged violation findings actions taken



Complaint Form

Find or Edit a Complaint

Add a New Complaint

complaint_number 3842

Help: find #

DAN AP65-01-02 Rev.

Date received 7/12/2018 Time 10:00:00 AM

Date of Destruction

active

Date occurred 7/10/2018 Time 3:04:00 PM

Investigator Kelsey

received via voice mail

Investigation Date 7/18/2018

received by Kelsey

Investigation Time 11:00:00 AM

violation type CFO dust

Violation Address 1420 Outlook Rd.

Zip Code 98938

Pictures

City Outlook

AOD?

NOV?

non-disclosure

Responsible Party

Complaint Party

contact_name

First Name Redaction log#1

contact title

Last Name Redaction log#2

First Name WASHINGTON DAIRY HOLDINGS LLC

Address Redaction log#3

Last Name WASHINGTON DAIRY HOLDINGS LLC

Zip Code 98938

Address 170 S Lincoln St suite 150

City Outlook

Zip Code 99201

Home phone # Redaction log#4

City Spokane State WA

Cellphone #

Home phone #

Email

Cellphone #

description alleged violation CP says that the heifer pens across the street from his house is causing fugitive dust in the evenings when the cows become more active. The dust comes straight across the street and goes right into his property. He says its so bad it obscures the road.

findings No fugitive dust seen at time of investigation. Dirt in the pens seemed moist.

actions taken None. Told the gentleman to call the police department regarding the dust obscuring the road because it is a traffic safety issue. RL-4

additional comments

COVID 19 Incidence and Death Rates for Yakima County
Comparing the Upper Yakima County with the Lower Yakima County

Yakima County

Zip Code	Community	2020 Est. Population	% of Population	COVID Cases	% of Cases	COVID Deaths	% of Deaths
98901	Union Gap & Yakima	33,675	13.00%	3,466	12.04%	21	4.71%
98902	Yakima	47,924	18.49%	5,150	17.88%	115	25.78%
98903	Union Gap & Yakima	15,294	5.90%	1,572	5.46%	36	8.07%
98904	Gleed & Yakima			6	0.02%	0	0.00%
98907	Yakima			90	0.31%	6	1.35%
98908	Yakima	37,239	14.37%	3,067	10.65%	64	14.35%
98909	Yakima			114	0.40%	2	0.45%
98920	Brownstown			43	0.15%	1	0.22%
98921	Buena	516	0.20%	111	0.39%	0	0.00%
98923	Cowiche	1,475	0.57%	134	0.47%	1	0.22%
98930	Grandview	15,711	6.06%	1,995	6.93%	19	4.26%
98932	Granger	6,024	2.32%	866	3.01%	14	3.14%
98933	Harrah	1,329	0.51%	223	0.77%	3	0.67%
98935	Mabton	4,299	1.66%	642	2.23%	8	1.79%
98936	Moxee	6,835	2.64%	675	2.34%	0	0.00%
98937	Goose Prairie/Naches	4,524	1.75%	268	0.93%	2	0.45%
98938	Outlook	2,295	0.89%	251	0.87%	1	0.22%
98939	Parker	191	0.07%	51	0.18%	1	0.22%
98942	Selah	18,139	7.00%	1,475	5.12%	15	3.36%
98944	Sunnyside	23,475	9.06%	3,262	11.33%	35	7.85%
98947	Tieton	3,119	1.20%	334	1.16%	2	0.45%
98948	Toppenish	13,553	5.23%	2,170	7.54%	40	8.97%
98951	Wapato	14,035	5.42%	1,905	6.62%	40	8.97%
98952	White Swan	2,383	0.92%	266	0.92%	6	1.35%
98953	Zillah	7,098	2.74%	662	2.30%	14	3.14%
	Totals	259,132	100.00%	28,798	100.00%	446	100.00%

Zip Codes without populations are zip codes for PO Boxes only

Case Rate = 28,798 for 259,132 people = 0.111132 = 11.1% or 11,113 per 100,000 people

Death Rate = 446 for 259,132 people = 0.001721 = 0.17% or 172 per 100,000 people

Upper Yakima County

Zip Code	Community	2020 Est. Population	% of Population	COVID Cases	% of Cases	COVID Deaths	% of Deaths
98901	Union Gap & Yakima	33,675	13.00%	3,466	12.04%	21	4.71%
98902	Yakima	47,924	18.49%	5,150	17.88%	115	25.78%
98903	Union Gap & Yakima	15,294	5.90%	1,572	5.46%	36	8.07%
98904	Gleed & Yakima			6	0.02%	0	0.00%
98907	Yakima			90	0.31%	6	1.35%
98908	Yakima	37,239	14.37%	3,067	10.65%	64	14.35%
98909	Yakima			114	0.40%	2	0.45%
98923	Cowiche	1,475	0.57%	134	0.47%	1	0.22%
98936	Moxee	6,835	2.64%	675	2.34%	0	0.00%
98937	Goose Prairie/Naches	4,524	1.75%	268	0.93%	2	0.45%
98942	Selah	18,139	7.00%	1,475	5.12%	15	3.36%
98947	Tieton	3,119	1.20%	334	1.16%	2	0.45%
	Total	168,224	64.92%	16,351	56.78%	264	59.19%

Case Rate = 16,351 for 168,224 people = 0.097198 = 9.7% or 9,720 per 100,000 people

Death Rate = 264 for 168,224 people = 0.16% or 157 per 100,000 people

Lower Yakima County

Zip Code	Community	2020 Est. Population	% of Population	COVID Cases	% of Cases	COVID Deaths	% of Deaths
98920	Brownstown			43	0.15%	1	0.22%
98921	Buena	516	0.20%	111	0.39%	0	0.00%
98930	Grandview	15,711	6.06%	1,995	6.93%	19	4.26%
98932	Granger	6,024	2.32%	866	3.01%	14	3.14%
98933	Harrah	1,329	0.51%	223	0.77%	3	0.67%
98935	Mabton	4,299	1.66%	642	2.23%	8	1.79%
98938	Outlook	2,295	0.89%	251	0.87%	1	0.22%
98939	Parker	191	0.07%	51	0.18%	1	0.22%
98944	Sunnyside	23,475	9.06%	3,262	11.33%	35	7.85%
98948	Toppenish	13,553	5.23%	2,170	7.54%	40	8.97%
98951	Wapato	14,035	5.42%	1,905	6.62%	40	8.97%
98952	White Swan	2,383	0.92%	266	0.92%	6	1.35%
98953	Zillah	7,098	2.74%	662	2.30%	14	3.14%
	Total	90,908	35.08%	12,447	43.22%	182	40.81%

Case Rate = 12,447 for 90,908 people = 0.136918 = 13.7% or 13,692 cases per 100,000 people

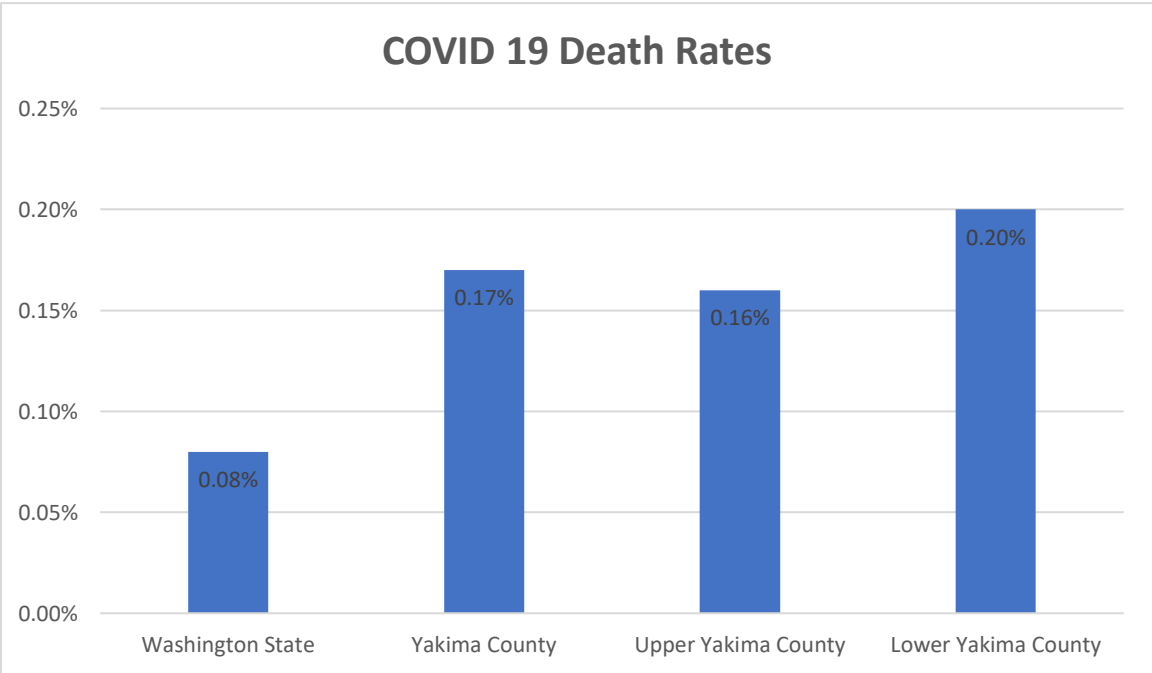
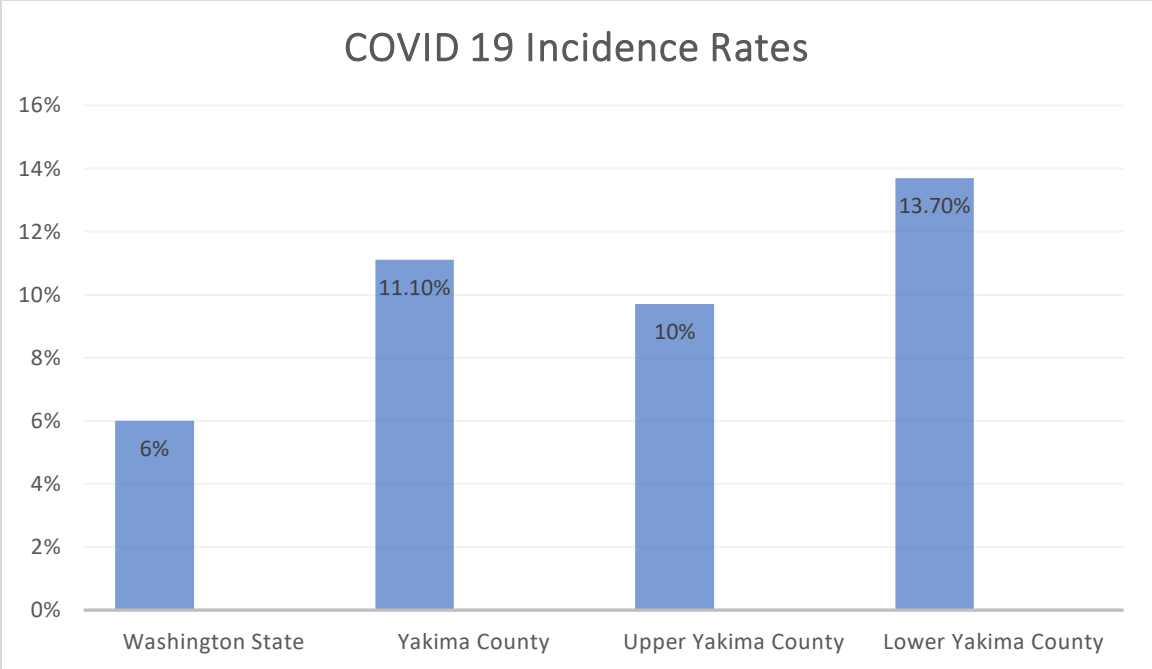
Death Rate = 182 for 90,908 people = 0.002002 = 0.2% or 200 per 100,000 people

Communities with % of deaths less than the % population are: Yakima, Union Gap, Buena, Cowiche, Grandview, Moxee, Goose Prairie/Naches, Outlook, Selah, Sunnyside, Tieton

Communities with % of deaths more than the % population are: Yakima, Union Gap, Granger, Harrah, Mabton, Parker, Toppenish, Wapato, White Swan, & Zillah

Current Population Estimated from the WA Office of Financial Management at <https://ofm.wa.gov/washington-data-research/population-demographics/population-estimates/small-area-estimates-program>

COVID 19 Incidence and Death Rates from the WA State Dept. of Health – See page 5



As of July 14, 2021, the Case Rate for Washington State was approximately 6% or 60 per 100,000 people, and the Washington State Death Rate was approximately 0.08% or 60 per 100,000 people. See WA DOH COVID 19 Data Dashboard at <https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard>

COVID 19 Statistics for Yakima County obtained from the WA State Dept. of Health, and current as of June 18, 2021

Zip Code	COVID-19 Case Counts	COVID-19 Death Counts
98901	3466	21
98902	5150	115
98903	1572	36
98904	6	0
98907	90	6
98908	3067	64
98909	114	2
98920	43	1
98921	111	0
98923	134	1
98930	1995	19
98932	866	14
98933	223	3
98935	642	8
98936	675	0
98937	268	2
98938	251	1
98939	51	1
98942	1475	15
98944	3262	35
98947	334	2
98948	2170	40
98951	1905	40
98952	266	6
98953	662	14

Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study

Xiao Wu, Rachel C Nethery, M Benjamin Sabath, Danielle Braun, Francesca Dominici

Abstract

Objectives: United States government scientists estimate that COVID-19 may kill tens of thousands of Americans. Many of the pre-existing conditions that increase the risk of death in those with COVID-19 are the same diseases that are affected by long-term exposure to air pollution. We investigated whether long-term average exposure to fine particulate matter (PM_{2.5}) is associated with an increased risk of COVID-19 death in the United States.

Design: A nationwide, cross-sectional study using county-level data. **Data sources:** COVID-19 death counts were collected for more than 3,000 counties in the United States (representing 98% of the population) up to April 22, 2020 from Johns Hopkins University, Center for Systems Science and Engineering Coronavirus Resource Center. **Main outcome measures:** We fit negative binomial mixed models using county-level COVID-19 deaths as the outcome and county-level long-term average of PM_{2.5} as the exposure. In the main analysis, we adjusted by 20 potential confounding factors including population size, age distribution, population density, time since the beginning of the outbreak, time since state's issuance of stay-at-home order, hospital beds, number of individuals tested, weather, and socioeconomic and behavioral variables such as obesity and smoking. We included a random intercept by state to account for potential correlation in counties within the same state. We conducted more than 68 additional sensitivity analyses.

Results: We found that an increase of only 1 $\mu\text{g}/\text{m}^3$ in PM_{2.5} is associated with an 8% increase in the COVID-19 death rate (95% confidence interval [CI]: 2%, 15%). The results were statistically significant and robust to secondary and sensitivity analyses.

Conclusions: A small increase in long-term exposure to PM_{2.5} leads to a large increase in the COVID-19 death rate. Despite the inherent limitations of the ecological study design, our results underscore the importance of continuing to enforce existing air pollution regulations to protect human health both during and after the COVID-19 crisis. The data and code are publicly available so our analyses can be updated routinely.

Available at

<https://www.medrxiv.org/content/medrxiv/early/2020/04/27/2020.04.05.20054502.full.pdf>

Heart Attack Hospitalizations: Age-Adjusted Rate per 10,000 (for specified age groupings)

Geography: County, Age Group: 35+, Sex: All (Combined), Time Period: 2010-2014

From WA Health Tracking Network at <https://fortress.wa.gov/doh/wtn/WTNPortal/>

County	Count	Population	Age Adjusted Rate per 10,000	Lower CI	Upper CI
State Total	46804	18253396	24.27	24.05	24.5
Adams	95	42919	21.8	17.57	26.81
Asotin	139	65825	16.73 (NR)	13.96 (NR)	20.13 (NR)
Benton	1072	461513	21.86	20.54	23.25
Chelan	537	203597	21.63	19.8	23.64
Clallam	854	235947	25.68	23.86	27.66
Clark	2909	1149994	25.06 (NR)	24.14 (NR)	26.02 (NR)
Columbia	64	12845	35.95	27.46	48.08
Cowlitz	973	299613	27.77 (NR)	26.02 (NR)	29.64 (NR)
Douglas	274	100024	24.35	21.51	27.5
Ferry	56	20833	22.33	16.48	30.54
Franklin	338	164252	22.65	20.22	25.32
Garfield	26	7570	23.17 (NR)	14.15 (NR)	38.97 (NR)
Grant	715	210177	31.77	29.45	34.24
Grays Harbor	810	220985	31.39	29.19	33.74
Island	708	233440	23.86 (NR)	22.06 (NR)	25.81 (NR)
Jefferson	295	105957	19.77	17.36	22.69
King	10092	5303957	19.34	18.95	19.73
Kitsap	1606	707969	20.27	19.26	21.33
Kittitas	264	96945	23.4	20.57	26.6
Klickitat	97	66709	12.88 (NR)	10.36 (NR)	15.99 (NR)
Lewis	941	221101	35.52	33.21	37.97
Lincoln	134	34536	30.93	25.63	37.46
Mason	625	181515	28.32	26.05	30.77
Okanogan	393	124673	25.77	23.19	28.64
Pacific	171	69510	18.14 (NR)	15.37 (NR)	21.62 (NR)
Pend Oreille	107	40786	22.33	18.02	27.75
Pierce	6044	2072126	28.65	27.92	29.4

San Juan	120	56980	16.38	13.36	20.27
Skagit	1220	336788	30.22	28.5	32.03
Skamania	32	24224	12.26 (NR)	8.27 (NR)	17.98 (NR)
Snohomish	4877	1934687	26.06	25.31	26.83
Spokane	3505	1242028	25.67	24.81	26.56
Stevens	482	145389	27.88	25.33	30.71
Thurston	1902	704353	24.89	23.75	26.07
Wahkiakum	37	13296	21.97 (NR)	15.06 (NR)	33.32 (NR)
Walla Walla	514	155633	26.54	24.23	29.07
Whatcom	1409	528472	23.64	22.39	24.95
Whitman	222	74693	25.47	22.15	29.23
Yakima	2142	581535	34.27	32.81	35.78

Heart Attack Hospitalizations: Age-Adjusted Rate per 10,000 (for specified age groupings)

Geography: County, Age Group: 35+, Sex: All (Combined), Time Period: 2008-2012

County	Count	Population	Age Adjusted Rate per 10,000	Lower CI	Upper CI
State Total	45003	17780556	24.57	24.34	24.8
Adams	94	42733	21.67	17.47	26.64
Asotin	183	64151	23.14 (NR)	19.8 (NR)	27.06 (NR)
Benton	1071	441815	23.43	22.02	24.91
Chelan	456	198815	19.2	17.44	21.12
Clallam	844	232659	26.09	24.27	28.08
Clark	2967	1115030	27.32 (NR)	26.32 (NR)	28.35 (NR)
Columbia	58	12723	34.72	26.18	46.81
Cowlitz	836	294938	25.28 (NR)	23.57 (NR)	27.1 (NR)
Douglas	210	98206	19.26	16.72	22.13
Ferry	53	20357	23.29	17.18	31.73
Franklin	328	152393	24.49	21.84	27.41
Garfield	33	7507	32.31 (NR)	20.96 (NR)	50.29 (NR)
Grant	641	203545	29.79	27.5	32.22
Grays Harbor	785	218495	31.5	29.28	33.86
Island	667	230348	23.82 (NR)	21.99 (NR)	25.81 (NR)

Jefferson	313	103761		22.39	19.8	25.44
King	9645	5157217		19.41	19.01	19.8
Kitsap	1666	691338		22.49	21.39	23.64
Kittitas	236	95331		22	19.21	25.16
Klickitat	101	64967	14.04 (NR)		11.36 (NR)	17.3 (NR)
Lewis	929	217727		36.18	33.83	38.68
Lincoln	130	34316		30.71	25.49	37.14
Mason	558	178445		26.47	24.25	28.89
Okanogan	367	121394		25.67	23.03	28.61
Pacific	188	68568	20.3 (NR)		17.39 (NR)	23.88 (NR)
Pend Oreille	103	40195		22.96	18.48	28.52
Pierce	5751	2029768		28.7	27.95	29.47
San Juan	115	55967		16.8	13.69	20.76
Skagit	1083	331037		28.04	26.36	29.82
Skamania	28	23614	11.37 (NR)		7.44 (NR)	17.03 (NR)
Snohomish	4681	1872045		26.59	25.81	27.39
Spokane	3305	1214305		25.1	24.23	25.99
Stevens	476	143396		29.5	26.79	32.47
Thurston	1808	680649		25.21	24.03	26.43
Wahkiakum	30	13137	17.94 (NR)		11.82 (NR)	28.34 (NR)
Walla Walla	478	152721		25.62	23.32	28.13
Whatcom	1394	513742		24.57	23.27	25.93
Whitman	237	76646		27.31	23.87	31.17
Yakima	2152	566552		35.76	34.25	37.33

Heart Attack Hospitalizations: Age-Adjusted Rate per 10,000 (for specified age groupings)

Geography: County, Age Group: 35+, Sex: All (Combined), Time Period: 2006-2010

County	Count	Population	Age Adjusted Rate per 10,000	Lower CI	Upper CI
State Total	44851	17299822	25.72	25.48	25.96
Adams	96	42193	22.54	18.23	27.63
Asotin	189	62627	25.25 (NR)	21.71 (NR)	29.36 (NR)
Benton	1111	424122	26.03	24.49	27.64

Chelan	456	193703		20.37	18.52	22.39
Clallam	844	227987		27.64	25.73	29.71
Clark	3045	1080273	29.5 (NR)		28.44 (NR)	30.6 (NR)
Columbia	55	12435		32.9	24.58	44.65
Cowlitz	828	288379	26.22 (NR)		24.44 (NR)	28.11 (NR)
Douglas	188	95326		18.05	15.55	20.9
Ferry	57	19682		24.65	18.5	32.97
Franklin	360	141411		28.97	25.98	32.24
Garfield	24	7474	22.93 (NR)		14.1 (NR)	37.99 (NR)
Grant	607	195564		29.52	27.2	32
Grays Harbor	843	215247		34.79	32.45	37.31
Island	602	225813	23.27 (NR)		21.4 (NR)	25.29 (NR)
Jefferson	299	101179		22.74	20.09	25.85
King	9680	5017942		20.35	19.94	20.77
Kitsap	1686	673564		24.19	23.02	25.41
Kittitas	250	92476		24.73	21.69	28.12
Klickitat	127	63207	19.22 (NR)		15.95 (NR)	23.08 (NR)
Lewis	952	212935		38.22	35.79	40.81
Lincoln	114	33961		27.49	22.59	33.54
Mason	580	172665		28.97	26.61	31.53
Okanogan	369	118228		27.66	24.84	30.78
Pacific	201	67836	23.09 (NR)		19.82 (NR)	27.01 (NR)
Pend Oreille	104	39275		23.45	18.95	28.99
Pierce	5539	1990356		28.88	28.12	29.67
San Juan	101	54885		15.43	12.47	19.22
Skagit	1048	323521		28.43	26.71	30.25
Skamania	30	23010	12.89 (NR)		8.59 (NR)	18.86 (NR)
Snohomish	4725	1812141		28.45	27.62	29.3
Spokane	3205	1183320		25.6	24.71	26.52
Stevens	477	140010		31.74	28.86	34.88
Thurston	1776	655753		26.43	25.19	27.72
Wahkiakum	32	12780	19.5 (NR)		13.15 (NR)	29.77 (NR)
Walla Walla	488	149666		27.36	24.93	30
Whatcom	1371	498051		25.7	24.34	27.13
Whitman	242	77556		28	24.53	31.89
Yakima	2148	553270		37.22	35.65	38.86
Heart Attack Hospitalizations: Age-Adjusted Rate per 10,000 (for specified age groupings)						
Geography: County, Age Group: 35+, Sex: All (Combined), Time Period: 2006-2010						
Created: 7/19/2021						

Cardiovascular Effects Consistent with the 2009 PM ISA, this ISA concludes there is a causal relationship between short-term PM_{2.5} exposure and cardiovascular effects (Section 6.1). The strongest evidence comes from epidemiologic studies that reported consistent, positive associations between short-term PM_{2.5} exposure and cardiovascular-related ED visits and hospital admissions across studies that used different approaches to control for the potential confounding effects of weather (e.g., temperature), particularly for ischemic heart disease (IHD) and heart failure (HF), as well as cardiovascular-related mortality. Recent examinations of potential copollutant confounding generally indicate that the associations observed between PM_{2.5} exposure and cardiovascular effects in single-pollutant models remain relatively unchanged in copollutant models, providing evidence that the observed associations with PM_{2.5} are not artifacts due to confounding by another air pollutant. The independence of a PM_{2.5} cardiovascular effect is further supported by recent experimental studies. Controlled human exposure studies expand upon previous findings and demonstrate PM_{2.5}-induced changes in endothelial function, which is coherent with animal toxicological studies demonstrating the same effect. Moreover, experimental evidence demonstrating decreased cardiac contractility and altered left ventricular pressure is coherent with epidemiologic studies observing positive associations between ambient PM_{2.5} and ED visits and hospital admissions for HF. Thus, the collective body of experimental evidence supports and provides biological plausibility for epidemiologic studies reporting associations, particularly between short-term PM_{2.5} exposure and IHD and HF outcomes, as well as a range of other cardiovascular-related effects (e.g., arrhythmia, thrombosis) that can result in more severe outcomes, possibly including death.

The 2009 PM ISA, as well as the current PM ISA, concluded there is a causal relationship between long-term PM_{2.5} exposure and cardiovascular effects (Section 6.2). Epidemiologic studies of multiple recent U.S.-based cohorts along with reanalyses of these cohorts provide strong evidence of consistent, positive associations between long-term PM_{2.5} exposure and cardiovascular mortality. These studies used a variety of exposure assessment and statistical techniques and examined various spatial domains (e.g., 1 × 1-km grid cells, census tract, etc.) in many locations where mean annual average PM_{2.5} concentrations are " 12 µg/m³ . Recent epidemiologic studies of cardiovascular morbidity have greatly expanded upon the body of evidence available at the completion of the 2009 PM ISA by focusing on populations with distinct demographic characteristics (e.g., postmenopausal woman, male doctors, etc.) and extensively considering potential confounders (e.g., socioeconomic status [SES]). Although an

extended analysis of the Women's Health Initiative (WHI) cohort strengthened the initial observation of a relationship between long-term PM_{2.5} exposure and coronary events among postmenopausal women, additional cohorts of women similar to the WHI cohort did not report consistent, positive associations with coronary heart disease (CHD), myocardial infarction, or stroke. Longitudinal studies examining the progression of atherosclerosis in relation to long-term exposure to PM_{2.5} reported inconsistent results that were dependent upon the vascular bed examined, but there was evidence of PM_{2.5}-associated coronary artery calcification, a strong predictor of CHD, within a study focusing on the progression of atherosclerosis in a healthy population (i.e., Multi-Ethnic Study of Atherosclerosis and Air Pollution [MESA–Air]). A limited number of epidemiologic studies examining other cardiovascular effects provide some evidence of associations with HF, blood pressure, and hypertension, as well as subclinical cardiovascular biomarkers. Recent studies also reduce the uncertainty associated with potential copollutant confounding by reporting that associations between long-term PM_{2.5} exposure and cardiovascular mortality remained relatively unchanged or increased in copollutant models adjusted for O₃, NO₂, SO₂, and PM_{10–2.5}. Evidence from animal toxicological studies further supports a direct PM_{2.5} effect on the cardiovascular system and provides coherence with effects observed in epidemiologic studies. For example, animal toxicological studies demonstrating atherosclerotic plaque progression in mice is coherent with epidemiologic studies of atherosclerosis, and animal toxicological studies reporting increased coronary artery wall thickness, decreased cardiac contractility and output, and changes in blood pressure are coherent with epidemiologic studies of HF. Furthermore, when considering the collective body of evidence, there are biologically plausible pathways by which long-term exposure to PM_{2.5} could lead to a continuum of effects potentially resulting in death.

EPA Air Quality Monitors Report – FRM & FEM Monitors

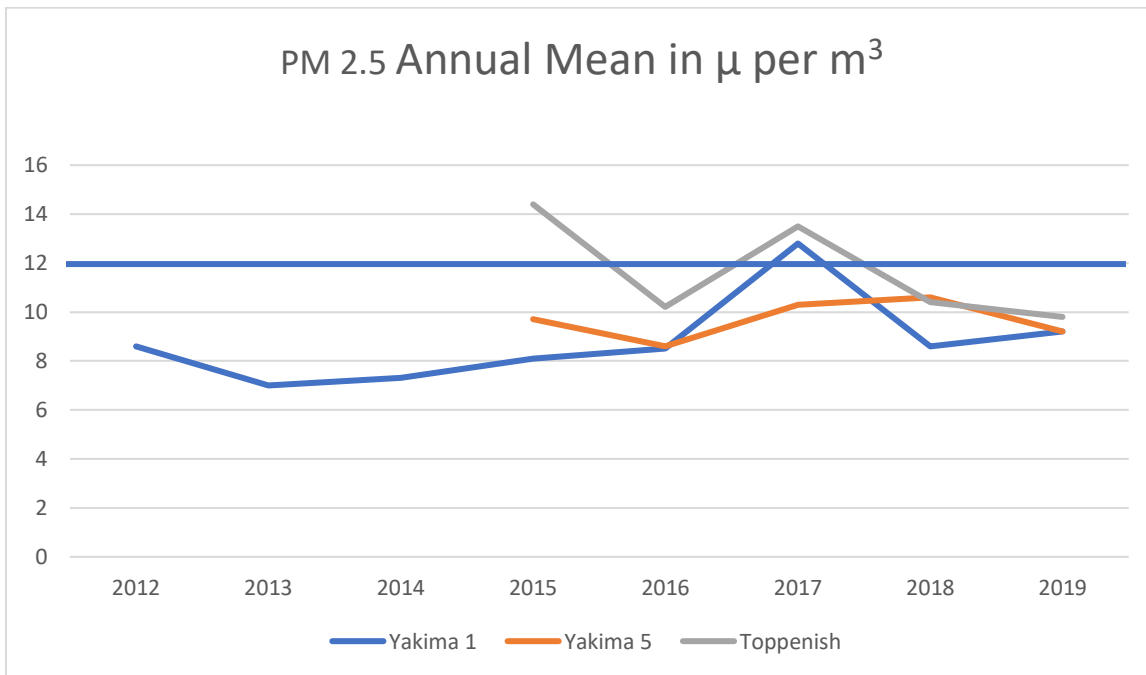
PM 2.5 for Yakima County – Excludes Exceptional Events

Available at <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>

Annual Mean in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	8.6				
2013	7.0*	17.2*			
2014	7.3	8.6*			
2015	8.1*	8.9*	9.7*	14.4*	
2016	8.5		8.6	10.2*	9.7*
2017	12.8		10.3		13.5
2018	8.6*		10.6		10.4*
2019	9.2		9.2		9.8
2020	11.6*	12.3*			14.1*
2021	14.6*	9.0*			8.3*

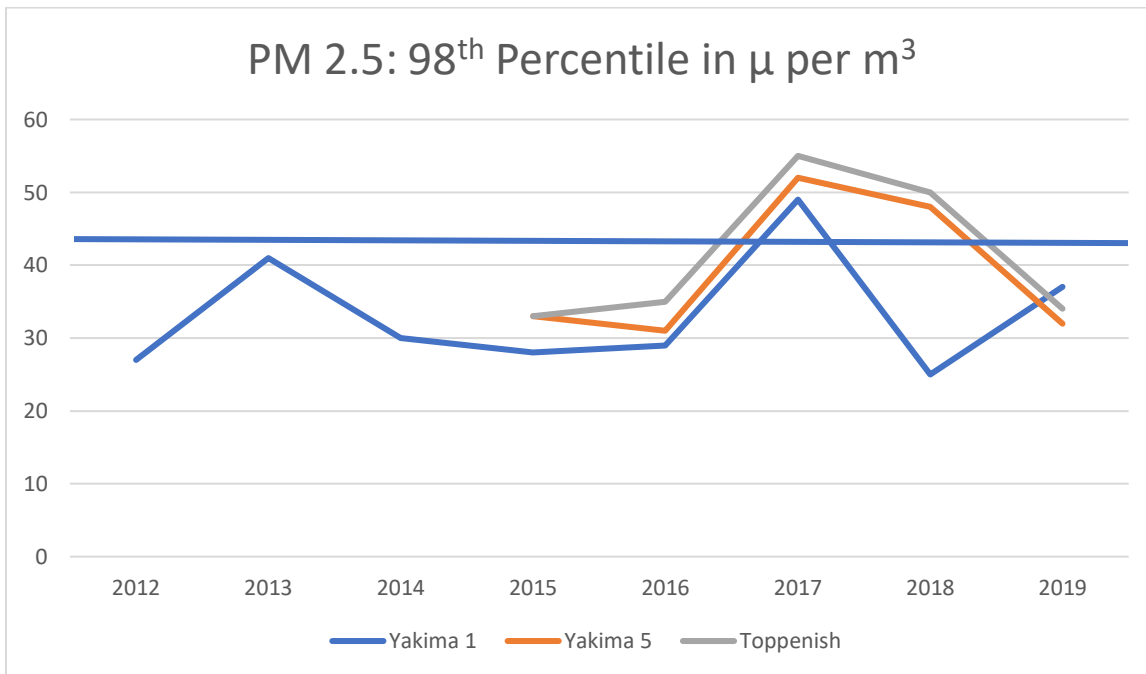
- Indicates insufficient data.
2020 & 2021 may include data from excluded events.



EPA cutoff for compliance = 12 μ per m^3 .

98th Percentile in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	27				
2013	41	38			
2014	30	27			
2015	28	25	33	33	
2016	29		31	62	35
2017	49		52		55
2018	25		48		50
2019	37		32		34
2020	135		105		90
2021	30		29		28



EPA cutoff for compliance = 35 μ per m^3 .

First Max in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	29.2				
2013	50.1	51.5			
2014	41	44.6			
2015	39.3	28.9	41	32.6	
2016	49.6		63.9	61.8	49.5
2017	161.3		184.6		184
2018	44		132		137.5
2019	39.2		40.8		39.8
2020	250.2	325.4			447.6
2021	30.2	30.6			29.8

Second Max in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	26.9				
2013	42.3	43.9			
2014	33.2	40.8			
2015	31.3	25.8	34.8	24.7	
2016	30.9		59.2	29	42.9
2017	76.1		173.3		183.6
2018	31.8		102		124.5
2019	36.8		38.8		37.6
2020	134.5		273.9		378.2
2021	23.5		29.1		27.9

Third Max in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	25.9				
2013	37	42.8			
2014	30.2	39.2			
2015	27.7	25.5	33.1	23.5	
2016	29.1		53.5	24.3	35
2017	49.2		166.4		174.1
2018	25.2		59.7		57.4
2019	36.8		37.3		37.1
2020	72.1		254.3		328.2
2021	20.8		25.7		26.9

Fourth Max in μ per m^3

Year	402 S. 40 th Ave, Yakima (1)	402 S. 40 th Ave, Yakima (3)	402 S. 40 th Ave, Yakima (5)	141 Ward Rd, Toppenish (1)	141 Ward Rd, Toppenish (5)
2012	26.2				
2013	23.7	39.5			
2014	29.2	36.5			
2015	25.1	25.1	32.3	21.9	
2016	26.8		50.2	23.6	31.2
2017	48		84.5		100.3
2018	24.1		59.1		56.1
2019	37		32		36.7
2020	42.7		144.1		304.9
2021	19.6		23.5		21

Note: It is likely that the data for 2020 & 2021 includes exceptional events. Therefore, that data was separated from the previous years for graphing purposes.

Data Copied from <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>

2012

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
105	29.2	26.9	26.9	26.2	27	8.6*	Excluded	1	530770009	402 South 4th Ave	Yakima

2013

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
76	50.1	41.3	37	23.7	41	7.0*	None	1	530770009	402 South 4th Ave	Yakima
85	51.5	43.9	42.8	39.5	38	17.2*	Excluded	3	530770009	402 South 4th Ave	Yakima

2014

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
113	41	33.2	30.2	29.2	30	7.3	None	1	530770009	402 South 4th Ave	Yakima
332	44.6	40.8	39.2	36.5	27	8.6*	None	3	530770009	402 South 4th Ave	Yakima

2015

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
25	26.5	24.5	24.2	18.6	27	9.7*	None	1	530770005	810 16thst (Harrison Middle School)	Sunnyside
108	39.3	31.3	27.7	25.1	28	8.1*	Excluded	1	530770009	402 South 4th Ave	Yakima
231	28.9	25.8	25.5	25.1	25	8.9*	Excluded	3	530770009	402 South 4th Ave	Yakima
101	41	34.8	33.1	32.3	33	9.7*	None	5	530770009	402 South 4th Ave	Yakima
13	32.6	24.7	23.5	21.9	33	14.4*	None	1	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2016

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
21	26.1	21.7	19.9	18.3	26	12.1*	None	1	530770005	810 16thst (Harrison Middle School)	Sunnyside
116	49.6	30.9	29.1	26.6	29	8.5	None	1	530770009	402 South 4th Ave	Yakima
349	63.9	59.2	53.5	50.2	31	8.6	None	5	530770009	402 South 4th Ave	Yakima
47	61.8	29	24.3	23.6	62	10.2*	None	1	530770015	141 Ward Rd., Toppenish, Wa	Toppenish
149	49.5	47.9	35	31.2	35	9.7*	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2017

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
113	161.3	76.1	49.2	48	49	12.8	None	1	530770009	402 South 4th Ave	Yakima
356	184.6	173.3	166.4	84.5	52	10.3	None	5	530770009	402 South 4th Ave	Yakima
352	184	183.6	174.1	100.3	55	13.5	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2018

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
102	44	31.8	25.2	24.1	25	8.6*	None	1	530770009	402 South 4th Ave	Yakima
360	132	102	59.7	59.1	48	10.6	None	5	530770009	402 South 4th Ave	Yakima
307	137.5	124.5	57.4	56.1	50	10.4*	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2019

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
113	39.2	36.8	36.8	35	37	9.2	None	1	530770009	402 South 4th Ave	Yakima
353	40.8	38.8	37.3	35.1	32	9.2	None	5	530770009	402 South 4th Ave	Yakima
322	39.8	37.6	37.1	36.7	34	9.8	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2020

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
75	250.2	134.5	72.1	42.7	135	11.6*	None	1	530770009	402 South 4th Ave	Yakima
315	325.4	273.9	254.3	144.1	105	12.3*	None	5	530770009	402 South 4th Ave	Yakima
306	447.6	378.2	328.2	304.9	90	14.1*	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

2021

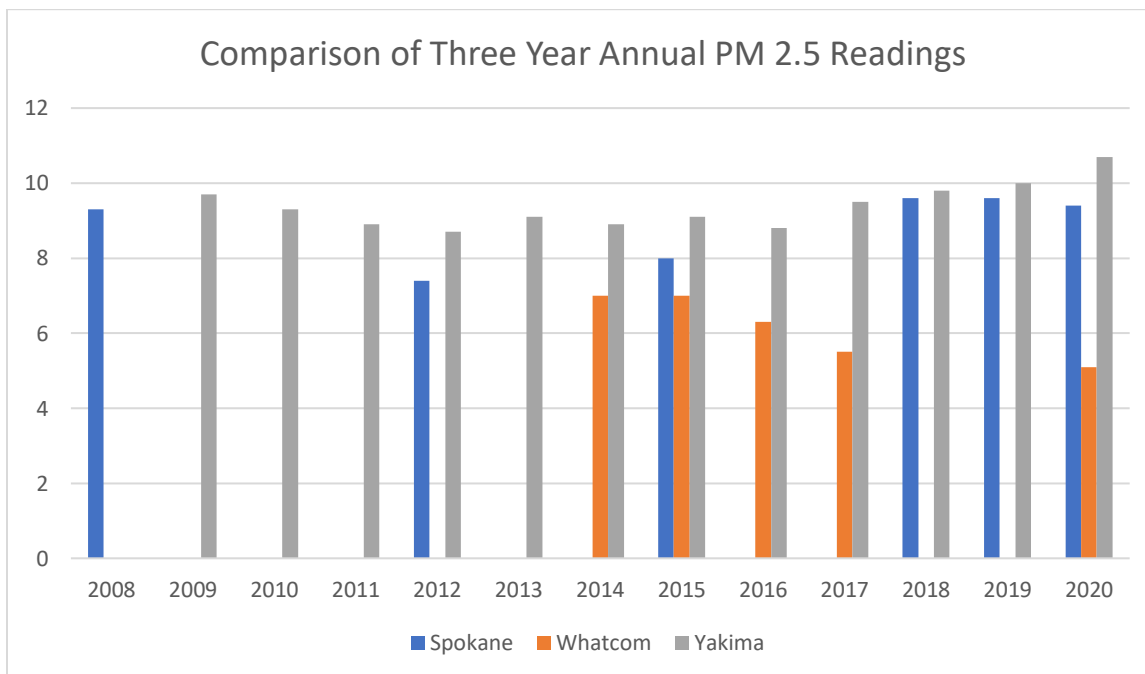
Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City
11	30.2	25.5	20.8	19.6	30	14.6*	None	1	530770009	402 South 4th Ave	Yakima
90	30.6	29.1	25.7	23.5	29	9.0*	None	5	530770009	402 South 4th Ave	Yakima
73	29.8	27.9	26.9	21	28	8.3*	None	5	530770015	141 Ward Rd., Toppenish, Wa	Toppenish

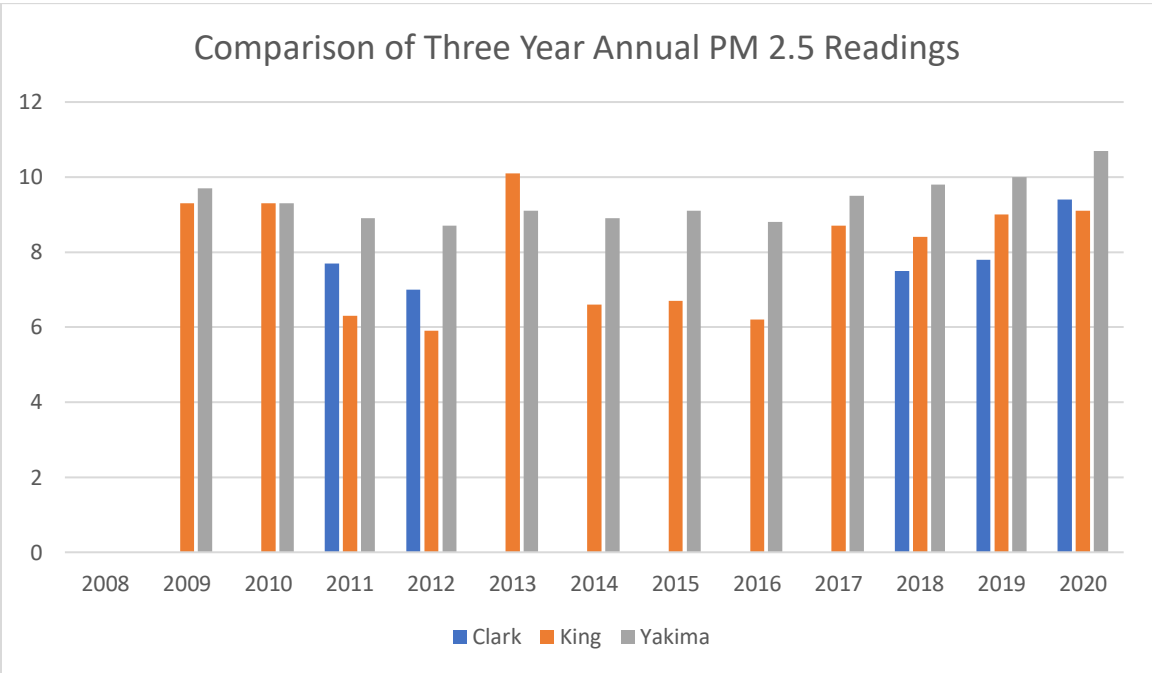
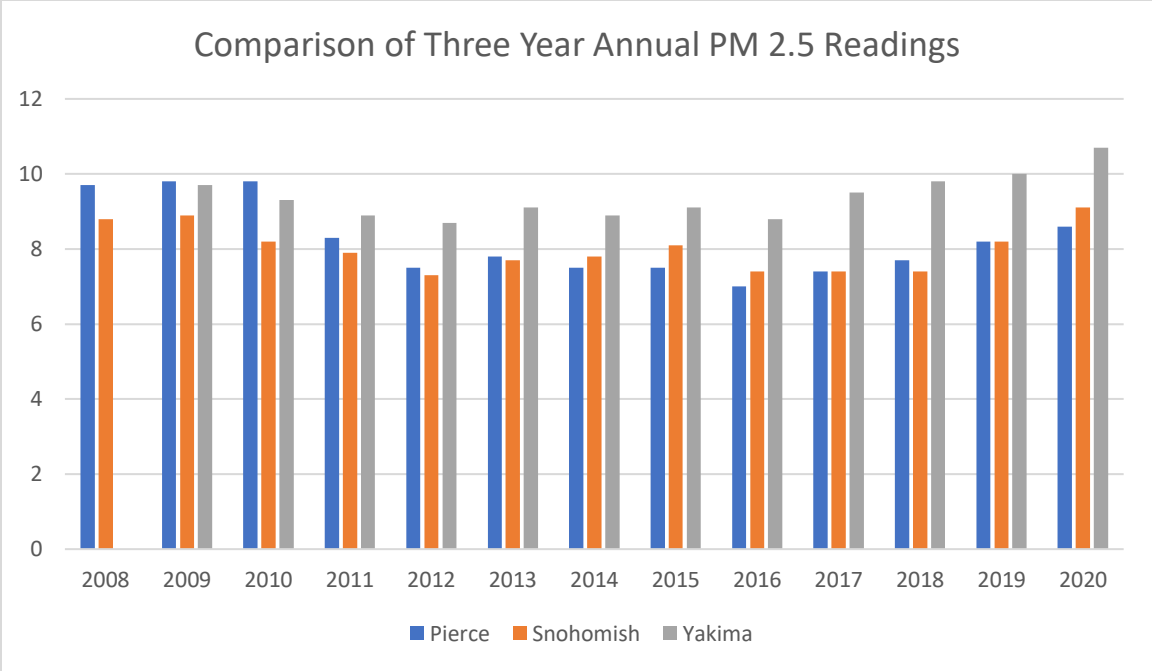
Data from EPA's Design Values Web Page

<https://www.epa.gov/air-trends/air-quality-design-values>

Three Year Annual Average PM 2.5 County Comparison – Washington State

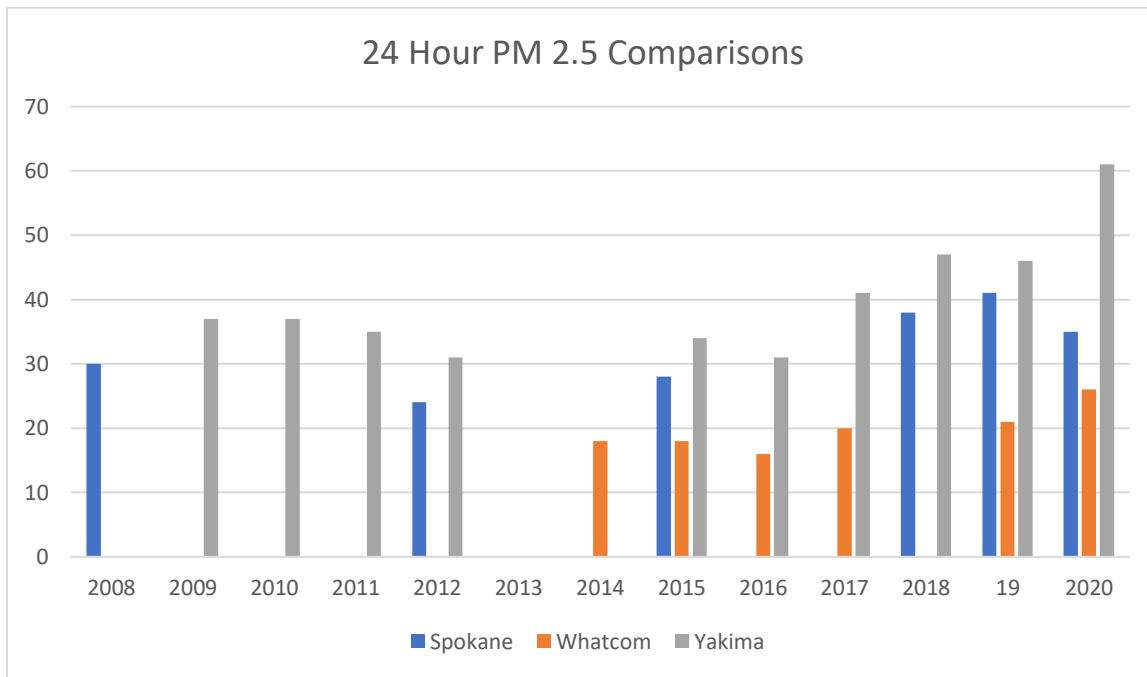
Years	Clark	King	Pierce	Snohomish	Spokane	Whatcom	Yakima
2018 - 2020	9.4	9.1	8.6	9.1	9.4	5.1	10.7
2017 - 2019	7.8	9.0	8.2	8.2	9.6		10.0
2016 - 2018	7.5	8.4	7.7	7.4	9.6		9.8
2015 - 2017		8.7	7.4	7.4		5.5	9.5
2014 - 2016		6.2	7.0	7.4		6.3	8.8
2013 - 2015		6.7	7.5	8.1	8.0	7.0	9.1
2012 - 2014		6.6	7.5	7.8		7.0	8.9
2011 - 2013		10.1	7.8	7.7			9.1
2010 - 2012	7.0	5.9	7.5	7.3	7.4		8.7
2009 - 2011	7.7	6.3	8.3	7.9			8.9
2008 - 2010		9.3	9.8	8.2			9.3
2007 - 2009		9.3	9.8	8.9			9.7
2006 - 2008			9.7	8.8	9.3		
2005 - 2007							
2004 - 2006							
2003 - 2005							

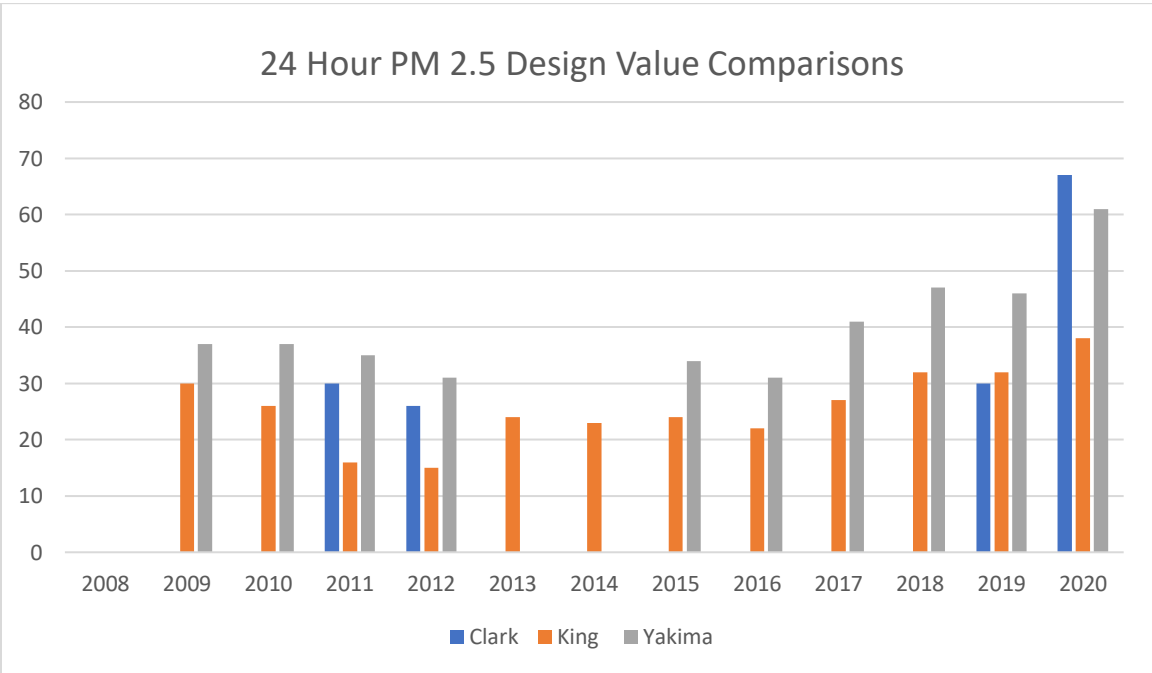
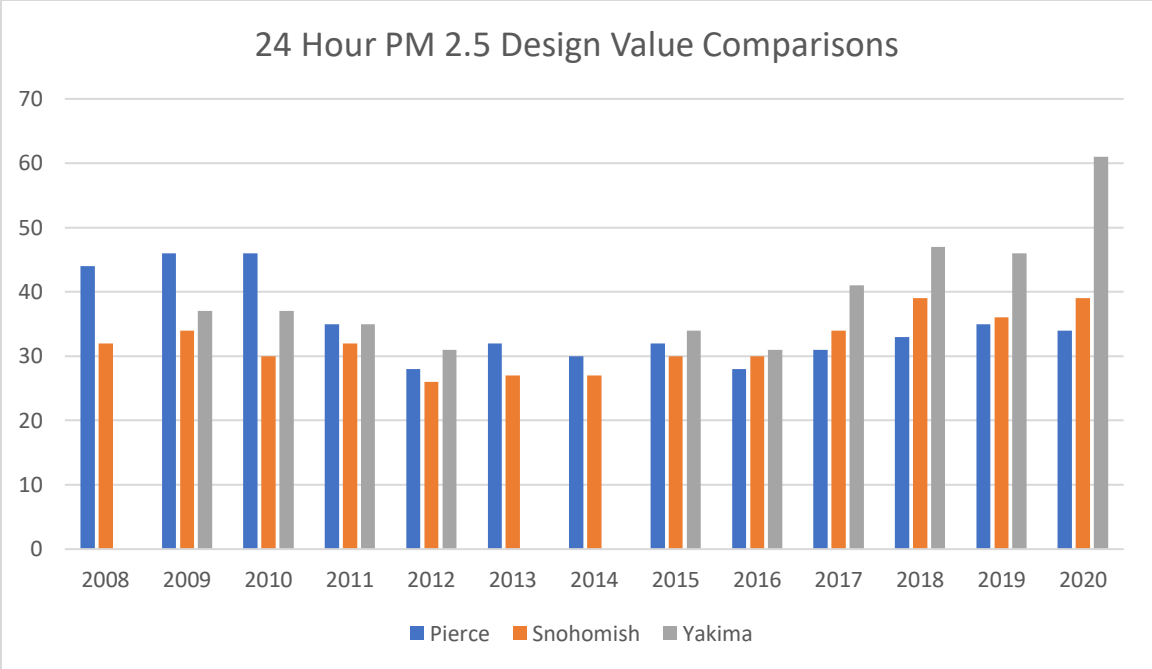




24 Hour PM 2.5 Design Value Comparisons – Washington State

Years	Clark	King	Pierce	Snohomish	Spokane	Whatcom	Yakima
2018 - 2020	67	38	34	39	35	26	61
2017 - 2019	30	32	35	36	41	21	46
2016 - 2018		32	33	39	38		47
2015 - 2017		27	31	34		20	41
2014 - 2016		22	28	30		16	31
2013 - 2015		24	32	30	28	18	34
2012 - 2014		23	30	27		18	
2011 - 2013		24	32	27			
2010 - 2012	26	15	28	26	24		31
2009 - 2011	30	16	35	32			35
2008 - 2010		26	46	30			37
2007 - 2009		30	46	34			37
2006 - 2008			44	32	30		
2005 - 2007							
2004 - 2006							
2003 - 2005							





Data by County

Chelan

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		
2017 - 2019		
2016 - 2018		
2015 - 2017		
2014 - 2016	5.6	21
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Clark

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.4	67
2017 - 2019	7.8	30
2016 - 2018	7.5	
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012	7.0	26
2009 - 2011	7.7	30
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

King

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.1	38
2017 - 2019	9.0	32
2016 - 2018	8.4	32
2015 - 2017	8.7	27
2014 - 2016	6.2	22
2013 - 2015	6.7	24
2012 - 2014	6.6	23
2011 - 2013	10.1	24
2010 - 2012	5.9	15
2009 - 2011	6.3	16
2008 - 2010	9.3	26
2007 - 2009	9.3	30
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Kitsap

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	5.8	26
2017 - 2019	4.9	20
2016 - 2018	4.6	19
2015 - 2017	4.7	16
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Kittitas

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	7.8	39
2017 - 2019	8.3	38
2016 - 2018	8.1	40
2015 - 2017	7.6	
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Okanogan

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	11.9	66
2017 - 2019		60
2016 - 2018		62
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Pierce

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	8.6	34
2017 - 2019	8.2	35
2016 - 2018	7.7	33
2015 - 2017	7.4	31
2014 - 2016	7.0	28
2013 - 2015	7.5	32
2012 - 2014	7.5	30
2011 - 2013	7.8	32
2010 - 2012	7.5	28
2009 - 2011	8.3	35
2008 - 2010	9.8	46
2007 - 2009	9.8	46
2006 - 2008	9.7	44
2005 - 2007		
2004 - 2006		
2003 - 2005		

Skagit

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		
2017 - 2019	5.8	18
2016 - 2018	5.8	18
2015 - 2017	5.9	13
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Snohomish

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.1	39
2017 - 2019	8.2	36
2016 - 2018	7.4	39
2015 - 2017	7.4	34
2014 - 2016	7.4	30
2013 - 2015	8.1	30
2012 - 2014	7.8	27
2011 - 2013	7.7	27
2010 - 2012	7.3	26
2009 - 2011	7.9	32
2008 - 2010	8.2	30
2007 - 2009	8.9	34
2006 - 2008	8.8	32
2005 - 2007		
2004 - 2006		
2003 - 2005		

Spokane

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.4	35
2017 - 2019	9.6	41
2016 - 2018	9.6	38
2015 - 2017		
2014 - 2016		
2013 - 2015	8.0	28
2012 - 2014		
2011 - 2013		
2010 - 2012	7.4	24
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008	9.3	30
2005 - 2007		
2004 - 2006		
2003 - 2005		

Stevens

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		38
2017 - 2019		
2016 - 2018		
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Whatcom

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	5.1	26
2017 - 2019		21
2016 - 2018		
2015 - 2017	5.5	20
2014 - 2016	6.3	16
2013 - 2015	7.0	18
2012 - 2014	7.0	18
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Yakima

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	10.7	61
2017 - 2019	10.0	46
2016 - 2018	9.8	47
2015 - 2017	9.5	41
2014 - 2016	8.8	31
2013 - 2015	9.1	34
2012 - 2014	8.9	
2011 - 2013	9.1	
2010 - 2012	8.7	31
2009 - 2011	8.9	35
2008 - 2010	9.3	37
2007 - 2009	9.7	37
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Annual PM 2.5 and 24 Hour PM 2.5 compiled by Three Year Periods

2018 – 2020

County	Annual PM 2.5	24 Hour PM 2.5
Clark	9.4	67
King	9.1	38
Kitsap	5.8	26
Kittitas	7.8	39
Okanogan	11.9	66
Pierce	8.6	34
Snohomish	9.1	39
Skagit		
Spokane	9.4	35
Stevens		38
Whatcom	5.1	26
Yakima	10.7	61

2017 - 2019

County	Annual PM 2.5	24 Hour PM 2.5
Clark	7.8	30
King	9.0	32
Kitsap	4.9	20
Kittitas	8.3	38
Okanogan		60
Pierce	8.2	35
Skagit	5.8	18
Snohomish	8.2	36
Spokane	9.6	41
Stevens		
Whatcom		21
Yakima	10.0	46

2016 - 2018

County	Annual PM 2.5	24 Hour PM 2.5
Clark	7.5	
King	8.4	32
Kitsap	4.6	19
Kittitas	8.1	40
Okanogan		62
Pierce	7.7	33
Skagit	5.8	18
Snohomish	7.4	39
Spokane	9.6	38
Stevens		
Whatcom		
Yakima	9.8	47

2015 - 2017

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King	8.7	27
Kitsap	4.7	16
Kittitas	7.6	
Okanogan		
Pierce	7.4	31
Skagit	5.9	13
Snohomish	7.4	34
Spokane		
Stevens		
Whatcom	5.5	20
Yakima	9.5	41

2014 - 2016

County	Annual PM 2.5	24 Hour PM 2.5
Chelan	5.6	21
Clark		
King	6.2	22
Kitsap		
Kittitas		
Okanogan		
Pierce	7.0	28
Skagit		
Snohomish	7.4	30
Spokane		
Stevens		
Whatcom	6.3	16
Yakima	8.8	31

2013 – 2015

County	Annual PM 2.5	24 Hour PM 2.5
Clark		36
King	6.7	24
Kitsap		
Kittitas		
Okanogan		
Pierce	7.5	32
Skagit		
Snohomish	8.1	30
Spokane		29
Stevens		
Whatcom	7.0	18
Yakima	9.1	34

2012 - 2014

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King	6.6	23
Kitsap		
Kittitas		
Okanogan		
Pierce	7.5	30
Skagit		
Snohomish	7.8	27
Spokane	7.9	24
Stevens		
Whatcom		
Yakima	8.9	

2011 – 2013

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King	10.1	24
Kitsap		
Kittitas		
Okanogan		
Pierce	7.8	32
Skagit		
Snohomish	7.7	27
Spokane	8.0	28
Stevens		
Whatcom		
Yakima	9.1	

2010 – 2012

County	Annual PM 2.5	24 Hour PM 2.5
Clark	7.0	26
King	5.9	15
Kitsap		
Kittitas		
Okanogan		
Pierce	7.5	28
Skagit		
Snohomish	7.3	26
Spokane	7.4	24
Stevens		
Whatcom		
Yakima	8.7	31

2009 – 2011

County	Annual PM 2.5	24 Hour PM 2.5
Clark	7.7	30
King	6.3	16
Kitsap		
Kittitas		
Okanogan		
Pierce	8.3	35
Skagit		
Snohomish	7.9	32
Spokane		
Stevens		
Whatcom		
Yakima	8.9	35

2008 – 2010

County	Annual PM 2.5	24 Hour PM 2.5
Clark	7.8	27
King	6.6	16
Kitsap		
Kittitas		
Okanogan		
Pierce	8.9	38
Skagit		
Snohomish	8.2	30
Spokane		
Stevens		
Whatcom		
Yakima	9.3	37

2007 – 2009

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King	9.3	26
Kitsap		
Kittitas		
Okanogan		
Pierce	9.8	46
Skagit		
Snohomish	8.9	34
Spokane		
Stevens		
Whatcom		
Yakima	9.7	37

2006 – 2008

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King		
Kitsap		
Kittitas		
Okanogan		
Pierce	9.7	44
Skagit		
Snohomish	8.8	32
Spokane	9.3	30
Stevens		
Whatcom		
Yakima		

2005 – 2007

County	Annual PM 2.5	24 Hour PM 2.5
Clark		
King	9.0	31
Kitsap		
Kittitas		
Okanogan		
Pierce	10.2	43
Skagit		
Snohomish	9.5	35
Spokane	9.8	31
Stevens		
Whatcom		
Yakima		

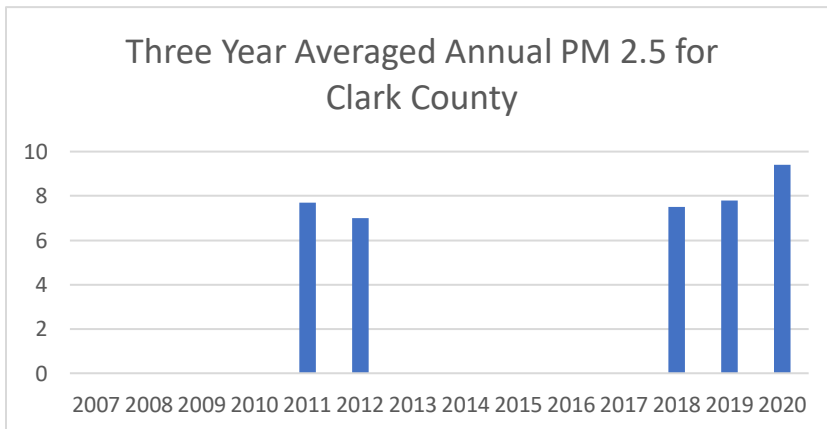
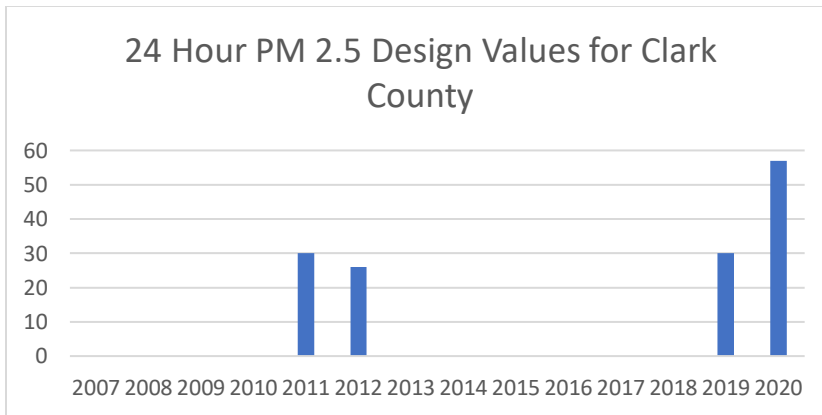
Data by County for Three Year Periods with Graphs

Chelan

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		
2017 - 2019		
2016 - 2018		
2015 - 2017		
2014 - 2016	5.6	21
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

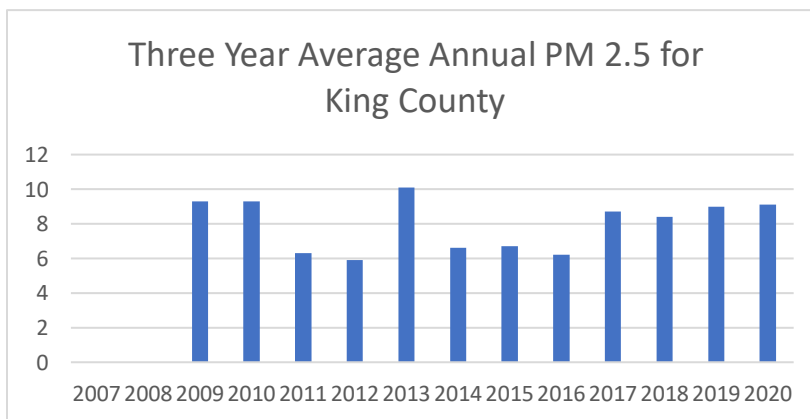
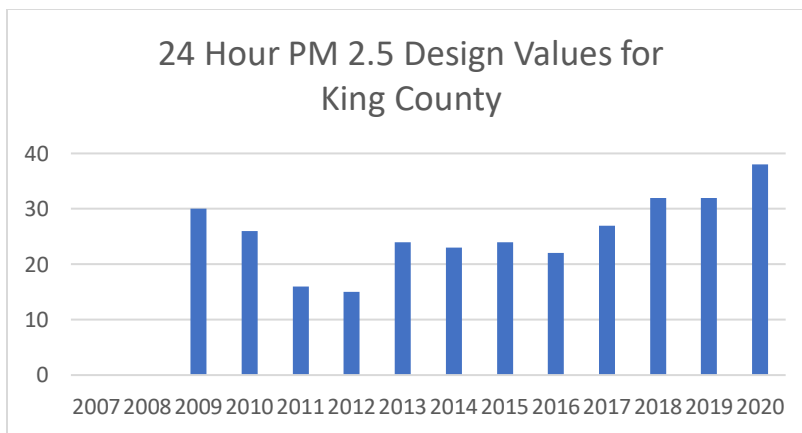
Clark

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.4	67
2017 - 2019	7.8	30
2016 - 2018	7.5	
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012	7.0	26
2009 - 2011	7.7	30
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		



King

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.1	38
2017 - 2019	9.0	32
2016 - 2018	8.4	32
2015 - 2017	8.7	27
2014 - 2016	6.2	22
2013 - 2015	6.7	24
2012 - 2014	6.6	23
2011 - 2013	10.1	24
2010 - 2012	5.9	15
2009 - 2011	6.3	16
2008 - 2010	9.3	26
2007 - 2009	9.3	30
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		



Kitsap

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	5.8	26
2017 - 2019	4.9	20
2016 - 2018	4.6	19
2015 - 2017	4.7	16
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Kittitas

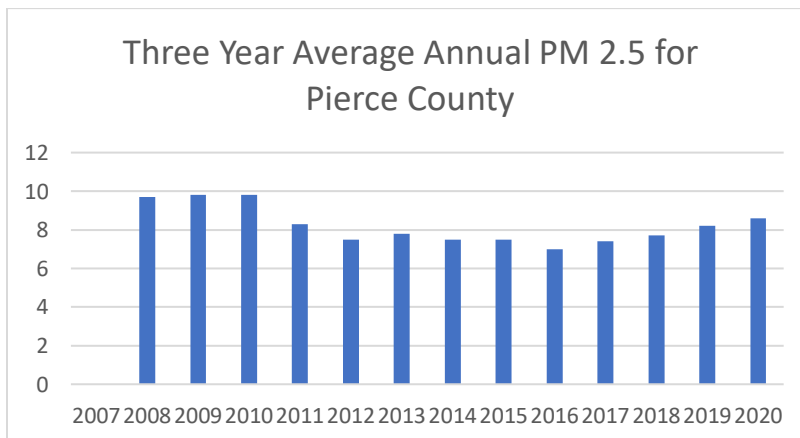
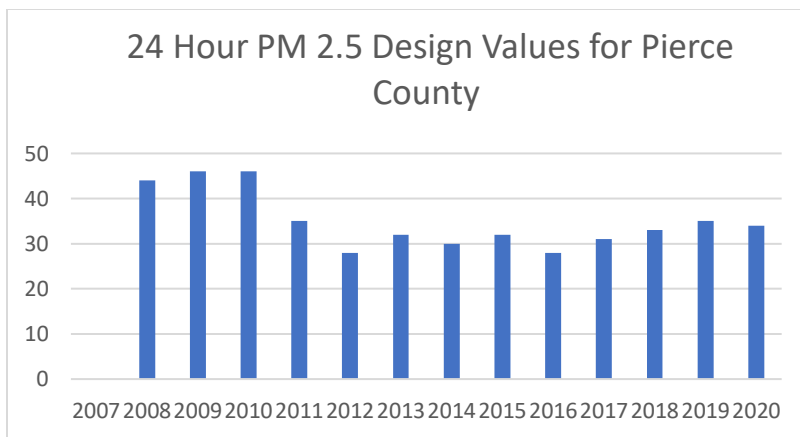
Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	7.8	39
2017 - 2019	8.3	38
2016 - 2018	8.1	40
2015 - 2017	7.6	
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Okanogan

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	11.9	66
2017 - 2019		60
2016 - 2018		62
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

Pierce

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	8.6	34
2017 - 2019	8.2	35
2016 - 2018	7.7	33
2015 - 2017	7.4	31
2014 - 2016	7.0	28
2013 - 2015	7.5	32
2012 - 2014	7.5	30
2011 - 2013	7.8	32
2010 - 2012	7.5	28
2009 - 2011	8.3	35
2008 - 2010	9.8	46
2007 - 2009	9.8	46
2006 - 2008	9.7	44
2005 - 2007		
2004 - 2006		
2003 - 2005		

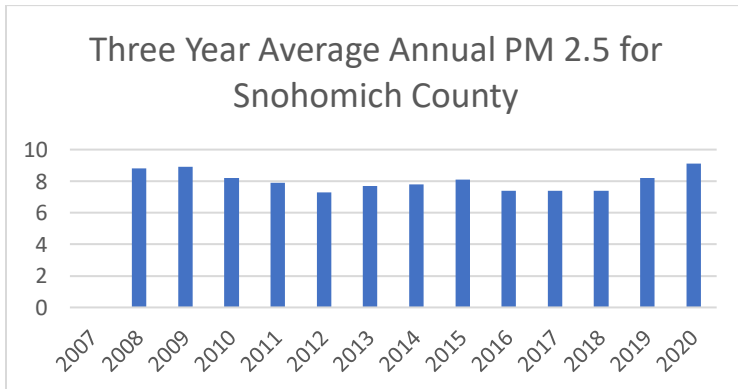
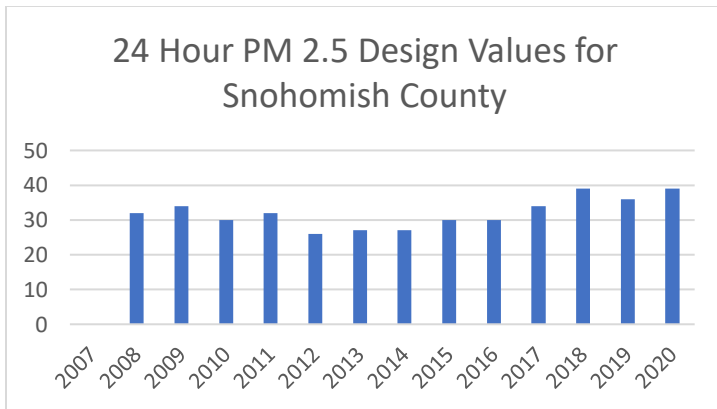


Skagit

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		
2017 - 2019	5.8	18
2016 - 2018	5.8	18
2015 - 2017	5.9	13
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

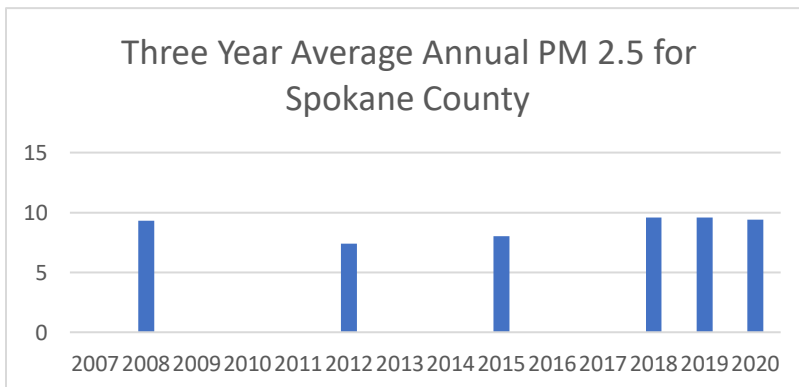
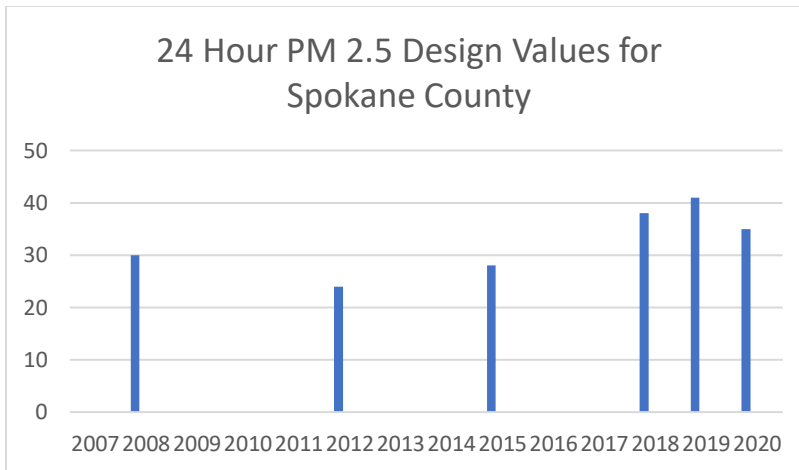
Snohomish

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.1	39
2017 - 2019	8.2	36
2016 - 2018	7.4	39
2015 - 2017	7.4	34
2014 - 2016	7.4	30
2013 - 2015	8.1	30
2012 - 2014	7.8	27
2011 - 2013	7.7	27
2010 - 2012	7.3	26
2009 - 2011	7.9	32
2008 - 2010	8.2	30
2007 - 2009	8.9	34
2006 - 2008	8.8	32
2005 - 2007		
2004 - 2006		
2003 - 2005		



Spokane

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	9.4	35
2017 - 2019	9.6	41
2016 - 2018	9.6	38
2015 - 2017		
2014 - 2016		
2013 - 2015	8.0	28
2012 - 2014		
2011 - 2013		
2010 - 2012	7.4	24
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008	9.3	30
2005 - 2007		
2004 - 2006		
2003 - 2005		

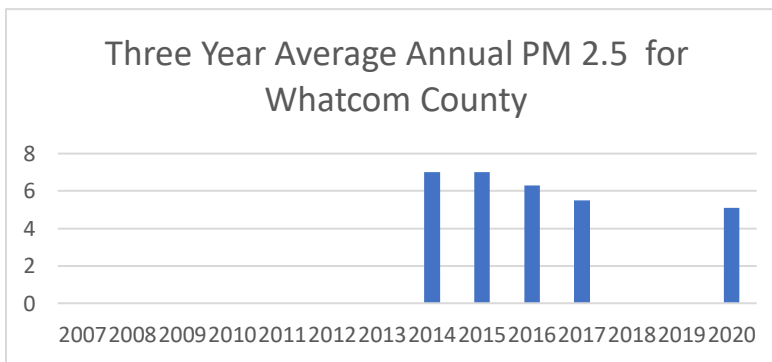
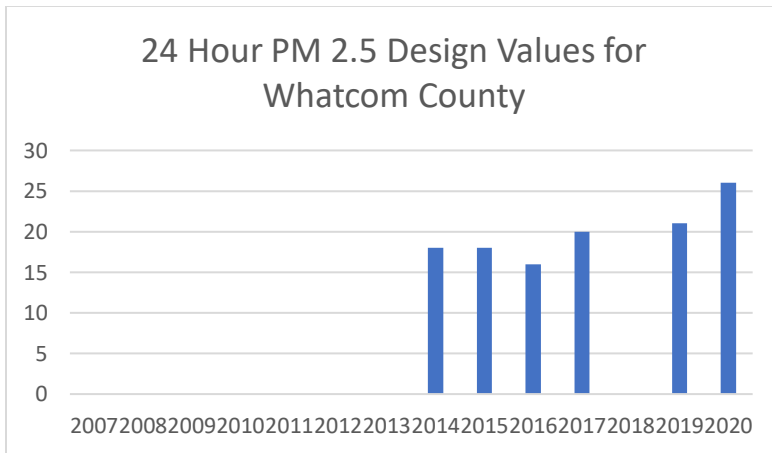


Stevens

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020		38
2017 - 2019		
2016 - 2018		
2015 - 2017		
2014 - 2016		
2013 - 2015		
2012 - 2014		
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		

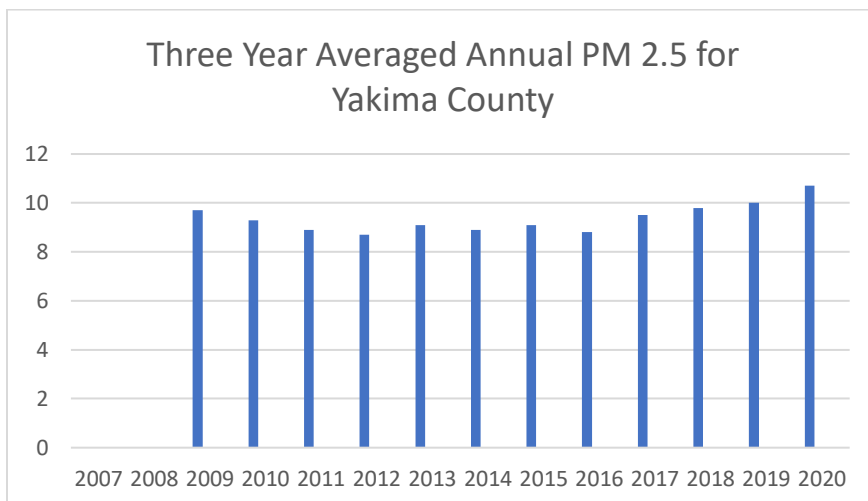
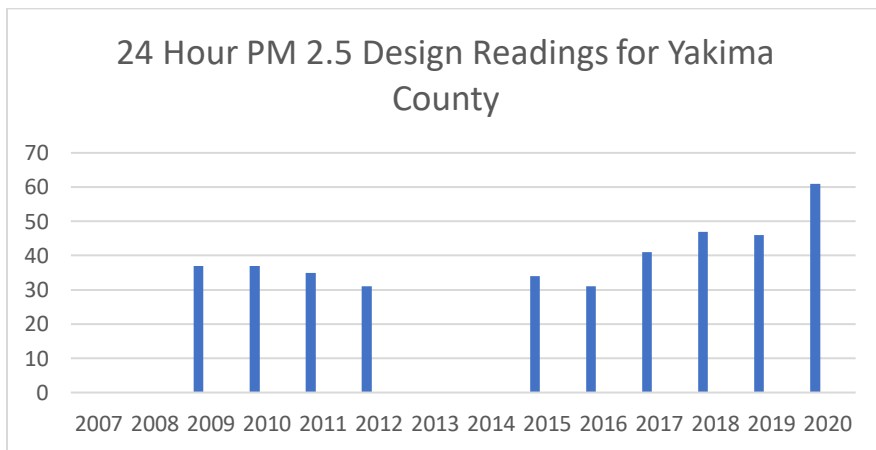
Whatcom

Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	5.1	26
2017 - 2019		21
2016 - 2018		
2015 - 2017	5.5	20
2014 - 2016	6.3	16
2013 - 2015	7.0	18
2012 - 2014	7.0	18
2011 - 2013		
2010 - 2012		
2009 - 2011		
2008 - 2010		
2007 - 2009		
2006 - 2008		
2005 - 2007		
2004 - 2006		
2003 - 2005		



Yakima

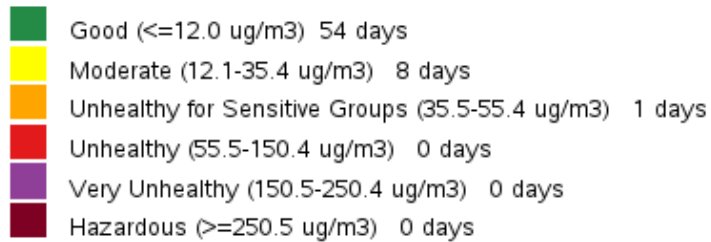
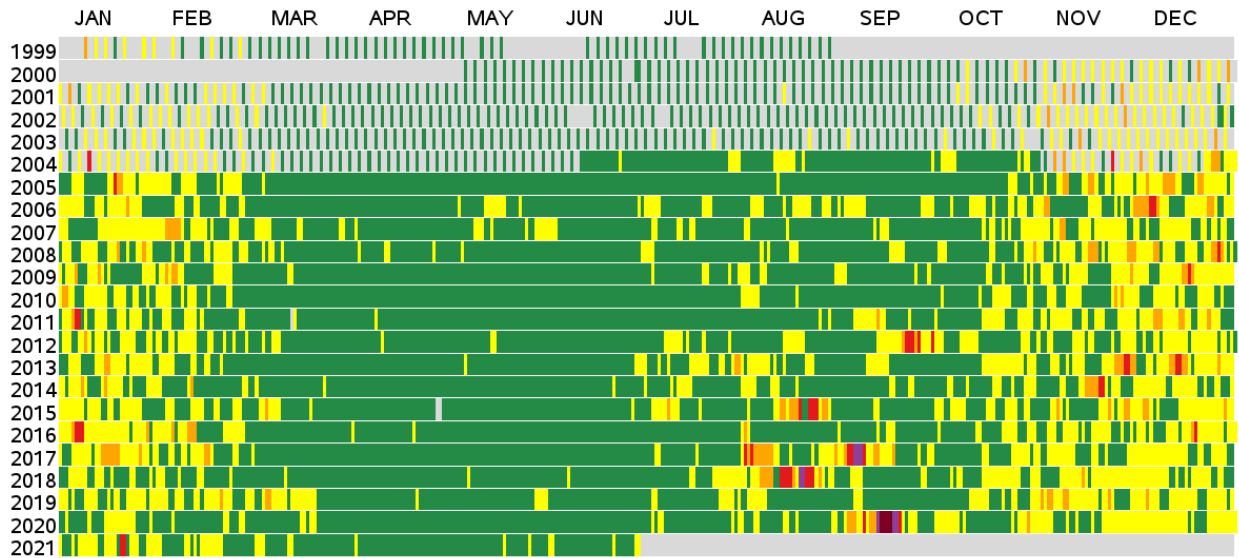
Years	Annual PM 2.5	24 Hour PM 2.5
2018 - 2020	10.7	61
2017 - 2019	10.0	46
2016 - 2018	9.8	47
2015 - 2017	9.5	41
2014 - 2016	8.8	31
2013 - 2015	9.1	34
2012 - 2014	8.9	
2011 - 2013	9.1	
2010 - 2012	8.7	31
2009 - 2011	8.9	35
2008 - 2010	9.3	37
2007 - 2009	9.7	37
2006 - 2008		
2005 - 2007		



EPA Tile Plot Data for Yakima County

From <https://www.epa.gov/outdoor-air-quality-data/air-data-multiyear-tile-plot>

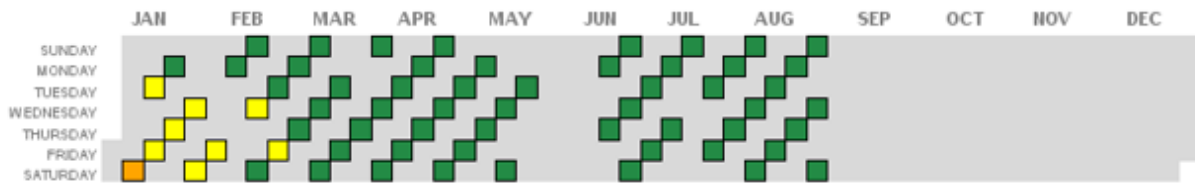
PM2.5 Daily AQI Values, 1999 to 2021 Yakima County, WA



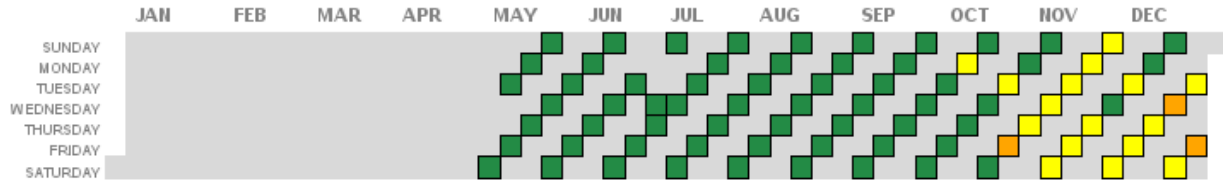
Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: June 30, 2021

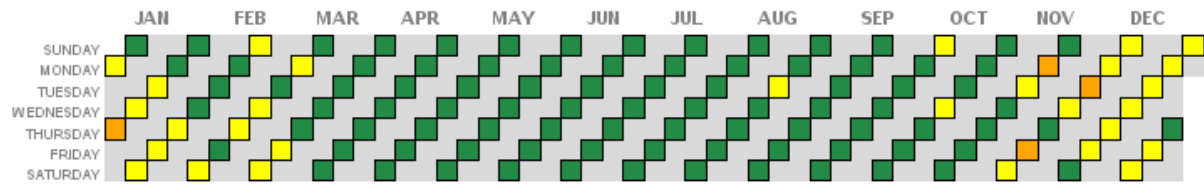
PM 2.5 Daily AQI Values in 1999



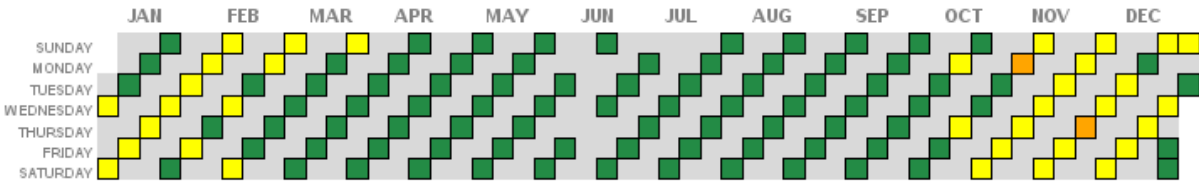
PM 2.5 Daily AQI Values in 2000



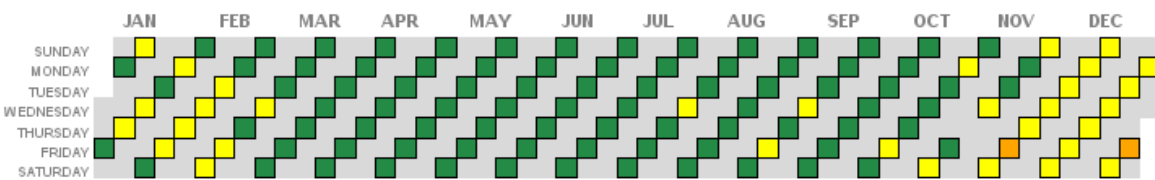
PM 2.5 Daily AQI Values in 2001



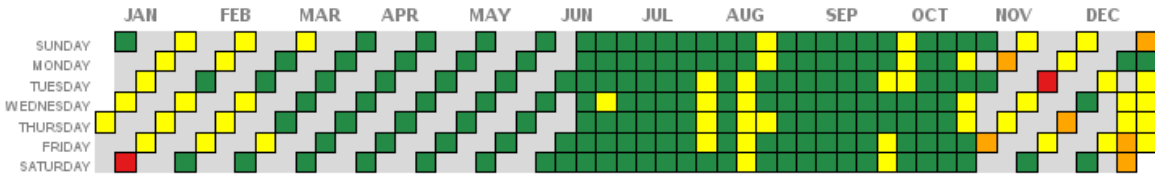
PM 2.5 Daily AQI Values in 2002



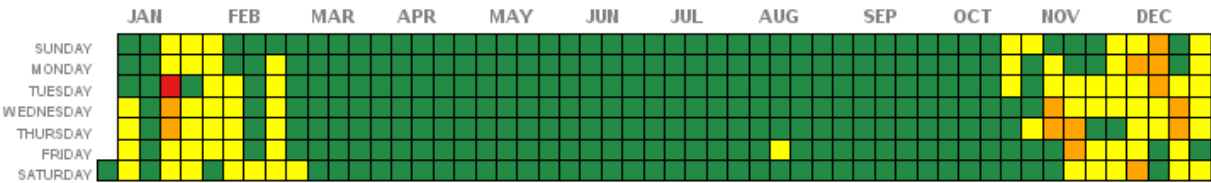
PM 2.5 Daily AQI Values in 2003



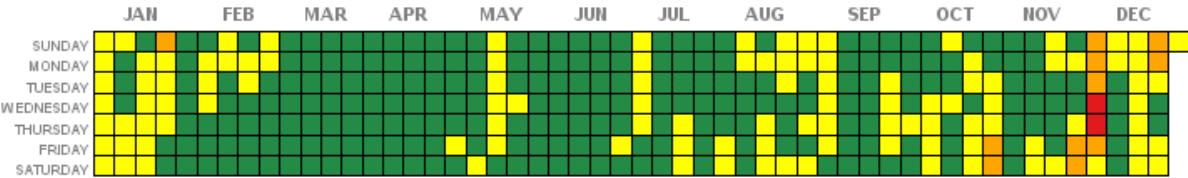
PM 2.5 Daily AQI Values in 2004



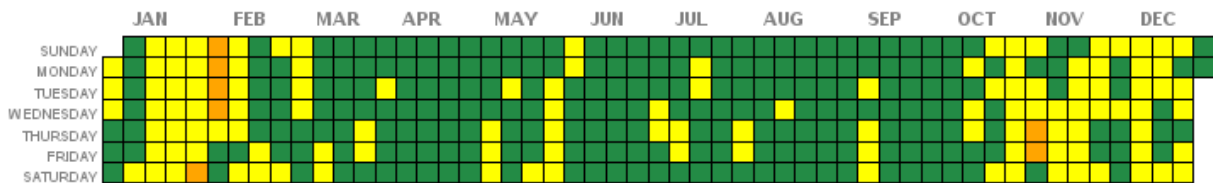
PM 2.5 Daily AQI Values in 2005



PM 2.5 Daily AQI Values in 2006



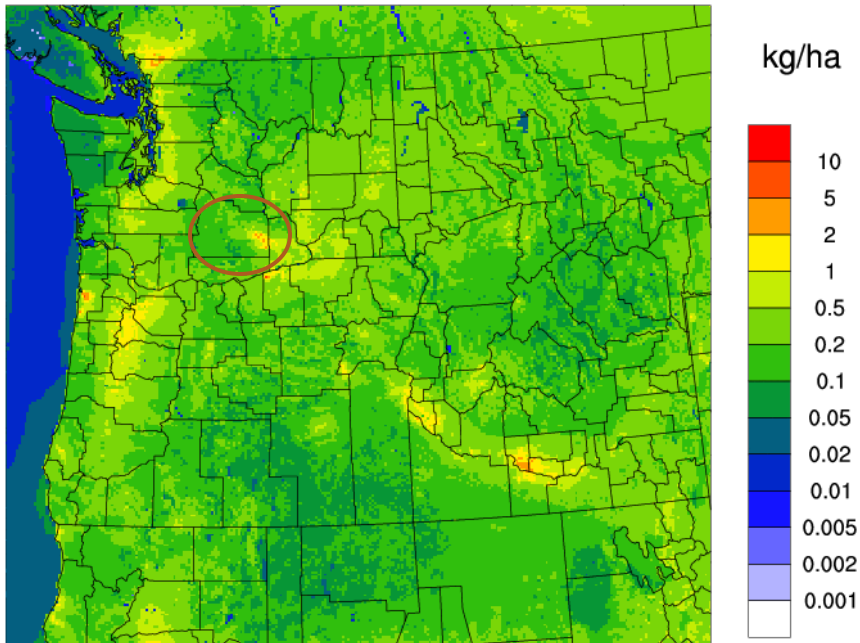
PM 2.5 Daily AQI Values in 2007



Airpact V Maps for Dry N Deposition in August

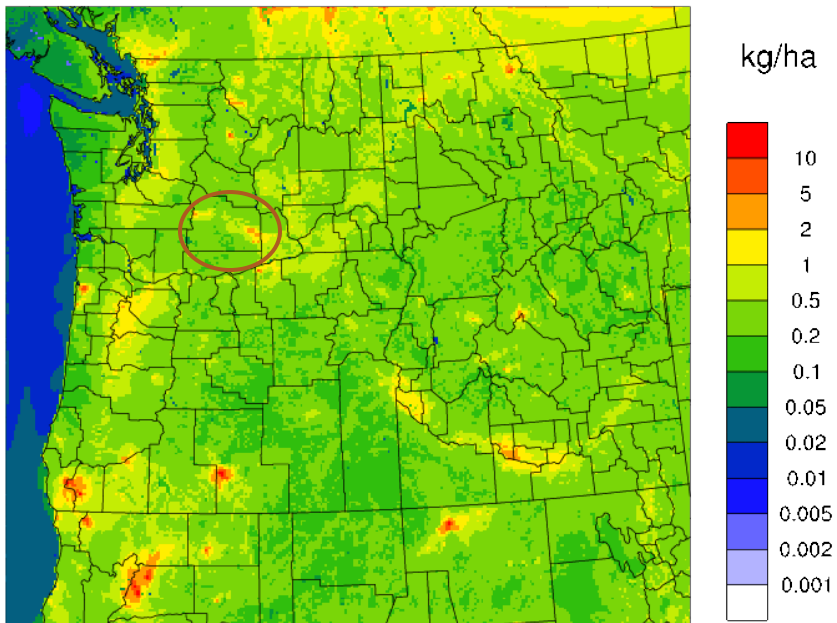
August 2016

Nitrogen Dry Deposition (Total)



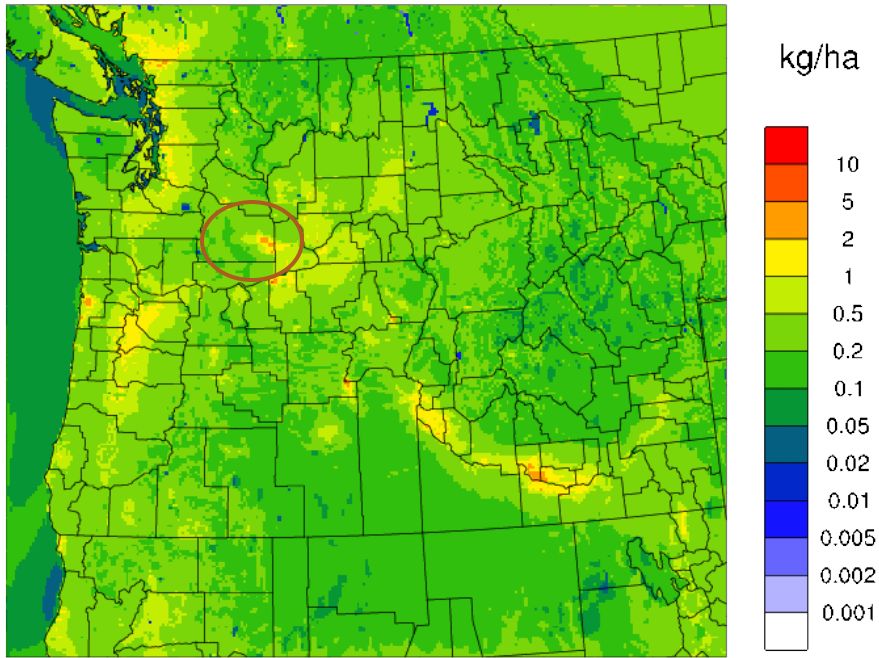
August 2018

Nitrogen Dry Deposition (Total)



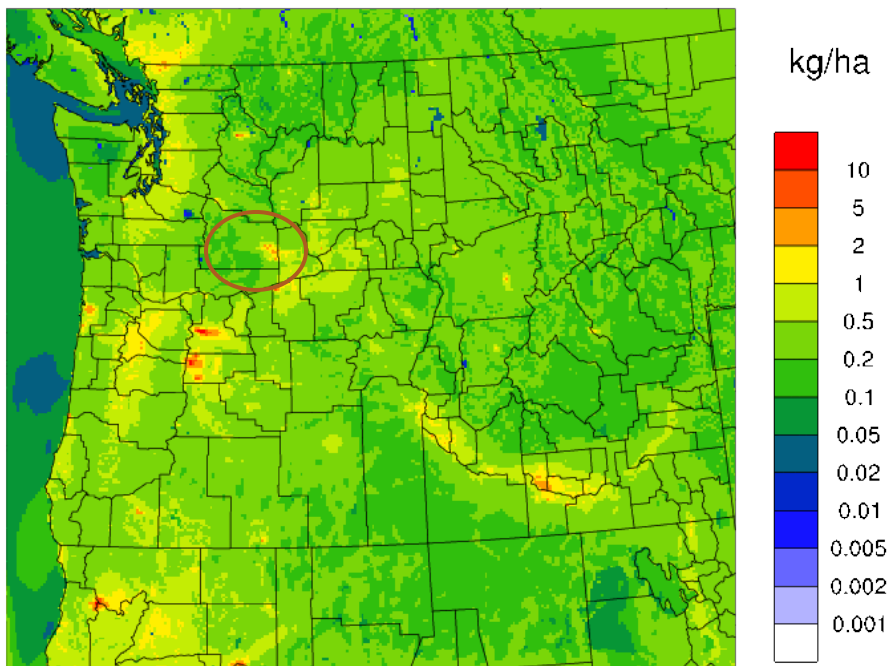
August 2019

Nitrogen Dry Deposition (Total)



August 2020

Nitrogen Dry Deposition (Total)

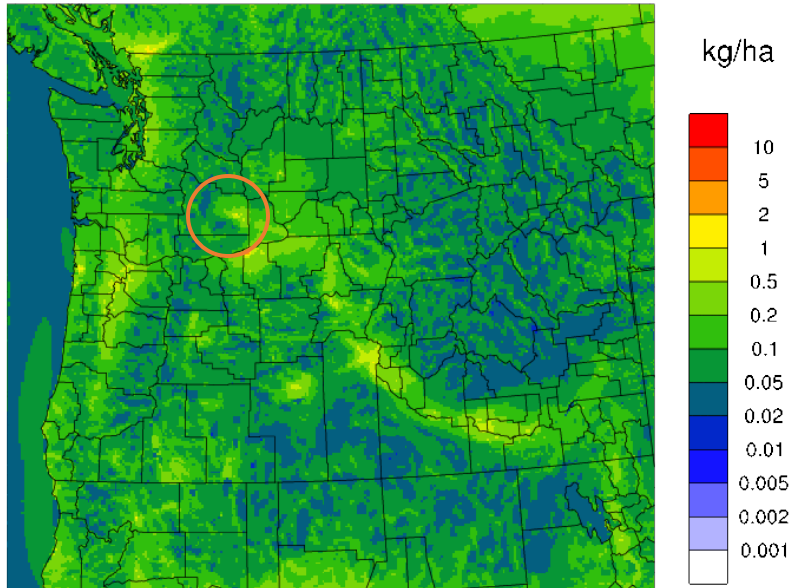


Airpact V Maps for Nitrogen Dry Deposition

January 2020 to the Present

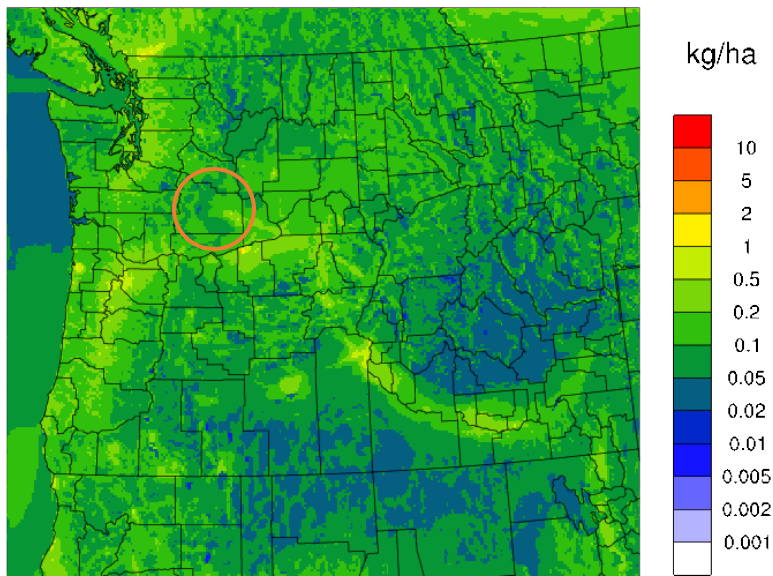
January 2020

Nitrogen Dry Deposition (Total)



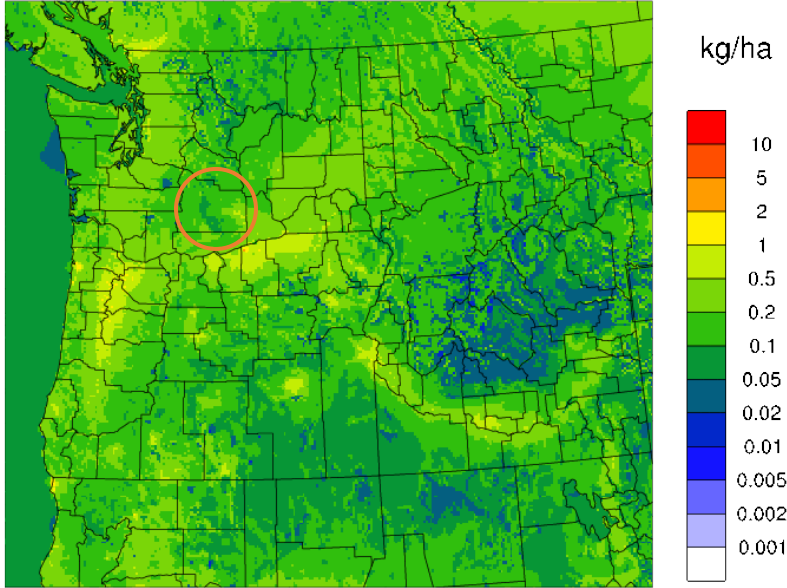
February 2020

Nitrogen Dry Deposition (Total)



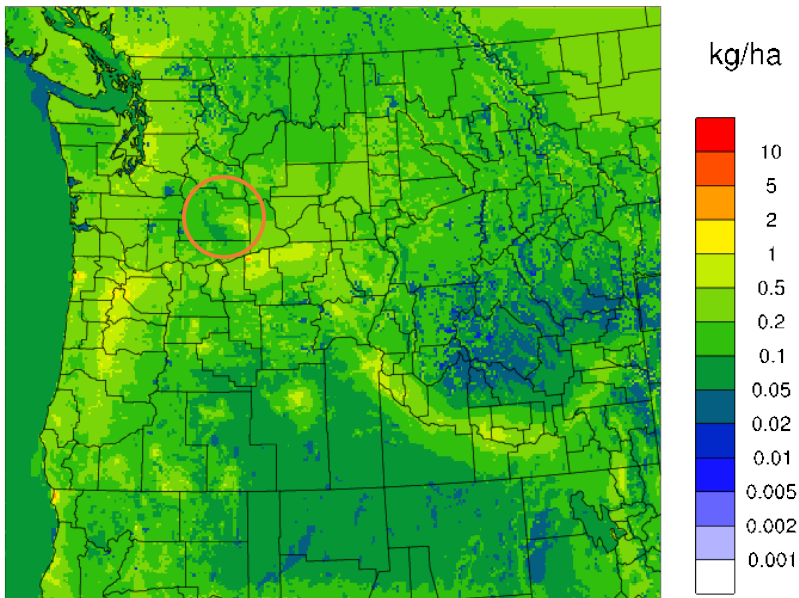
March 2020

Nitrogen Dry Deposition (Total)



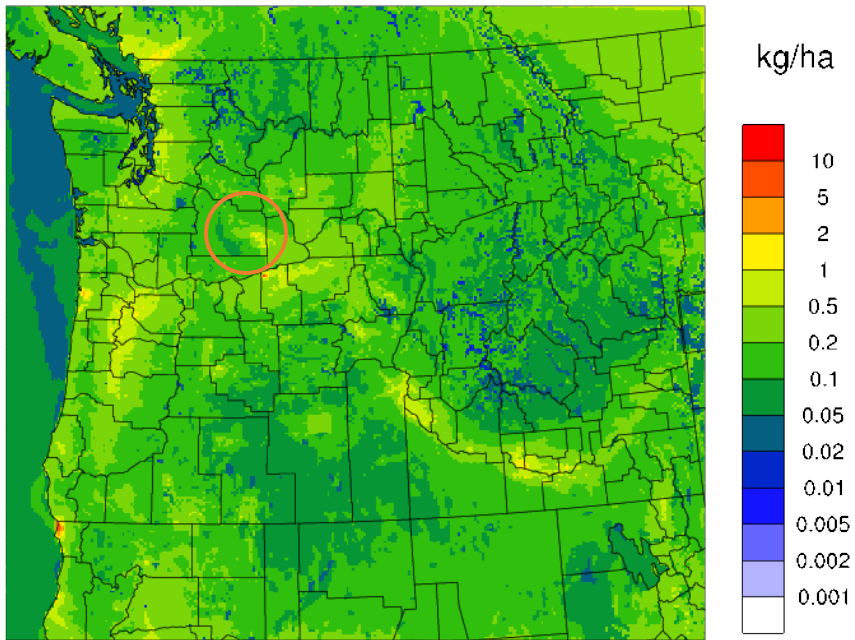
April 2020

Nitrogen Dry Deposition (Total)



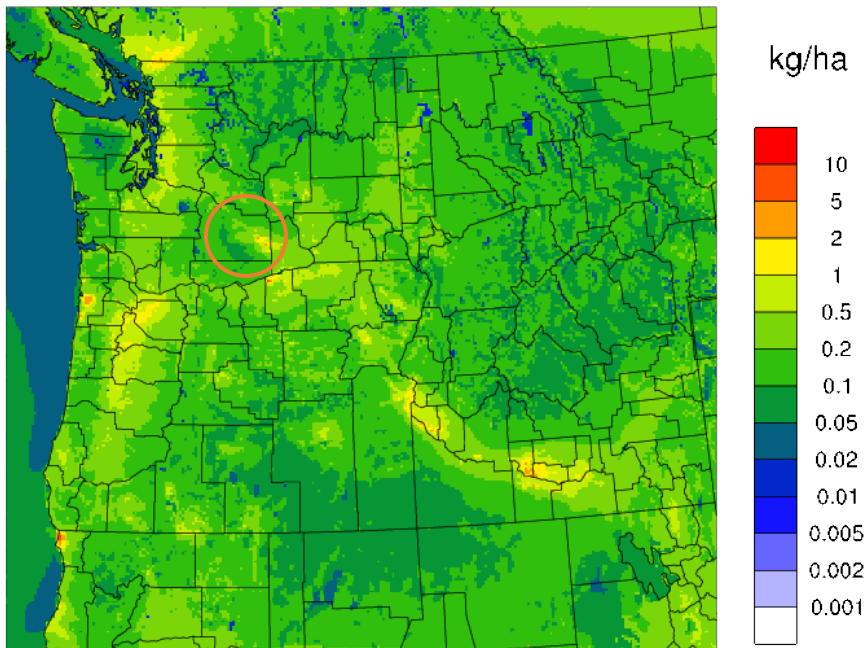
May 2020

Nitrogen Dry Deposition (Total)



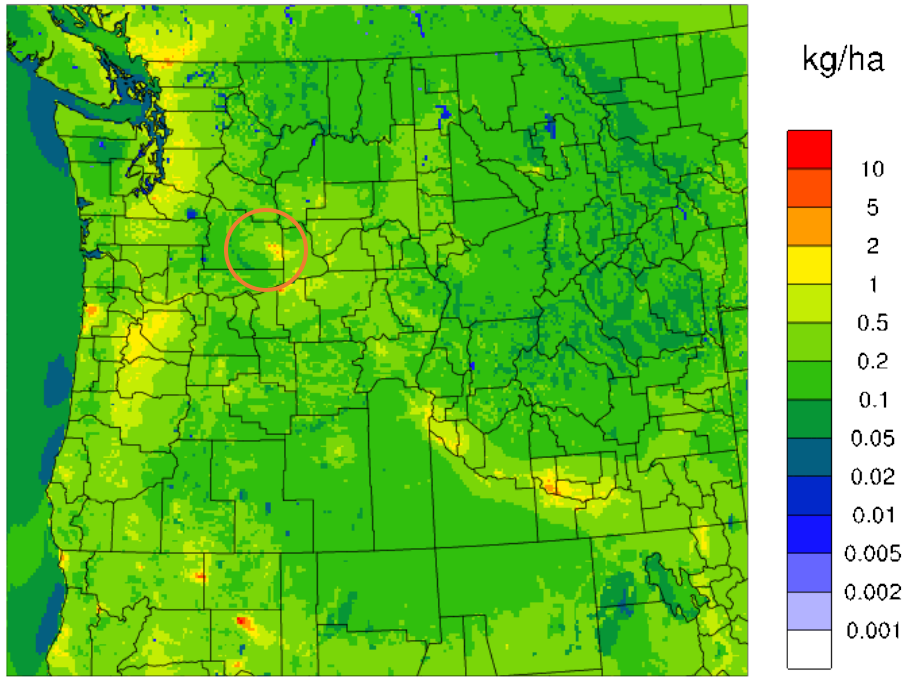
June 2020

Nitrogen Dry Deposition (Total)



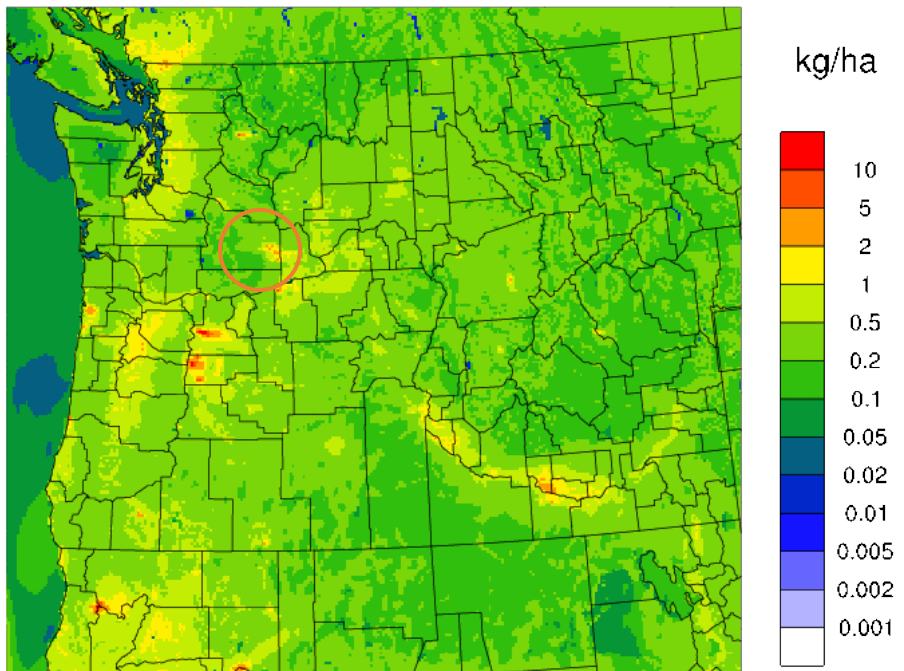
July 2020

Nitrogen Dry Deposition (Total)



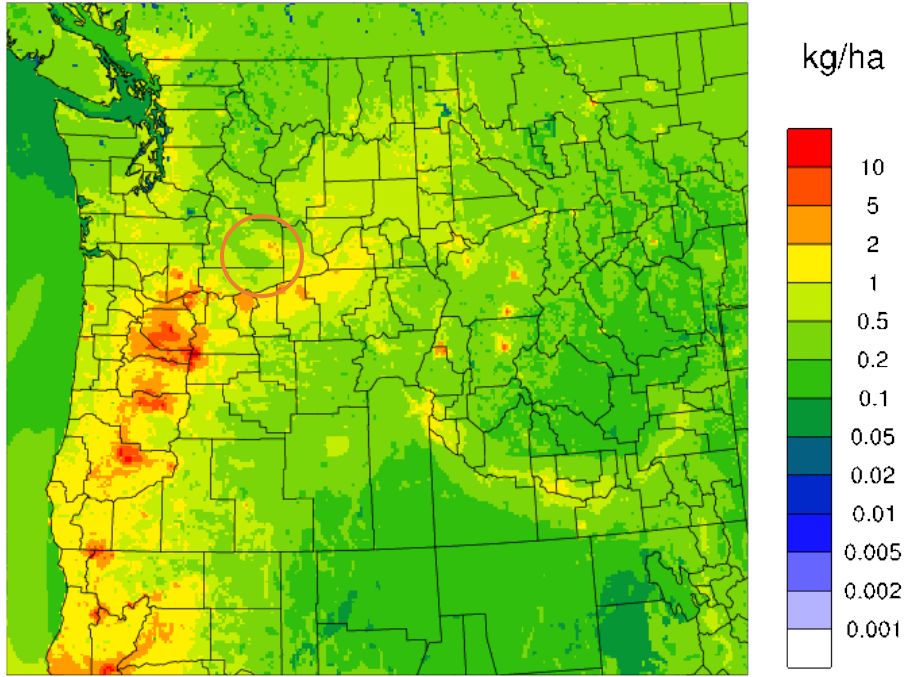
August 2020

Nitrogen Dry Deposition (Total)



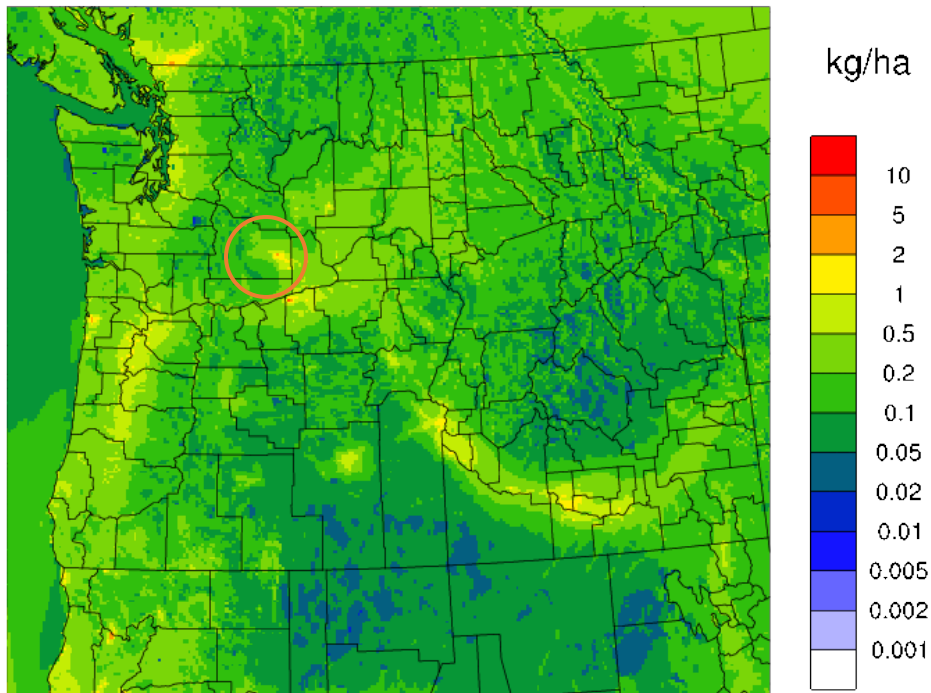
September 2020

Nitrogen Dry Deposition (Total)



October 2020

Nitrogen Dry Deposition (Total)

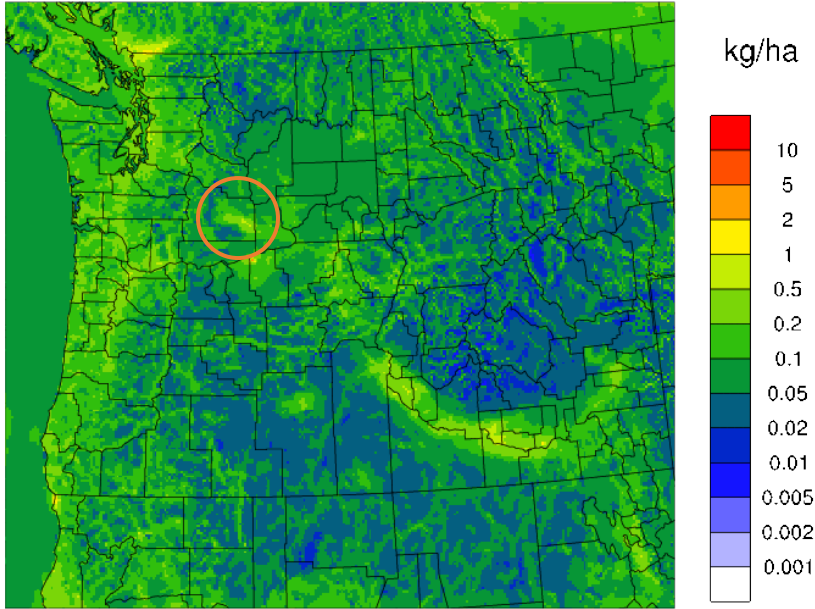


November 2020

No data

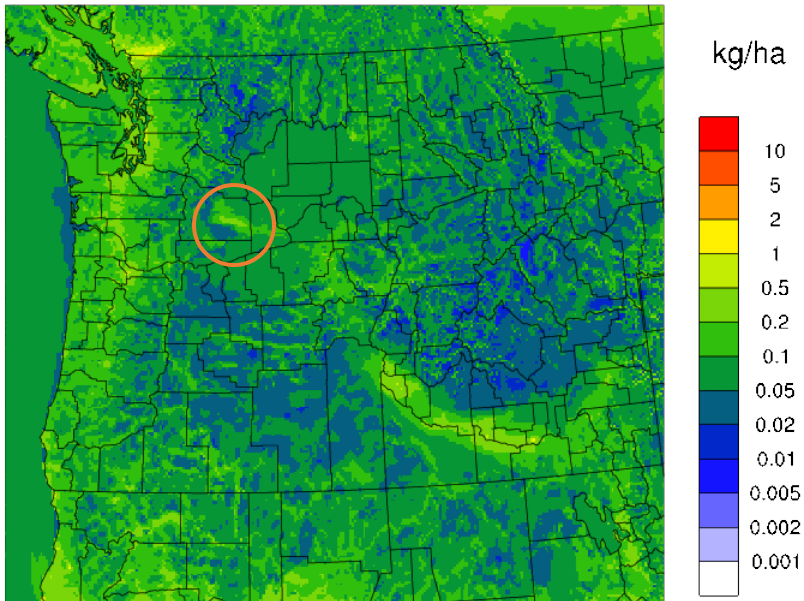
December 2020

Nitrogen Dry Deposition (Total)



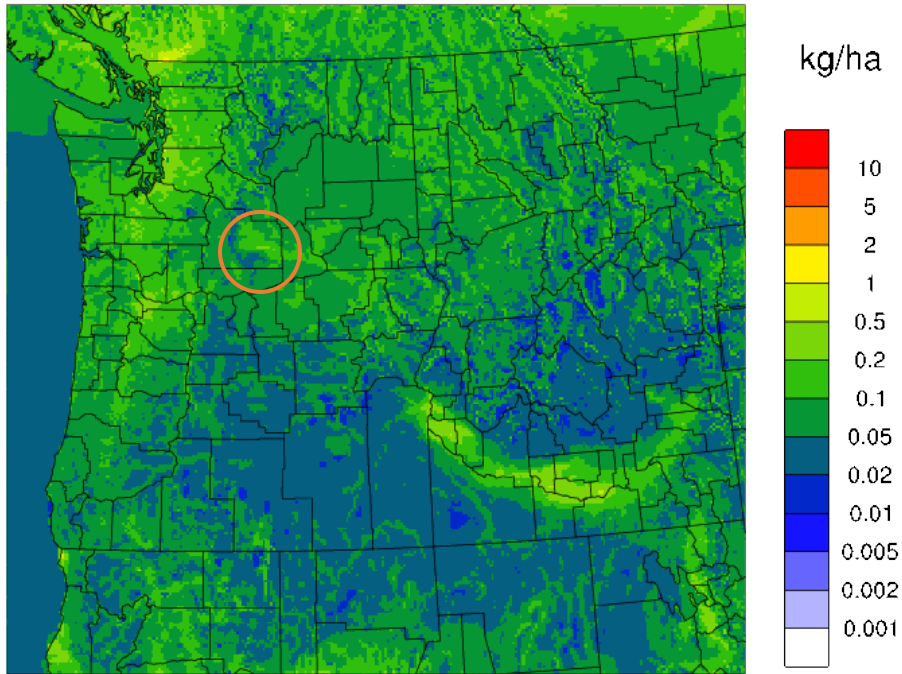
January 2021

Nitrogen Dry Deposition (Total)



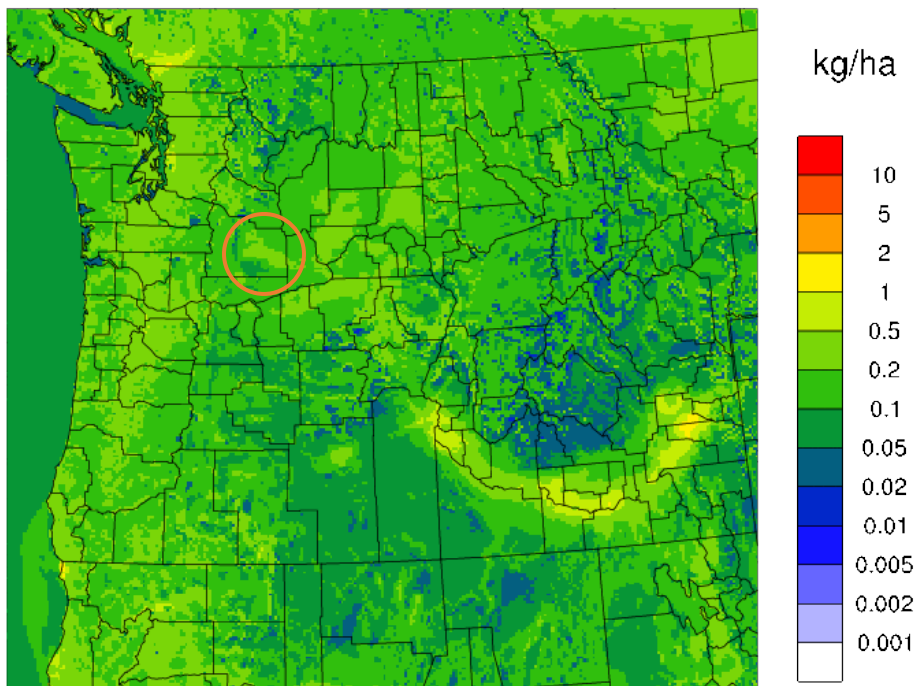
February 2021

Nitrogen Dry Deposition (Total)



March 2021

Nitrogen Dry Deposition (Total)

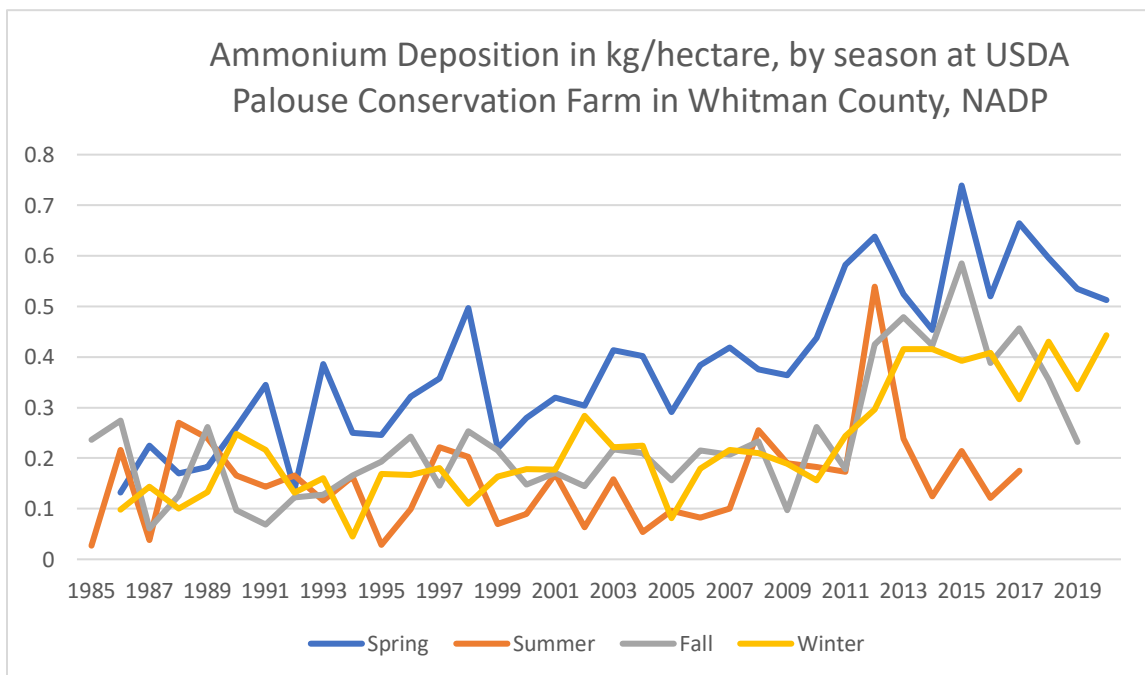
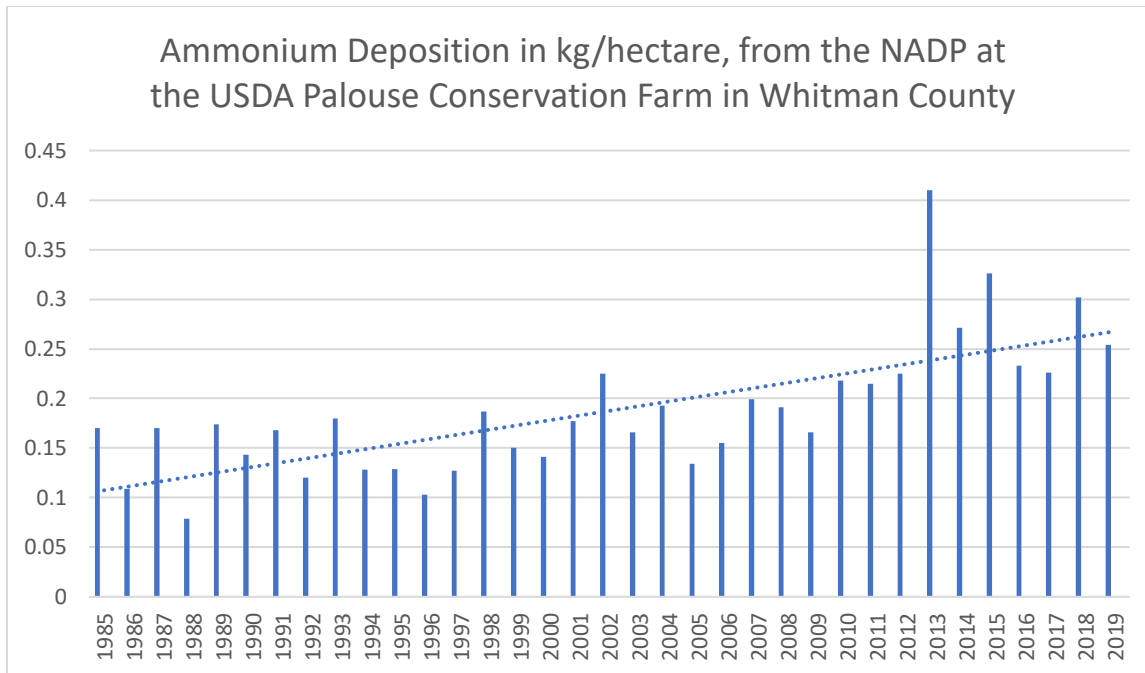


Ammonia Deposition in South & Central Washington

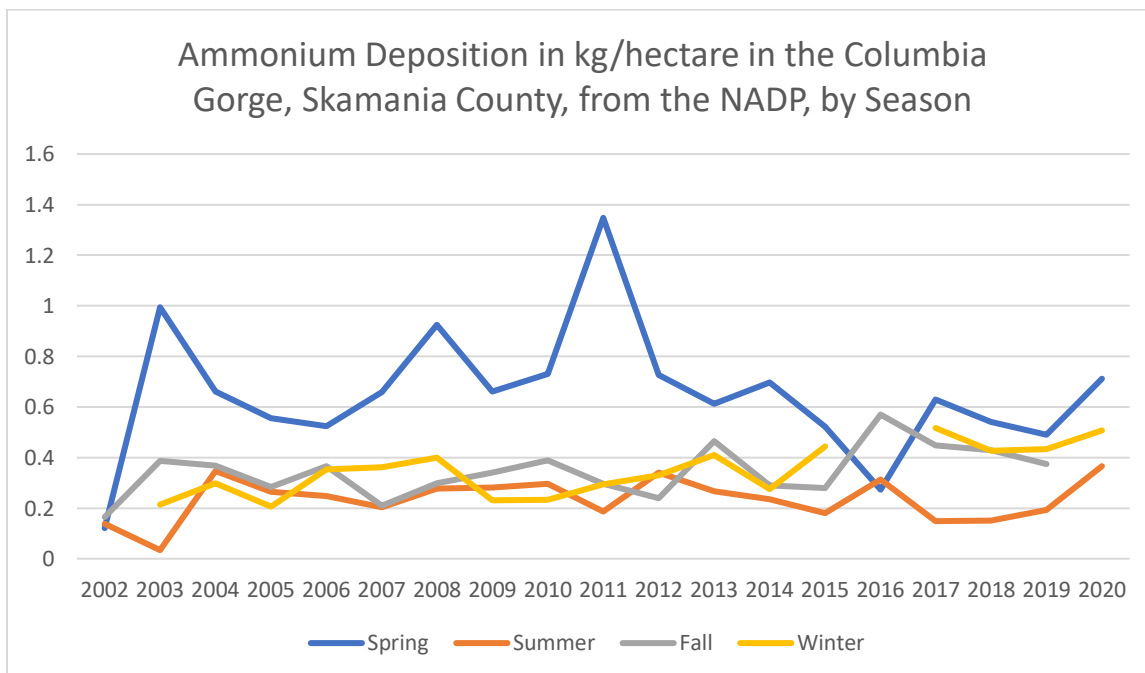
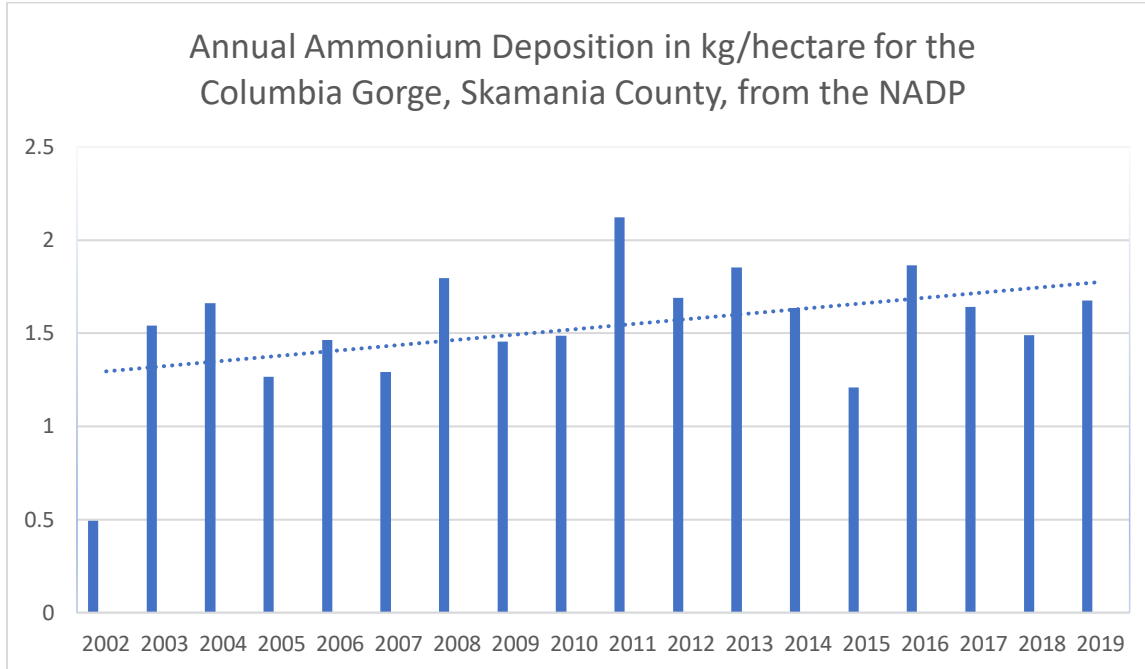
From the National Atmospheric Deposition Program – Three Sites

Data available at <http://nadp.slh.wisc.edu/data/sites/list/?net=NTN>

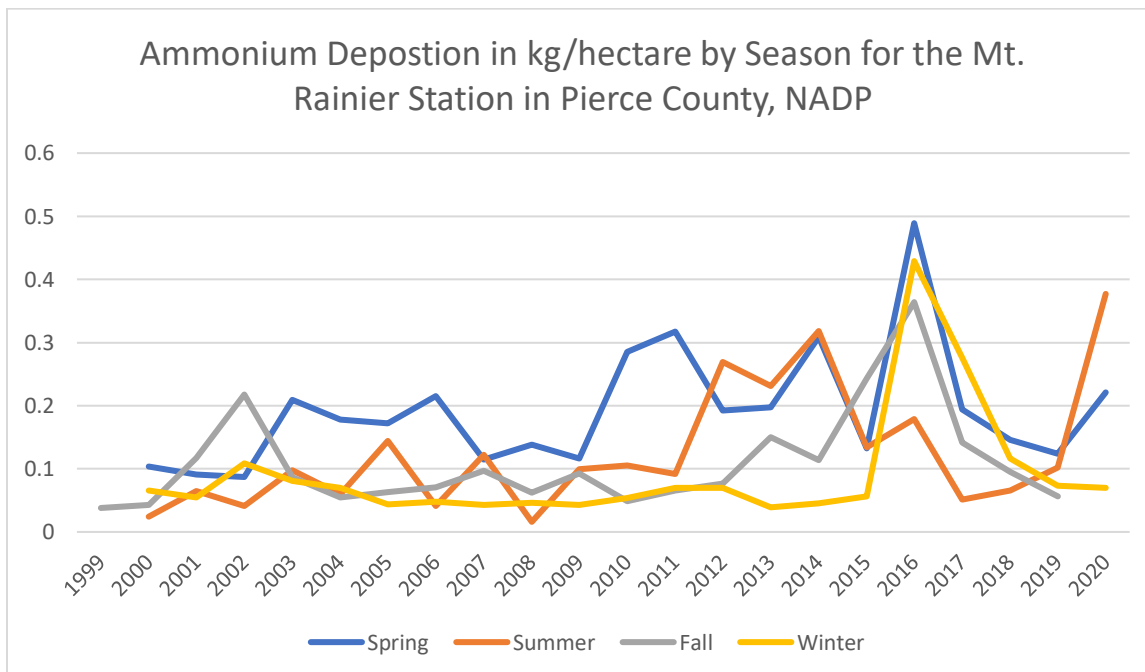
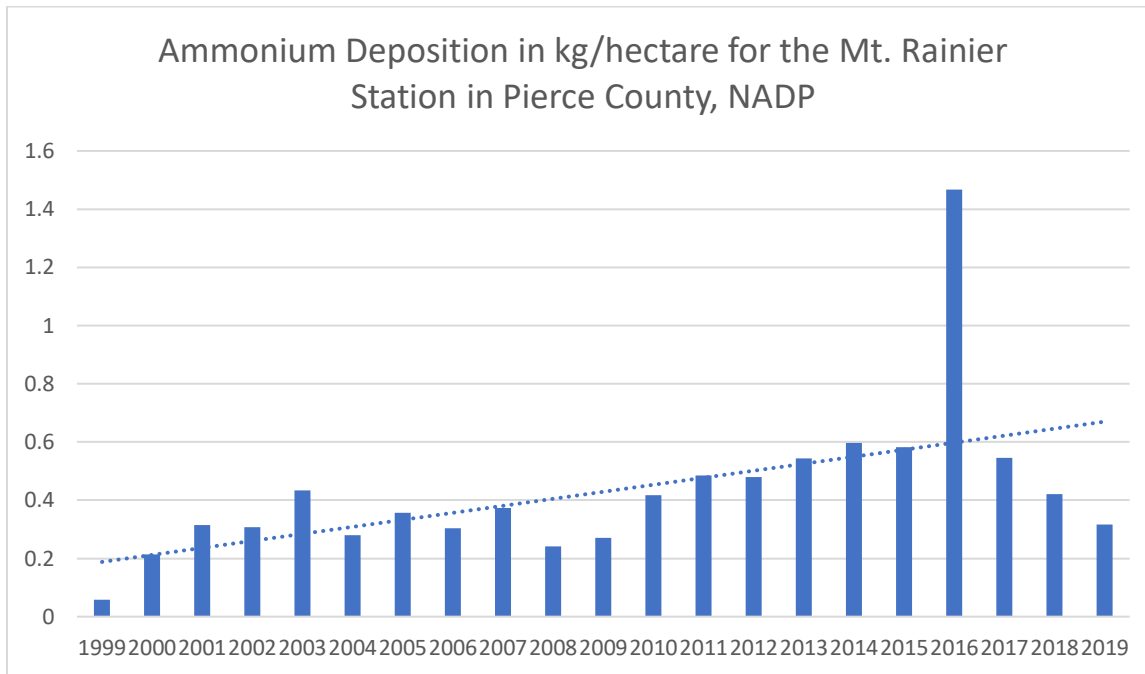
Palouse – Whitman County



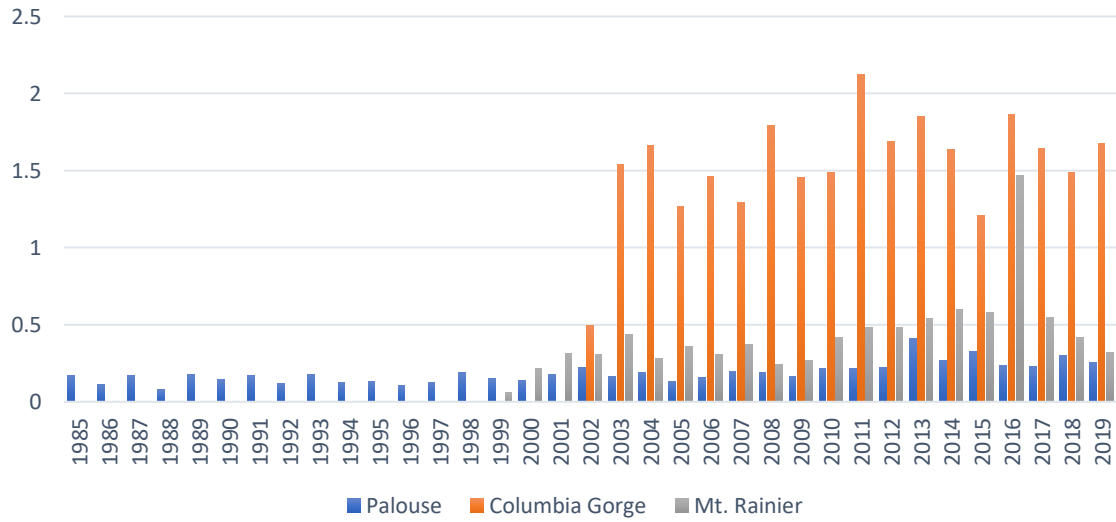
Columbia Gorge – Skamania County



Mt. Rainier – Pierce County



Ammonium Deposition in kg/hectare, at Three Monitoring Sites in South & Central Washington - NADP



Excerpts from the Yakima Air Winter Nitrate Study (YAWNS)

<https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>

The YAWNS concludes on page 111:

Episodes of elevated particulate nitrate in the Yakima Valley during winter result from a combination of factors. The wintertime meteorology of the region drives gas-particle equilibrium of ammonium nitrate strongly toward the particle phase, and high relative humidity enhances this effect. High ammonia emissions from agricultural sources in the area lead to elevated atmospheric concentrations of the pollutant. This excess ammonia drives virtually all available nitric acid into the particulate phase, forming particulate nitrate, and leads to a condition where any additional nitric acid production would lead directly to greater particulate nitrate levels. The production of particulate nitrate precursors is complicated and sensitive to the varying meteorological and chemical conditions in the valley. Given the backdrop of excess gaseous ammonia, there is usually sufficient reactive nitrogen in the valley to produce elevated levels of particulate nitrate if the right meteorological conditions take hold.

Ammonia emissions in the Yakima Valley are mostly from animal agriculture as depicted in a pie chart on page 99 of the study:

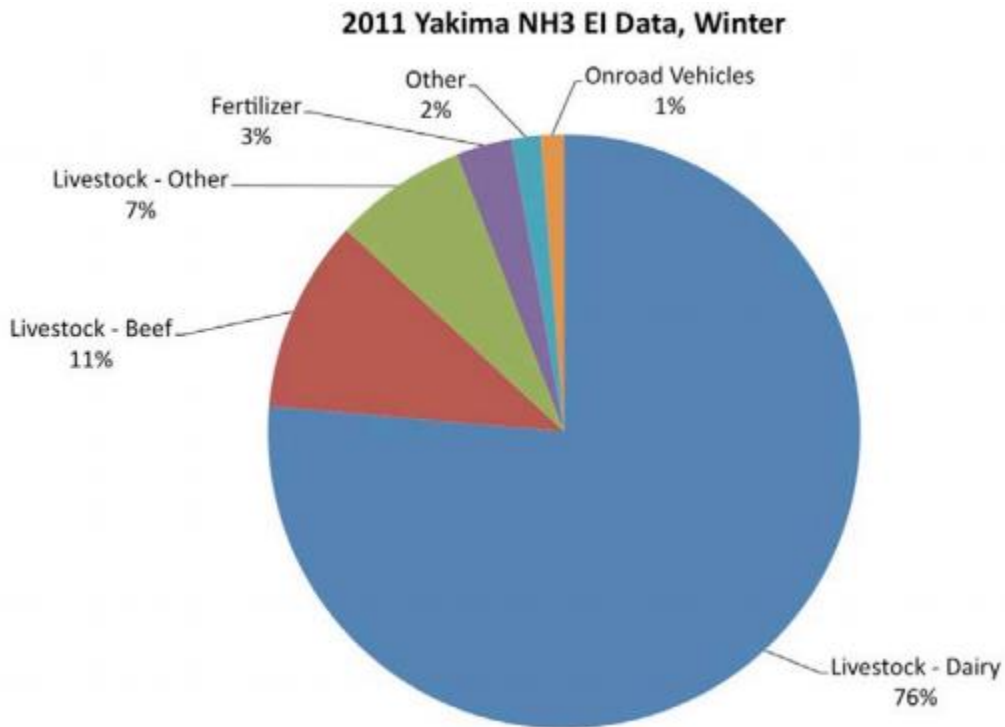


Figure 8.28. Winter season NH₃ emissions contributions by source for Yakima County, from the 2011 Washington Comprehensive Emissions Inventory.

Excerpt from Yakima Air Winter Nitrate Study – pages 17 & 18

Final Report available at <https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>

Yakima is unusual within Washington in that a significant fraction of the PM_{2.5} during winter is comprised of particulate nitrate, usually in the chemical form of ammonium nitrate (NH₄NO₃). Particulate nitrate makes up a larger fraction of PM_{2.5} in Yakima and south central Washington than it does anywhere else in the state (Figure 1.1). Nitrate levels are especially important during episodes of high PM_{2.5}. Figure 1.2 shows the fractional contribution of ammonium nitrate to total PM_{2.5} on days representing the 75th percentile (in terms of PM_{2.5} mass load) during the heating season, in Yakima. The contribution of ammonium nitrate varied year by year, but was always 15-25% of the total PM_{2.5} on these days with elevated particulate pollution.

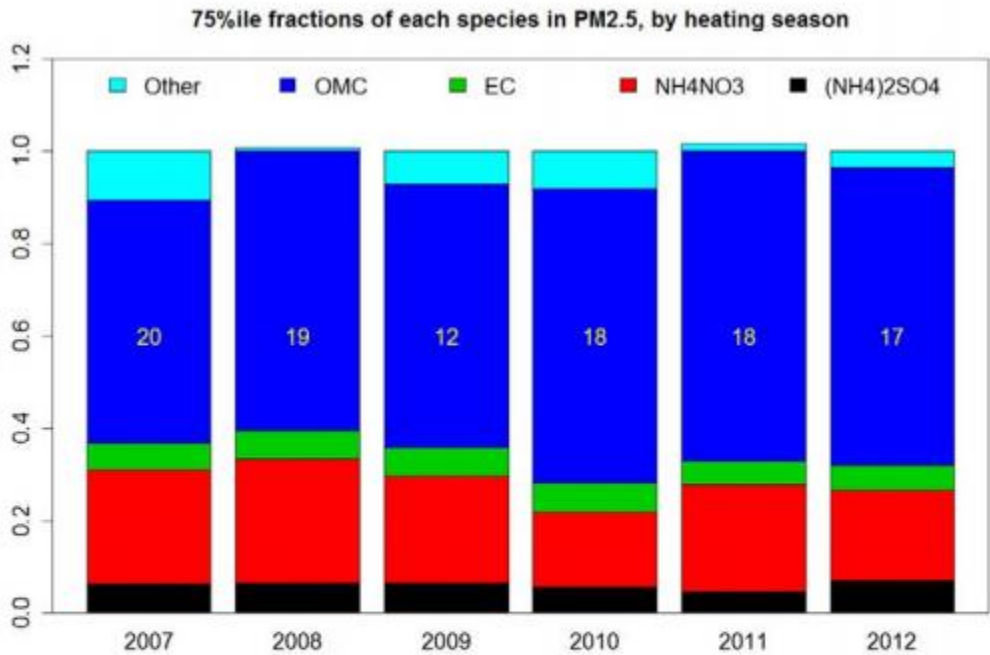


Figure 1.2. Fractional contribution of major chemical constituents to PM_{2.5} on elevated particulate pollution days during the heating season in Yakima. The data shown represent the 75th percentile in PM_{2.5} concentration for each year's heating season when speciation data are available. Numbers on each bar indicate the PM_{2.5} mass measured at the 75th percentile for each year. (NH₄)₂SO₄ is ammonium sulfate; NH₄NO₃ is ammonium nitrate, EC is elemental carbon (i.e., soot); and OMC is organic matter carbon. Figure created and provided by Dr. Ranil Dhammapala, Washington Department of Ecology.

* * * * *

Page 113 states:

“Ammonia emissions reductions are unlikely to result in significant reductions in wintertime particulate nitrate unless order-of-magnitude reductions are viable. As it stands, the ammonia levels in winter are high enough that all available nitric acid is driven to particulate nitrate.”

FOTC points out that the high level of ammonia emissions is due to the way cows are raised in the LYV. Ammonia production is increased when feces and urine mix as happens when animals are kept in close quarters. Bacterial urease from feces promotes the breakdown of urea to ammonia, which is a more volatile form of nitrogen, so more ammonia is emitted.

Harmon, J. Hoff, S., Andersen, D., & Rieck-Hinz, A. (2014) *Animal Housing – Urine and Feces Segregation Overview*. Available at <https://store.extension.iastate.edu/product/14126>

Evaluation of Hydrogen Sulfide, Ammonia, Particulate Matter, and Meteorological Measurements Collected During ATSDR’s Ambient Air Monitoring/Sampling Program on the Yakama Reservation

Table 5. Comparison of 24-hour and Annual Background PM_{2.5} Data to Measured Concentrations in Harrah (µg/m³).

Measurement	Harrah ^a	4th St ^b	Toppenish ^c	White Swan
Fall				
Mean 24-hr	16.20	12.7	12.9	9.9
Max 24-hr	153.56	41	47.9	37.4
Summer				
Mean 24-hr	10.34	4.9	13.7	9.3
Max 24-hr	47.22	14.5	61.9	35.8
Annual^d				
Mean 24-hr	12.88	8.6	13.6	6.8
Max 24-hr	153.36	63.9	184	62

Source: [WSDE 2018]

^a The annual values reported for Harrah are the combined 24-hr average from the fall and summer sampling events.

^bPM_{2.5} data was not available for the duration of the EI, data from the same dates in Fall 2015 and summer 2016 are presented

^c PM_{2.5} data was not available for the duration of the EI, data from the same dates in Fall 2016 and summer 2017 are presented

^dAnnual data from Harrah are from the dates of the EI, where annual values from other sites cover an entire year (365 days) from the start date of the Fall sampling event in the corresponding year of available data.

Excerpt page 34

Community members in Harrah expressed concerns to ATSDR regarding the proximity of some AFOs to nearby schools. To address those concerns, ATSDR installed sampling and monitoring equipment near Harrah Elementary School (Site 5). Ammonia, hydrogen sulfide, and PM_{2.5} were measured at Site 5 during the Fall 2014 and Summer 2015 sampling. Measured concentrations at Site 5 were close to that of other monitors. Data from Site 5 show the following:

Ammonia- None of the 346 30-min samples exceeded the acute CV for ammonia (1700 ppb), and none of the 24-hour samples exceeded the chronic CV (100 ppb). The Site 5 mean 24-hour ammonia concentration for the entire EI was below the chronic CV, thus ammonia concentrations measured near Harrah Elementary School should not cause adverse health effects;

Hydrogen Sulfide- Seventeen of 100 (17%) 24-hour samples exceeded the reference chronic CV for hydrogen sulfide (1.4 ppb), but none exceeded the intermediate (20 ppb) or acute (70) CVs. The concentration at site 5 averaged over the entire EI was also below

the chronic CV. Sixty-four of 100 (64%) hydrogen sulfide 24-hour samples exceeded the odor threshold, which means on most days during the EI, individuals near Harrah Elementary School would likely smell rotten-egg like odors during some part of the day. Sensitive individuals in the area may experience odor-related health symptoms such as headaches, nausea, and stress or annoyance when hydrogen sulfide and other gases exceeds their odor threshold;

PM2.5- Forty-seven of the 84 (56%) days sampled at Harrah elementary School fall into the good AQI category; 33 of 84 (39%) fall into the moderate AQI category; and 4 of 83 (5%) are categorized as unhealthy for sensitive individuals. See Appendix A, Table A1, for the concentration range of each category and the associated public health statements; and

The mean for the entire EI was $12.88 \mu\text{g}/\text{m}^3$, which suggest that there is a potential for sensitive individuals to have health effects from PM2.5. Daily exposure to the mean concentration of PM2.5 may require some sensitive individuals to reduce prolonged or heavy exertion; the health of other individuals should not be affected. On days when PM2.5 is above the NAAQS ($12 \mu\text{g}/\text{m}^3$), there is an increasing likelihood of respiratory symptoms in older adults, children, and people of lower socioeconomic status; aggravation of heart or lung disease; and premature mortality in people with heart or lung disease. People who fall into this category should reduce prolonged or heavy exertion [USEPA 2016].

Because of their size, physiology, behavior, and activity level, the inhalation rates of children differ from those of adults. Factors that might contribute to enhanced lung deposition in children include higher ventilation rates, less contribution from nasal breathing, less efficient uptake of particles in the nasal airways, and greater deposition efficiency of particle and some vapor phase chemicals in the lower respiratory tract. In addition, children spend 3 times as much time outdoors as adults and engage in three times as much time playing sports and other vigorous activities [USEPA 2011b]. Based on these parameters, children are more likely to be exposed to more outdoor air pollution than adults. Further, a child's lower body weight and higher intake rate results in a greater dose of hazardous substance per unit of body weight.

While, it is not clear that children are more toxicologically sensitive to the specific exposures of hydrogen sulfide and ammonia, they are likely more vulnerable due to their increased exposure. In terms of PM, children (and the elderly) have increased susceptibility to PM-related respiratory effects, and the health effects observed in children could be initiated by pre and/or postnatal exposures to PM [USEPA 2009].

Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment. *Environmental Health*

By Williams, D. L., Breysse, P. N., McCormack, M. C., Diette, G. B., McKenzie, S., & Geyh, A. S. (2011). Available at <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-10-72>

Abstract

Background

Community exposures to environmental contaminants from industrial scale dairy operations are poorly understood. The purpose of this study was to evaluate the impact of dairy operations on nearby communities by assessing airborne contaminants (particulate matter, ammonia, and cow allergen, Bos d 2) associated with dairy operations inside and outside homes.

Methods

The study was conducted in 40 homes in the Yakima Valley, Washington State where over 61 dairies operate.

Results

A concentration gradient was observed showing that airborne contaminants are significantly greater at homes within one-quarter mile (0.4 km) of dairy facilities, outdoor Bos d 2, ammonia, and TD were 60, eight, and two times higher as compared to homes greater than three miles (4.8 km) away. In addition median indoor airborne Bos d 2 and ammonia concentrations were approximately 10 and two times higher in homes within one-quarter mile (0.4 km) compared to homes greater than three miles (4.8 km) away.

Conclusions

These findings demonstrate that dairy operations increase community exposures to agents with known human health effects. This study also provides evidence that airborne biological contaminants (i.e. cow allergen) associated with airborne particulate matter are statistically elevated at distances up to three miles (4.8 km) from dairy operations.

University of Washington Studies of Asthmatic Children in the Lower Yakima Valley.

This study provides evidence that PM_{2.5} in an agricultural setting contributes to elevated asthma morbidity.

Loftus, C., Yost, M., Sampson, P., Arias, G., Torres, E., Vasquez, V. B., ... & Karr, C. (2015). Regional PM_{2.5} and asthma morbidity in an agricultural community: a panel study. *Environmental research*, 136, 505-512. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4425279/>

Ammonia concentrations were elevated in this community and strongly predicted by proximity to animal feeding operations. Ammonia's association with acute lung function decrements in children with asthma in the surrounding community may be causal or, alternatively, ammonia may be a marker for other pollutants from animal feeding operations associated with respiratory effects.

Loftus, C., Yost, M., Sampson, P., Torres, E., Arias, G., Vasquez, V. B., ... & Bhatti, P. (2015). Ambient ammonia exposures in an agricultural community and pediatric asthma morbidity. *Epidemiology (Cambridge, Mass.)*, 26(6), 794. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587379/>

Our findings indicate that children with asthma may experience short-term respiratory effects following increased exposure to airborne AFO pollutants, adding to a growing body of research evidence that AFO-related air pollution may cause community-level health effects.

Loftus, C. (2015). *Industrial Animal Agriculture in the Yakima Valley, Air Pollution, and Pediatric Asthma Morbidity* (Doctoral dissertation). Available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1

Emissions from two Lower Yakima Valley Dairy Barns

In 2010 WA State University (WSU) published the results of research on a Lower Yakima Valley dairy to estimate emissions of air contaminants from two free stall dairy barns. This was part of a larger study, the National Air Emissions Monitoring Study (NAEMS), designed to quantify emissions from concentrated animal feeding operations (CAFOs) for the Environmental Protection Agency (EPA). The Washington Report is available at [ASAE Journal | US EPA ARCHIVE DOCUMENT](#)

In a free stall operation cows spend about 20 hours per day in the barn and exercise lot and about 4 hours a day in the milk parlor. WSU researchers measured emissions of ammonia, hydrogen sulfide, particulate matter and twenty volatile organic compounds from the barns. Results are:

		Emissions in kg/day	Emissions in kg/day/cow	
Barn 2				
NH3		29.10	0.056615	514 cows
H2S		0.56	0.001082	
PM10		3.59	0.006984	
PM 2.5		2.72	0.005292	
TSP		18.80	0.036576	
VOC		52.00	0.101167	
Barn 4				
NH3		54.70	0.056802	963 cows
H2S		1.13	0.001173	
PM10		10.00	0.010384	
PM 2.5		1.86	0.001931	
TSP		46.90	0.048702	
VOC		102.00	0.105919	

To estimate emissions for large herds, we averaged emissions per cows from the two barns and converted to tons per year. The results are:

	1,000 milk cows	2,000 milk cows	5,000 milk cows	100,000 milk cows
NH3	22.77 tons	45.54 tons	113.85 tons	2,277 tons
H2S	0.45 tons	0.9 tons	2.25 tons	45 tons
PM 10	3.49 tons	6.98 tons	17.45 tons	349 tons
PM 2.5	1.45 tons	2.9 tons	7.25 tons	145 tons
TSP	17.12 tons	34.24 tons	85.6 tons	1,712 tons
VOC	41.45 tons	82.9 tons	207.25 tons	4,145 tons

Relevant Washington Laws

1. WAC 173-400-030, General Regulations for Air Pollution Sources Definitions, says

An “Emission threshold” means an emission of a listed air contaminant at or above . . .

- Hydrogen sulfide (H₂S) - 10 tons per year
- Fine particulate matter (PM 2.5) – 10 tons per year
- Coarse particulate matter (PM 10) – 15 tons per year
- Volatile organic compounds (VOCs) – 40 tons per year

2. WAC 173-400-110(b) provides exemption from New Source Review for some emissions:

- PM 10 exempt for < 0.75 tons per year
- PM 2.5 exempt for < 0.50 tons per year
- VOCs exempt for < 2 tons per year

3. WAC 173-460, Controls for New Sources of Toxic Air Pollutants, states in WAC 173-460-020(7):

"Small quantity emission rate (SQER)" means a level of emissions below which dispersion modeling is not required to demonstrate compliance with acceptable source impact levels. SQERs are listed in WAC 173-460-150.

WAC 173-460-150 provides the following SQER's:

- Ammonia – 37 lbs./day or 13,500 lbs./year or 6.75 tons/yr
- Hydrogen sulfide - .15 lbs./day or 54.75 lbs./yr or .027 tons/yr

4. WAC 173-441, Reporting of Greenhouse Gasses, states in WAC 173-441-120 Calculation methods incorporated by reference from 40 CFR Part 98 for facilities in section 2(e)vii:

“40 C.F.R. § 98.362(a), 40 C.F.R. § 98.363 through 40 C.F.R. § 98.368, Equations JJ-2 through JJ-15, and Tables JJ-2 through JJ-7 as adopted by September 1, 2016, remain unchanged unless otherwise modified in this chapter.”

Table JJ-1 to Subpart JJ of Part 98 - Animal Population Threshold Level Below Which Facilities Are Not Required To Report Emissions Under Subpart JJ requires reporting of greenhouse gas emissions for dairies with >3,200 head of milk cows.

5. WAC 173-441-050(3) requires reporting of

- Biogenic CO₂

- CO₂
- CH₄
- N₂O
- Numerous specified VOCs

Large dairies in Yakima County should be reporting air emissions under WAC 173-400, WAC 173-460, and WAC 173-441.

Relevant Ecology Reports

In Ecology's 2011 County Emissions Inventory, the agency estimated ammonia emissions from animal agriculture in Yakima County at 8,053 tons (27% of the state ammonia emissions for livestock). In 2017, using a different model, Ecology estimated ammonia emissions from animal agriculture at 5,194 tons (25% of the state ammonia emissions for livestock)

If we assume emissions from cows in dry-lot operations are similar to emissions from free-stall barns (the type of operation in the WSU study) and that there are 100,000 milk cows in the LYV, then dairy cows in this area emit about 2,277 tons of ammonia per year from their living quarters. The remainder of the ammonia in Ecology's Emissions Inventory comes from milk parlors, manure lagoons, composting operations, and field applications.

Ecology does not estimate VOC emissions for animal agriculture. Using the WSU study number as a base, milk cows likely emit over 4,145 tons of VOCs per year (100,000 cows). Perhaps VOC estimates should be required.

Email Conversation with the YRCAA regarding Yakima County Compliance

From: Jean Mendoza [<mailto:jeanmendoza@icloud.com>]
Sent: Sunday, June 20, 2021 8:46 PM
To: APCO
Subject: Air Quality Question

Hello Director Hurley,

I have been studying Washington rules and regulations and I learned that WAC 173-476-110 provides a more stringent standard than federal law. Here is a copy of that code:

WAC 173-476-110

Ambient air quality standards for PM-2.5.

(1) Standards for PM-2.5.

(a) The three-year average of the annual arithmetic mean concentration of PM-2.5 must not exceed 12.0 $\mu\text{g}/\text{m}^3$.

(b) The three-year average of the ninety-eighth percentile twenty-four-hour average concentration of PM-2.5 must not exceed 35 $\mu\text{g}/\text{m}^3$.

(2) Measurement method. The levels of PM-2.5 in the ambient air must be measured by:

(a) A FRM based on 40 C.F.R. Part 50, Appendix L and designated according to 40 C.F.R. Part 53; or

(b) A FEM designated according to 40 C.F.R. Part 53.

(3) Interpretation method. The interpretation method found in 40 C.F.R. Part 50, Appendix N must be used.

[Statutory Authority: Chapter [70.94](#) RCW. WSR 13-24-010 (Order 12-05), § 173-476-110, filed 11/21/13, effective 12/22/13.]

According to the Washington Tracking Network at [Washington Tracking Network \(WTN\)](#) the average PM 2.5 levels for Yakima County were:

Year	PM 2.5 in $\mu\text{g}/\text{m}^3$	3 Year Average	5 Year Average
2010	9.1		
2011	10.2		
2012	11.7	10.33	
2013	12.8	11.57	
2014	10.1	11.53	10.78
2015	13.3	12.07	11.62
2016	11.6	11.67	11.90
2017	15.0	13.30	12.56
2018	12.4	13.00	12.48
2019	12.1	13.17	12.88

Is Yakima County in danger of non-compliance with state law?

Thanks

Jean Mendoza

June 22, 2021

RE: Air Quality Question

4 weeks ago at 9:57 AM

From [APCO](#) >

[Hide](#)

To [Jean Mendoza](#) > [Board Position 1](#) > [Board Position 2](#) > [Board Position 3](#) > [Board Position 4](#) > [Board Position 5](#) >

Ms. Mendoza,

The short answer to your question is no, Yakima County is not "in danger of non-compliance with state law" as far as YRCAA's jurisdiction is concerned. Furthermore Chapter 173-476 WAC *does not* "provide a more stringent standard than federal law". Washington State standards for PM_{2.5}, as stated within Chapter 173-476-110 WAC, mirror the Federal National Ambient Air Quality Standards (NAAQS). In essence the state of Washington adopted the Federal NAAQS for all Criteria Pollutants.

Your chart does not show any Design Values. Design Values determine if an area is attaining or not attaining the NAAQS for any Criteria Pollutant. Official Federal Design Values use the Annual Mean, averaged over three years. The data within your chart may include data obtained during wildfires. When official Design Values are computed, data from wildfires may be excluded under the EPA's Exceptional Events criteria.

Respectfully,



Keith M. Hurley

Executive Director

Yakima Regional Clean Air Agency

(509) 834-2050, ext.112

apco@yrcaa.org

WSDA estimate of nitrogen emissions from confined animal feeding operation (CAFO) dairies.

Available at <https://www.yakimacounty.us/DocumentCenter/View/22177/GWMA-VolumeI-July2019> page 25

The national statistical average of manure production of milk cows (in 2000) was 15.24 tons per animal unit of manure excreted per year. The national statistical average of nitrogen per ton of manure excreted is 10.69 pounds of nitrogen per ton (Kellogg et al. 2000). The formulas used by the Washington State Department of Agriculture (2010) to calculate animal manure production, nitrogen production, and losses due to volatilization or denitrification for Holstein cows are as follows:

- **Annual manure production** is calculated using the following formula:

$$[[(\text{number of milking cows}) (1.4) (108)] + [(\text{number of dry cows}) (1.4) (51)] + [(\text{number of heifers}) (0.97) (56)] + [(\text{number of calves}) (0.33) (83)]] (365)/2000$$

- **Nitrogen production** is calculated using the following formula:

$$[[(\text{number of milking cows}) (1.4) (0.71)] + [(\text{number of dry cows}) (1.4) (0.3)] + [(\text{number of heifers}) (0.97) (0.27)] + [(\text{number of calves}) (0.33) (0.42)]] (365)/2000$$

- **Losses due to volatilization** during storage are estimated at 35 percent. This does not include application losses.

Study Finds Elevated Ammonia Levels at Lower Yakima Valley Site Near Large CAFO Dairies

May 10, 2019

The Friends of Toppenish Creek (FOTC) share with the public the results of yearlong air testing for ammonia at a site in the Lower Yakima Valley (LYV) near a large concentrated animal feeding operation (CAFO) dairy. The study was paid for with a grant from Legends Casino and private donations.

The FOTC study measured average ammonia levels for two week periods from February, 2018 to February, 2019. Due to the type of sampling we do not know the peak ammonia levels. Control samples were measured at a site in the Upper Yakima Valley, far from any CAFOs. The average of all LYV samples in the study exceeded the Minimum Risk Level (MRL) for chronic ammonia exposure.

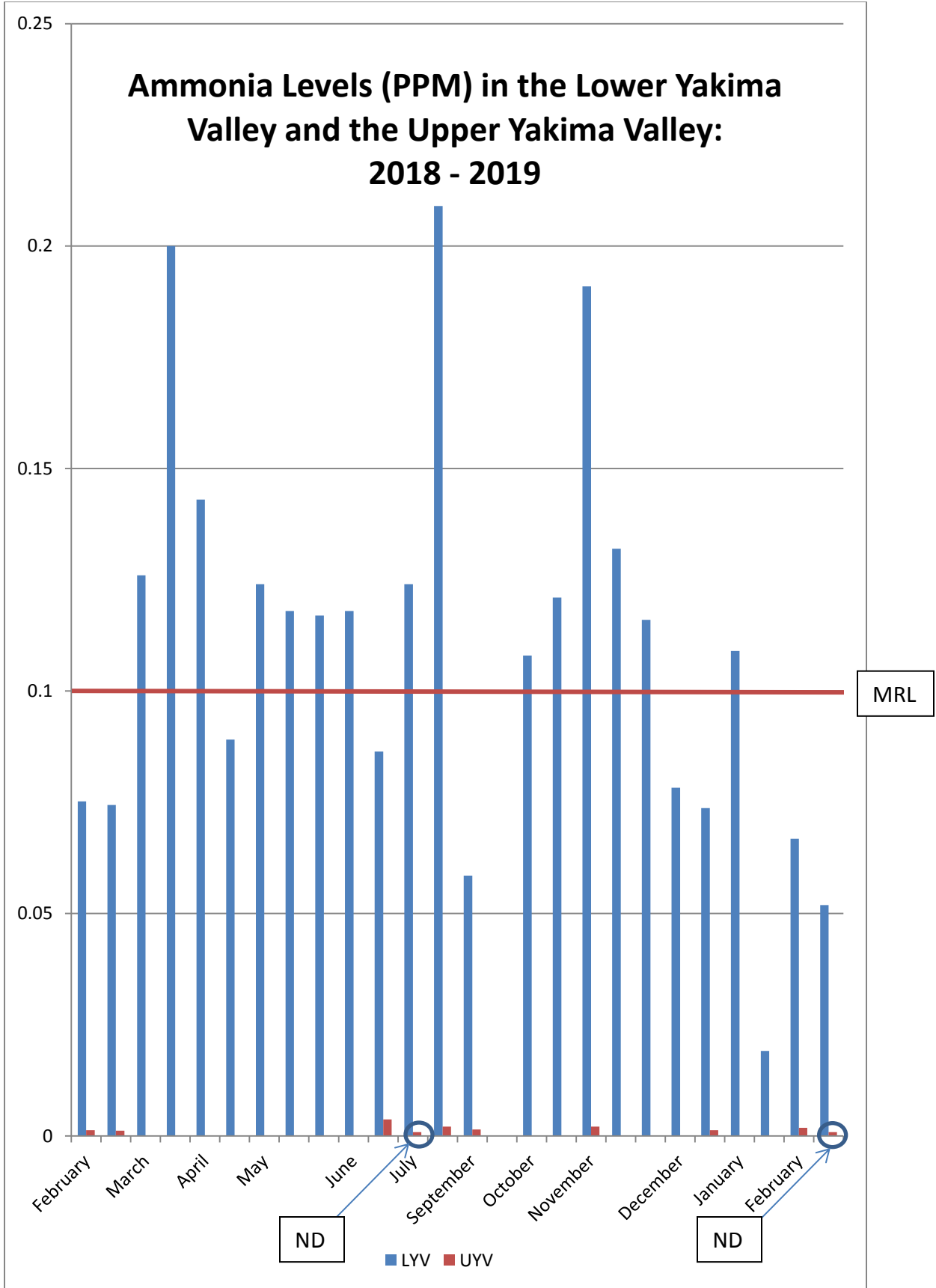
The average of all samples at the LYV site was 0.1092 parts per million (ppm) with a range of 0.0191 ppm to 0.209 ppm. The average of all samples at the UYV site was 0.0016 ppm. Ammonia levels in the lower valley averaged sixty eight times higher than those in the upper valley.

The Agency for Toxic Substances and Disease Registry (ATSDR) at the Center for Disease Control (CDC) has determined that the Minimum Risk Level (MRL) for long term (≥ 1 year) exposure to ammonia is 0.10 ppm. According to the CDC, "An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure."

The FOTC data agrees with findings from a University of Washington study of asthmatic LYV children that found 24 hour ammonia levels ranging from .00027 ppm to .3175 ppm. That study concluded (page 84), "Ammonia may serve as a marker for the complex airborne emissions from CAFOs, and the observed decreases in lung function may have resulted from exposure to one or more co-pollutants with established respiratory system toxicity, such as endotoxin, particulate matter or hydrogen sulfide."

The FOTC data agrees with the results of a Yakima Air Winter Nitrate Study by Ecology that found high levels of ammonia lead to high levels of fine particulate matter in Yakima County. That study stated (page 111), "Given the backdrop of excess gaseous ammonia, there is usually sufficient reactive nitrogen in the valley to produce elevated levels of particulate nitrate if the right meteorological conditions take hold."

Ammonia Levels (PPM) in the Lower Yakima Valley and the Upper Yakima Valley: 2018 - 2019



Date	LYV $\mu\text{g}/\text{m}^3$	LYV ppm	UYV $\mu\text{g}/\text{m}^3$	UYV ppm
2/8/2018	56.4	0.0752	1.0	0.00133
2/22/2018	55.8	0.0744	0.9	0.00120
3/8/2018	94.6	0.126		
3/22/2018	150	0.200		
4/5/2018	107	0.143		
4/19/2018	66.8	0.0891		
5/3/2018	92.8	0.124		
5/17/2018	88.5	0.118		
5/31/2018	87.6	0.117		
6/14/2018	88.3	0.118		
6/28/2018	64.8	0.0864	2.8	0.00373
7/12/2018	93.2	0.124	ND	0.0009
7/26/2018	157	0.209	1.6	0.00213
9/20/2018	43.9	0.0585	1.1	0.00147
10/4/2018	81.1	0.108		
10/18/2018	90.4	0.121		
11/1/2018	143	0.191	1.6	0.00213
11/15/2018	99.1	0.132		
11/29/2018	86.8	0.116		
12/13/2018	58.7	0.0783		
12/27/2018	55.3	0.0737	1.0	0.00133
1/10/2019	82	0.109		
1/24/2019	14.3	0.0191		
2/6/2019	50.1	0.0668	1.4	0.00187
2/20/2019	38.9	0.0519	ND	0.0009

This bar graph depicts ammonia levels gathered by the Friends of Toppenish Creek from a home in the Lower Yakima Valley and a control home in the Upper Yakima Valley in 2018 and 2019. The red horizontal line is the ATSDR Minimum Risk Level of 0.1 ppm.

Data was reported in micrograms per cubic meter. Conversion to parts per million – PPM was performed using the Lenntech Calculator at <https://www.lenntech.com/calculators/ppm/convert-part-per-million.htm>

* For graphing purposes we entered values of .0009 ppm for non-detect (ND) readings in the Upper Yakima Valley on 7/12/2018 and 2/20/2019. The Inter-Mountain Labs reporting limit for ammonia is .0008 micrograms per cubic meter or .00107 parts per million.

Quality Assurance:

The FOTC study used a low-cost, passive, radiello diffusion sampler that was developed by the National Atmospheric Deposition Program (NADP) for their Ammonia Monitoring Network (AMoN). Product data is available at <https://www.sigmaaldrich.com/technical-documents/articles/analytical/environmental/air-sampling-ammoniaradiello.html>

FOTC followed a modified EPA Method 325 sampling protocol. (There was only one site and one control site in our study, while the EPA Method 325 recommends multiple sites.) Temperatures were recorded using WA State Dept. of Ecology web-based data.

Samples were sent in batches to Inter-Mountain Labs in Sheridan Wyoming and analyzed under standard lab protocols. All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories.

One sample, collected on September 6, 2018, showed no readings and was rejected for summary data analysis since this made no sense in this study setting.

References:

ATSDR, U. (2004). Toxicological profile for ammonia. *US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry*. Available at <https://www.atsdr.cdc.gov/toxprofiles/tp126.pdf>

Environmental Protection Agency (2015) Method 325A—Volatile Organic Compounds from Fugitive and Area. Available at <https://www.epa.gov/sites/production/files/2016-07/documents/m-325a.pdf>

Environmental Protection Agency (2015) Method 325B—Volatile Organic Compounds from Fugitive and Area. Available at <https://www.epa.gov/sites/production/files/2016-07/documents/m-325b.pdf>

Loftus, C. (2015c). *Industrial Animal Agriculture in the Yakima Valley, Air Pollution, and Pediatric Asthma Morbidity* (Doctoral dissertation). Available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1

Puchalski, M. A., Rogers, C. M., Baumgardner, R., Mishoe, K. P., Price, G., Smith, M. J., ... & Lehmann, C. M. (2015). A statistical comparison of active and passive ammonia measurements collected at Clean Air Status and Trends Network (CASTNET) sites. *Environmental Science: Processes & Impacts*, 17(2), 358-369. Available at <https://pubs.rsc.org/en/content/getauthorversionpdf/c4em00531g>

VanReken, T., T. Jobson, B. Lamb, H. Liu, and S. Kaspari (2014), The Yakima Air Wintertime Nitrate Study (YAWNS) final report, Washington State Department of Ecology. Available at <https://ecology.wa.gov/DOE/files/a6/a67789dd-aed4-461e-b138-e77537dd1952.pdf>



2019
Report

COMMUNITY ECOLOGY REPORT

BY LATINO COMMUNITY FUND
www.latinocommunityfund.org

ACERCA DE LATINO COMMUNITY FUND

ABOUT LATINO COMMUNITY FUND

Latino Community Fund of Washington State (LCF) is an organization that strives in cultivating new leaders, supporting cultural and community based non-profits organizations, and improving the quality of life for all Washingtonians. To achieve its mission and address the needs of Latinos, LCF programs create a vibrant community through civic engagement, healthy families, arts and culture.

MISSION AND VISION

GUIDING PRINCIPLES

The members of the Latino Community Fund believe in:

A Strength and Asset-Based Approach – We pledge to start every process by focusing on what is best in people and communities and then building on those assets (e.g.: people, culture, existing programs, business, money, etc.) we already have.

Participatory Processes – We value efficiency, transparent decision-making, and devoted leadership. We welcome people of all incomes, races, ethnic backgrounds, languages, sexual orientations, genders, and abilities to participate in Latino Community Fund processes, activities and events.

Latino-Led and Latino Accountable Work – We consciously accept the duty to solve the challenges we face. Latinos must be active participants in the development of our future.

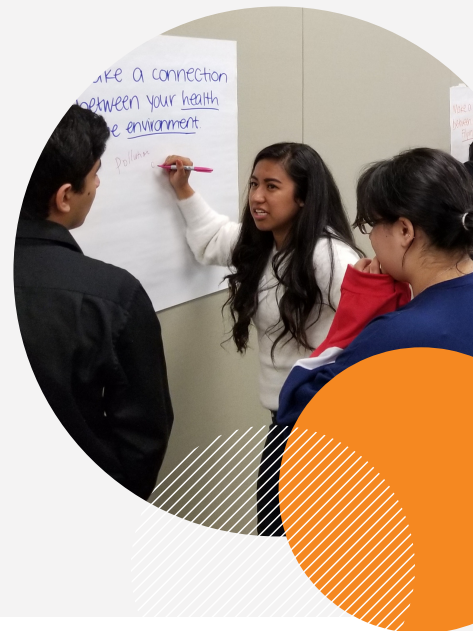


RESEARCH OVERVIEW

This study was funded by the Washington State's Department of Ecology in order to generate additional information from the community on waste management to better inform and provide additional prevention steps for diverse communities. The study focused on outreach and engaging the Latino community to initiate partnerships and working relationships among low-income leaders and stakeholder groups in highly-impacted communities of Yakima County. The goal was to support further capacity to convene and mobilize local residents in addressing nearby toxic sites and other environmental hazards.

TAKING A COMMUNITY PARTICIPATORY APPROACH:

Community-based participatory research (CBPR) is a collaborative approach to research that equitably involves community members, organizational representatives, and researchers in all aspects of the research process and in which all partners contribute expertise, share decision making and exercise ownership.



THE TOP 5 COMMUNITY ENVIRONMENTAL HEALTH ISSUES OF CONCERN:



Clean drinking water and health effects of water pollution



Recycling and composting



Reducing use of toxic production



Climate change



Pesticides

HOW WE ACHIEVED THIS

A PARTICIPATORY APPROACH

Through this research project LCF facilitated a participatory approach to bring together government officials, state and community leaders where they collectively drew their vision of community waste management.

MOBILIZING YOUTH

LCF mobilized and involved local youth as volunteers, especially engaging them to serve in leadership roles during the implementation of activities, such as being moderators and leaders in community dialogues implemented in different locations across Yakima County.

COMMUNITY DIALOGUES

In October - December 2018, LCF hosted **4 community dialogues** in Granger, Sunnyside, and Yakima with Latino communities, local nonprofit organizations, community leaders, volunteers, and state organizations. Workshops brought together 25-50 community members per workshop.



Photo Credit:
Merivet Lombera



"My biggest health/safety concern for my children would be the malpractice of pesticide use and the exposure of hazardous conditions out in the general public."

OVERVIEW OF YAKIMA COUNTY

Latino Community Fund hosted a series of community dialogues in Yakima County, outreached to community through phone banking, surveys, canvassing, and emails. Yakima County has a high Hispanic population in Eastern Yakima which includes City Council districts 1 and 2.

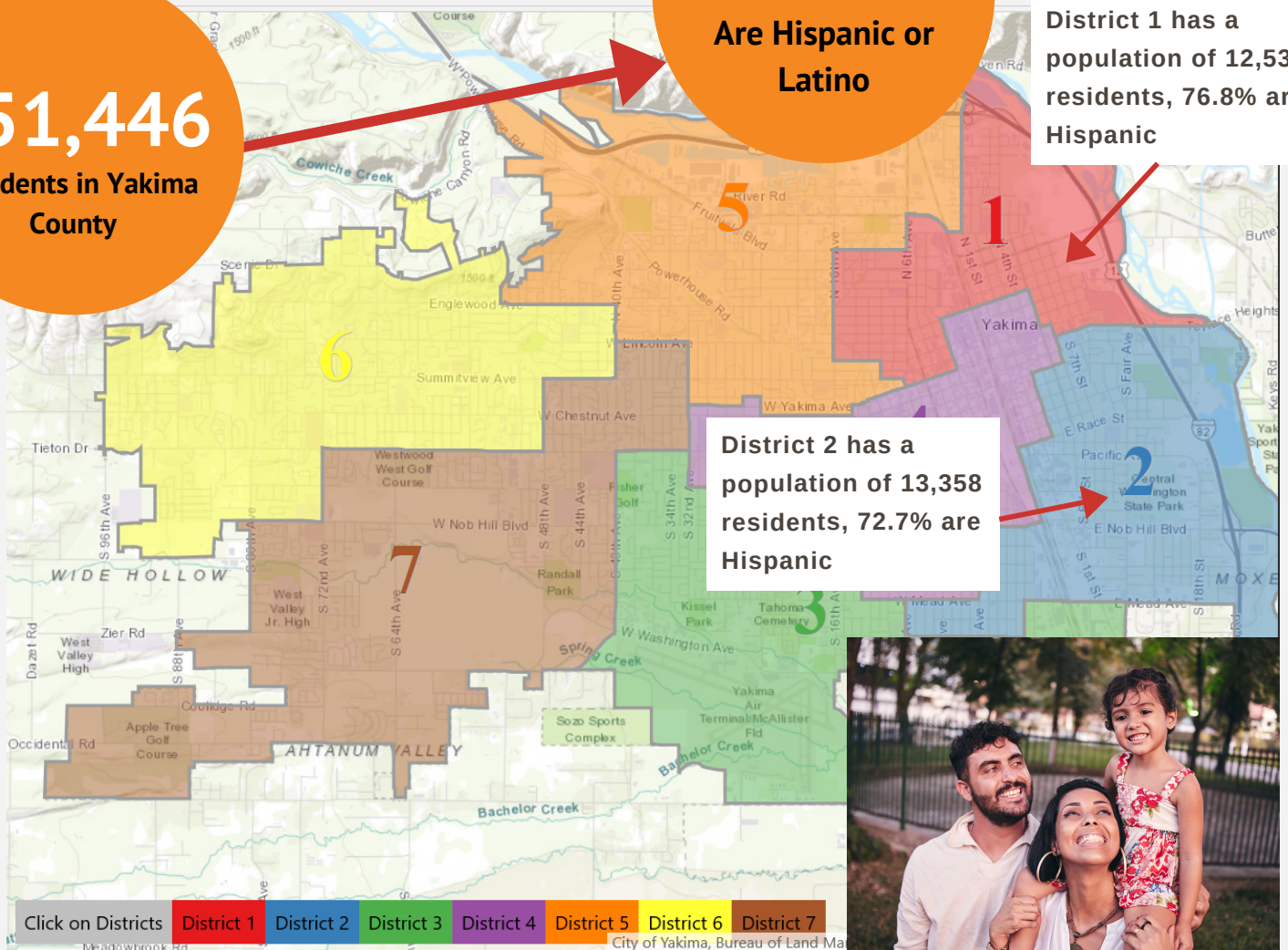
YAKIMA POPULATION

251,446
Residents in Yakima County

49.43%
Are Hispanic or Latino

District 1 has a population of 12,533 residents, 76.8% are Hispanic

District 2 has a population of 13,358 residents, 72.7% are Hispanic



COLLECTING DATA

Latino Community Fund identified communities in locations needing resources to address issues: access to clean drinking water and health effects of water pollution; recycling and composting; climate change; and reducing the use of toxic products at home. We developed a coalition made up of state, federal, and local agencies to share information and to pinpoint locations to outreach to the Latino community. We hosted the first coalition networking meeting on May 19, 2019 where members collaborated on survey questions and identifying important resources to offer the community.



QUESTIONS FORMULATED BY THE COMMUNITY PARTNERSHIP COALITION:

- 1** What do Latinos need to support the well-being of their families, practically in terms of environmental factors of waste and pollution of land, air, water, and climate change?
- 2** What is your biggest health/safety concern for your children?
- 3** What type of information would Latino families like to receive from government agencies that support your family's well-being?
- 4** How do Latino families prefer to receive information that supports their families' well-being from government agencies?
- 5** What can government agencies do to improve the well-being of Latino families through waste and pollution issues impacting the community thorough land, air, water, and climate change?
- 6** What activities in the Yakima community do you think may have a negative impact on the environment?

COLLECTING DATA

We collected

200 Surveys in Spanish

500 Surveys in English



400 individuals reached by email



200 individuals reached through canvassing



500 participants reached in the Yakima County



200 non-English speaking Latino community members in Yakima County



"Finding products and ways to improve our existence - less plastic for instance."

-Community member

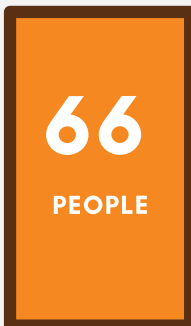
OUTCOMES AND INSIGHTS

Yakima County residents filled out surveys and shared ideas, ranking the top activities that they see as having a negative impact on the environment.

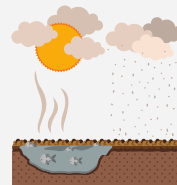


ACCORDING TO THE COMMUNITY, THE TOP 3 ACTIVITIES THAT HAVE A NEGATIVE IMPACT ON THE ENVIRONMENT:

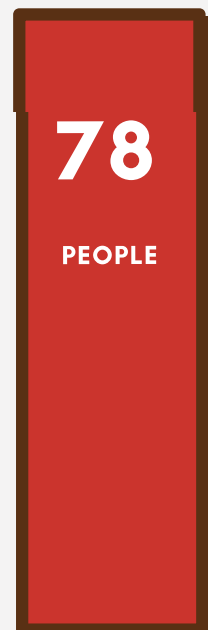
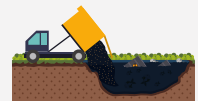
"General plant and warehouse contaminants and manure from cow farms escape. Also certain agricultural pesticides" - Community member



said climate change



said air pollution



said land pollution



OUTCOMES AND INSIGHTS

WHAT ACTIVITIES IN YOUR COMMUNITY DO YOU THINK HAVE A NEGATIVE IMPACT ON THE ENVIRONMENT?

Community said:

- Air contamination
- Fruit tree pesticides
- Run off from dairy farms
- Pesticides
- Littering
- Man-made products
- Auto and corporate truck emissions
- Water pollution Smoking



WHAT IS YOUR BIGGEST HEALTH/SAFETY CONCERN FOR YOUR CHILDREN?

“Clean air because pesticides from orchards and fumes from construction or roadways can have severe effects on the health of children”

“Unclean water my children drink from our Lower Valley wells we have that are not clean”



“It’s hard to tell a person to take care of the environment when they’re thinking how am I going to provide food for my kids this week?”

- Elizabeth Torres, Radio KDNA

OUTCOMES AND INSIGHTS

WHAT CAN GOVERNMENT AGENCIES DO TO ADDRESS THESE CONCERNS?

132 said engage community members

60 said to be transparent about information provided to community

56 said to improve air quality



Preferred form of communication for Latino families:



180 said television



168 said mail



114 said text message

"Text message with a link to more info, email, mail. (In that order of importance)"

"I feel it's best to get some of this information from Health Providers because community trusts them and sees them."

OUTCOMES AND INSIGHTS



WHAT CAN GOVERNMENT AGENCIES DO TO ADDRESS THESE CONCERNS?

Community said:

"Outreach to educate families and communities about these issues."

"I think government agencies can be able to reach the Latino community through innovating ways; social media, putting events together to invite community members etc. Also, I think having people designated to establish relationship-building with the Latino community would greatly help government agencies addressing issues such as land, air, water, and climate change with the Latino community."

"Share plans of action and collaborate with school institutions and City Hall."

"Do an honest effort to provide educational programs directly with the targeted communities"



COMMUNITY ACTION STEPS:

Latino Community Fund hosted community dialogues to listen to community voices for recommendations to solutions and provide prevention steps to waste management.



RECOMMENDATIONS FROM COMMUNITY MEMBERS:

- **Recycle** and **reuse** plastic water bottles for drinking;
- Reuse plastic tupperware from restaurants;
- Use reusable bags for grocery shopping.
- **Reduce** the number of trips driving;
- Reduce or eliminate fireplace and wood stove use.
- **Avoid** burning leaves, trash, and other materials;
- Avoid using gas-powered lawn and garden equipment.
- **Engage** with other local organizations working on Waste Management resources and environmental issues.
- **Attend** local town-hall meetings with local officials in Yakima County.
- Attend Yakima City Hall, town halls, commissioners meetings to voice one's concerns on community issues.
- **Join the Yakima Ecology Coalition**, a network with community members to provide access to resources for Yakima County residents.
- **Access** tools, resources, and research from the Department of Ecology: <https://www.epa.gov/environmental-topics>
- **Contact Latino Community Fund** for more information about how to get involved at www.latinocommunityfund.org

COMMUNITY ACTION STEPS

If you have concerns about water pollution:

Within Yakima County, there are 3 certified water laboratories where residents can take samples of their drinking water for water quality testing. The samples must be taken to the lab directly; the Yakima Health District does not have testing facilities or testing supplies (e.g., bottles, kits, etc.).

DRINKING WATER TESTING FACILITIES:

Cascade Analytical, Inc

1008 W Ahtanum
Yakima, WA 98903
(509) 452-7707

Valley Environmental Laboratory

201 E. 'D' St.
Yakima, WA 98901
(509) 575-3999

Ag Health Laboratories

445 Barnard Blvd
Sunnyside, WA 98944
(509) 836-2020



THANK YOU TO OUR COMMUNITY PARTNERS

Latino Community Fund developed and formulated survey questions, outreach events, and resources in collaboration with our community partners from a coalition of organizations that are currently engaged in health and environmental justice outreach.

COALITION COMMUNITY PARTNERSHIPS:

- MSFW Advocacy Group (MAG)
- La Casa Hogar
- Pacific Islanders Coalition
- Nuestra Casa
- Working WA
- People for People
- Worksource Department
- One America
- Opportunities Industrialization Center (OIC)
- Central WA Hispanic Chamber of Commerce
- Washington Resource Conservation Development Council (WA RC&D)
- School Safety Operations and communication Center
- Friends of Toppenish Creek
- Yakima Valley Conference of Governments
- University of Washington
- University of Heritage
- Lee Martin Farms
- Lopez Farms





68 S. Washington Street

Seattle, WA 98104

info@latinocommunityfund.org

www.latinocommunityfund.org

Presentation to the Yakima County
Commissioners

Arguments for Dissolving the Yakima Regional Clean Air
Agency as Authorized by RCW 70A.15.2570

May 11 & 12, 2021

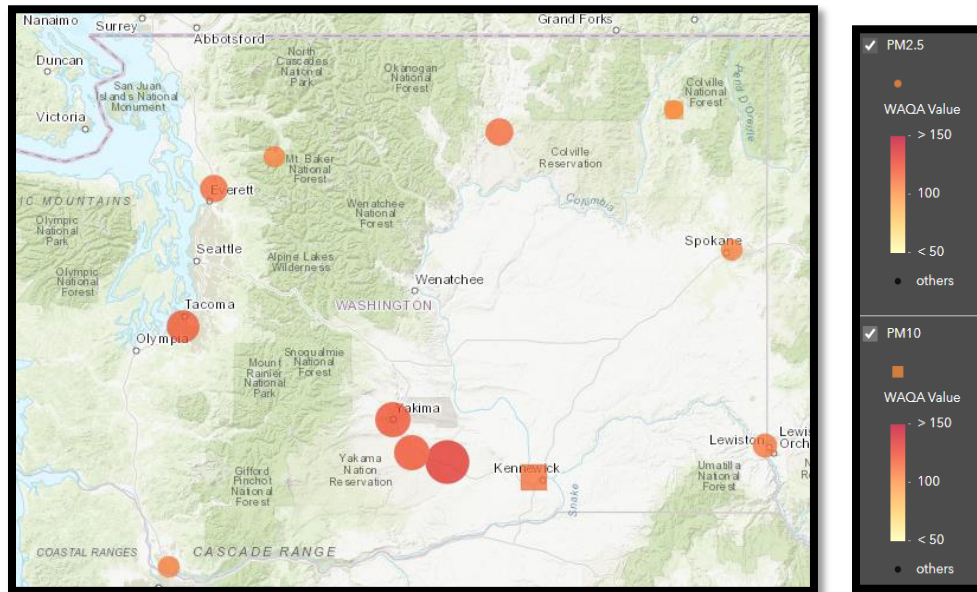
Friends of Toppenish Creek



The YRCAA should be dissolved because:

- We all care about the health and wellbeing of the people.
- The YRCAA lacks the expertise to address the most serious air pollution in WA State. Ecology has more resources.
- Yakima County is at risk for non-compliance with the Clean Air Act.

Introduction: WA Areas of Concern for Particle Air Pollution 2021



From <https://ecology.wa.gov/Regulations-Permits/Plans-policies/Areas-meeting-and-not-meeting-air-standards>

All States are required to compile an air emissions inventory every five years. Washington evaluates Criteria Air Pollutants and Precursors to Criteria Air Pollutants for this inventory. Ecology estimates emissions for:

- Ammonia (NH₃)
- Carbon monoxide (CO) (Criteria)
- Hazardous air pollutants
- Nitrogen oxides (NO_x) (Criteria)
- Particles (or particulate matter, PM) (Criteria)
- Sulfur dioxide (SO₂) (Criteria)
- Volatile organic compounds (VOCs)

In the Lower Yakima Valley about 31% of fine particulate matter (PM 2.5) is composed of ammonium nitrate. Ammonium nitrate is acidic when dissolved in water. Ammonium nitrate contributes to acid rain.

According to Ecology, in 2011 Yakima County livestock emitted 8,053.58 tons of ammonia into the ambient air. In 2017, using a different model, the number was 5,194 tons of ammonia = 10,388,000 lbs. = 28,460 lbs./day. Most of these emissions take place in the 500 square mile Lower Yakima Valley*.

*To put this into perspective, in 2020 the EPA fined Kenyon Zero Storage \$34,000 for the accidental release of about 100 pounds of ammonia into the air from its cold storage facility in Grandview.

Why Yakima County Should Disband the YRCAA

Yakima County has public health problems related to air pollution.

The Yakima Regional Clean Air Agency has a duty to address this issue.

Much of the air pollution in Yakima County is related to emissions from concentrated animal feeding operations (CAFOs).

Those emissions include:

- Dust
- Odor
- Ammonia
- Hydrogen sulfide
- Volatile Organic Compounds (VOC's)

One third of all WA dairy cows are housed in the 500 square mile Lower Yakima Valley (LYV).

Large LYV dairies are major sources (a legal term) of air pollution.

The YRCAA does not register and regulate CAFO dairies as required by law.

The YRCAA marginalizes the citizens.

- Citizen complaints at public meetings are met with disinterest or disdain.
- Dairy industry interests are supported while there is no citizen representation on the YRCAA board.
- Site visits to investigate citizen complaints are not timely or do not happen at all.
- Valid citizen science is ignored.
- YRCAA has been successfully sued twice because of their lack of responsiveness to citizen requests.

Other counties use the WA State Department of Ecology to manage air quality issues.

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Public Health in Yakima County

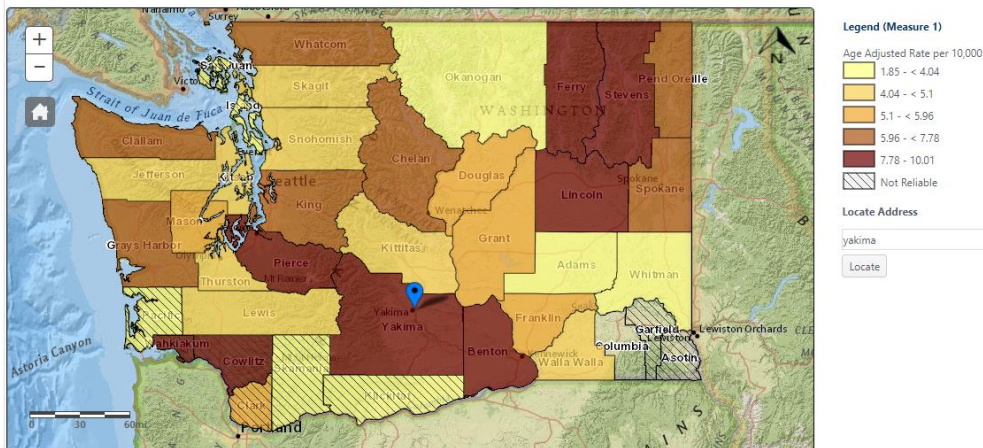
Health issues related to air pollution include:

- Premature Death
- Asthma Attacks
- Cardiovascular Disease
- Lung Cancer
- Developmental Damage
- Susceptibility to Infections
- Low Infant Birth Weight
- Wheezing, Coughing & Shortness of Breath
- Death rates from COVID 19 are higher in areas with elevated fine particulate matter.

Examples of increased disease in Yakima County, often related to air pollution:

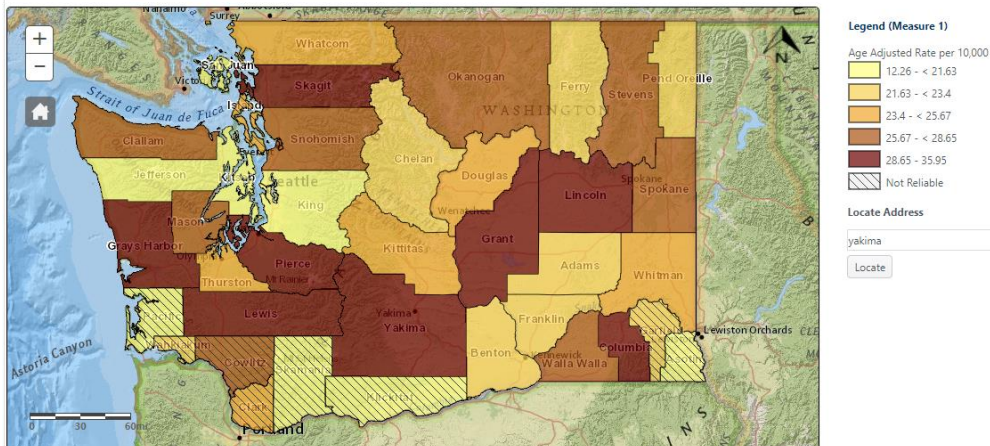
Asthma Hospitalizations: Age-Adjusted Rate per 10,000

Geography: County, Age Group: All (Combined), Time Period: 2010-2014



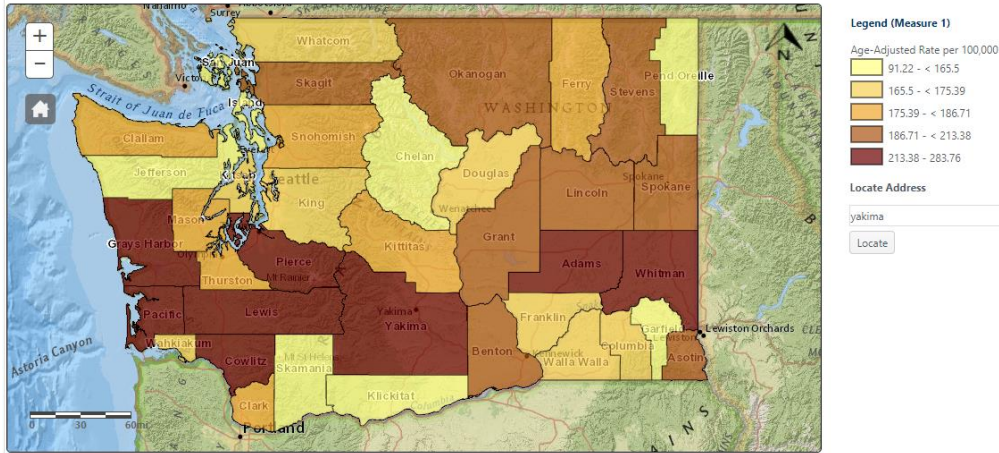
Heart Attack Hospitalizations: Age-Adjusted Rate per 10,000 (for specified age groupings)

Geography: County, Age Group: 35+, Sex: All (Combined), Time Period: 2010-2014



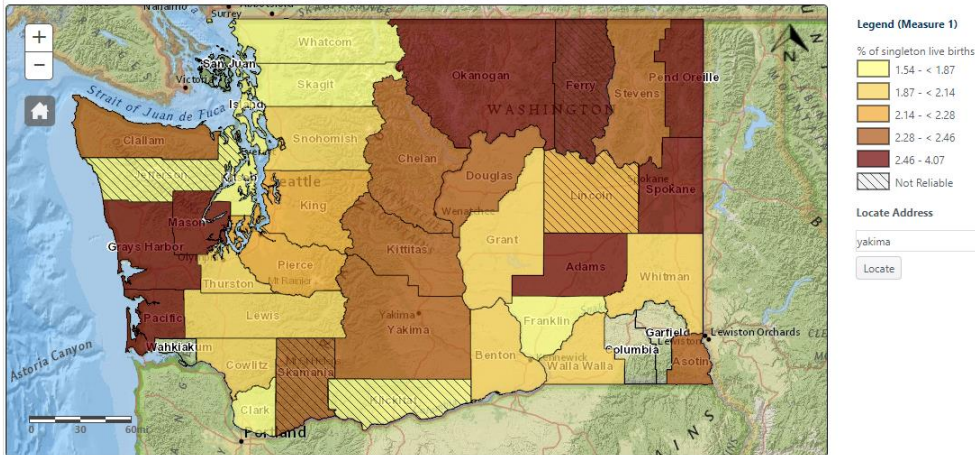
Cardiovascular Disease Mortality - Age Adjusted rate per 100,000

Geography: County, Sex: All (Combined), Time Period: 2015-2019



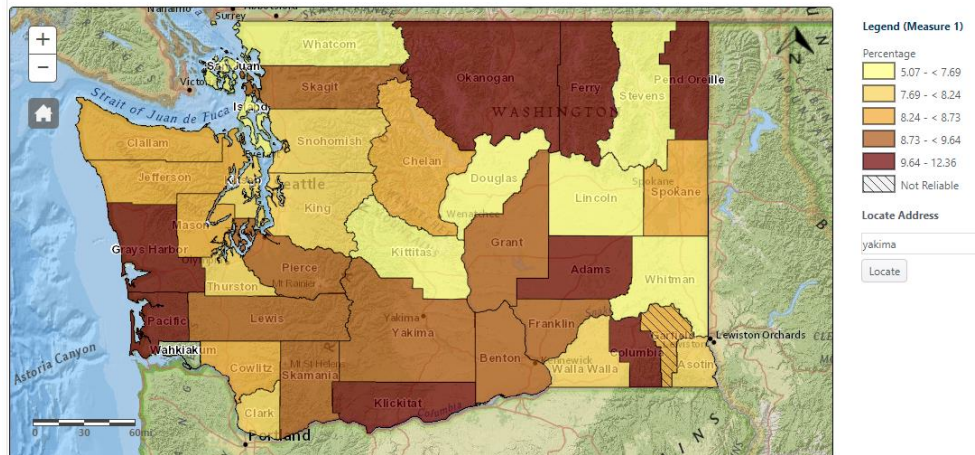
Low Birthweight (<2500 grams) Singleton Fullterm Births

Geography: County, Maternal Age: All (Combined), Time Period: 2015-2019



Preterm (less than 37 weeks) Singleton Births

Geography: County, Maternal Age: All (Combined), Time Period: 2015-2019



From the WA State Dept. of Health Washington Tracking Network at <https://fortress.wa.gov/doh/wtn/WTNPortal/#!q0=370>

Studies of Air Pollution and Health in Yakima County

Here is research that was performed in Yakima County regarding health impacts from air pollution. This research belongs on the YRCAA website, but it has never been posted.

This study provides evidence that PM_{2.5} in an agricultural setting contributes to elevated asthma morbidity.

Loftus, C., Yost, M., Sampson, P., Arias, G., Torres, E., Vasquez, V. B., ... & Karr, C. (2015). Regional PM_{2.5} and asthma morbidity in an agricultural community: a panel study. *Environmental research*, 136, 505-512. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4425279/>

Ammonia concentrations were elevated in this community and strongly predicted by proximity to animal feeding operations. Ammonia's association with acute lung function decrements in children with asthma in the surrounding community may be causal or, alternatively, ammonia may be a marker for other pollutants from animal feeding operations associated with respiratory effects.

Loftus, C., Yost, M., Sampson, P., Torres, E., Arias, G., Vasquez, V. B., ... & Bhatti, P. (2015). Ambient ammonia exposures in an agricultural community and pediatric asthma morbidity. *Epidemiology (Cambridge, Mass.)*, 26(6), 794. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587379/>

Our findings indicate that children with asthma may experience short-term respiratory effects following increased exposure to airborne AFO pollutants, adding to a growing body of research evidence that AFO-related air pollution may cause community-level health effects.

Loftus, C. (2015). *Industrial Animal Agriculture in the Yakima Valley, Air Pollution, and Pediatric Asthma Morbidity* (Doctoral dissertation). Available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26152/Loftus_washington_0250E_13499.pdf?sequence=1

These findings demonstrate that dairy operations increase community exposures to agents with known human health effects. This study also provides evidence that airborne biological contaminants (i.e. cow allergen) associated with airborne particulate matter are statistically elevated at distances up to three miles (4.8 km) from dairy operations.

Williams, D. L., Breyse, P. N., McCormack, M. C., Diette, G. B., McKenzie, S., & Geyh, A. S. (2011). Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment. *Environmental Health*, 10(1), 72. Available at <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-10-72>

Air Quality in Yakima County

Percentage of Ammonium Nitrate in Fine Particulate Matter in WA State

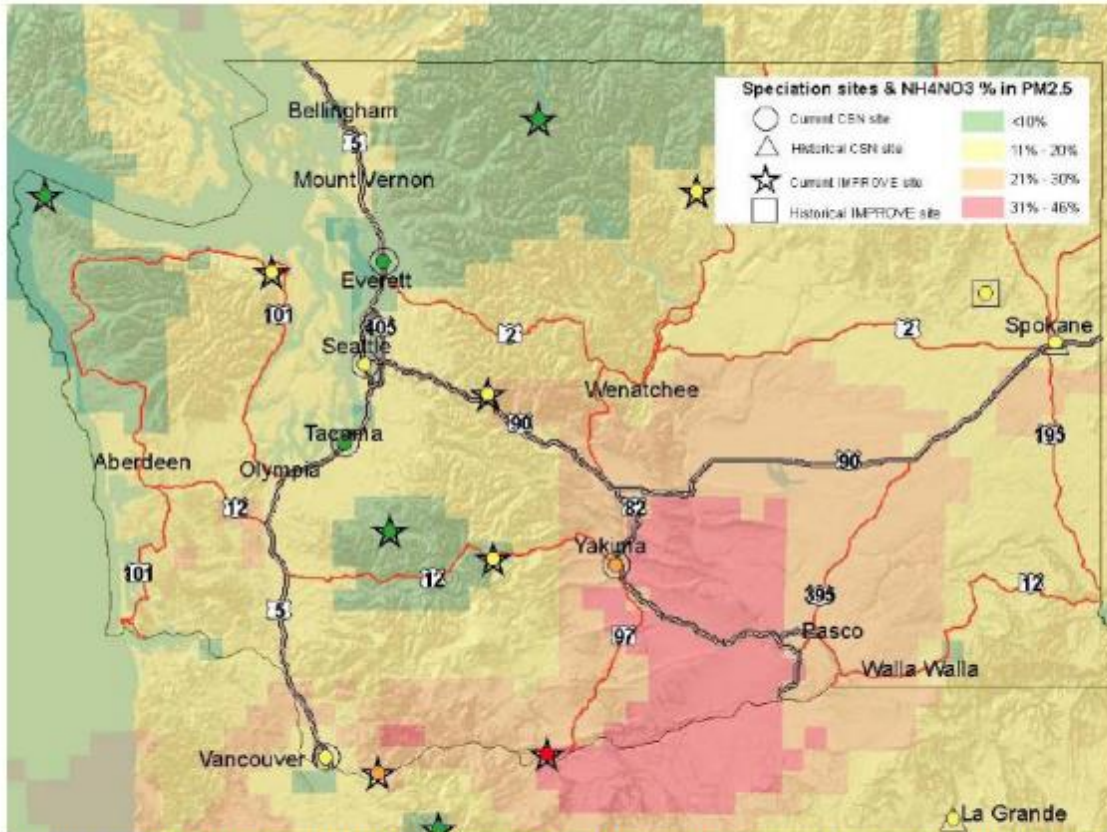


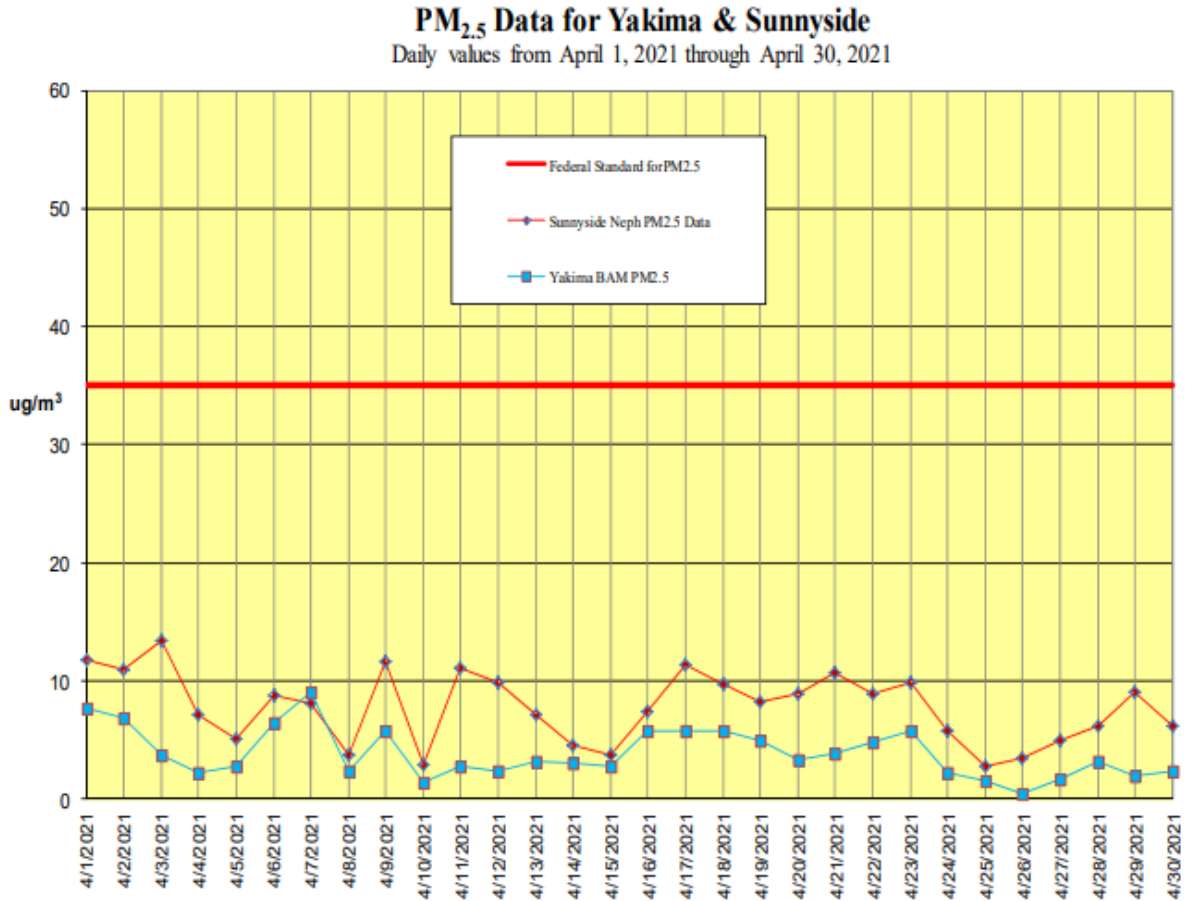
Figure 1.1. Contribution of ammonium nitrate (NH₄NO₃) to total PM_{2.5} in Washington. Map is based on measured aerosol speciation data collected through 2009, spatially interpolated with CMAQ-modeled data at a 12km resolution. Map created and provided by Dr. Ranil Dhammapala, Washington Department of Ecology.

The 2015 Yakima Air Winter Nitrate Study found:

Episodes of elevated particulate nitrate in the Yakima Valley during winter result from a combination of factors. The wintertime meteorology of the region drives gas-particle equilibrium of ammonium nitrate strongly toward the particle phase, and high relative humidity enhances this effect. High ammonia emissions from agricultural sources in the area lead to elevated atmospheric concentrations of the pollutant. This excess ammonia drives virtually all available nitric acid into the particulate phase, forming particulate nitrate, and leads to a condition where any additional nitric acid production would lead directly to greater particulate nitrate levels. The production of particulate nitrate precursors is complicated and sensitive to the varying meteorological and chemical conditions in the valley. Given the backdrop of excess gaseous ammonia, there is usually sufficient reactive nitrogen in the valley to produce elevated levels of particulate nitrate if the right meteorological conditions take hold.

YRCAA Data: Air quality in the LYV is usually worse than air quality in the Upper Yakima Valley (UYV). Here is a recent typical example from a monthly director’s report to the YRCAA Board of Directors.

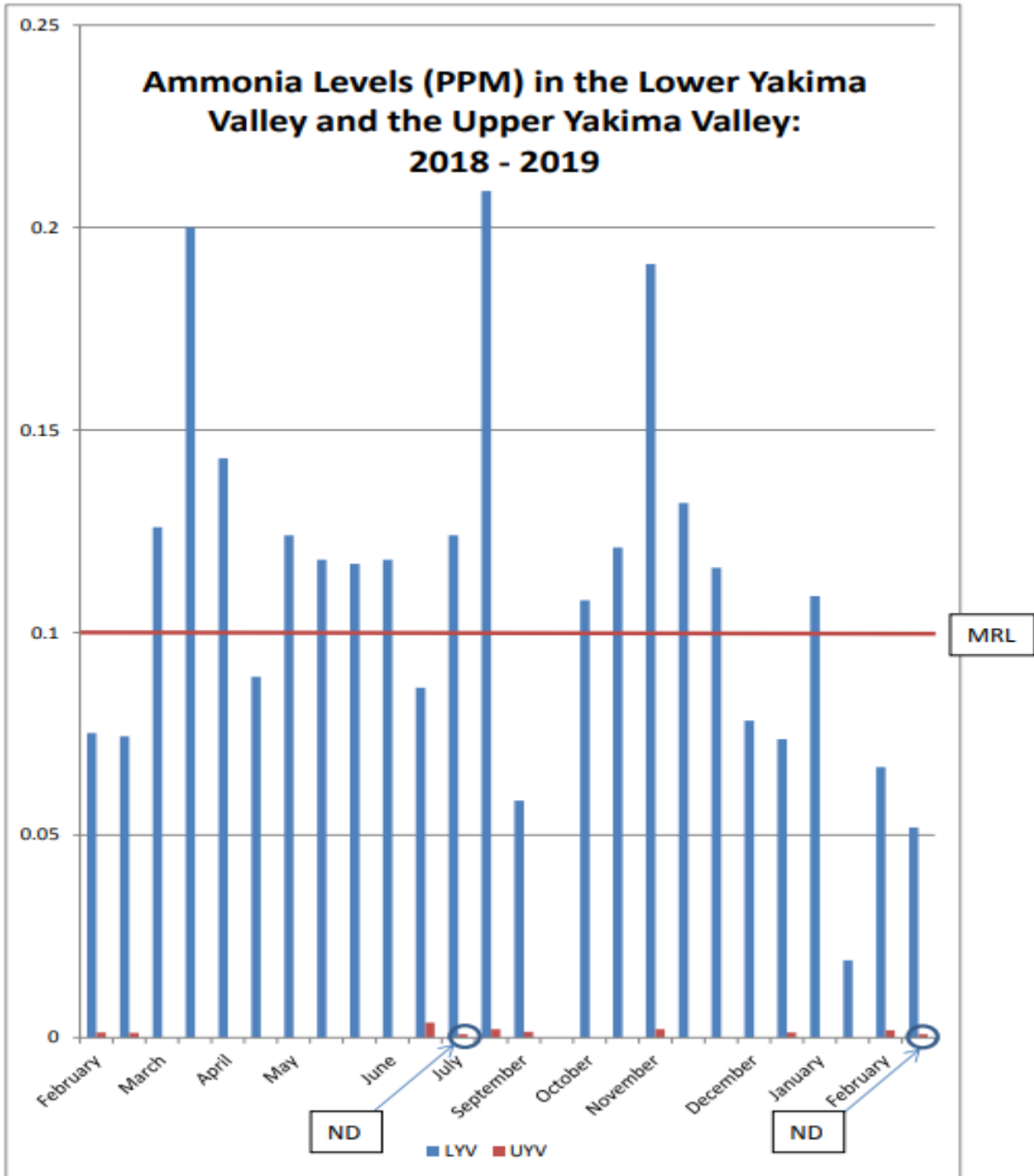
4. Air Monitoring Data for April 2021



Citizen Science: The Friends of Toppenish Creek measured average ammonia levels for two week periods from February 2018 to February 2019, at a home site in the LYV and a control site in the UYV. The average of all samples at the LYV site was 0.1092 parts per million (ppm) with a range of 0.0191 ppm to 0.209 ppm. The average of all samples at the UYV site was 0.0016 ppm. Ammonia levels in the lower valley averaged sixty eight times higher than those in the upper valley.

The Agency for Toxic Substances and Disease Registry (ATSDR) at the Center for Disease Control (CDC) has determined that the Minimum Risk Level (MRL) for long term (≥ 1 year) exposure to ammonia is 0.10 ppm. According to the CDC, “An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure.”

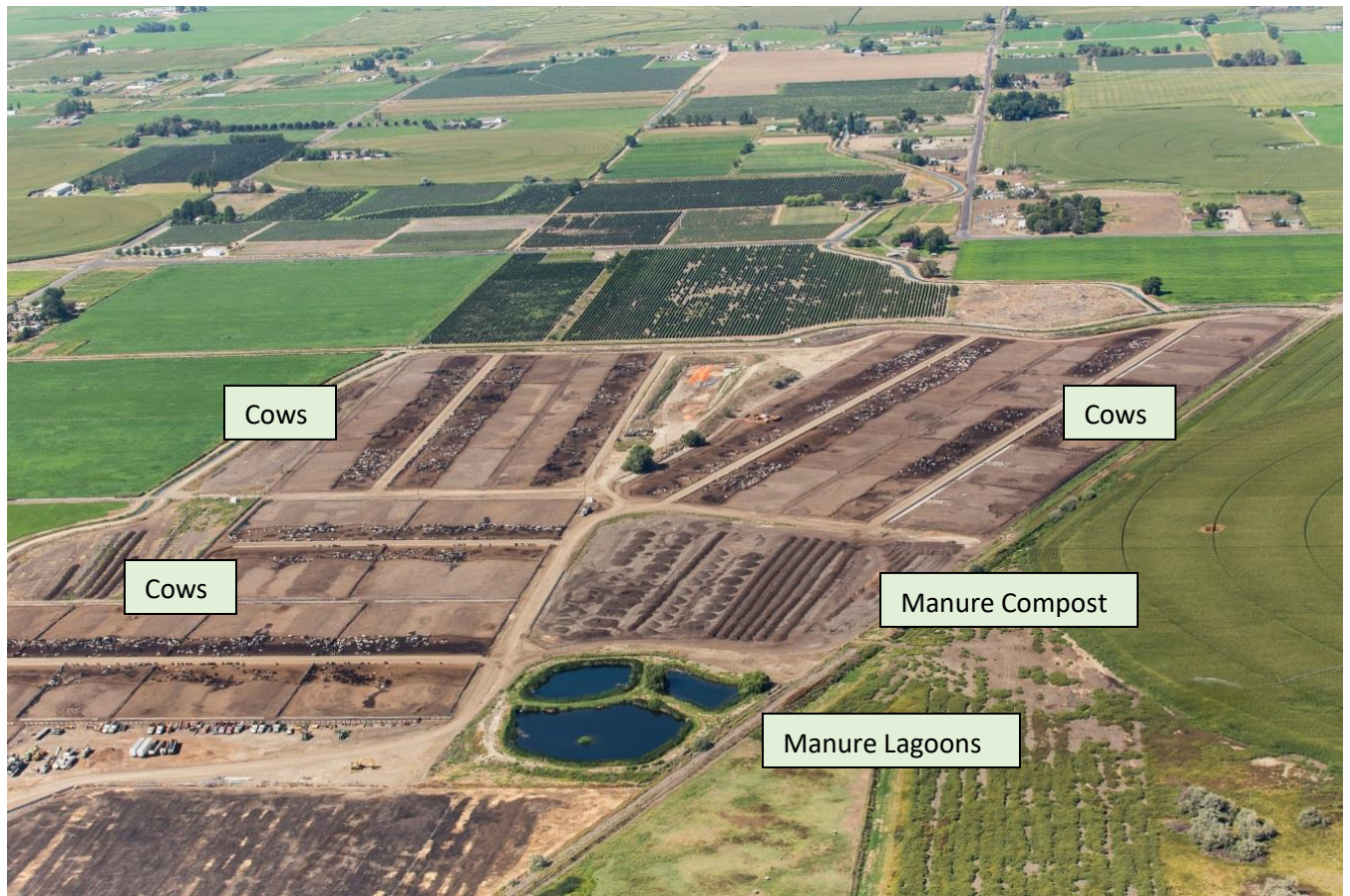
Below is a graph of the FOTC findings:



FOTC shared these results with the YRCAA. The agency did not respond.

In 2016 the YRCAA staff brought a proposed ammonia study to the YRCAA board for consideration. The board rejected the proposed study.

Dairy Emissions: This aerial photo shows the sources of emissions from LYV dairies:



The WA State Dept. of Agriculture estimates that 35% of the nitrogen in waste from dairy cows volatilizes and ends up in the atmosphere. This happens in the production area, before manure is composted or applied to crops. See Lower Yakima Valley Groundwater Report, Vol. I, page 25 at <https://www.yakimacounty.us/DocumentCenter/View/22177/GWMA-VolumeI-July2019>

Regulation of Air Pollution in Yakima County

Timeline

1967

The Yakima Regional Clean Air Authority, later the Yakima Regional Clean Air Agency, is formed per RCW 70.94.081

1997

YRCAA adopts a Beef Cattle Feedlot Air Policy

2002

YRCAA approves Confined Heifer Operations Dust Control Policy

2005

Les Ornelas, Director of the Yakima Regional Clean Air Agency tells a WSU Dairy Workshop in Sunnyside WA,

Now, I receive the largest number of odor complaints currently for my jurisdiction against feedlots, dairies, other kinds of chicken farmers, and other sorts of activities like this. We have people in the field who have been trained to evaluate odors, to be able to discern from a level 1, 2, 3 or 4 (4 typically is the one that causes a gag reflex). We go out and respond to all these numerous complaints every year and we have not yet issued a citation to any of the dairy people on odors in Yakima County, even though we have hundreds and some years over a thousand complaints.

Not much has changed since then. The YRCAA still fails to cite Lower Yakima Valley dairies for odor and dust.

2010

YRCAA discussion re AQMP for Dairies begins

Publication of *Emission Data from Two Dairy Freestall Barns in Washington*. Study performed in the LYV by WA State University for the National Air Emissions Monitoring Study.

2011

John Hopkins study, *Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: an exposure assessment*. The lead author presents the study to the YRCAA. There is no agency action.

February, YRCAA published public comments for the AQMP for dairies.

February, YRCAA Board of Directors approved the dairy air policy as a pilot research project.

2012

Presentation of Draft AQMP for Dairies at YRCAA Board Meeting

2013

May, Citizens present a petition to ban spreading and spraying of manure during burn bans and air inversions. The YRCAA Director recommends rejecting the petition and the YRCAA Board agrees.

June, the YRCAA Board of Directors approves an *Air Quality Management Policy and Best Management Practices for Dairy Operations (AQMP)*.

November, FOTC presents a critique of the Literature Review used to rebut a need for Ban on Spraying Manure during Inversions

2014

YRCAA adopts a *PM Advance Program Path Forward*

January, YRCAA forms an Agricultural Task Force and a Dairy Work Group

The Yakima Air Winter Nitrate Study is completed

November, Board Study Session: *Report to the YRCAA Board of Directors of the July, 2013 to October 2014 Policy Implementation Period* – two board members hear the report.

Publication of Ecology's *2011 County Emissions Inventory*.

2015

YRCAA Board of Directors tables a proposed Five-Year Strategic Plan

University of Washington publishes studies on asthmatic children in the Yakima Valley.

2016

FOTC asks the WA Dept of Health and the Yakima Health District for an “expert opinion on when and under what conditions it is safe to apply manures, especially aerosolized manures, to cropland when human and animal exposures and health risks are taken into consideration.” To date there has been correspondence but there have been no substantive answers.

FOTC responds to an article in two local newspapers that quotes the YRCAA Director and states that ammonia emissions from animal agriculture are insignificant.

FOTC files a Civil Rights Complaint to the EPA re YRCAA

FOTC asks Ecology to investigate the YRCAA under RCW 70A.15.3000(8)

Complaints about Conflict of Interest for a YRCAA Board Member

2017

Steve George from the Yakima Dairy Federation tells the YRCAA Board of Directors that he can speak for the dairy farmworkers.

YRCAA denies a second petition to ban manure spraying during burn bans and inversions.

2018

AQMP for Dairies rescinded

2019

FOTC repeats a request for Ecology to investigate YRCAA. The request is denied.

Complaint because WA State helps a mushroom operation, with known odorous air emissions, to relocate from the west side of the state to the Sunnyside area.

The EPA Office of Civil Rights External Compliance comes to an agreement with the YRCAA regarding engagement of Spanish speaking residents.

FOTC analyzes ammonia emissions in Yakima County and shares the study with YRCAA. The YRCAA takes no action.

2020

University of Washington publishes studies on asthmatic children in the Yakima Valley.

Violations of Rules & Regulations

RCW 17A.15.2000(6) Wherever a member of a board has a potential conflict of interest in an action before the board, the member shall declare to the board the nature of the potential conflict prior to participating in the action review. The board shall, if the potential conflict of interest, in the judgment of a majority of the board, may prevent the member from a fair and objective review of the case, remove the member from participation in the action.

WAC 173-400-260 Conflict of interest: All board members and officials acting or voting on decisions affecting air pollution sources, must comply with the Federal Clean Air Act, as it pertains to conflict of interest (Section 128).

FOTC Comment: Dr. Steven Jones is a dairy nutritionist who works for the dairy industry in Yakima County. He was part of the group that developed the YRCAA Air Quality Management Policy (AQMP) for Dairies beginning in 2011. Dr. Jones has served on the YRCAA Board of Directors since January 2014 as the designee for the Yakima County Commissioners when the commissioners chose him over two citizen applicants. He has been reappointed without consideration of other candidates since that time.

- In 2015 Dr. Jones voted against a YRCAA Strategic Plan stating that he disagrees with the proponents of environmental justice. (Attachment L)
- In 2017 the YRCAA staff brought a proposed project to the board that would measure ammonia emissions in the LYV. The Dairy Federation opposed the project. Dr. Jones actively criticized the value of the project and voted against it. (Board Meetings March 2017 & April 2017).
- In 2017 the YRCAA Board of Directors made changes to the public comment section of board meetings at the request of the Dairy Federation. Dr. Jones voted in favor of the changes. (Board Meetings October 2017 & November 2017).
- In 2018 the YRCAA voted to rescind the AQMP for dairies. Dr. Jones voted for an option to rescind the AQMP, to eliminate a requirement for dairies to register and to eliminate registration fees for dairies. The elimination of registration fees resulted in a reduction of \$20,000 to \$22,000 that would have been used to address this source of air contaminants. This decision resulted in the reduction of YRCAA FTEs by one employee. (Board Meeting, October 2018)
- Dr. Jones has voted on every YRCAA budget since 2014.

* * * * *

RCW 70A.15.1005 Declaration of public policies and purpose.

Paragraph 6 states:

It is the policy of the state that the costs of protecting the air resource and operating state and local air pollution control programs shall be shared as equitably as possible among all sources whose emissions cause air pollution.

RCW 70A.15.2270

Annual fees from operating permit program source to cover cost of program.

(1) The department and delegated local air authorities are authorized to determine, assess, and collect, and each permit program source shall pay, annual fees sufficient to cover the direct and indirect costs of implementing a state operating permit program approved by the United States environmental protection agency under the federal clean air act. . . .

(2) The fee schedule developed by each permitting authority shall fully cover and not exceed both its permit administration costs and the permitting authority's share of statewide program development and oversight costs.

RCW 70A.15.3060

State financial aid—Application for—Requirements.

(1) Any authority may apply to the department for state financial aid. . . .

(2) Before any such application is approved and financial aid is given or approved by the department, the authority shall demonstrate to the satisfaction of the department that it is

fulfilling the requirements of this chapter. If the department has not adopted ambient air quality standards and objectives as permitted by RCW 70A.15.3000, the authority shall demonstrate to the satisfaction of the department that it is acting in good faith and doing all that is possible and reasonable to control and prevent air pollution within its jurisdictional boundaries and to carry out the purposes of this chapter.

FOTC Comment: YRCAA acknowledges that CAFO dairies are a source of air pollution in Yakima County. YRCAA does not register dairies and collects no fees to pay for actions to address air pollution from this source. YRCAA does not do all that is possible and reasonable to control and prevent air pollution in Yakima County.

* * * * *

WAC 173-400-100

Source classifications.

(1) **Source classification list.** In counties without a local air pollution control authority, or for sources under the jurisdiction of ecology, the owner or operator of each source within the following source categories must register the source with Ecology:

(j) Cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1st and October 1st, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season;

(l) Composting operations, including commercial, industrial and municipal, but exempting residential composting activities;

RCW 70A.15.3050

Emission control requirements.

(1) Every activated authority operating an air pollution control program shall have requirements for the control of emissions which are no less stringent than those adopted by the department of ecology for the geographic area in which such air pollution control program is located.

FOTC Comment: Rules and Regulations for Local Clean Air Agencies cannot be less stringent than state rules and regulations.

The YRCAA does not require registration of dairies, despite the fact that CAFO dairies are de facto cattle feedlots with inventories of one thousand or more cattle in operation year round, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season. (Board Meeting, October 2018)

The YRCAA does not require registration of dairies, despite the fact that Ecology requires registration of cattle feedlots.

The YRCAA does not require registration of dairy composting operations despite the fact that there are over 500 acres in the LYV devoted to manure composting.

* * * * *

RCW 70A.15.3150

Penalties.

(1) Any person who knowingly violates any of the provisions of this chapter or chapter **70A.25 RCW**, **RCW 70A.45.080**, or any ordinance, resolution, or regulation in force pursuant thereto is guilty of a gross misdemeanor and upon conviction thereof shall be punished by a fine of not more than ten thousand dollars, or by imprisonment in the county jail for up to three hundred sixty-four days, or by both for each separate violation.

(2) Any person who negligently releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who at the time negligently places another person in imminent danger of death of substantial bodily harm is guilty of a gross misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for up to three hundred sixty-four days, or both.

FOTC Comment: Animal agriculture in Yakima County releases

- between 5,000 and > 8,000 tons of ammonia every year (Attachment M, page 101/108 & Attachment N, page 88/94).
- approximately 1,771 tons of PM 10 every year (Attachment N, page 82/94)
- approximately 366 tons of PM 2.5 every year (Attachment N, page 83/94)
- approximately 416 tons of volatile organic compounds (VOCs) every year (Attachment N, page 86/94)

(3) Any person who knowingly releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who knows at the time that he or she thereby places another person in imminent danger of death or substantial bodily harm, is guilty of a class C felony and shall, upon conviction, be punished by a fine of not less than fifty thousand dollars, or by imprisonment for not more than five years, or both.

(4) Any person who knowingly fails to disclose a potential conflict of interest under **RCW 70A.15.2000** is guilty of a gross misdemeanor, and upon conviction thereof shall be punished by a fine of not more than five thousand dollars.

FOTC Comment: See Dr. Steve Jones’ voting record on the YRCAA Board of Directors.

See the WA State Emissions Inventories for 2011 and 2017 (Attachments M & N)

* * * * *

RCW 70A.15.4530

Odors or fugitive dust caused by agricultural activities consistent with good agricultural practices exempt from chapter.

(1) Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter unless they have a substantial adverse effect on public health. In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.

FOTC Comment: To the best of FOTC's knowledge, the YRCAA has never consulted an expert to determine consistency with good agricultural practices. In Yakima County, due to a winter storm emergency, it is now an accepted agricultural practice to compost 950 dead cows in 2,300 feet of windrows. (Attachment O)

(2) Any notice of violation issued under this chapter pertaining to odors or fugitive dust caused by agricultural activity shall include a detailed statement with evidence as to why the activity is inconsistent with good agricultural practices, or a detailed statement with evidence that the odors or fugitive dust have substantial adverse effect on public health.

FOTC Comment: To the best of FOTC's knowledge, the YRCAA has never consulted an expert to determine whether there is evidence that fugitive dust and odor has a substantial adverse effect on public health. FOTC has provided YRCAA with research on the adverse public health effects of emissions from CAFO's. FOTC has offered the expertise of a physician and a masters prepared nurse to help YRCAA better understand health effects. YRCAA declined citizens' assistance.

(6) The exemption for fugitive dust provided in subsection (1) of this section does not apply to facilities subject to RCW **70A.15.2200** as specified in WAC 173-400-100 as of July 24, 2005, **70A.15.2210**, or **70A.15.2260**. The exemption for fugitive dust provided in subsection (1) of this section applies to cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1st and October 1st, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season; except that the cattle feedlots must comply with applicable requirements included in the approved state implementation plan for air quality as of July 23, 2017; and except if an area in which a cattle feedlot is located is at any time in the future designated nonattainment for a national ambient air quality standard for particulate matter, additional control measures may be required for cattle feedlots as part of a state implementation plan's control strategy for that area and as necessary to ensure the area returns to attainment.

FOTC Comment: WAC 173-400-100 requires registration of

(j) Cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1st and October 1st, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season;

(l) Composting operations, including commercial, industrial and municipal, but exempting residential composting activities;

CAFO dairies are de facto animal feedlots, yet YRCAA does not regulate them. There are over 500 acres of manure compost in the LYV, yet YRCAA does not regulate these operations.

YRCAA uses the exemption for odor and dust as a reason not to address emissions of ammonia, hydrogen sulfide and volatile organic compounds (VOCs). This is a false interpretation of the statutes.

* * * * *

RCW 70A.15.6200

Legislative declaration—Intent.

The legislature recognizes that:

- (1) Acid deposition resulting from commercial, industrial or other emissions of sulphur dioxide and nitrogen oxides pose a threat to the delicate balance of the state's ecological systems, particularly in alpine lakes that are known to be highly sensitive to acidification;
- (2) Failure to act promptly and decisively to mitigate or eliminate this danger may soon result in untold and irreparable damage to the fish, forest, wildlife, agricultural, water, and recreational resources of this state;
- (3) There is a direct correlation between emissions of sulphur dioxides and nitrogen oxides and increases in acid deposition;
- (4) Acidification is cumulative; and
- (5) Once an environment is acidified, it is difficult, if not impossible, to restore the natural balance.

It is therefore the intent of the legislature to provide for early detection of acidification and the resulting environmental degradation through continued monitoring of acid deposition levels and trends, and major source changes, so that the legislature can take any necessary action to prevent environmental degradation resulting from acid deposition.

RCW 70A.15.6210

Definitions.

As used in RCW 70A.15.6200 through 70A.15.6220, the following terms have the following meanings.

- (1) "Acid deposition" means wet or dry deposition from the atmosphere of chemical compounds with a pH of less than 5.6.
- (2) "Critical level of acid deposition and lake, stream, and soil acidification" means the level at which irreparable damage may occur unless corrective action is taken.

RCW 70A.15.6250

Evaluation of information on acid deposition in Pacific Northwest—Establishment of critical levels—Notification of legislature.

The department of ecology, in consultation with the appropriate committees of the house of representatives and of the senate, shall:

- (1) Continue evaluation of information and research on acid deposition in the Pacific Northwest region;
- (2) Establish critical levels of acid deposition and lake, stream, and soil acidification; and
- (3) Notify the legislature if acid deposition or lake, stream, and soil acidification reaches the levels established under subsection (2) of this section

FOTC Comment: The pH of a 0.1 M solution of ammonium nitrate in water is 5.43. Ammonium nitrate contributes to acid rain.

Since 1993 Ecology has performed samplings of Washington waters for pH. WRIA 37 contains the Lower Yakima River. Ecology has recorded 25 samples from WRIA 37 with sufficient data to make determinations.

- 9 of the 25 samples (36%) were classified as “Waters of Concern”.
- 11 of the 25 (44%) samples were classified as “Impaired”.
- 5 of the 25 samples (20%) were classified as “meets the standard”.

See Ecology’s Washington State Water Assessment at <https://apps.ecology.wa.gov/ApprovedWQA/ApprovedPages/ApprovedSearchResults.aspx>

Citizen Complaints

Excerpts from YRCAA Board Meeting Summaries

March 2012: Larry Fendell (Citizen) states, *I brought a few pictures showing the smell problems we have. They push up berms. Make lagoons wherever, usually on property lines. They spread it out to dry right next to people's homes. This is a rig spreading the manure out. This is what it looks like after they harrow it. They haul it everywhere. This is Roza Drive in one drive. How do you incorporate manure on asphalt? One of the pictures they have dead calves laying out there. Here are the Big Guns. This is brown water. There supposed to be cutting that with something. Dr. Pius has said this is the thing they can do. Aerating it through irrigation. Here is a barn that hasn't been cleaned.*

Jan Whitefoot (Citizen) states, *On Monday the day the wind was blowing, 40 miles or more. Helen and I invited a reporter to go with us on a poop tour. You couldn't hardly see the road. In the Best Management Plan, it said they wouldn't do anything in the wind. We saw truck after truck applying manure. They are not following it now. What will make them follow the plan?*

YRCAA Board Chairman Tom Gasseling states, *The problem with the pictures is you cannot tell what they are. They could be dust blowing or anything. . . . I'm getting real tired being told that I'm sneaky, deceitful, devious. . . I 'm getting real tired of being called devious. . . Don't come here every month and being told I'm some useless piece of crap. I personally, I'm fed up with it. This has got to stop. I'm not going to tolerate it anymore.*

Jan Whitefoot: *You were bad mouthing me in an email.*

Gasseling: *I meant what I said.*

April 2012: Doug Moore (Citizen) says, *There is a lagoon with 3 million gallons of raw manure 187 feet from my house. I've filed complaints against it. They bulldozed down cat tails because that was a wetland. One time the gate broke and the whole 3 million gallons drained into Black Rock Creek. Nothing has ever been done. I'm so mad I have just about given up.*

May 2012: Helen Reddout (Citizen) tells the YRCAA Board of Directors that the April YRCAA Board Minutes said she had been invited to be on the Dairy Work Group. In fact, she was never invited. Ms. Reddout stated, "If I had been invited, I would have been there with bells on."

Director Pruitt clarified that he had intended to invite her but never got the opportunity.

Ms. Reddout added that she would still like to be on the work group. That never happened.

December 2012: Larry Fendell (Citizen) Community meetings. I've asked a question for three meetings now. No answer. Why are dairies allowed to spread manure during burn bans? The reason we bring things to the board is when we bring things to the agency nothing happens. Need to have concerns recorded. For the last three months we have asked about ammonia. We have to

stop using wood stoves and fireplaces. We go out and they are spreading manure and the air is bad. I want the board to know that there is a problem.

Director Gary Pruitt: “You’re so full of crap.”

January 2013: Larry Fendell (Citizen) quotes from a TV interview of Mr. Pruitt, “Frankly the money just isn’t there. Testing wouldn’t produce credible evidence of anything. It would cost tens of millions of dollars to set up testing in the lower valley.” Does that statement bother anyone?

November 2014: Jean Mendoza explained to the YRCAA Board that Dr. Nicole Embertson gave them mis-information in her Literature Review on the Spraying of Manure During Inversions. Among other points:

- Referenced 40 pieces of research. Only 13 pieces looked at community health. 12 of the 13 found significant health impacts related to public health.
- Incorrect statement of a chemical reaction
- Misstated statistics regarding the impact of ammonia on PM 2.5
- Stated that manure is not typically applied during winter months. This is not true in Yakima County.
- Misquoted the John Hopkins study and said it addressed pollutants carried by winds. It does not and the lead author said that Dr. Embertson’s statements do not represent her work.
- Ignored other studies done in the Yakima Valley.

Dr. Embertson responded in writing that she did not have to justify her work. The YRCAA Board took no action.

March 2015: Jan Whitefoot asks the YRCAA to investigate solar panels as a way of reducing air pollution from wood smoke. No response.

April 2015: The contract for Smoke School was given to a newly retired YRCAA employee. The contract was broken into two parts, each < \$25,000 so that there was no requirement for open bidding.

August 2015: Jan Whitefoot asks why the number of cows is not listed on the AQMP Dairy Air Score Cards. *If you don’t know how many cows, how do you know how much ammonia or hydrogen sulfide?*

Director Pruitt replies, *There is no reason to look at cow numbers.*

September 2015: Request from FOTC that YRCAA address Global Warming. FOTC provides information on reactive nitrogen in the atmosphere. Director Pruitt replies that 80% of the atmosphere is nitrogen and it is not a pollutant.

Jean Mendoza offers to volunteer her time to help YRCAA with evaluation of Global Warming in the Yakima Valley. Not accepted.

December 2016:

Steve George from the Yakima Dairy Federation states: *The government is providing services to two chronic dairy complainers who have demonstrated that their complaints are frivolous, being used as harassment, and, according to agency staff that I have had conversations with, wasting public resources.*

Jim Dyjak (Citizen): *I'm going to rebut that. He just gave you a false statement, that all the complaints have never been verified at my house. Do you know why? Not one person from this agency in sixteen years has ever been to my house. Not one. When you report something on Monday and they might come out a week later, it ain't going to be there. The study he cites was done inside the barns. Dr. Pius is using an assumption that the drift is less. I resent being told my complaints are wrong when no (investigators) have ever been to my house.*

Larry Fendell (Citizen): *All the testing has been done on dairies. The neighbors really don't care what is on the dairy. We care about what comes across the fenceline. We care about all the fields where they apply manure, don't disc it in, make two or three applications. The neighbors get to smell it for a month. So, let's be fair about this. He (Steve George) is a paid person who gives you half-truths. Too many of us live with this. We want to know what is coming over the fence. We want it reported.*

Regarding an ammonia study, Steve George tells the YRCAA Board of Directors that, *Although the research reveals small amounts of ammonia emissions from farms, these emissions are insignificant and do not pose an overall risk to human health.*

March 2017: FOTC asks Dr. Jones to recuse himself from voting on the ammonia project.

April 2017: Mayor Childress votes to reject the proposed ammonia study. If they find something, then they will have to address a problem. Commissioner Anderson votes in favor of the ammonia project. Councilwoman Mendez, and Dr. Jones vote against the project.

May 2017: Jean Mendoza & Sandy Braden, after jumping through many hoops, arrived at the YRCAA offices for a scheduled community forum. Although the Director was in his office, he refused to have a meeting because his staff was not present. They were told that the meeting was cancelled, and they should come back in August.

Public testimony regarding the Agriculture Advisory Committee: The previous month's report sounded like everything was going well. Attendees disagree. YRCAA shared no data at the meeting. No data from the AQMP. The only evidence at the meeting was testimony from two people who live close to dairies. In one home a woman's son came to her and said he could not breathe.

The last report on the Air Quality Management Policy for Dairies was done in 2014. Beginning in 2015 dairies with a grade of D were supposed to be inspected every 6 months and dairies with a grade of C were supposed to be visited yearly. This was not done.

September 2017: Sandy Braden attempts to inform the YRCAA Board regarding the WA State Attorney General's opinion on conflict of interest. The Acting Chair cuts her off:

Acting Chair Norm Childress – *that item is not on today’s agenda.*

Director Hurley – *You are absolutely correct. that item is not on the agenda. Her characterization is incorrect. It is wrong. It’s off. There were three opinions.*

Braden - *Which were two maybes and a no*

Hurley – *No, it is pretty clear. Much more . . .*

Braden is forced to sit down.

After another citizen, who was invited by a County Commissioner to the meeting, is allowed to speak Ms. Braden is allowed to comment.

Jean Mendoza states that she tried and failed to get an item on the agenda. She asks how to do this. The Acting Board Chair and the YRCAA Director do not know the answer.

Francisco Maltos asks the YRCAA to address Global Warming. There is no response.

October 2017: Director Hurley incorrectly tells the YRCAA board that prohibiting spraying of manure during inversions would conflict with RCW 90.64 the Dairy Nutrient Management Act and RCW 90.48 the Water Pollution Control Act. Director Hurley incorrectly tells the Board that there is no evidence that spraying manure into the air during inversions has a negative impact on public health.

June 2018: FOTC shares research regarding “manure irrigation”. A permit is required in Wisconsin. They looked only at bacterial infections. Three different bacteria – Salmonella, Campylobacteria and E-coli 0.157. They found an increase in infections when manure is sprayed and spread. In Wisconsin manure spraying is prohibited within 500 feet of a home. They recommended that manure irrigation should not take place during inversions. YRCAA takes no action.

August 2018: Study Session to Review the AQMP

Director Hurley introduces Laurie Crowe from the South Yakima Conservation District as an expert on nutrient management. He suggests that she has a doctorate. In fact, Ms. Crowe does not even have a bachelor’s degree.

Ms. Crowe states, *Most eastside producers are doing a really good job.* This is untrue. One of the largest producers has applied manure to crops at up to seven times agronomic rates.

October 2018: Board votes to rescind the AQMP for dairies. Dr. Jones votes.

March 2019: Jean Mendoza (Citizen): *Am I allowed to talk about the study session?* Previously was a member of the AG task force and disagreed with Director Hurley’s summary of the meeting. Asked to be put on the next agenda to make corrections at the next meeting. Was not placed on the agenda. Emailed each of the board members. Asked them to let her know if they received the emails and there were no replies.

Sandy Braden (Citizen): Clarification of the type of burn permits and enforcement methods if an inspection officer determines that the permit is not the correct one. Initially talked to Director Hurley at a community forum. Relates a case. Appears that someone used an incorrect permit for land clearing and there were no consequences.

February 2020:

Sandy Braden (Citizen): Question for Director Hurley. 20 – 25 acres off of Washington and 64th due north of Ahtanum View Correction area. It appears they have taken out the orchard and there are house size piles of removed trees ready for burning. Appears to require a land clearing permit. There are restrictions, including population limitations.

Director Hurley: It is not land clearing so the restrictions for land clearing do not apply. Has visited and there have been approved burns because it is not land clearing. It is inside the UGA. Land clearing and residential are prohibited within the UGA. Ag burning within a UGA is permissible and permits have been permitted previously. Aware of citizen concerns on the internet. Will have a meeting with the orchardists to resolve issues. Must let stuff dry for at least 30 days before burning.

What type of permit?

Agriculture.

So, you are saying that land will be re-planted with something?

Yes

Ms. Braden later researched the property and learned that it was not zoned agricultural. Instead, it had been zoned as a Small Convenience Center District in 2008. Mr. Hurley mis-informed both Sandy Braden and the YRCAA Board of Directors.

December 2020: At a YRCAA Community Forum Director Hurley told citizens that the graphs on Ecology's air quality website do not show actual concentrations of particulate matter. When citizens asked him to explain what the graphs show, he said that he could not and advised us that we would have to get that information from Ecology. FOTC sent questions to Ecology and received answers four months later. It is disturbing that YRCAA does not understand these processes well enough to explain them to lay people. It is disturbing that citizens must use public records requests, study the technological processes on our own and then endure disparagement from the experts at YRCAA because we are not experts in air quality. Citizens should not have to acquire degrees in engineering and the law in order to compel the YRCAA to protect our appeal for clean air.

See Attachment B for a more comprehensive summary of YRCAA Board Meetings

Example of YRCAA Investigations of air quality complaints in the LYV

July 19, 2019 (Friday) at 7:35 PM a resident left a voice mail message with YRCAA that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says there's "Ambient cow pen dirt from Hornby west to Waneta and further. Particle dirt filling the air around us can be seen on video with lights. It smells like urine but you don't care about that."

According to the report the complaint received a Response Level 3 and an investigation was not begun until eleven days later on July 30, 2019 at 3:00 PM.

July 21, 2019 (Sunday) at 11:30 PM the same resident left a message that was picked up on Monday, July 22, 2019 at 3:00 PM.

CP says that "Foul cloud of ambient open pen dirt and lagoon storage. Strong smell of ammonia/urine permitting our property and home. Gagging, sinus headache and inability to breathe even with high power filtering system."

Although the resident clearly states health complaints that are impacting her, the complaint is assigned a Response Level 3 that implies no health risks. An investigation was begun eleven days later, on July 30, 2019 at 3:00 PM.

July 22, 2019 at 11:15 PM the complainant left another message:

CP says that "The ambient pen dirt air was sucked into her home and her sons through open windows around 11:00 PM when she was cooling her house down with the evening air. Horrible dirty feeling ambient pen dirt willed with horrid ammonia and manure AND

The YRCAA recorded the message the next morning but took no action. Initially the assignment was Response Level 3.

July 24, 2019 at 9:35 AM the complainant called again, this time in the morning, but the message was not picked up until 22.5 hours later.

After wonderful rain and thunder showers last night no smells! Wonderful sweet clean air! But tonight, Wednesday, 7/24/2019 9:25, windows open screen doors letting in fresh air until this very moment! Boom ! Ambient pen ammonia stench coming in.

YRCAA assigned a Response Level 4 that signifies no previous complaints. There was no investigation.

July 25, 2019 at 8:00 AM the complainant called and YRCAA documented the call 45 minutes later.

"Awoke to horrid smell of dead cow composting. Velduis Klompe CAFOs is composting turning dead cow compost and it's gross. The ambient air is bringing this cloud of stench to my property this morning! Go to sleep with smells of urine wake up to manure

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 25, 2019 at 8:27 AM the complainant called again and the YRCAA recorded the call one hour later.

"Kelsey this has to stop! More and more ambient air full of CAFOs stench. I've written several complaints and no response from yrcaa! Come on you guys! Do your job. Kathy Rogers"

The YRCAA did not investigate and made a Response Level 4 assignment to the complaint.

July 25, 2019 at 11:15 PM the complainant called and left a message that was picked up the next morning at 9:00 AM.

CP says "Cool nights are once more and very appreciated. However, opening our windows and screened doors is a negative. The ambient pen dirt full of odor from the cafo open pens surrounding our home and the neighbors is restricting the enjoyment of fresh

The YRCAA did not investigate and made a Response Level 3 assignment to the complaint.

July 26, 2019 (Friday) at 1:20 AM the complainant left an email message. YRCAA had all day Friday to pick up but they did not record the message until Monday morning on July 29, 2019. Not being able to sleep due to odor qualifies as a health concern but YRCAA made a Response Level 3 assignment and did not investigate.

CP says "Awakened by stench form ambient open pen dirt infiltrating our home! Cool night, windows open, sleeping well, then BOOM, I can't sleep because I'm breathing in this heavy dirt, band like dust in my house. Our large Austin Air filters is always

July 29, 2019 with no time recorded the complainant left an email message that was picked up the next day at 9:55 AM.

CP says "Kelsey, once more Klompe CAFO is composting and the ambient dirt from that is just nasty at my home. The wind was blowing from the east as well. I believe they've been told not to compost in the wind. Kelsey I have photos! This needs to be handled

The YRCAA initiated an "investigation" on July 30, 2019 at 1 PM. This was their investigation:

Dairies and CAFOs in the vicinity of Hornby, Stove, Braden and Tear Roads were contacted and made aware of the complaints

This was the final response for all of the above odor complaints during this episode of foul air. YRCAA is well aware that FOTC research in this area found average ammonia levels that exceed the Minimum Risk Level (MRL) for chronic ammonia exposure. The YRCAA cannot

state that composting dead cows next to family homes is an acceptable agricultural practice. YRCAA performed no onsite investigations and took no odor measurements. Based on the evidence no one can state how high the odor or ammonia levels were during this week or what the risks were to complainant health. See Attachment C for more information.

Riverview Dairy: In March of this year seven citizens who live next to the Riverview Dairy signed a petition asking agencies, including the YRCAA, to address pollution from that dairy. The petitioners stated:

Respected Officials:

These are the facts:

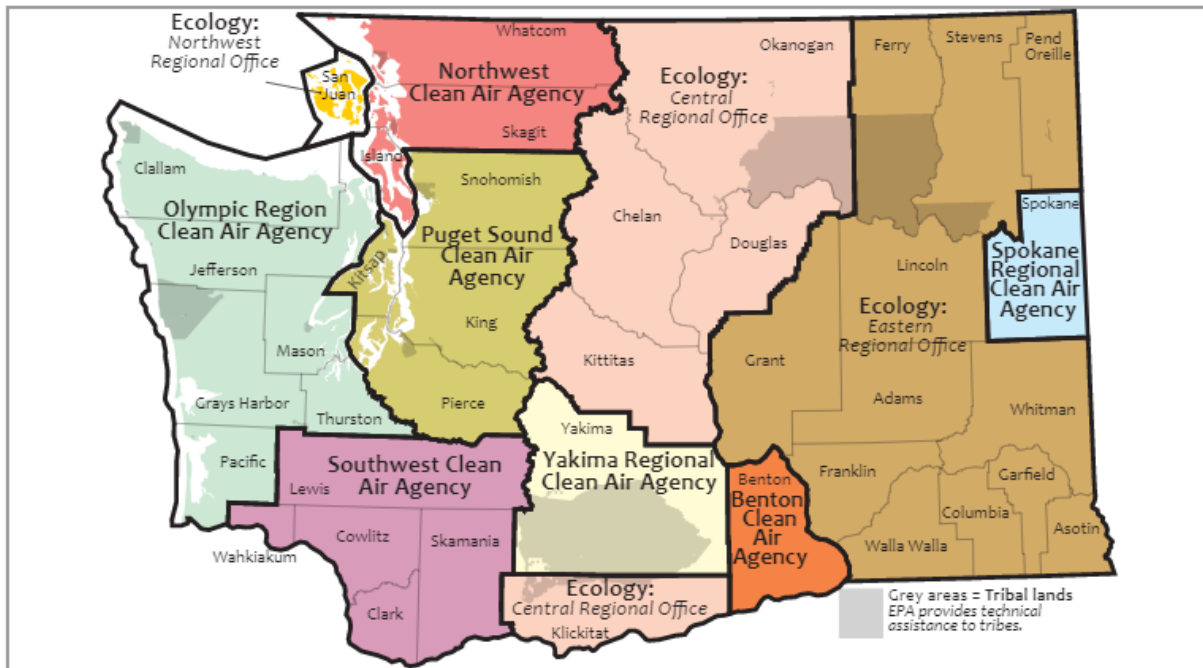
- *Rural county roads in the Lower Yakima Valley (LYV), for example Vance Road north of Mabton, are frequently covered with manure track out from trucks that transport manure from dairies to farmland.*
- *People in the LYV cannot walk to their mailboxes, cannot jog, without stepping in manure.*
- *Large trucks and heavy equipment on rural roads break down the edges of the pavement and create potholes.*
- *When dairies do not address the problem, flies from manure piles proliferate and make it impossible for rural neighbors to enjoy the outdoors, to barbecue or entertain family and friends.*
- *Dust from pens, corrals and compost areas are a major problem for rural neighbors, perhaps the biggest problem. We know that dust and fine particulate matter harm our health and reduce our life spans. There are actions that dairies can take to reduce dust, but they often do not take them. The Yakima Regional Clean Air Agency does nothing to address air pollution form dairies.*

For these reasons, we the undersigned, ask the Yakima County Commissioners to:

- *Estimate the cost to taxpayers for maintenance of rural county roads that experience heavy use by dairy trucks and heavy equipment.*
- *Assess whether users that damage the roads adequately compensate the county.*
- *Provide a hotline so people in the LYV can report manure spills to people who can compel quick clean up.*
- *Encourage Ecology and WSDA to enforce the anti-spill provisions of Nutrient Management Plans.*
- *Require the Yakima Health District to actively address the problem of flies from dairies.*
- *Require the Yakima Regional Clean Air Agency to respond to citizen complaints; to follow their own guidelines for complaint investigation, measure air quality near dairies, and appropriately issue citations.*

The YRCAA response was defensive and self-serving, with no acknowledgement of specific requests and no promise of relief. See Attachments T, U, & V.

Parts of Washington State where Ecology manages air quality.



From <https://ecology.wa.gov/About-us/Our-role-in-the-community/Partnerships-committees/Clean-air-agencies>

Air quality in large parts of Eastern Washington is managed by the WA State Department of Ecology.

Ecology’s Easter Regional Office manages air in Ferry, Stevens, Pend Oreille, Lincoln, Grant, Adams, Whitman, Franklin, Walla Walla, Columbia, Garfield and Asotin Counties.

Ecology’s Central Regional Office manages air in Okanogan, Chelan, Douglas, Kittitas, and Klickitat Counties.

See the chart below for Clean Air Agency Demographics

Clean Air Agency	# Counties	Total Pop.	Land Area in sq. mi.	Employees	People per FTE	Sq. Mi. per FTE	People per Sq. Mi.
NW CAA	Whatcom, Skagit, Island, San Juan = 4	446,087	4,220	24	18,587	176	105.7
Puget Sound CAA	Snohomish, King, Pierce = 3	3,871,323	5,766	25	154,853	231	671.4
Olympic CAA	Clallam, Jefferson, Grays Harbor, Mason, Thurston, Pacific = 6	541,946	8,058	16	33,872	504	67.3
SW CAA	Lewis, Wahkiakum, Clark, Skamania = 4	674,196	6,091	17	39,659	358	110.7
Yakima CAA	Yakima = 1	249,697	4,295	10	24,970	430	58.1
Benton CAA	Benton = 1	197,518	1,700	4	49,360	425	116.2
Spokane CAA	Spokane = 1	505,505	1,764	21	24,072	84	286.6

Thank you for considering our request that Yakima County dissolve the Yakima Regional Clean Air Agency and ask the WA State Dept. of Ecology to manage air quality in Yakima County.

Sincerely,

The Friends of Toppenish Creek & Others

Attachments

- A: WSU Dairy Workshop – Les Ornelas Statements
- B: Citizen Testimony at YRCAA Board Meetings
- C: Descriptive Analysis of YRCAA response to citizen complaints
- D: Public Comments on Air Quality Management Program Pilot Project (begin on page 24)
- E: FOTC Ammonia study in the LYV
- F: Literature review of health impacts from spraying manure commissioned by the WA Dairy Commission
- G: FOTC response to Dairy Commission Literature Review
- H: Letter to Ecology Director Bellon, January 2019
- I: Letter to Ecology Director Bellon, March 2019
- J: Timeline of YRCAA actions to address air pollution
- K: Partial list of misinterpreted rules and regulations
- L: Dr. Steve Jones statement on environmental justice
- M: WA State County Emissions Inventory 2011
- N: WA State County Emissions Inventory 2017
- O: Agency’s statement on composting dead cows
- P: WSU study of air emissions from a LYV dairy for the National Air Emissions Monitoring Study (NAEMS)
- Q: Yakima Air Winter Nitrate Study
- R: Research related to health impacts from CAFOs
- S: FOTC description of ammonia emissions in WA State 2016
- T: Letter and petition from neighbors of Riverview Dairy
- U: YRCAA reply to Riverview petition
- V: FOTC response to YRCAA reply re Riverview
- W: YRCAA Fact Sheet for New Source Review (NSR)



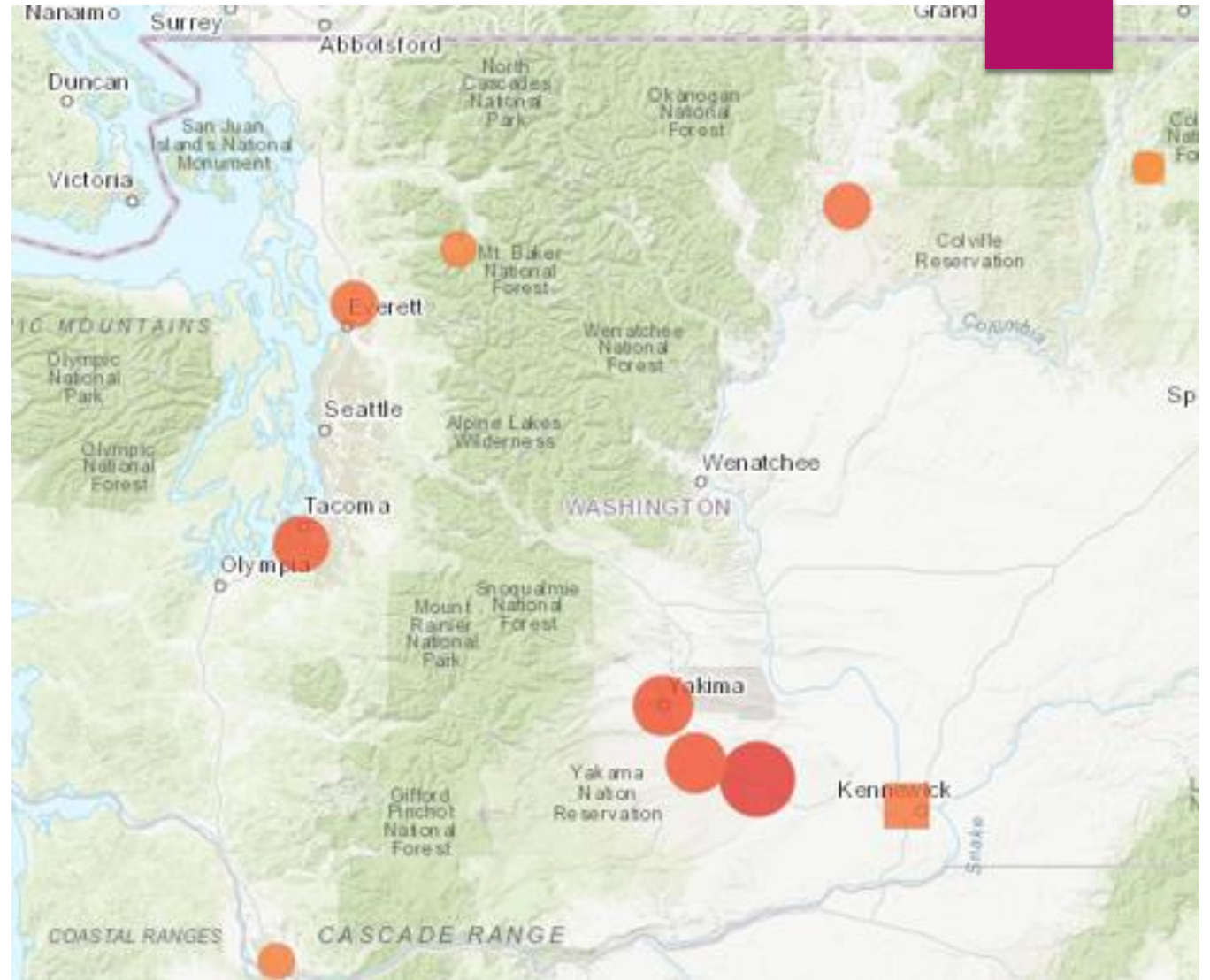
Reasons to Disband the Yakima Regional Clean Air Agency

PRESENTATION TO YAKIMA COUNTY COMMISSIONERS

MAY 2021

Yakima County has the worst air quality in Washington

<https://ecology.wa.gov/Regulations-Permits/Plans-policies/Areas-meeting-and-not-meeting-air-standards>



Reasons to Disband the YRCAA

- **Yakima County cares about the health and wellbeing of all citizens**
- **The YRCAA lacks the expertise to address the most serious air pollution in WA State**
- **Yakima County is at risk for non-compliance with the Clean Air Act**

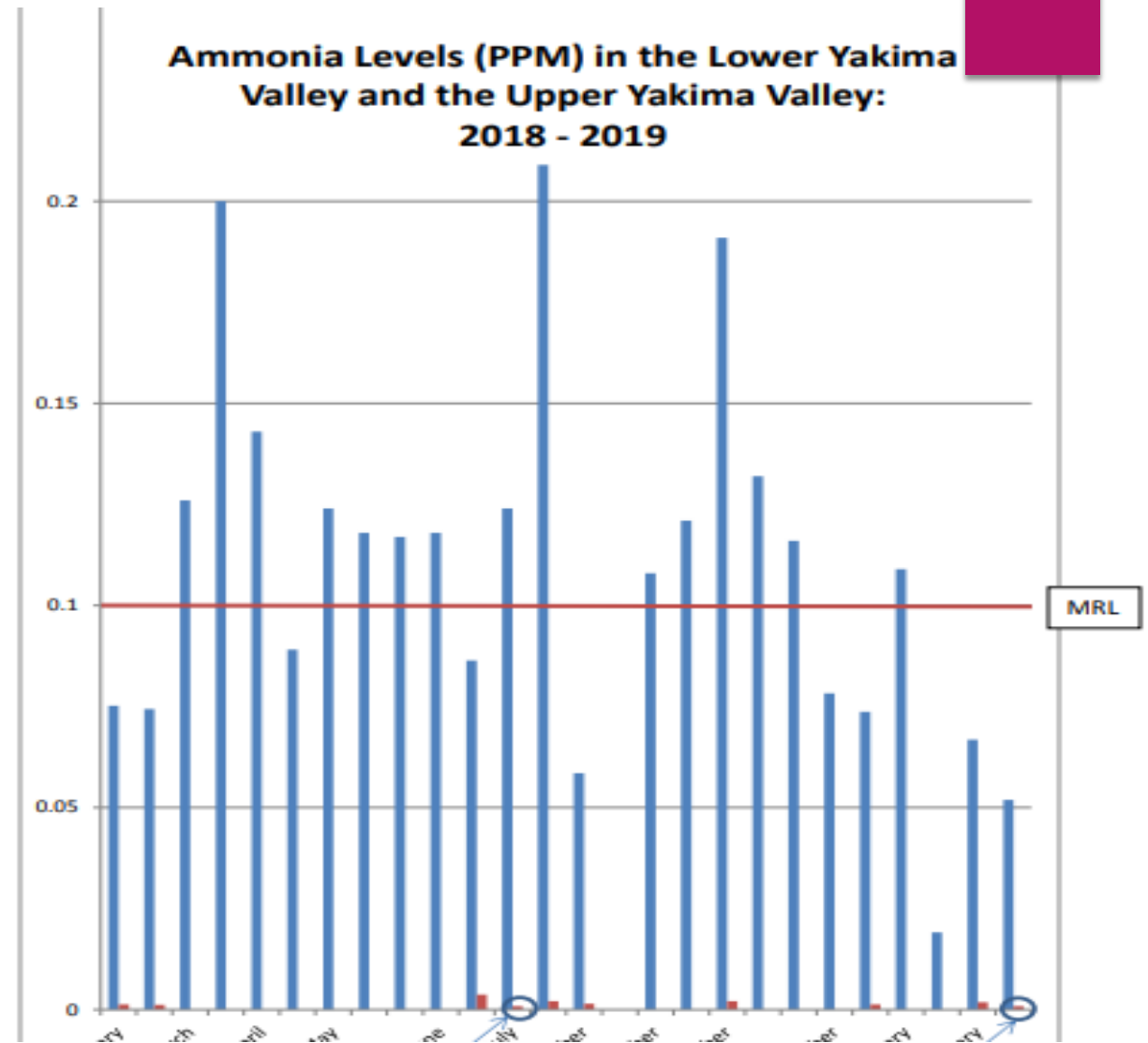
Yakima County cares about the health and wellbeing of all citizens

- ▶ Heart Disease
- ▶ Lung disease
- ▶ Low Birth Weight
- ▶ Birth Defects
- ▶ COVID 19
- ▶ Made worse by polluted air



FOTC Ammonia Study

- ▶ Blue bars are from the Lower Valley
- ▶ Red bars are from the Upper Valley






CITIZEN COMPLAINTS AT
PUBLIC MEETINGS ARE MET
WITH DISINTEREST OR
DISDAIN.




THE DAIRY INDUSTRY'S
INTERESTS ARE SUPPORTED
WHILE THERE IS NO CITIZEN
REPRESENTATION ON THE
YRCAA BOARD



VALID CITIZEN SCIENCE IS
IGNORED



OTHER COUNTIES USE THE
WASHINGTON STATE
DEPARTMENT OF ECOLOGY
TO MANAGE AIR QUALITY
ISSUES



YRCAA HAS BEEN
SUCCESSFULLY SUED TWICE
BECAUSE OF THEIR LACK OF
RESPONSIVENESS TO
CITIZEN REQUESTS.

A magnifying glass is positioned behind the text, with its lens centered over the words "COMPLAINTS ARE".A solid pink rectangular shape is located in the top right corner of the slide.

SITE VISITS TO INVESTIGATE
CITIZEN COMPLAINTS ARE
NOT TIMELY OR DO NOT
HAPPEN AT ALL



THE CURRENT DIRECTOR
HAS NO BACKGROUND IN
AIR QUALITY SCIENCE

The YRCAA lacks the expertise to solve our air problems

- ▶ YRCAA knows nothing about health issues, so they ignore them
- ▶ But . . . RCW 70.A.15.4530 requires an air agency to balance health against economics
- ▶ YRCAA investigators do not take air samples, do not take pictures, do not record the testimony of complainants that describes their health problems.

WAC 173-400-260: YRCAA Board Member Steven Jones has a conflict of interest

- ▶ **Voted against an ammonia project that the Dairy Federation opposed**
- ▶ **Voted in favor of a revision to the YRCAA public comment period that was requested by the Dairy Federation**
- ▶ **Opposed restrictions on spraying of manure during inversions.**
- ▶ **Voted to rescind the Air Quality Management Policy for Dairies. Dairies no longer register and no longer pay a fee to address air pollution. The YRCAA now has one less inspector.**

RCW 70A.15.1005 says that all sources of air pollution must share in the cost of mitigation

- ▶ **YRCAA acknowledges that CAFO dairies are a source of air pollution in Yakima County.**
- ▶ **YRCAA does not register dairies and collects no fees to pay for actions to address air pollution from this source.**
- ▶ **YRCAA does not do all that is possible and reasonable to control and prevent air pollution in Yakima County as required by law.**

RCW 70A.15.4530 says that air agencies must determine if air pollution endangers health

“Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter unless they have a substantial adverse effect on public health. In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.”

- ▶ YRCAA does not consult public health experts**
- ▶ YRCAA does not determine what are good agricultural practices in Yakima Co**

WAC 173-400-100 requires registration of cattle feedlots and composting operations

- ▶ **CAFO dairies are de facto animal feedlots, yet YRCAA does not register or regulate them.**
- ▶ **There are over 500 acres of manure compost in the LYV, yet YRCAA does not register or regulate these operations.**
- ▶ **YRCAA uses the exemption for odor and dust as a reason not to address emissions of ammonia, hydrogen sulfide and volatile organic compounds (VOCs). This is a false interpretation of the statutes.**

Thank You



Public Comments from YRCAA Board Meetings

Access video tapes of YRCAA Board Meetings at
<https://videos.yakimawa.gov/CablecastPublicSite/search?channel=2&query=yakima%20regional%20clean%20air%20agency>

December 2011

Jan Whitefoot (Citizen): Against CAFO air pollution. Object to Tom Silva, former director, as a citizen rep on the AQMP work group. No information from Mr. Silva. Picture of Mr. Silva's house with burning during a burn ban. Study by D'Ann Williams – air testing on 40 YV homes showed that it is bad to live next to a dairy/feedlot. Particulates can travel over ¾ miles. Today smelled stench of CAFOs. Have you read D'Ann Williams report. Have asked copies of the notes from dairy WG meetings. Have not received them. Violation of the law. She volunteers to be the female rep on the dairy meetings. Gary Pruitt says the dairy meetings are not public meetings and they do not have to share minutes with the public. Invited the board to tour the LYV. There is more manure in the county than there is land for application. Has photos of manure application for two straight weeks during the winter. That is why you need a genuine citizen rep on the dairy WG.

Tom Gasseling (YRCAA Board Chairman), “let’s see what comes out with this report and this work group. . . . we still don’t know exactly the final outcome of this workgroup. . . we may not have a legal recourse, but we have an ethical recourse.”

Jan, Whitefoot “We should be there working with you.” “The people of the community need to know that we are not being represented by Clean Air.”

Larry Fendell (Citizen): Ongoing inversion. No outdoor burning. Asked for no more liquid manure spreading. They are spreading it next to me, . . . every day. A ban would help a lot.

Chairman Gasseling: I don’t think we have the jurisdiction.

January 2012

Presentation of Air Quality for Dairies by YRCAA Director Gary Pruitt

Dr. Nicole Embertson, Nutrient Management Specialist from Whatcom County participated.

Louie Aguilar (Citizen): When he visits his 90-year-old mother in Sunnyside the smells are bad. Will this policy make a difference or is it just a procedural document that says, maybe in 15 – 20 years Sunnyside will smell better.

County Commissioner Rand Elliott: Appreciate the question. No intention of getting into a public debate.

Jim Dyjak (Citizen):

Only seven people got the packet. What about the hundreds of people who did not get the packet?

What if a dairyman removes manure from pens and gets high points, then moves the manure to another place? What if he takes the manure off the dairy and places it on another site?

No scientific instruments were used. Re NAEMS – Where is the baseline for neighboring homes?

Karen Cook Gulley (Citizen):

Lived in Toppenish all her life as well as grandparents. Health is decreasing in value. Has asthma, sinus infections, migraines, now chest pains. Why can the Beef Plant burn whatever they want any time they want, while residents cannot use their wood stoves.

Every time there is a problem, they sell the plant and pass the problem on to someone else. Have you ever studied the asthma rates in Toppenish?

The air quality leaves deposits on Toppenish murals.

Jan Whitefoot (Citizen):

Vision Statement – To protect public health and safety from air pollution

Score Card is based on the assumption that BMPS work. Have been in place for 20 years. Not enforceable. Following BMPs has led to the mess we are in today.

YRCAA received \$30,000 to conduct the Pilot Project. This is unethical. No environmental representatives were allowed to attend the meetings. Consider this a conflict of interest.

Quotes Attorney Charlie Tebbutt: “The proposed policy does nothing . . . but allow the industry to claim they are regulated.”

You cannot separate a lagoon with aeration from water.

“Why do you allow the poop sprinklers on the dairies?” People have experienced poop sprayed on their cars while driving to work. Under BMPs the poop sprinklers are legal.

Why are poop sprinklers not addressed?

John Hopkins study. Why did the YRCAA say the study has holes in it. Why are you not paying attention to this study, peer reviewed, etc.

Say you are going to use eyesight as a mode of measurement. Not scientifically acceptable.

RCW 70.94 requires scientific measurement. HOUND has been used at Monson feed lot and by the EPA.

We have had horrible inversions. Cows don't stop pooping during inversions.

Dairy Score Card does not address public health during inversions.

Voluntary participation has never worked.

Pumping liquid manure from a lagoon onto 40 acres next to an area where children are playing. And this is legal under the AQMP.

Dust control.

Acting YRCAA Board Chairman Bill Lover tries to cut her off.

Whitefoot continues: Why would you allow dairies to recycle wastewater to be used for dust control?

AQMP creates a paper tiger that protects industry and does nothing to protect the air.

Are there monitors at dairy sites?

EPA did not participate in development of AQMP.

Much of the information in the score card will not be available to the public.

Ask them to stop and work with the public to write a viable plan.

Jean Mendoza (Citizen):

Report looks very nice. Goal should be to make report relatable to reality. Goal to improve and maintain public health with respect to air quality.

Baby's lungs are not mature until age five. Pollution impacts children differently.

Studies on young people with asthma.

Chairman Lover questions relevance

Mendoza – trying to make the link to human health as well as animal health. Encourage YRCAA to put a human health component into the project.

Suggested additions:

- Look at impact on human health
- Micro-organisms in particulate matter
- Difference between Pm 2.5 and PM 10

- Look at fecal dust – can cause disease in people
- Look at how much pollutant there is – Can look at how many cows per acre

Chairman Lover intervenes – have to close meeting by law

Suggest rejection of Appendix G – A lot of people will accept this as the truth, It is more virtual than real. There was no baseline air study. YRCAA says they cannot measure odor, but says they reduced odor by 24% in Appendix G

Adjourn study session and re-open to public comments for regular meeting. Lover, Elliott and Camp present.

Louie Aguilar (Citizen):

If you held these sessions in an environment where people are exposed to the pollution all the time, it might bring a different incentive, able to observe changes. We are sitting here in a beautiful, air-conditioned environment. Need to consider the issues where the problem exists. Otherwise, will be here 20 years from now discussing the same problem.

Gerald Gefre (Citizen):

Downwind from the DeVries Dairy – means anyone within 3-4 miles of a dairy. There was no true citizen representation at the workshops. Impacted people were not heard. Maybe the board should get into an airplane in June or July and smell the odors from the dairies – causes N/V.

Suggests implementation of BAT – Best Available Technology instead of BMPs. Dairymen who make a good living, should be looking out for their neighbors.

Pollution will affect people down the road.

No reference to what happens to manure after it comes off the dairy.

Asa Washines (Citizen):

From West Wapato area. The document lacks the partnerships with the Yakama Nation, part of Yakima County.

There have been cases in which tribal areas have higher standards than neighboring areas. Tribal standards can supersede neighboring rules.

Disappointing to see lack of collaboration.

Chairman Lover says he tried to reach out, not successful.

Do you remember the name of the person from the Yakama Nation.

Rebecca Hauk, Elizabeth Sanchez, Noelle Saluskin & Phil Rigdon per Gary Pruitt. YRCAA presented to the Tribal Council.

Lavina Wilkins (Citizen):

Tribal member who lives on West Wapato. Moved to her home for fresh air for her grandchildren. Now all her family has allergies and asthma. Every morning when you go outside you smell cow manure. Raising a grandchild with asthma who is on a machine. I have an inhaler.

Jurisdiction. Air does not have jurisdiction. The cities are affected by pollution.

Need to see a better plan and more people involved. Our children are our most valued possession.

“If you can see the air its OK” Is this the policy you are pushing. I can’t for the life of me see how you can see the air. Applause.

Steve George (Citizen):

Works for the dairy federation. The industry was invited to participate and did so voluntarily. Appreciate the professionalism of the YRCAA staff and others. There has been a lot of chaff spread round here today. Believes the wheat needs to be separated from the chaff.

Industry looks forward to working with staff. Believes they have made great headway. Great program. Looks forward to working with YRCAA.

Larry Fendell (Citizen):

A lot of work involved, even though I don’t agree. Appendix G-1. Pie Charts. Ammonia and odor. Could not find a baseline anywhere. Says they reduced ammonia and odor. But there is no baseline.

I live down there. I don’t notice a 24% reduction. It stinks. There’s too many cows on a confined area. You end up with > 6 cows per area. This is not agronomic. The main thing dairies produce is manure. But we have just too many cows.

Only eight people participated in the workshops.

Not the first in the nation. Have found projects in Idaho and California. They are used to get more laws passed and a propaganda tool.

Putting up trees at stage three. Creates problems – mites and aphids.

Running manure through wheel lines, or through a honey wagon, pollution hangs in the air till the cows come home.

There is nothing scientific about the AQMP. They should have established a baseline. Dr. Ndgwa has state that spraying manure is the worst way to spread manure. People's homes and cars have been sprayed.

Dr. Nicole Embertson (Consultant):

Good comments, etc. Good to compile so the scientists can reply and provide resources.

Loeber was an observer throughout. Not an expert but has comments:

Public should believe the dairy industry made a good faith effort and should be commended. In particular the article in the paper from Dr. Williams made irrelevant comments.

Conclusions are consistent with pro-active problem solving with CQI. Same processes used in major industry.

States he is still open to opinions. Believes it will improve air quality. Commends the industry.

February 2012

Study Session – YRCAA Director Gary Pruitt – Purpose to comply with the WAC. Identified BMPS that impact human health. Investigate whether BMPs were being implemented. Summarized in a Score Sheet. Emissions can't be measured adequately and accurately for fugitive sources such as dairies.

There are public impressions and concerns:

- Measurement of ambient air is necessary.
- Measurement of fugitive emissions cannot be done.
- Public was not involved.
- No new BMPs created.
- Therefore, the public could not and should not have been involved.
- Perception of conflict of interest because of dairy funding
- CAA declares that the cost of air quality control should be funded by polluters.
- BMPs don't work.
- National Academy of Science disagrees. 2003 report on Regulation of Air Emissions from Animal Sources says there should be no delay.
- Industry has concerns – Not totally on board – Policy is another layer of govt regulation.
- Prefer no consequences.
- Gary disagrees.
- Industry says there is already a high degree of BMP utilization.
- Information given to the agency can be used to support lawsuits.

- YRCAA would not disclose.

YRCAA has the legal authority to require all dairies to register.

Registration does not mean a permit. Need to be able to determine if a facility has the potential to permit that would trigger a permit requirement under federal law.

March 8, 2012

Larry Fendell (Citizen):

Involved in clean air for a number of years. No problems getting information. All of a sudden it is hard to get information.

Dave Caprile wrote a deal into the paper – best approach to the dairies. He’s writing and talking about people twisting facts. This leads a lot to be deserved too. I brought a few pictures showing the smell problems we have. They push up berms. Make lagoons wherever, usually on property lines. They spread it out to dry right next to people’s homes.

This is a rig spreading the manure out. This is what it looks like after they harrow it. They haul it everywhere. This is Roza Drive in one drive. Where do you think that goes when you can’t get your mile? How do you incorporate manure on asphalt? One of the pictures they have dead calves laying out there. Here are the Big Guns. This is brown water. There supposed to be cutting that with something. Dr. Pius has said this is the thing they can do. Aerating it through irrigation. Here is a barn that hasn’t been cleaned.

When Dave writes a deal for the paper, he shouldn’t be so single minded. There are lots of reports that are ignored. They were supposed to be doing something since 2003.

Jan Whitefoot (Citizen):

On Monday the day the wind was blowing, 40 miles or more. Helen and I invited a reporter to go with us on a poop tour. You couldn’t hardly see the road. I the Best Management Plan it said they wouldn’t do anything in the wind. We saw truck after truck applying manure. They are not following it now. What will make them follow the plan.

Concerned about transparency. You didn’t share that the dairy industry provided \$30,000 until we brought it up. We are never offered the choice of participating. The citizen rep has not showed up for the last meetings. We all volunteered to serve in that position.

I would like to formally request that we do gasses. Asked for tracking and way to go back and see results. It is an EJ issue to include the public, and a matter of fairness. We never have the opportunity to share what we know.

Did anyone work with Ecology on the AQWMP card.

Did any members of the YRCAA lobby for a bill that would limit public request records. Kevin Bouchey might have done this.

You wouldn't be getting all these PRRs if we could access the records.

Steve George (Citizen):

Reiterate items from dairy industry perspective.

Industry participated 110%. Worked toward a positive goal. Had significant participation – at least half of the cattle. Had academia. High compliance rate.

Dairy should not be saddled with a mandatory program.

YRCAA Board Chairman Tom Gasseling:

The problem with the pictures is you cannot tell what they are. They could be dust blowing or anything.

Fendell: You mean you don't know shit from shinola.

Gasseling: That's right, I don't.

Gasseling: I'm getting real tired being told that I'm sneaky, deceitful, devious . . . I 'm getting real tired of being called devious. . . Don't come here every month and being told I'm some useless piece of crap.

I personally, I'm fed up with it.

This has got to stop. I'm not going to tolerate it any more.

Jan Whitefoot: You were bad mouthing me in an email.

Gasseling: I meant what I said.

April 12, 2012

Steve George (Citizen): Industry appreciates the tact you took at the last meeting. Over half of the cows in the program. Thanks from the industry to continue with a voluntary program.

Doug Moore (Citizen): Fighting this problem since Feb. 1991. I quit counting how many calls I have made. They go to the dairy. They don't go to the complainant. The dairies take them to a different area. I have had visitors that visited the boundary and almost vomited. Dr. Williams

said the air at my place is the second worst in the LYV. When I see that crap in the paper that says no one complains I throw my hands up in the air. Like I said, I have been complaining since 1991. I get pretty upset. As you can see my hands are shaking right now. There is an extra lagoon. The stuff is going into Ditch 9, Black Rock Creek. I know they are dumping, and no one investigates. They put in a plastic pipe that discharges right into Ditch 9. Now the discharge is covered up. It's been 21 years and I am still fighting the bureaucratic BS. Brought pictures. I got a dairy on Stover Road with manure this high. (five feet) Now they are coming down Braden Road. That's not good management practices . . . and you want them to decide what is good management practices. There is a lagoon with 3 million gallons of raw manure 187 feet from my house. I've filed complaints against it. They bulldozed down cat tails because that was a wetland. One time the gate broke and the whole 3 million gallons drained into Black Rock Creek. Nothing has ever been done. I'm so mad I have just about given up.

Dale Coder (Citizen): I really don't know what I'm doing here because it sounds like no one is doing anything. I get up every morning and go out to get my paper and the air is so bad I can't hardly stand it. Who pays you guys wages? When are you going to get off your butts?

Chairman Gasseling tries to intervene.

"Come out and take a look. It's crazy."

Eleanor Hungate (Citizen): Former full-time faculty at WSU Dept of Ag Economics. Talks about externalities and CAFOs. Don't think you are concerned about the vastness of the externalities. Pediatric asthma cases are real costs. Increased among people who live down wind. You don't seem to have much power to regulate. I think you have too nice a relationship with those you regulate. If dairies can say they are performing within guidelines their liability is reduced. Concerned about the over concentration of CAFOs. We have other agriculture that is of equal or greater value, that is being adversely affected.

Doug Moore: Many years ago I was affiliated with a dairy in Southern California, one of the largest, and they didn't do this stuff. At one time I helped service about 57 dairies in this area. A lot of them came from Simi Valley, through Maple Valley, they started moving here in the 1990s. So they didn't really sell their dairies like they were supposed to. I'll bet a lot of them have another dairy over by Twin Falls, Idaho.

Jan Whitefoot: Questions. At last meeting I was embarrassed by the way Tom Gasseling yelled at us. Where is the code of conduct for board members?

Chairman Gasseling: I'm going to cut you off.

Jan Whitefoot: Last month someone said that only a few people complained. Brought presentation from Les Ornelas. Brought documentation of many complaints.

Have requested exact changes to policy. We should not have to FOIA this information. Need differences between new and old policy. Requested this information three weeks ago. Still has not received. Feel that only meeting with the dairy industry is prejudicial. Request meeting with the public so people can present information more than allowed in two minutes.

Five months that the public representative has not showed up for board meetings.

What scientific instruments should be used to measure air pollutants. Going out and having a guy roll down his window and take a sniff is not scientific. Dairies say an official came out and took a sniff and said we are in compliance.

Let's work together. You need to involve the citizens.

Recently one of the CAFOs on the reservation applied for an expansion. Why is YRCAA included in the permit application. Hasan says it is because of the SEPA review. Did Dr. Tahat visit the site? No. The dairies fill out the paperwork.

You have members that have attended dairy symposiums and have presented dairy symposiums. Why not attend health symposiums.

Marlene White (Citizen): Member of the Yakama Nation. As a resident of Harrah dairy smells are getting worse. Becoming significantly far, far worse. I have family members that suffer from allergies. Now we smell it during the winter. Have had problems with flies. New problem. Need a response to the people who come to you with these problems. When you permit establishments to come onto a reservation and you don't regulate it, this is concerning. Lots of cancer on the reservation. Listen to some of the things that are being said. I assume that this is part of your jobs. No one has come to the little town of Harrah and asked what we think. I beg you people to do something and then get back to us.

Jan Whitefoot: In your statistics include the hundreds of complaints to the EPA.

Chairman Gasseling: Agency has no authority on the reservation. (Incorrect because the county permits)

Marlene White: Cites the permitting that takes place on the reservation. If you are going to permit find a way to cooperate on regulation. We meet resistance regarding regulation of non-Indian people on the reservation. I would say, extend an olive branch regarding regulation of CAFOs.

Larry Fendell: This has been going on for 20 years. It got really bad in 2002. There were stacks of complaints. When we talked to Clean Air they had no record. We had stacks of records. People are angry. Has only had one person set foot on his property after a complaint.

They are still not incorporating. The dairies are clean but the neighborhoods are a mess. It is spread all over the roads. Manure is just laying out there on the fields since winter.

Jan Whitefoot: Of all the dairies on the reservation only one has a legal permit to operate. Yakima County permits dairies on non-tribal land, permits pipes. Only one operator has a legal permit.

May 10, 2012

Helen Reddout (Citizen): Minutes of last meeting said that he invited Helen to be on the dairy committee. If I had been invited, I would have been there with bells on. I went back to 2010, the only face to face conversation with Mr. Pruitt took place in 2011. Mr. Pruitt came up to me and thanked me for my professionalism. If it is an oversight on my part, I would like for Mr. Pruitt to produce the emails asking me to be on the committee. Asked for clarification.

YRCAA Director Gary Pruitt: I placed a phone call. Intent was to aske her to meet and be on the committee if we talked. Never got the opportunity to invite Helen.

Helen Reddout would like to be on the committee.

Jan Whitefoot: Corrections to last months minutes. Also, comments on Les Ornelas exaggerating. Please add to minutes. Mr. Silva has now missed six meetings. Asked for clarification. We ask questions but don't get answers. YRCAA did a SEPA review on the Steve Bangs Dairy.

EPA has air monitoring devices available. Public asks for air monitoring when you do an investigation. Some people are voting on CAFO issues and have never seen a CAFO. Invitation to tour the area.

Director Gary Pruitt: Will post comments on the YRCAA website.

Jean Mendoza (Citizen)

Are several vacancies on the board. FOTC supports Jan Whitefoot for the small cities position. She is knowledgeable. Has necessary contacts. She is female. Feel the need for a female perspective.

Chairman Gasseling: Board has no control over small cities rep.

Mendoza: Response to review of John Hopkins by Ndgwa, Harrison, Embertson. Clarifies a longitudinal study versus a cross sectional study. They talked about ammonia. Not the only component of odor. There are over 200 chemicals that impact odor in the air. You can have sub threshold levels for all compounds but when you put them all together you get bad odor.

When people have asthma, they respond to lower levels of BOS D2 antigen. That is why there are no threshold levels.

Antigens can 1. Sensitize the lungs – develop asthma over time. 2. Cause an asthma attack with exposure.

June 21, 2012

No public comments

July 12, 2012

Jan Whitefoot (Citizen): Asked for clarification re PM 2.5 number of times out of compliance. What measuring devices are you using and is it different from EPA devices. How do you differentiate between particulates from CAFOs and wood smoke?

Acting Chairman Bill Lover: Do you want to wait until the next meeting?

Director Pruitt: Would be a qualified answer. Needs to make assumptions in order to answer.

Use a federal reference monitor approved by EPA.

Differentiating particles from CAFOs and wood smoke. There is really no way to differentiate. Are running a set of chemical speciation monitors. But no way to differentiate between either crustal or organic.

Will make an attempt to answer.

Steve George (Citizen): Understanding is that the air quality issue is primarily during the wintertime when wood stoves are being used and there is little agricultural activity

August 9, 2012

Jan Whitefoot reads letter from Helen Reddout. Letter says that the RCW does not say YRCAA cannot enforce air quality on CAFOs. At no time was a position on the dairy committee mentioned or a position on the committee. If he wanted me on the committee not mention it on the call or send a letter. In June Helen said she would like to serve. Did Mr. Pruitt forget?

Minutes forgot to tell about air monitoring in Harrah. Citizens still do not support AQMP. No reason not to have air monitoring.

Title VI says there should be diversity on the committee. Would like to see more women and minorities on committees.

Provides data from the federal govt on the number of cattle. Contradicts numbers from YRCAA. Left data with the board.

For the record, Do not repeat that Jan Whitefoot is against all CAFOs in the Yakima Valley because that is not true.

Chairman Lover - will answer at next meeting.

October 11, 2012

Jan Whitefoot: Last meeting gave YRCAA the numbers for cows in Yakima Co. Working on data through NASS. The number does not include beef and slaughter cows.

Hot spots for water pollution are in Granger, Mabton, Sunnyside, Grandview. Lagoons lead to air monitor. Want air monitoring near the Outlook School.

Why wasn't Hydrogen sulfide included in YAWNS.

Need to test downwind from facilities.

Still asking YRCAA how they monitor poop sprinklers?

Impacted communities are supposed to be included in the studies.

Larry Fendell: Last month was a tough month for smoke and things. We were socked in and yet we had neighbors that were aerating the manure. You know where it stayed. What do you think hangs in the air? I've asked in the past and I'm asking again. If there is a Stage II burn ban, and I can't burn a fireplace or any outside burning, I don't know why people should be allowed to go out and spread liquid manure. I've asked before and I'm asking again for a discussion.

Jean Mendoza: As advocates for people in the LYV Ammonia is a precursor to nitrates in the air. Every dairy cow produces about 80 lbs. of ammonia per year.

Director Gary Pruitt: We'll communicate with Jan, Larry and Jean outside the meeting.

Acting Chair Lover: There were some jurisdiction questions in WA. All contributors of airborne nitrates will be considered. Even the ammonia that each of us emits on a daily basis. It's a "must do" study. We support.

Legal action by Citizens for Sustainable Development – hearing date set for October 30.

New Mission Statement

November 8, 2012

Jan Whitefoot (Citizen): New information on dairy cow numbers. 226,000 non-dairy cows. 58,000 milkers, other Total 318,687 head of cattle.

Lagoon surface area in 1,211,127 meters squared. Need to address this.

How will you incorporate the new numbers into your policy.

Letter from Mendoza,

Spraying of manure during air inversions. Would you be willing to discuss and write regulations re manure spraying during burn bans?

Helen Reddout (Citizen): I would like to look at your definition of a dairy. Should include heifers, calves and other.

Larry Fendell (Citizen): Need discussion. It was a simple question. I want an answer in an open forum. I want a discussion. Let's talk about it between the board and citizens.

Don't need any more cows in this county. We have polluted air and water.

When did the policy lower the time between pulling out trees and burning to 30 days?

Kathleen Rogers (Citizen): Neighborhood formed a group called AWARE. They stopped a calf operation in their neighborhood. Close to her home two dairies have merged. They have added so many more calves, cows, lights at night, piles of poop. Used to have 5 acres of manure. Now they have started more. I don't understand why you have to be so angry. Enough is enough. Draw the line. We have to do something to contain the smell of the lagoons, urine, cow poop. I want to protect my home and I know you would too.

Director Gary Pruitt: Have experienced ineffective information exchange. Asked about an open forum.

December 13, 2012

Jim Dyjak (Citizen): Major health problem. Haystack fire burned and smoldered for a week. I am now the proud owner of an inhaler.

Facilitator at community forum needs to be independent from the agency. (Facilitator was Dave Caprile from YRCAA)

Larry Fendell (Citizen): Feels for Jim Dyjak. In Larry's area there was a huge barn fire. The fire dept. stayed until the fire was out. No smoke the next morning.

Community meetings. I've asked a question for three meetings now. No answer. Why are dairies allowed to spread manure during burn bans? The reason we bring things to the board is when we bring things to the agency nothing happens. Need to have concerns recorded. For the last three months we have asked about ammonia. We have to stop using wood stoves and fireplaces. We go out and they are spreading manure and the air is bad. I want the board to know that there is a problem.

Director Gary Pruitt: "You're so full of crap."

Jan Whitefoot (Citizen): We have been asking for several years for scientific air monitoring in the LYV. \$9,000 on incentives. Spent \$12,000 on a reader board. We need a 1-800 number so people can call in complaints. YRCAA says they still have a 1-800 number. A lot of people do not have computers.

Community Forum no decision-making power.

Did Tom Silva attend the dairy meetings? Still no citizen representation.

County Commissioner Kevin Bouchey – The board needs to address Mr. Silva's absence.

Director Pruitt: There are others that are no longer attending.

Whitefoot: The fact is that throughout the whole procedure you had no citizen representation.

Cow numbers were not put in last months minutes.

Mary Baechler (Citizen): Is it true we don't have any air monitoring in the LYV.

Dr. Hasan Tahat (YRCAA): We have them in Yakima, Toppenish and White Swan. None in Sunnyside.

Baechler: Are we monitoring nitrates? I recall that nitrates are carcinogens.

Tahat: No.

Baechler: Why not?

Tahat: What we are monitoring is the criteria pollutants.

We have a speciation monitor in Yakima. By law we are required to have basically the criteria pollutants.

January 1, 2013

Larry Fendell (Citizen): From a TV interview Mr. Pruitt, “Frankly the money just isn’t there. Testing wouldn’t produce credible evidence of anything. It would cost tens of millions of dollars to set up testing in the lower valley.” Does that statement bother anyone?

Requests for items on the community forum agenda. Its also been stated that they are going to take this nationally. Other studies have PhDs and peer review. Don’t see this on the AQMP.

Board Chairman Gasseling We don’t have any authority so anything we can do to move it forward is a good thing.

Fendell: Mr. Pruitt said that Helen Reddout would not be on the work group.

First Community Forum – Led by Dave Caprile of YRCAA

Outlined the purpose of the forum – to address air quality questions from the public. Only air quality issues. Provide answers that can’t be provided at board meetings.

Will start with points of information. Point of view from the laws and regulations.

Larry Fendell (Citizen) Spraying manure during an air inversion

Several days when manure just stayed on the fields. The pollution just hung in the air.

Dr. Tahat (YRCAA): We do not have the authority to shut down an operation

Fendell explains that originally dairies had to have enough storage. Now they haul every day of the winter.

Helen Reddout (Citizen): I’m astonished that you have no idea what is happening in the valley. Why don’t you come down and we will take you around the valley? Over 400 pathogens held near the ground surface. What are those pathogens doing to people’s lungs.

YRCAA Director Gary Pruitt: We have no authority to regulate emissions during emissions except for wood stoves. There is a piece of legislation that would change that – specific to banning heating devices and outdoor burning.

Monitor in Yakima is situated to find the highest readings in the Yakima urban area. The type of pollutants of primary concern would not measure the pollutants of concern.

Steve George (Citizen): Not aware of a certain time frame in the fall or spring when manure from lagoons could be applied. Only aware of weather conditions or soil conditions.

Reddout: SYCD handbook 1995 talks about fall applications only.

Fendell: roads covered with manure, liquids and solids.

Caprile: looking for our ability to stop manure applications during a burn ban.

Reddout: provided scientific studies – PEW, John Hopkins, etc.

Caprile: this is based on a model, not sampling.

Reddout: but we have used the Cerex air monitoring device. We had readings clear off the graph.

Caprile: maybe we should offer discussions on modeling and sampling.

Reddout: you turned down our offer to use the Cerex air monitor.

Fendell: Dr, Ndgwa used this type of monitor in the NAEMS

Dyjak: the dairies are clean and getting high scores. They just move it across the street and you ignore it.

If they lease land it is not attached to the dairy.

Pruitt: we are looking at the whole farm operation, all the land under his control.

Rogers: Veldhuis stored manure 50 feet from a neighbors' home. Composting manure across the street from her house. He says this manure doesn't stink and there won't be any flies. There shouldn't be manure dust in my home. That is an invasion of my home.

Keith Hurley (YRCAA): Agrees with her. But we are paid to be dispassionate. We are constrained by the law. My guys will continue to act within the letter of the law. If we see a violation we will act. We have sat down and we have examined the law. Because of the complaints that were lodged we did something.

I'm going to speak to D'Ann Williams study. She wrote it. John Hopkins did not endorse that study. We all know there is a dilution level after air leaves a dairy. The problem I have is there were serious technical issues with it. There was no correlating to a health issue threshold. If there was there would have been actionable intelligence. The NAEMS is going to do that. We are kind of tied until the results arrive.

In this particular case the fight is at the legislature. We aren't moving fast enough for you guys.

June 13, 2013

Jim Dyjak: Changes in Item 9 from the material presented to the public. Need to sit down with the public at a study session. A lot of unanswered questions and different from the material that was presented last month.

Larry Fendell: Item 10. Started this discussion earlier. We were berated, reprimanded and ignored. We have brought things up at the community meeting and it gets thrown away. You wonder why we want to come to the board. If we can't have open communications; if things are being covered up then some changes need to be made.

Item 9, is not what the public reviewed a year ago. It is a blank check.

Jan Whitefoot: Agrees that the public was left out of the dairy score card. Cannot think about any public suggestions that have been implemented. Does nothing to protect public health. Ecology has public hearings for their air permits for CAFOs. YRCAA does not do this. You all were elected to protect all of the people, not just dairy. Using eyesight to measure air quality is junk science.

It's a logical concern to put poop into the air that people breathe. Would you accept this for your children?

Helen Reddout (CARE): Over a decade of advocacy. Each time we had to go to court. That is not a good way to go about protecting a neighborhood. You represent all of us, not just one group. Supposed to be making decisions on the basis of the needs of the constituency. This is the agency that is being paid to do that.

Kathleen Rogers: Invitation to visit the LYV and see what is surrounding homes in the LYV. Last month Mary Baechler spoke, and someone asked why she spoke since she is from west valley. Mary does visit the LYV.

Jean Mendoza: Response to Ex Memo, Item 10. Would have been good if the agency had consulted Ecology, DOH and SYCD. WSDA does not address inversions in their implementation of the nutrient management act. Do address high winds. Appears some producers ignore these provisions.

Regarding the Ex. Memo. It is not the role of YRCAA to protect groundwater. Not the role to protect industry. Primary role of clean air is to protect the most vulnerable members of society,

A member of a community advisory board for asthma in the LYV. Looks at what happens to asthmatic children. Have measured ammonia and other pollutants. Data shows a relationship between decreased lung function and air pollution. U of W wants to share the data.

Gary Pruitt: Lawsuit against YRCAA by Citizens for Sustainable Development has been settled in the amount authorized by the board. Dismissed with prejudice in process. Agency denies any liability. Settlement chose to avoid continued litigation.

Item 9: AQMP for Dairies.

Director Pruitt: Changes were made specifically to address non-substantive requirements.

- Open to advice from Ecology, EPA, etc.
- Changes related to applicability.
- Number of site visits & frequency. Code B, Part 5 address site visits.
- Fees. Treat all the sources the same. Would fit into the minor source category. Some might be considered a complex minor. Won't know until the visit.
- AG Task Force has been existence since 1995, not always active. Has been dormant, and primarily dealt with ag burning. Dairy Task Force has completed their work. Would entertain suggestions on who should serve on the task force. Will bring a recommendation.

Board Member Lover: Is there an appeal process for a task force ruling?

Pruitt, doesn't know of an appeal process.

Lover, so it would just be a citizen appeal to the board.

- How AQMPs are submitted added to the policy.
- When will policy be evaluated? Will be accomplished jointly by YRCAA and Ag Task Force, based on effectiveness of reducing pollution and reasonableness. Board would approve any changes.
- Recommends adopting the policy.

Board Member John Gawlick abstains from voting on policy and rulemaking because he does not know enough.

Yakima County Commissioner Elliott willing to support with the proviso that it is appropriately reviewed.

Lover questions answered include evaluation, dispute resolution, updates, timelines, etc. Prepared to go forward with the current document.

Yakima County Commissioner Bouchey believes the policy represents the interests of all people in Yakima County. Delay is not advisable. Passes with 2 for and 1 abstention.

Item 10: Ban of manure spraying.

Director Pruitt: The guiding statute is the Administrative Procedures Act. Talked to Laurie Crowe, SYCD. Dairy Nutrient Management Act (DNMA) is the only law that deals with manure. Emailed Virginia Prest at WSDA. She responded yesterday.

Part of the tenet of the Clean Air Act is to support economic development.

Reasons are not stand alone.

Nutrient management is managed by the DNMA. Must be agronomic.

There is no evidence that there would be a difference of health risks during a burn ban. Burn bans are sometimes called to prevent fires. Air quality burn bans don't exist during windy conditions.

Could impact groundwater.

We don't want to be responsible for overflowing someone's lagoons. Also, there would be an enforcement issue. We can't do that.

If board chooses to deny the petition I will give further reasons.

Commissioner Elliott not willing to adopt petition. Does not think petitioners will run and appeal to the Governor. It deserves further consideration.

Commissioner Bouchey if we do not take action then the rulemaking process begins.

Board needs more time. Will commence rulemaking.

July 11, 2013

Jim Dyjak (Citizen): Questions

- Can the public participate in the study sessions? Pruitt – When it is appropriate. There would be some cases in which it would not be of value. Depends. Elliott – No hard and fast rule.
- Re AG Task Force – need a study session. In the past I tried to be on it and was told I could not join.
- How often the AQMP for dairies is reviewed needs to be clearly stated.
- Petitioners need to meet with YRCAA – It is being dragged out. Suggestion of back room dealings. Let's fill in that two month hole and meet with the petitioners. We ask for the same respect YRCAA gave the dairies.

Kathleen Rogers (Citizen)

- Directors report re rulemaking – When will the first stakeholders meeting be held? How many meetings? Why the 60 day delay? What are the criteria for acceptance or rejection?
- Why did YRCAA reject the nomination of Jim Dyjak for an award? Larry Fendell was also nominated. Believes the criteria needs revision to make citizens eligible.
- Advocates for ammonia monitors

Larry Fendell (Citizen)

- Supports the need for LYV monitors. Have been calling for this for 12 years.

- Delays in Item 6 – another drag out that prolongs suffering of the people from air pollution.
- Cow numbers are increasing. Manure hauling increases during the winter months. Let's don't sit on our hands. We're ready to go. You need scientific evidence. We have it. No reason to have to go through another winter like last winter.

July 15, 2013

Community Forum

Dave Caprile, Gary Pruitt, Hasan Tahat, Patty Walker, Jim Dyjak, Linda Dyjak, Kathleen Rogers, Dan DeGroot, Genny DeRuyter, John Gawlick, Mary Baechler

Open Agenda: Rule Making, Final Thoughts

Kathleen Rogers (Citizen): Few other ways to express Yakima County concerns. Has not seen Mr. Pruitt report concerns from the meetings to the Board of Directors. No assurance that concerns would be brought to the board so they could provide solutions. Only insulates the board from community complaints. Some meetings have been intimidating. Regular citizens would be inhibited by this format. Sees value in the forums if the alternative is no venue whatsoever. Hope the forum continues.

Question: Has the YRCAA staff communicated with the board after community meetings?

Director Pruitt: Communicates by providing a meeting summary. It is their decision to decide whether or not to come.

Question: Can we presume that the forum meetings are only designed to placate the community?
Partially answered.

Pruitt: I personally have reported that the meetings have been productive. We can provide this in any format that provides information.

Mary Baechler (Citizen): How do you publicize the community forum?

Dave Caprile (YRCAA): Website & board meetings. Community Announcements in Yakima Herald, Sunnyside Sun & El Sol.

Genny DeRuyter (Dairy): How has attendance been recorded. Disappointed that so few people attend and we talk about the same old things.

Mary Baechler: You have to leave work. I had to leave work for example.

Genny DeRuyter: We have to hear from more people.

Jim Dyjak: Twice I have asked to have something put on the board agenda. The board gets to put on a presentation with their spin. We have to spend our time correcting their statements. That's why I will not tell the agency what I plan to say ahead of time.

August 8, 2013

Study Session: Discuss a Petition to Disallow the Spraying of Manure during Inversions

Director Gary Pruitt:

There is an executive memo, and a summary of the two public meetings.

Very little attempt at consensus building.

Four key points

- Does the agency have the authority to write a rule?
 - Adverse health effects.
 - Is the rule needed?
 - Where to go from there, continue the rule making process?
- There is apparent consensus that YRCAA should not continue the rule making process.

Comments from the Farm Bureau, Yakima Dairy Federation, WA Dairy Federation, Attorney Shawn Russell. Late comments came in late, consistent with those comments against:

- No clear statutory authority.
- No adverse health effects.
- already regulated.
- potential damage to crops, soil and water.
- unreasonable operating and management impacts.
- probable adverse effects on non-dairy operations.
- uncertainty of agency's ability to enforce.
- does not apply to Yakama Nation.
- best addressed by recently adopted AQMP for dairy operations.
- lack of consensus to proceed.

Summary of comments in favor:

- 50 signers
- 3 Individual letters of support.
- Literature in support.
- Rule is needed.
- No conflict with other laws.
- No less expensive alternative.
- Should not apply differently to public and private entities.
- Rule is simple.
- Rule does not differ from federal law that applies.

Comments from meetings:

- BMPs are not being used.
- BMPs don't work.
- There are adverse health effects.
- Air quality is worsening.
- There is a lack of air sampling in the LYV.

Emails received in support of the rule. Made no progress on consensus on that the rule should say. Are at the end of negotiations. Need to decide whether to proceed with the rule making process and if they do proceed how to accomplish that.

If they decide to proceed with rulemaking there is a period for further public comment. Have up to 100 days to complete the rule making.

Both meetings resulted in unanimous decisions not to proceed with rulemaking. No hands raised in favor of pursuing.

Elliott – Have we fulfilled our obligations. If there is no interest in going forward, do we need to go on.

Gary Cuillier (YRCAA Attorney): Are past the 60 days to deny the proposal. At the exact point to chose

- Stop proposed rule, discontinue the process.
- Refer the effort to committees such as the AG Task Force.
- Continue effort by agency staff.

Regular Meeting:

Jim Dyjak: Put together a package. Flow chart for agency rulemaking.

- Agency must make the rule
- Optional paths – rulemaking process
- Earliest you can take public comments on the rule

Does anyone know where negotiated rulemaking came from? 1990 Congress enacted the National Rulemaking Act. Public Law 104-320 signed in 1996.

No rule was ever proposed.

Why the rule is needed or might accomplish. But that is not what he sent to the state. The statement to the state should have been given to the public.

Commissioner Elliott asked who the rule writer is. It doesn't have to be Mr. Pruitt. No qualifications.

The intent is for people to come together on the writing of the rule. The agency can still write a rule without consensus. I myself got upset at the meeting. It was like, “lets go out and lynch somebody.” The statute doesn’t say let’s get a bunch of people together and ask them to fill in the blanks.

Questions about AG task force. Why are we making for dairies their own little world where they are judged only by their peers and insulates them from the process. Why aren’t Jim Dyjak and Larry Fendell on the list? We have been coming to these meetings for 11 – 14 years. Debra Suzuki from EPA said that her people couldn’t make the meetings, but they are happy to advise.

Larry Fendell (Citizen): Agrees with Jim Dyjak. The two meetings – Consensus of what? I had to ask to have the petition read so people would understand it. At the second meeting other things were discussed. Meetings provided no information. There was no rule written. Nothing explained.

This valley is getting worse on air quality. I don’t need someone from Whatcom County or anyplace else to tell me what’s going on in my neighborhood. It all boils down to too many cows. They shouldn’t be putting manure on their fields in the winter. Rules and regulations are not being fields.

Doug Moore (Citizen): Lived in the valley for 22 years at the same spot next to a 3 million gallon lagoon. Last night at 3 o’clock I had to get up and close my windows due to the manure smells. Last winter, five weeks in a row, my neighbor spread this stuff on the ground next to my home, within fifty feet. Ammonia releases at a packing house brings closure of a highway. But not for the dairy. I have had to fix electrical problems on dairies due to ammonia destroying the wiring. I would guess 20% of dairies are not very good. Especially during a burn ban, that should be a no brainer. Family is being bitten by vicious flies.

Steve George representing the Yakima Farm Bureau and Yakima Dairy Federation (app 70 dairies)

Item 9. Did not see the legal brief from Groen, Stevens & Klinge on the table of documents.

- Proposed rule prohibited by the ag exemption.
- No substantial effect on public health
- From Ginny Prest from WSDA – request to comment. Can’t endorse a proposal that might have unintended consequences in other areas.
- Farm Bureau requested data from Dept. of L & I. – 90% of injuries are open wounds & bruises. No complaints from harmful air quality.
- No scientific data
- Clients do not support moving forward.

Yes, ammonia is corrosive. But this does not happen just on dairies. Also for fertilizers.

Steve attended both meetings. Did not hear confusion. A large majority of the attendees were dairymen. Dairy is still committed to working on the issues.

Jan Whitefoot, a Petitioner:

Has talked to families where children have played in sprinklers when they did not know manure was in the water. Spraying manures have been banned in other areas due to the pathogens and particulate matter. Referenced El Proyecto Bienestar regarding asthma. Have asked YRCAA to do further studies with the same inexpensive equipment. We never hear about asthma at YRCAA meetings. In favor of proceeding with the rule. Attended both meetings. Opposes Gary Pruitt as Rule writer. Our health studies were not shared at the meetings. But dairy information is shared. I felt intimidated and others felt intimidated. No Latinos at the Granger meeting. I get phone calls because people are afraid of losing their jobs and homes. I have been threatened and followed.

You all didn't listen until we brought a lawyer. We have come time after time. We have told you about the problem. EPA does want to be involved. I would encourage you not to take the staff's words at face value. Do your homework.

Doug Moore: Five years ago I had the Hound installed at my place for three months. We have had scientific proof and it's been delivered to the department. She said the air at Harrah was the worst, mine was second worst and there were several others that were similar.

Fendell: There was scientific evidence turned in with the petition. The agency hid it.

Kathleen Rogers: I have to tell you, scientific data or not, my nose and my lungs are scientific instruments. It is urine in your window.

Terry Brooks (Citizen): This winter one of the dairy farmers that has a new lagoon right in my front door. Last night my neighbor had so much manure on the road you can't see the line. This stuff is getting in my throat. I just hope and pray that something can be done. I don't think we are asking too much. I have lived there all my life, longer than any of my neighbors.

Steve George: Some people have relied on a report from John Hopkins by Dr. Williams. Dr. Embertson did a review of that report. She states, the study examining allergens found levels below National OSHA levels. In some cases, children born on farms have lower incidences of allergies. You have to make your decisions based on science and the law, not impassioned pleas.

Genny DeRuyter: Not all dairies have the same practices. Since 1997 we have spent millions of dollars to address issues. There are different degrees of manure separation. At our dairies we have a three-stage separation. We end up with brown water. We have more than enough storage. Where we get into a problem is different storm events with rain and snow melt. We can't predict the weather. There are lots of extenuating circumstances. I'm not convinced that it is the responsibility of this agency to address. Some lies with WSDA and Ecology.

Report on six Community Air Forums

AG Task Force:

Gary Pruitt: At the July board meeting you agreed to the formation of an Ag Task Force. Has a proposed list.

Item 9: Petition

Board Member Lover moves to suspend the rulemaking process. Second. Discussion.

Board Member Gawlick: Having another rule when others already exist and need to be enforced. Can revisit the rulemaking process after we see the implementation of the practices that were approved by the board in January. I have been told by staff that there was a positive effect. We should put it into action. For those who are not participating compliance should come into play.

Commissioner Elliott: Lots of contradicting opinions and evidence. Believes that 90% of problems are created by 10% of dairies. We need to put pressure on WSDA to do their job. Agrees on stopping the process.

Lover: This was excluded from the BMP study. Maybe this is where it should land. To me we are headed right into court. We should wait for EPA to complete their work. Obviously, there are problems in certain areas and with certain operators. I don't believe a rule is the way to go.

Commissioner Bouchey: Currently the rules and regulations are not being followed. We need to look at the agencies that have oversight. We have approved the AQMP for dairies. I'd like to see the staff focus on that.

Motion passed.

October 10, 2013

Jon DeVaney joins the board as an at-large citizen representative, replacing Tom Gasseling.

Larry Fendell (Citizen): E-coli can travel on air. Would like to hear from the Health Department on how people can protect themselves. The manure trucks are going really heavy. It is falling of and blowing all over. Other trucks have to cover up their loads. Manure trucks should also.

Jim Dyjak (Citizen): Jean Mendoza would like time to address the study session of removing Dr. Embertson from the Ag Task Force. 90% of the members are from ag. But I see you adding more dairies. You need some citizens on there. Again, what happened to the public? What about the victims? When will we be included? Everything is geared to protect ag. If I bring an academic is the agency going to pay them. The last time we had to pay them. But the agency pays the academics for the dairies. If you are going to pay one you should pay them all.

November 14, 2013

Jean Mendoza (Citizen): Re Dr. Embertson.

- Provided misinformation and false information to the agency and the board
- Embertson's Literature Review was made available to the public and was posted on the YRCAA website.
- Statement regarding scientific misconduct
 - Fabrication
 - Falsification – manipulating data or results
 - Plagiarism – appropriation of another person's ideas
- Definition of a Literature Review

Chairman Bouchey asks for information in addition to letter.

- Referenced 40 pieces of research. 13 pieces actually look at community health. 12 found significant health impacts related to public health. Reads some conclusions.
- No restrictions regarding high temperatures, inversion, or wind events in the Dairy Nutrient Management Act. Not part of AQMP for dairies. It is a fact that people complained to YRCAA when one of the creators of the AQMP sprayed manure into the air during 40 mph winds.
- Incorrect use of references.
- Incorrect statement of a chemical reaction
- How much does ammonia from agriculture impact PM 2.5. Misstates the statistics.
- States manure is not typically applied during winter months. This is not true.
- O'Conner study rejected all but 9 out of > 4,000 studies on health

Chairman Bouchey – Asks Mendoza to stay focused.

Do you get my point that she is saying studies say one thing and they say something different?

- Misquoted the John Hopkins study and said it addressed pollutants carried by winds.
- Ignored studies done in the Yakima Valley.

Jan Whitefoot (Citizen):

Granger meeting, proposal was not presented to the public. Only dairy information was shared. Dave Caprile gave the board misinformation.

Dick Camp, former YRCAA board member, has applied to increase his operation. Why could a person be a board member when they are regulated? Mr. Camp's operation (Bay Zinc/Kronos) was the biggest polluter of SO₂ in Yakima County. Why was a permit even given to a facility that was classified as a category 5 hazardous waste site? EPA is currently investigating a spill at Kronos (Camp's facility). Kronos self-monitors.

Jim Dyjak (Citizen):

Summary says that Jim Dyjak declined an opportunity to participate. I don't believe in the program, and I'm not being involved in kick starting it. Summary did not convey what he meant.

33 – 38 dairies have not come on board yet. Now fees are going up. We want your money because we need a pay raise.

Item 12: Ms. Rogers asked about the status of a grant for monitors. Tell us what the monitors are, what they will be used for, and where.

Steve George representing Dairy Federation & Yakima Farm Bureau. Organizations do not agree with accusations against Dr. Embertson. Swine operations are not relevant.

Mendoza: Dr. Embertson is the one who brought swine information to the table.

Bouche: Need to give Dr. Embertson the opportunity to respond. (Dr. Embertson wrote a letter in which she rejected the need to respond. The board took no action against her.)

December 19, 2013

Kathleen Rogers (Citizen): Questions re monitors in Sunnyside. There was a monitor at the Sunnyside Schools around 2000. How to get the monitor back. The bases are still in place. Also, the "Hound" is available. Invasive air in the area. Keeps my in my home. I can hardly breathe.

Jan Whitefoot (Citizen): Has received training on how to read the PM 2.5 monitors. In Toppenish for six days in a row the readings were above 35 mcg/sq meter in November. Horrible inversions for weeks. Has friends with bad COPD. Need to inform the public. Risk of non-attainment. Ten days of non-attainment so far this year. It would be good to have a report on asthma. YHD said e-coli in the air can affect people. How many extra people are hospitalized during periods of high PM 2.5? Please do air monitoring.

Jim Dyjak (Citizen): Asks for details on grant request for monitors. For years you have said you cannot afford monitors. When we brought the "Hound" to the board we had to provide information.

Larry Fendell (Citizen): November and December have been pretty bad. Tuesday night there were three fires going along the old Sunnyside Highway. Seems like people are burning more. There are just lighting them up. Someone needs to impress on them that there is a burn ban.

Can we get the health district to talk to us about e-coli in the air?

I asked Nicole Embertson to tell us where she got her information. She said that only 5% of the people spread manure during the winter. I asked where she got the information. She said that Stuart Turner told me that. I asked, Is Stuart Turner running experiments? I don't think so. That's the reason we don't like your paper. You don't have any facts to back it up.

Jean Mendoza (Citizen): Presented a paper last week regarding Dr. Embertson's Literature Review. I read her response that is in your packet. She essentially said, I don't have to justify what I said. By implication the Clean Air Agency is saying, we can put out any information and we don't have to support it. It is a cruel thing to do to the public, to put out information and say, it is your job to research and find if it is true. I hope you will take some action on my request.

Board discussed complaint against Dr. Embertson. Took no action.

January 9, 2014

Dr. Steven Jones joins the board in place of County Commissioner Kevin Bouchey.

Jim Dyjak (Citizen): Board and staff do not answer citizen questions. Cites unanswered questions.

Kathleen Rogers (Citizen): Please continue in your efforts to understand what is happening in the lower valley. Need a monitor.

February 13, 2014

Kathleen Rogers (Citizen): Monitoring is a huge step. Without the data, we have no comparison on what the task force is doing.

Jim Dyjak (Citizen): We do need monitors. Talks about a contract for a monitor. Asks for a citizen's group to discuss. Dyjak hand carried the grant application to EPA trying to help the agency. Need more communication with the citizens.

Mayor Micah Cauley joins the board as representative for large cities in place of Bill Lover.

March 13, 2014

Jean Mendoza (Citizen): Provides information to the new board members. Participates in the ag task force with the goal of improving air quality. Talks about spreading/spraying manure during inversions. WA Dairy Commission asked Dr. Nicole Embertson to write a letter. She opined that there is no danger to human health. Mendoza analysis is that Dr. Embertson is biased and gave the agency misinformation. Passed on half-truths. Embertson said producers do not spread manure during the winter. This is not true.

April 10, 2014

Study Session for Budget.

Jim Dyjak (Citizen): Will citizens receive the complete board packet. Will the agency post the complete packet on their website? Clerk Patty Walker says the complete packets will be emailed to the addresses she has for board members and for interested citizens.

Item 6, the Dairy Work Group Meeting. Russ Davis is an instigator? Is this insulting? Director Pruitt agrees. Why are we still testing on the dairies? The problem is on properties next to the dairies, in the homes of people who are impacted.

Ask that the public be made part of the budget process. People get five minutes or less to testify. There is no discussion. The public is left out of the process. Written comments never make it to the board.

At one time there was discussion at the board meetings, but no longer. The board assumes that the YRCAA staff is correct. Not always true. For example, giving a pay raise and a bonus at the same time is wrong. Bonuses should not be automatic.

Larry Fendell (Citizen): Seems to be a whole new atmosphere on the board, an improvement. There has been a study in Idaho re spreading of liquid manure. Injection reduced the ammonia and air emissions by 78%. Idaho started with a baseline. The YRCAA policy did not. There is a huge difference in application rates. Be cognizant. Testing needs to be done off the dairies also.

Dr. Tahat (Agency): What is the baseline you referenced?

Fendell: They place monitors on a 22-acre field. Applied manure from tankers. Had another field with circles. Had another field with injection. The baseline was before application.

Genny DeRuyter (Dairywoman): In response. If you were to come to our dairy and measure the differences in tank applications and compare to other dairies, there will be a big difference based on manure separation technology. We are trying for better separation and get cleaner water. Our applications will be different from others. Lots of variables involved.

Don Day (City Manager for Sunnyside): Introduced himself. States concern and awareness of odor problems. SS wants to work with dairies and others to find solutions.

Kathleen Rogers (Citizen): Thanks for open attitude and improved communication. She has talked with neighboring dairymen. All we can do is hope. The door is open. She has talked with Director Pruitt about dust control and flies.

Jean Mendoza (Citizen): Compares YRCAA budget to family budgets when children are sick, for example asthma. References letter from WA Dairy Commission. Concerned that the letter became part of clean air thinking. You all do not answer to anyone but the legislature. You are the only people who can address respiratory problems re air quality.

Shares SIP for YRCAA. No person shall make a false statement to the board.

May 8, 2014

Presentation on Yakima Air Winter Nitrate Study (YAWNS).

Jim Dyjak (Citizen): YAWN Study identified potential health risks to people in the valley. Opened a lot of eyes and will help everyone.

Questions re the study. Do you need further study?

Jan Whitefoot (Citizen): Questions for Ecology. Is ozone higher in the summer? Where is the proof of a NO₂ max compliance? A couple of years ago the EPA Environmental Justice division came to Yakima and found serious problems. 100,000 cows contribute to much of this air pollution. We learned of a difference in air monitors. Any monitor should be certified. Need to monitor for a large number of pollutants in order to know where the pollution is coming from.

Answer – off-gassing of ammonia from application happens during the summer. There are probably other forms of nitrate in other parts of the year but may not be gaseous.

Whitefoot: Ammonia is a precursor?

Yes.

There was a NO_x monitor at the community college. Nothing close to the standard.

Whitefoot: You mentioned other areas with similar problems. Do those areas have CAFOs?

Yes.

Alvin Atlee (Businessman from Selah): Concerns about a big smoker and barbecues. Smoke impacts businesses. It is not illegal to have a smoker in town. Smoke is worst during non-business hours for YRCAA. Several complaints to YRCAA.

Director Pruitt: YRCAA will address the complaints.

Inspector Hurley: The smoker is legal. Invading other properties is not. Ideal solution is for parties to work things out. Trying to get the smoke up and out of the breathing zone. Put a stack on it.

Theresa Lua (Citizen and another Selah business owner): Concerned about the health of her employees who now have breathing problems.

Rick Moen (Owner of the Smoker): Prior to this meeting we would have openly taken discussion about the problem and tried to rectify it. We start it in the morning and bring it up to heat. and this eliminates the smoking later in the day. I've always tried to accommodate them. I sat down

with these gentlemen and explained the smoking process. We have looked at bids for extending the stack. We will continue to do everything we can.

Kathleen Rogers (Citizen): Applauds people for coming together and talking. Keep communication open.

Larry Fendell (Citizen): Thanks people who presented the YAWN Study. People who testified on manure spraying during inversions proved health problems during inversions. Asks board to revisit a ban.

Dean Effler (Citizen): Ran into a grandma recently with four grandchildren, ages 3 to 10. About forty years ago she bought a rural home. There was a neighbor with a few cows. About ten years ago that property was purchased by a dairy. She can no longer let her grandchildren go out and play. Two of them have asthma. There is a lot of particulate matter in the air. Lots of spraying of manure right next to her property. So frustrated. It is no longer a good place for family. Property values have dropped. If this was your property, what would you want? If these were your grandkids, what would you want? I am making an assumption that everyone in the Yakima Valley has a right to clean air. Monitoring units should be on the property right next to the CAFOs. They have as much right to clean air as someone who lives in the middle of Yakima next to Yakima Valley Community College.

Mayor Gawlick: As always, the problem is the budget. We have to do the best we can with current resources.

Steve George (WA Dairy Federation): Dairy industry went into an effort with the YRCAA on a mandatory reduction program. Asked the YRCAA to give it time. Already addressing the ammonia issue. Give it time to work and gather real data, rather than use some model from outside the area.

It appears that claims are made that animal agriculture is not healthy. I would challenge you to come up with the data that shows agriculture is not healthy. There is data that shows people on farms are more healthy than the national average.

Mayor Gawlick: Board members visited the LYV. Are aware that the dairy industry is using the AQMP for dairies. Board is hopeful that they will see positive results.

June 12, 2014

No public comments. Discussion about additional monitor in Sunnyside and proposal for more monitoring.

August 14, 2014

Study Session re Open Government Training. John Gawlick and Steve Jones present for the board.

General Session.

No public comments

Rand Elliott joins.

September 11, 2014

No public comments

October 8, 2013

Jim Dyjak (Citizen): Questions about Item 8, Item 9 on the agenda. Shares documents. Suggestions regarding posted data from the new monitor.

Jan Whitefoot (Citizen): Thanks YRCAA for setting up the new monitor. The CDC will do some ammonia and hydrogen sulfide monitoring in Harrah. Concerns because the SS monitor is not certified. A citizen called her and stated that the Steve Bangs Dairy is expanding. Does it need an air permit for expanding? Citizen called Yakima Planning and was told there was no need for action. 1. Does he have an air quality permit. 2. Does he need an updated permit.

Question: Do you have any dairies with air quality permits?

Director Pruitt: No.

Kathleen Rogers (Citizen): This year has been better than last year re neighboring dairies and air quality. Pleased about new monitor. Hoping for progress.

Director Pruitt: YRCAA asked for an FRM monitor. Were denied. Will continue to request an FRM. Looking forward to a large data set.

December 11, 2014

No public comments

January 7, 2015

Jim Dyjak (Citizen): If there is an item on the agenda, do I come up now or during the discussion.

Rand Elliott: Comments now. John Gawlick agrees.

Dyjak: Comments on Strategic Plan. Is this a requirement of some sort?

Elliott: Not that he is aware.

Director Pruitt: No

Dyjak: Input from key stakeholders. In the AQMP plan public was excluded. Will this happen again? Question re highly impacted communities. What is the definition of highly impacted communities?

Elliott: When the plan came up, I was going to ask to table it. I think it would be better for the board to prepare a presentation to the public, rather than a presentation from staff.

Dyjak agrees. Has lots of concerns.

Dyjak: Concerns about statement re declining cancer. Now we have an agency with no expertise that thinks they can do something by 2020. Goals have to be measurable.

Larry Matson (New Director for the Yakima Council of Governments): Introduces himself.

February 12, 2015

No public comments

March 12, 2015

Jim Dyjak (Citizen): Effectiveness evaluation of AQMP for Dairies assigned to Dairy WG. Will the victims be allowed to comment? Asked whether YRCAA contracted out Smoke School to a former employee?

Director Pruitt: Yes

Dyjak: I asked the board specifically to watch that. Caprile retired and he got the contract. Asks someone to look into it. Was the contract advertised, or was it set up?

Larry Fendell (Citizen): Did not attend Tuesday meeting of the Dairy WG. Heard that some of the information he passed on was inaccurate. Justifies his statements about increasing dairy herds. Cows from outside the area are coming through the Toppenish Auction. This is where the market is.

Jan Whitefoot (Citizen): Questions about solar energy. There are some really good programs for solar panels. Would be pleased to see YRCAA pursue solar in addition to wood stove change outs. On the east coast people can lease solar panels.

Talks about NPDES permits for CAFOs – under consideration by Ecology. There is a dire need. Curious why dairies are not permitted while others are.

Dairy Air Score Card. Has not seen a change in air quality. Hardly any burn bans called this year, because we can see hazardous air.

Monitor in Sunnyside is frequently down. How can you calculate impaired days when the monitor does not work during bad air events?

Where does the public get information on hazardous waste facilities? Is it ever put on the YRCAA website? Specifically, how to get information on Kronos in Moxee.

April 9, 2015

Jon Devaney assumes the role of Board Chair.

Jim Dyjak (Citizen): Questions on Item 7. Does this policy cover contractors, or just employees?

Director Pruitt: Applies to contractors.

Dyjak: Is it customary to issue credit cards to contractors?

Pruitt: No. Only if the Director administers a credit card?

Dyjak: How does a contractor purchase gasoline?

Pruitt: They use a gas card that is assigned to a vehicle.

Further discussion. Discussion of Smoke School and former employees. Anything > \$25,000 must come to the board. So you divided Smoke School into two sections, each < \$25,000. This is a sweetheart deal that was set up before the employee retired. Also an employee was terminated for cause and then received a contract with YRCAA. YRCAA does not know if the contractor is bonded and insured or has a contractor's license.

Devaney: You have raised some good questions. The board needs to investigate.

Jan Whitefoot (Citizen): Was the contract put up for bids?

Pruitt: No. Does not reach \$25,000 bar.

Whitefoot: Comment on Dairy Air Score Card. Describes John Hopkins study, YAWNS. Concerned about using eyesight to measure air quality. How does YRCAA evaluate off gassing of hydrogen sulfide? No baseline. No scientific air monitoring equipment in AQMP for dairies. Dairies are supposed to use AKART and BACT. The CDC will do scientific studies in the valley using scientific equipment. SS monitor did not work for a month. Dairy Air Score Card does not address off gassing from lagoons, nor manure spreading.

Larry Fendell (Citizen): Number of cows has increased. Lots of studies since 2009. So much ammonia in the air according to YAWNS.

May 14, 2015

Jan Whitefoot (Citizen): Article in YHR says Yakima is one of the most polluted cities in the nation, worse than Seattle. No stage 2 burn bans last year? The year before there were about 66 burn bans. Has anyone looked into the solar information? Did a PRR on Yakima Air monitors. Response says there are five monitors. Four are in Yakima, so they do not measure anything near the dairies. For Director Pruitt to imply that YRCAA is monitoring air on dairies is incorrect. The only relevant monitor is in Sunnyside and that is for PM 2.5. That monitor was down from January 9, 2015 to March 10, 2015. This is a period with the worst air quality. EPA said they would place the monitor for a year and see if there were problems. Having the monitor down skews the data. Please ask us questions.

June 11, 2015

No public comments

August 13, 2015

FOTC asked YRCAA to address global warming and climate change.

Larry Fendell (Citizen): Over the years we have had public comments during meetings. Sometimes we have question that arise during the meeting. Asks to have public comments moved to the end of the meeting.

Commissioner Elliott: Yakima County has comments at the beginning. Board meetings are business meetings. Should welcome questions ahead of time, take them under advisement and respond.

Dr. Jones: Could this take place in another setting?

Rainey Haws (Alternate for Jon Devaney) Agrees

Bill Lover: At City Council Meetings have sign in slips for agenda comments. Otherwise, there is a public comment period at the beginning.

Mayor Gawlick: Will continue as done in the past and address at next meeting.

Jim Dyjak (Citizen): At one time we could talk during study sessions. Now we cannot. All you get is what the agency wants you to hear. Item 8 – approval of SS air monitor – should be upgraded. Hopes you vote in favor. The public has fought hard for the monitor. Has worked with EPA.

Environmental Justice is big in the federal government. YRCAA should not be getting funds when the public is left out. I am pushing hard to stop federal funds until we get an EJ program.

The SS monitor was off for a week and no one noticed.

YRCAA needs the public and should realize it. Dyjak hand carried a grant request to EPA officials in Seattle. Work with the public.

Jan Whitefoot (Citizen): Hx of not working with the public. We had to go to the CDC to get air monitors that would tell us where the pollution is coming from. CDC sent a team, and they are in the second phase. The YRCAA Board has turned your backs on the public. YRCAA has refused to monitor for ammonia, hydrogen sulfide and VOCs. Many monitors are easy to program.

Dairy Air Score Cards – Lots of redactions on PRR information. They did not list the number of cows. No scientific measurement of the pollutants that the scoring says they measure. Why are the numbers of the cows not listed? If you don't know how many cows, how do you know how much ammonia or hydrogen sulfide? Does YRCAA measure the pH in manure piles and lagoons? She shows cards with major redactions.

Director Pruitt: If there is reaction RCW 70.94.205 provides for redaction. Dairies have to certify in writing that the information would adversely impact their business.

Mayor Gawlick: What about multiple facilities in one operation. Title V insists that the agency document all facilities under one operation as one operation. They are registered as one operation.

Director Pruitt: There is no reason to look at cow numbers.

Whitefoot disagrees. The pollutants are listed at the top.

Kathleen Rogers (Citizen): Shares an album of pictures and pictures from the previous night. There is no water applied to the dust from the pens. Drove around and took pictures of the neighborhood. There is no reason why people should have to breathe that air. Some dairies are improving. They have gone to expense and effort. Others have not. Instead, they buy more property and expand. Do not even take care of the facilities they have.

Mayor Gawlick re the photos: What part of the BMPs addresses dust control.

Director Pruitt: Most of the dust is PM or larger. You can water, cross fencing in which urine stops dust and compacts, additives. These practices are listed in the policy. I've never been a cow inspector, but I've been a building inspector. You have to manage dust.

Director Pruitt: Cites the law. Have to prove public health problems. The law really says that nuisance is OK. This is the major complaint we receive. We don't like the nuisance exemption. Obviously, the people that are being annoyed do not agree with what we are doing. I would not either. Describes limited resources.

Larry Fendell (Citizen): Dry year. Once a pollutant leaves your problem you are in violation of the law. There are laws that cover that also.

Genny DeRuyter (Dairywoman): Single family-owned farm. Clarifies how dairies operate. She has two milk barns classified by WSDA as two facilities. But they are contiguous. There are different methods of classification.

Jean Mendoza (Citizen): Who wants to do something about Global Warming?

No response.

Mendoza: That is sad. YRCAA is the most important agency re Global Warming. Presents a mini-lesson. In Europe, the amount of ammonia in the air has increased by 50% over 100 years. Here to ask YRCAA to get involved. Ask YRCAA to do this type of analysis. Here to volunteer to help.

September 10, 2015

Study Session – Comments and Appearance before the Board: Request to move the comment period to the latter part of the meeting.

Commissioner Elliott prefers keeping comments at the beginning.

Director Pruitt: Administrative Code Part A says people could engage with the board during action items. Fill out a request prior to the meeting. Was never implemented because the board changed. It is your choice. There are no rules.

Mayor Gawlick: Concerned about prolonging the discussion. Can be a problem.

Commissioner Elliott: Needs to be ahead of time in writing. No back and forth.

Devaney agrees.

Jones agrees.

Make a change. Comments during the public comment period. Consider changing Code A.

Second Item – Proposal from Jean Mendoza. Commissioner has not heard from staff. Postpone to next meeting. Pruitt – needs to look at from an engineering viewpoint and also from an administrative viewpoint. They are dissimilar.

Director Pruitt comments on paper. Lots of works. Large body of information. Does not fit into any of their work programs. Are some disagreements. “Nitrogen is not an air pollutant. It is not even an air contaminant. It can become an air contaminant.” “Our atmosphere is extremely durable, and resilient.” “We need to deal with pollution one pollutant at a time.” YRCAA can ask the DOH to discuss asthma and health problems. We are not health officials. We use advice from others. This is a request from FOTC asking YRCAA to:

1. Analyze impact of agriculture on air quality – Ecology does that.
2. Analyze impact of wet and dry deposition of ammonia – We are not going to do that.
3. Estimate costs and benefits from PM 2.5 and Ammonia with respect to public health – We are not going to do that.
4. Seek funding for research and mitigation projects – Yes, absolutely.
5. Inform outside researchers and agencies about the unique characteristics of the Yakima Valley – If you want us to do that, we can.

6. Discuss the ways that pollution impacts life in the Yakima Valley – Yes, absolutely
7. Read and consider the document “Hidden Costs of Agriculture” by Harvard scientists Paulot and Jacob – Yes. We have read it and do not disagree. But we are not economists and do not pretend to be.
8. Inform decision makers that lung health is not addressed in the Yakima Valley in spite of the fact that we have the worst air in the state. – That is an opinion.
9. Impose appropriate regulations to control Yakima Valley air pollution – YRCAA disagrees with statements.

Will address at next meeting.

Regular Meeting

Kathleen Rogers (Citizen): Wrote a letter to the editor regarding dust from dairies. “It seems to me there ought to be a conscience there of taking care of their pen dirt when there is already an air issue.” They should have been out there with some water. Question about Mr. Pruitt’s answer last month about how dairies chose how to deal with pen dirt. What does YRCAA do if they make poor choices.

Jean Mendoza (Citizen): Thank you for reading my request. There is a strong connection between air and water. Sometimes when you decrease water pollution there is increased air pollution. I am here to volunteer my skills and work. At the meeting for the Integrated Plan yesterday people acknowledged Global Warming. I want to help.

October 8, 2015

No public comment

November 11, 2015

Devaney & Jones present. No Quorum.

Kathleen Rogers (Citizen): Urgency of air pollution in her neighborhood.

Larry Fendell (Citizen): Can vouch for the bad air quality last night. Poop sprinklers are still going. Lots of manure that has not been incorporated into the ground. Air quality is worse.

December 10, 2015

Larry Fendell (Citizen): Four months ago I asked for public comments to be moved from the beginning to the end of the meeting. Bringing up the request again.

Commissioner Elliott thought it was discussed and agreed to leave it as it was.

Dr. Jones agrees.

Fendell – cannot bring additional information that disagrees with the staff at the meeting.

Dr. Jones – Was discussed and agreed to leave it as it was.

Jon Devaney – Move it to a future agenda item when Director Pruitt returns.

Mayor Gawlick – Put it on a future agenda.

We've had burn bans for some time, but manure is still being spread. If you can't burn wood stoves people should not be spreading manure.

Mayor Gawlick – Put it on a future agenda?

Fendell – Future agenda.

Jim Dyjak (Citizen):

Example – Item 8 Budget Revision. Suppose I have a question after the report? In order to ask I have to come back next month. It is hard to ask an agenda question if you don't know what people are going to say.

Where does the citizen award program stand?

The citizen representative on the board is always from industry. This agency is corrupt. The agency is discriminating against the public.

Dr. Tahat: Not sure about the citizen award?

Mayor Gawlick: The accusation of corruption is offensive to me. I have taken my job very seriously and have worked with several of the staff members. The things that I have seen do not substantiate the allegations.

Dyjak: You have done an outstanding job. From Day One when the Dairy Program began, citizens could not participate. When is the Five Year Strategic Plan coming back?

Commissioner Elliott: It was tabled. Will not come back.

Dyjak: Where is the enforcement on business during burn bans. Why only private citizens? There is discrimination.

Kathleen Rogers (Citizen): Sent a letter. Received an answer from Nancy Helms. Dr. Catherine Karr is doing health studies. EPA is working on the problem. Hoping the CDC will provide useful information. Thanks Mayor Gawlick for his hard work.

Steve George (Yakima Dairy Federation): Clarification on the YHR article by Dr. Seeman. He supported some valid studies.

January 14, 2016

Jean Mendoza (Citizen): YRCAA is the only agency with the responsibility of protecting public health re air quality. One method is education re risk factors. Uses the media. Last week there was an article in the Toppenish Review Independent. Quotes the YRCAA. Says ammonia emissions are insignificant. This is inaccurate information. Review Independent said the article was approved by the YRCAA. Shared U of W research from November 2015 in the LYV re asthmatic children. Article talks about ammonia in the LYV. Found a relationship. When ammonia levels rise the children's respiratory function decreases. The closer to dairies, the more ammonia. People in the workplace are expected to tolerate higher levels of pollution than young children. Hopes the board will direct YRCAA staff to request a correction to the newspaper.

Kathleen Rogers (Citizens): Agrees with Mendoza. Received a report from Dr. Wasserman from DOH about asthma in Yakima County. Last year the air in my home was intolerable. Begs her neighbors to do something. Too many calls on such a small area. There is more than smoke in the air.

Jim Dyjak (Citizen); Item 9. The chart on PM 2.5. The monitor was down for a week. We had the same problem last year. Does it take a week to change a battery? Dec 27 to 30, the monitor was off again, during a peak of pollution. Dr. Seeman was talking about farms, not CAFOs. On page 13, tables 13 & 14. Who is the QA person? If no evaluation was performed, how do you get valid data?

March 16, 2016

Kathleen Rogers (Citizen): Impact on her health last week. In spite of promises, her neighbor began stockpiling manure across the road from her. Nothing he could do because of the wet winter, he said. They have no other place to use. I begged him not to place manure there.

Dr. Tahat, you can come to my house any time and test the air. She has asked to join inspections. No one every invited her.

Jean Mendoza (Citizen): Talks about NAEM Study in the LYV by WSU. Studied Hydrogen Sulfide. Average level of hydrogen sulfide in the ambient air was high. Some states do regulate it. Levels in the study were above regulatory limits in California and Minnesota. In Minnesota the state sanctioned a dairy for hydrogen sulfide.

WA state has a law that regulates toxic air substances and the air in this study exceeded WA regulatory limits.

According to Regulation 1, if a business emits more than 40 tons per year of VOC, they must get a permit. According to the NAEM Study LYV dairies emit > 40 tons.

Jan Whitefoot (Citizen): Since yesterday people in Harrah are getting sick. Has been coming to meetings for ten years. Sees no attention to public health. Only cares about industry. Talks about

Ecology fines at the Wallula Feedlot. YRCAA is supposed to be doing this. If YRCAA cannot do this, you need to step down.

Larry Fendell (Citizen): Recalls smudging. Was involved in moving away from that practice. This problem went away. That problem lasted one month out of the year. The dairy problem lasts all year long. Talks about inability to respond to misstatements until the next month. Talks about spraying manure during inversions.

Jim Dyjak (Citizen): When you started the AQMP for dairies, Director insisted it could be enforced. A few meetings ago Director Pruitt said it could not be enforced. In this newspaper article Hasan says it can be enforced. Which is it? If they are only going to inspect dairies with a D or below, this is just a money-making project. No inspection but we will take your money. Where is the report and evaluation? Where is the baseline? Need to measure what is off the dairies. Come to my yard. I have told you that many times. YRCAA needs to make money so they can get their pay raises and guaranteed bonuses.

April 14, 2016

Mayor Norm Childress from Grandview joins the board.

Kathleen Rogers (Citizen): Several years later expressing disappointment. This is her sixth year coming to YRCAA meetings and making comments. Had hoped that things would change. Maybe a little bit. Last year was one of the most horrific. Doesn't expect anything better this year. Her neighbor is turning a green field into a compost area. Doesn't know how some neighbors survive the stench. Disappointed that there are no handheld monitors. Director Pruitt asked her to organize neighbors to put together a grant application for handheld monitors and bring it to the board. Buying out your neighbors is not a solution. I am not going to sell. I've been in my home for 35 years. Asking for board's help.

Jean Mendoza (Citizen): Correction to last meeting. Dr. Tahat said that a study was a snapshot in time. Actually, it was a two-year study. There was an article in the Toppenish Review and the Yakima Times saying there is no danger to public health from ammonia emissions from Yakima dairies. Publisher said the article was endorsed by YRCAA. It is a bad policy for the agency to deny health hazards. The research shows that there is a health hazard. I presented this information to the board in January and Commissioner Elliott said he would look into it. I haven't heard a response since then.

Jan Whitefoot (Citizen): Clarification re what she said last month. Why doesn't YRCAA address fugitive dust the way that Ecology does in Wallula. YRCAA has refused to implement enforcement against dairies as the law says they should. A local agency cannot institute less restrictive rules than the state. Meeting after meeting we come here and you guys have turned your backs on us. Linda Dyjak has been reporting the DeVries dairy to YRCAA for 15 years. Air quality is not improving. It is YRCAA's legal responsibility to do something. Questions re which monitors are used for determining attainment/non-attainment. You have purposefully turned your

backs on the people of the Yakima Valley. People cannot sit in their own back yards, but YRCAA gives dairies high scores.

Larry Fendell (Citizen): I'm going to sound like a broken record. When the people ask about something it is discussed behind closed doors. This is not a public meeting. If you have three board members together that is a public meeting. Things are getting worse. Who gets marked down for all the manure on the roads in the LYV? Air quality is not getting better. Don't think that anyone who lives there believes the statements about improved air quality. Let's actually do something or save the \$1.2 million and let Ecology take over.

Steve George (Dairy Federation): We discuss with what has been said. We feel that the dairy industry has stepped up to the plate to work with the YRCAA. Guidelines were put together by professionals in the field. I looked into the DeVries Dairy. YRCAA said there were no violations. Tom DeVries does everything he can. His dairy is a showcase dairy. There were no obnoxious odors when I was out there last Friday. I know that YRCAA went out there last Friday and did not find the conditions that these people describe. They make these claims that are not substantiated. In regard to the claims that there are health issues, WSU and others have done studies on dairies. We have provided the information to staff. They have not found health issues directly associated with the dairies. I don't know where this is coming from. The dairies are willing to come to the table.

Sandy Braden (Citizen): Happy to take Mr. George to the LYV when odors are high. Why is Dr. Jones on the board, considering that he is a dairy nutrition consultant? He is here in a position of decision making while he has financial ties to dairies.

August 11, 2016

Study Session – Process for Selecting Next Executive Director

Jean Mendoza (Citizen): Asks the board to add a member of the community to the search committee. Be aware of public health related to air quality. YHD is seriously underfunded. YHD cannot even send a representative to YRCAA work groups. Asks the board to find a director with knowledge about public health. Asks the board to add Jim Dyjak to the search committee.

Jim Dyjak (Citizen): Why is there no emergency back-up for the director? What if he is killed in an auto accident? Most clean air agencies in this state have a director who is an environmental attorney. Let's make sure you hire a director with the educational qualifications. Avoid the good old boy system. Do they have the background, the knowledge, the people skills?

Sandy Braden (Citizen): Do you have any information from the Attorney General's office based on complaint re Dr. Jones conflict of interest?

Chairman Jon Devaney: Still awaiting an AG opinion. Will be asking YRCAA attorney for an opinion.

Braden: Has called the AG office to learn whether they have received a complaint. They said they have received no complaint. In essence, the supposed complaint has not reached them. Braden submitted her own complaint. Received confirmation.

Chairman Devaney; YRCAA submitted it as a general request, not a complaint.

Braden: Asked if there was a record of anything coming from Rep. Johnson. She will share her data with the chair.

Steve George (Yakima Dairy Federation): In regard to the selection committee. If you are going to open it up to persons other than the board, then please include someone from the regulated community.

Kathleen Rogers (Citizen): Reiterates what she has said before. Need someone from the public on the search committee.

December 8, 2016

Study Session for Proposed Ammonia Project

YRCAA presented a proposed ammonia study. Prepared by staff after conversations with Dyjak, Mendoza & Rogers. To assess the contribution of ammonia to aerosol emissions inventory. Suggested use of National Ammonia Program methods.

Proposed: Four sites, two in upper valley, two in LYV.

“will provide YRCAA with a better estimate of nitrogen inputs to the Yakima County airshed and a better understanding of the county’s emission inventory.”

Proposed Budget: \$14,400.44

Questions:

Costs? Come from profits from NOC or penalties. Those are discretionary funds. Absorbable.

Will establish additional baseline data? Yes.

Will not tell us anything about sources? Yes.

What will the decision tree look like? What would the board’s actions be after data is collected?

Answer: What we are trying to find out is how much ammonia is in the ambient air and how it contributes to the 25% of PM 2.5 in the UYV air and 33% of PM 2.5 in the LYV. Long term that might point to methods for reduction in the winter of PM 2.5. Might lead to changes in the YRCAA PM 2.5 Advance Program that we submit and change every year. There is no National Ambient Air Quality Standard for ammonia.

Dr. Jones: Disturbed by the phrase, “it is hoped”. Did you have a thesis or hypothesis for this study?

It doesn’t appear like there is randomization for sampling. This biases the study from the beginning.

Commissioner Elliott: How did you arrive at these four locations?

Dr. Tahat: About 3 years ago we submitted a grant for half a million dollars. There would have been 20 sites.

In this case, as far as I am concerned, ammonia is going to exist whether it is in an urban area or a rural area. No question. It is really a matter of time, temperature and humidity for contribution of PM 2.5. There are several ammonia sources in addition to dairies. Year long study will give you an idea of how much ammonia we have. It could come from fertilizer, or from other sources.

The objective, as far as I am concerned, is to say how much ammonia is in the lower and the upper valley. We can do some modeling eventually. Take those numbers and do some modeling county-wide.

Dr. Jones: Is there any agency policy about doing sampling on private property versus public property?

No.

Dr. Jones: So the YAWNS said that 97% of ammonia comes from agriculture and dairy was 94% of that. That’s really, really high. I’m suspicious of that number. Hristov studies estimated that only 50% of ammonia comes from agricultural operations.

Dr. Tahat: I don’t remember that number. If that number is true, I would also question that number.

Dr. Jones: If we know that ammonia is not the driver of PM 2.5, why do we need to measure it in the first place?

Dr. Tahat: We are talking about the primary source and the secondary source. Regarding secondary you are talking about the NOx, part of the combustion process.

Dr. Jones: But you are not going to get PM 2.5 unless you have the NOx. As long as you have the NOx available it is going to create aerosol nitrates.

Dr. Tahat: If you look at the ammonia by itself, then you can look at other reduction strategies. Going back to the National Academy of Science paper, either you are going to wait for the emission factors, or you measure. That is the dilemma, how much is there. We know it is there, but we don’t know how much.

The question we are being asked is, you don’t have the scientific data to show how much you reduce emissions with BMPs. With the data you can implement some modeling and develop control strategies.

In this agency we have never had the chance to say how much ammonia is in the air. Even though it is limited, I don't believe it is a bad idea.

Dr. Jones: To me it is like wetting your finger and sticking it in the air and saying, OK the wind is blowing. I don't see how you are going to come up with any definitive numbers.

Dr. Jones: Is there any approved method accepted across the United States for ammonia sampling?

Dr. Tahat: There are several. There is a lot. But you have got to look at the budget and how much you can do.

Keith Hurley: Initially we had two sites. I talked with Dr. Lehman at the national monitoring lab in Illinois and he said it would be better to have four sites. What you really need is a large array of sites.

Dr. Jones: What you are telling me is what you will get will be a number. It won't be worth a lot.

Mayor Childress: With the lack of a national standard, do you guys have an idea, what will you use as a baseline to tell us, this is a lot of ammonia, or this is not a lot of ammonia?

Dr. Tahat: What we have right now is the YAWNS and the subsequent study.

Jon Devaney: My understanding is that we will have the opportunity to question staff further as we need to.

Regular Meeting

Jean Mendoza (Citizen): Comment on ammonia project. No NAAQs. The CDC does have standards for chronic exposure. The U of W has studied asthmatic children in the LYV. At least three board members are presumed to have the public interests at heart. Please put public health at the top of your agenda as you think about this study.

Jim Dyjak (Citizen): Now if you have some numbers to show ammonia is here, it may give us data to get more grants. If you have the numbers, it may make a lot of sense to the people holding the purse strings.

Sandy Braden (Citizen): Back again for the eighth month. Have you heard from the AG's office about my complaint that Dr. Jones has a conflict of interest?

Board Chair Jon Devaney: I have not.

Kathleen Rogers (Citizen): There is nothing like getting your hopes up about something being done and then see someone on the board squelch it. We want monitoring because our dedication to this program has gone on for a decade or more. We don't come up here for our jollies. We come here because of what is going on in our homes. It feels like Dr. Jones is putting the industry ahead of the citizens. We have been battling YRCAA to get attention for many, many

years. And it is here. We are finally going to get something that will tell us what we are seeing and smelling and feeling.

Steve George (Dairy Federation): Has written comments that he will provide to staff. Will give a summary. We contacted Dr. Pius Ndgwa earlier this year because this is the first time this has come up about how ammonia emissions affect the air. I'm going to read an excerpt. Dr. Ndgwa says, "Air quality in Yakima gets worse in winter months from December to February when too many residents keep warm with wood burning stoves that when blended with vehicle emissions bring significant air quality challenges to the valley. Regional Clean Air Authority continues to work on improving air quality with local residents and businesses including farms. Although the research reveals small amounts of ammonia emissions from farms, these emissions are insignificant and do not pose an overall risk to human health."

States that research shows low levels of ammonia at sites outside dairy barns. States levels are below levels set by OSHA and NIOSH

So, a lot of the stuff has already been addressed. For the record, the dairy industry does not support this project as proposed. It is too cursory without enough depth. It targets dairy producers when there are other sources of ammonia. These sites are not random. They are biased.

The government is providing services to two chronic dairy complainers who have demonstrated that their complaints are frivolous, being used as harassment, and, according to agency staff that I have had conversations with, wasting public resources.

The dairy industry has already stepped up. We are in our third year of a mandatory dairy air emission program.

Jim Dyjak: I'm going to rebut that. He just gave you a false statement, that all the complaints have never been verified at my house. Do you know why? Not one person from this agency in sixteen years has ever been to my house. Not one. When you report something on Monday and they might come out a week later, it ain't going to be there. The study he cites was done inside the barns. Dr. Pius is using an assumption that the drift is less. This study will show whether it is there or not. I resent being told my complaints are wrong when no (investigators) have ever been to my house.

Larry Fendell (Citizen): All the testing has been done on dairies. The neighbors really don't care what is on the dairy. We care about what comes across the fence line. We care about all the fields where they apply manure, don't disc it in, make two or three applications. The neighbors get to smell it for a month. So, let's be fair about this. He (Steve George) is a paid person who gives you half-truths. Too many of us live with this. We want to know what is coming over the fence. We want it reported.

January 12, 2017

Study Session to Interview Candidates for Executive Director

Regular Meeting

Sandy Braden (Citizen): This is my ninth month asking this question. Have you heard from the AGs office yet about my complaint about Dr. Jones presence on your board. I feel there is a conflict of interest.

Chairman Devaney: We have not heard from the AGs office. In the interim it has been the board's determination that there is not a conflict. We are acting according to our own counsel's advice in the interim.

Jim Dyjak (Citizen): Discussion about the ammonia study. Dr. Pius supports what the agency is doing. He supports what you propose to do. He gives them a study by Dr. Ndgwa on measuring odors from dairies. He outlines low cost equipment for measurement because sense of smell is variable from person to person. He provides a form for doing the studies.

If you look at an odor complaint from this agency, none of this information is on there and it is very critical – the wind, the temperature. When you look at a form this agency fills out it just says, I was there, there was no smell. It tells you nothing about it.

I doubt if anyone at this agency has ever had certified training for using your nose.

Board discussion of proposed ammonia project.

Devaney: There were questions about cost and methodology. Do you have answers? No.

What data points would be actionable? It could lead to raised expectations and public disappointment.

Commissioner Elliott: I think that questions remain and I'm not comfortable approving it today.

Dave Edler will get a further report for next month.

Devaney: We'd like to table this till a future meeting where some of those methodological questions can be addressed.

Dr. Jones: Mark, will you accept some written questions from the board? Yes

Devaney: I know there is a lot of public interest. Why don't you communicate with the public and try to get their questions?

February 1, 2017

Commissioner Ron Anderson replaces Commissioner Rand Elliott

Discussion of contract with Keith Hurley, the choice to head the YRCAA.

Regular meeting was cancelled.

March 9, 2017

Study Session – Proposed ammonia project – Bill Lover, Rainey Haas & Steve Jones present

Comments were solicited. Copies provided to the board.

Dr. Jones: With DOE inventory of ammonia why are we doing further study? > 8,000 tons for the county?

Dr. Tahat: Differentiates between ag and animal ag. Basically, ammonia comes from livestock. The purpose is to look at temporal and spatial distribution. We would like to know how much ammonia is available in the atmosphere by season. It is a stretch to say the ammonia by source is the same in the UYV and the LYV.

If we are out of attainment for PM 2.5, We have to look at every source. Without data we have to use the emission inventory.

Dr. Jones: Four sites will give enough information?

Dr. Tahat: Yes

Dr. Jones: I am still not sure the four measurements are sufficient.

Director Hurley: We are not doing this for the dairies. We are looking at ammonia. Don't have the resources to do more studies. We have had 9 exceedances in 2017 so far. In the past we had 2-3. This is due to more sampling. This is purely an exploratory study. We do see value.

Dr. Jones: Drs. Harrison and Leytem said more data is needed.

Director Hurley agrees.

Bill Lover: Hear from the audience. Haas & Jones say No.

Regular Meeting.

Jim Dyjak (Citizens): Request removal of ammonia project under the fairness doctrine. Two board members have not participated in the ammonia discussions.

Public comment

Sandy Braden (Citizen): Month 11 asking if they have heard about complaint that Dr. Jones clearly has financial ties to the dairy industry.

Bill Lover: Our chair has been following this. The agency has received no update.

Rainey Haas: No information.

Kathleen Rogers (Citizen): Thanks Dr. Tahat and Director Hurley for presentations about ammonia studies. Last meeting was so difficult because her complaints were classified as frivolous. Don't vote today. Brought parents because they are also impacted. Dr. Jones does not

know the impact. Problems only began when the CAFO across the road from her began to grow. If the CAFOs are growing then we need to let YRCAA measure the air quality.

Jim Dyjak (Citizen): Questions about the community forum, item 12. Dan DeGroot said that economic incentives reduce emissions. Where is the documentation. The summary says the odor intensity is decreased. Where is the documentation?

Director Hurley: There was no documentation. That was his opinion.

Dyjak: Why not use the EPCRA calculations for animal ag?

Does anyone know if they have even been required to provide this information?

Keith Sparrow (Citizen): Lives in Grandview Sunnyside. Goes for walks in the evening. Sees high clouds of dust from cows that spread for several miles. The smells are in my house. I think the air monitors would show the problem before it gets worse. If the money is there, why not?

Jean Mendoza (Citizen): Provides handouts. Letter to YRCAA re conflict of interest. Response to Chairman Devaney's interim opinion. Formal request for date, time and minutes for the meeting where that decision was made. Mr. Cullier's letter to the board cites a requirement for board members to recuse themselves from discussion and voting on projects in which they have a financial interest. Requests that Dr. Jones not vote on the ammonia project.

Dr. Jones: Took offense when Mr. Fendell referred to PhD as piled higher and deeper.

Larry Fendell (Citizen): Comments referred to submitted letters by PhDs. When people talk about dust, that is not dirt. Let's call it what it is.

Director's Report:

Proposal to eliminate division reports at board meetings.

Ammonia Project – Table till next meeting? Yes.

April 13, 2017

Study Session for Budget

Regular Meeting

Jim Dyjak (Citizen): Approve ammonia research. On AQMP there were lots of questions by the public and we were blown away. Now the public wants research and industry opposes. The public could not attend dairy meetings. Dr. Jones was not a board member at that time and he attended. We need to work together. There has never been an actual citizen on the board.

He applied to be on the YRCAA board and was refused because he stated he would not vote on dairy issues. Then they appointed someone from the industry.

Public comments at the community forums do not reach the board. Why should we go to a meeting if it makes no difference? We are busy just like you.

When the public brought information that disagrees with information presented it is cut out. Now we cannot comment in a timely manner. If I have been slandered at a meeting (by Steve George) I will defend myself. Start working with the public, not just industry.

Devaney: You have spoken for five minutes.

Dyjak wraps up.

Kathleen Rogers (Citizen): Asked classmates about their experiences when they come back home for a class reunion. Several submitted comments. She reads five. She has fifteen. Please vote for ammonia study.

Sandy Braden (Citizen): Month eleven or twelve. Have you heard from the AG's office re conflict of interest?

Devaney: Yes. Will discuss during the agenda. The short answer is an unequivocal No. There are details.

Braden: She received a letter and reads point by point. No. 2 & 3 are in fact maybe. If there is a conflict of interest the member may not participate or vote on related issues. Will the board allow Dr. Jones a vote on the ammonia project?

Larry Fendell (Citizen): In the past things, when he was young, were discussed openly. There were heated discussions among the board members. Have not seen that for a long time. Appears that some things have been discussed outside of public meetings. I think you need to watch what is going on. I'd like to see some dissent. Five people do not agree all the time.

We want to know what is happening on our property. This is the agency's job.

Director Hurley suggests a study session on conflict of interest.

Devaney asks attorney Gary Cuillier if he sees anything in the AG letter that impacts voting at this meeting.

Cuillier: If Dr. Jones earns more than 20% of his income from an industry, he probably should excuse himself from a quasi-judicial hearing. Getting to the legislative issues, it is difficult, because legislators have agendas & constituents. Cuillier goes by the 2016 MRSC book, Knowing the Territory. They look at financial interest. If someone were to be influenced because of their customers, then there is a conflict of interest. The other conflict is if the agency contracts with someone that the board members works with. The other conflict is if the board member feels obligated to disclose confidential information. Sharing confidential information poses a conflict of interest. Doesn't really say that every legislative matter involves a conflict of interest. The AG letter leaves that up in the air.

Does not know about a conflict with the AQMP.

Plan to ask MRSC to present a study session.

Devaney: Re annual adoption of a fee schedule. Has impacted clients.

Cuillier: Schedules are presented by staff. Does not originate with the board. Does not see a financial gain or loss from voting on this issue.

Director: Letter from Steve George re Public Comments at Board Meetings – will formulate guidelines for public comments.

Ammonia Project

Dr. Jones believes he can be fair and impartial but asks for the board to consider.

Bill Lover – At City of Yakima they don't vote on anything without time to study the issue. The Las Vegas rule.

Devaney, the Las Vegas rule has been met.

Childress – I don't intend to make a motion. If Steve says he can be impartial I think he can be impartial.

Lover – To me there are citizens who do not want Jones to vote and they are using the conflict of interest issue to keep him from voting. Do we settle this before voting on ammonia.

Devaney further discussion on the Draft Ammonia Project.

Mayor Childress: Let's presuppose that we do this and get the results. What are the ramifications of the results? Does the agency have enforcement action as a result? Do you have sanctions?

Director Hurley: First of all, this is ammonia and there no NAAQ standards so there is no enforcement. The study will also educate us on the life cycle of ammonia in the valley. I don't see any enforcement.

Motion to take action. Anderson moves to adopt. Second – Childress. Discussion.

Commissioner Anderson: It is a study. I feel we need to have a study so we have a basis for any future actions and determinations.

Lover asks for staff input on the need.

Hurley: relates to non-attainment. May help reduce precursors.

Childress: No standards. I've been in the valley for close to 60 years. I lived across the road from the Monson feedlot. I understand. I smell it in Grandview. I don't know what we are going to do with the information. So, what do we do? Now we know the air stinks and there is dust. There has to be an end result.

Childress: Is ammonia a public health risk? Is there a danger to the public?

Hurley: What if we go through this and we see medium levels and we see something that says we need more monitors?

Dr. Jones: In March, the highest PM 2.5 was around 8. Can you directly relate any reading for ammonia to PM 2.5?

No.

Childress: If we do this it will just get our foot in the door. We'll have people coming to us saying there is ammonia in the air, what are you going to do?

Devaney: If we are solely looking at ambient and monitoring of regulated pollutants, why do we need four sites.

Hurley: I increased the sites at the suggestions of the AMON people.

Devaney: What is the cost difference between two and four sites?

Hurley: Roughly half.

Anderson votes in favor. Others, including Jones, vote no.

May 11, 2017

Jean Mendoza (Citizen): Tried to attend the public forum in April. Jumped through all the hoops she knew about. Was told to go home and come back in August.

Since the YRCAA is not doing ammonia studies, hopes YRCAA will use the ammonia studies already performed. U of W found levels up to 200 times the state average. Some samples above the minimum risk level for ammonia. Shared MRLs for ammonia from the CDC. If YRCAA cannot do your own studies, need to use the best available information.

Re Ag advisory committee. Last month's report sounded like everything was going well. Disagrees. YRCAA shared no data at the meeting. No data from the AQMP. The only evidence at the meeting was testimony from two people who live close to dairies. In one home a woman's son came to her and said he could not breathe.

April 2016 board meeting. Last report in 2014. Beginning in 2015 dairies with grade D would be visited every 6 months, grade C dairies would be visited every year. This has not happened.

August 10, 2017

Study Session on Ethics and Conflict of Interest

General Session

Jean Mendoza (Citizen): March of this year AG task force met. Later Director presented a review of the AQMP for dairies. I sent you a disagreement with Director Hurley. Will send the disagreement again and requests a response.

Kathleen Rogers (Citizen): In July she took videos of air in her area. She will send a copy. The air in Grandview/Sunnyside is horrid and she will persist until they do something.

Board made changes to the code regarding public comments.

September 14, 2017

Sandy Braden (Citizen): A year and a half ago she asked about conflict of interest re Dr. Steven Jones. Listened to Jim Daugherty from MRCS. No definitive answer whether there was a problem here, whether Dr. Jones is allowed to vote on issues related to dairies.

Dr. Jones is also supposed to address the general public interests

Dr. Jones Mr. Chairman, I have a point of order – Public comments are supposed to address an agenda matter.

Braden: The fact that we were supposed to, according to Mr. Cuillier he brought this gentleman in to address . . . cut off

Childress – that item is not on today’s agenda.

Hurley – You are absolutely correct. that item is not on the agenda. Her characterization is incorrect. It is wrong. It’s off. There were three opinions.

Braden: Which were two maybes and a no

Hurley – No, it is pretty clear. Much more . . .

Braden: OK, may I finish. Is this something new, that I’m not aware of. People have brought up things before . .

Lover: The first three lines state. . .

Hurley: The admin code is quite clear and was discussed at the last meeting. There is a process now for people to submit comments to me ahead of time.

Braden disagrees.

Lover: He has not ruled on a point of order.

Childress: This board has put things to rest. If you want to bring it to us . . . I don’t think this board has any problem with Dr. Jones serving on the board. I think we put this issue to rest.

Braden: You see no problem with Dr. Jones voting on air quality issues related to dairies?

Childress: I personally don’t. You would have to go to the board members individually. Case by case. If a conflict arises we will address it.

Lover: Point of order. We have not discussed the point of order.

Childress: You are correct. Her comments addressed something not on the agenda. If you want to continue this submit comments ahead of time.

Braden: Is this something new.

Hurley: The admin code was discussed last month.

Braden: At an open public meeting why is the door locked?

Don Lyon (Citizen): I don't know whether what I want to talk about is on the agenda. I was invited to this meeting by Commissioner Ron Anderson. . . I'm here and I would like to speak.

Childress: What item are you speaking about.

Lyon: I am speaking on clean air . . begins

Jones: Point of Order is it on the agenda

Childress: I don't know

Lover: We have public comments on the agenda. Should we suspend the rules.

Childress: I would entertain a motion to suspend the rules until we get this sorted out.

Jones moves, Second.

Discussion follows. Passes. Will allow Ms. Braden to restate her comments.

Braden cites definition of open public meeting.

Lyon: I'm just trying to get some information out here. Up until 1994 summers were always clean and pristine. We have choices but I think we can make better ones.

The clean air authority does some good things. But . . two weeks ago I called the YRCAA when it was so smoky I could not see Ahtanum Ridge from my home north of Selah. There was no burn ban n effect.

Burn permits in this county are just a source of revenue. Many are not following permits. Some homeowners burn large piles on the weekend when the YRCAA is closed. Some burn large amounts of unpermitted materials.

When are we supposed to get a breath of fresh air around here?

Except for agriculture, outdoor burning should be outlawed countywide – my opinion.

Easter Sunday, I came out of the house. It was so smoky I thought I was in the forest fires of '94. Two houses north of me was a pile burning. Neighbor was burning. He said, "I've got a burn permit". He didn't follow it.

I've had heart palpitations due to bad air. How many people are dying because of the air.

Jean Mendoza (Citizen): "I did attempt to get something on the agenda." Her request is not on the agenda. I want to submit a petition. Can you tell me your preferred method?

Childress, Hurley – don't know

Mendoza: I'm just asking.

Hurley: I would have to research.

Childress: Do you have copies. Go ahead. I don't have a problem.

Mendoza: How soon will you get back to me?

Childress: I don't know.

Hurley: I will have to take a look at the Clean Air Act.

Mendoza: Will you give me time to talk at the October meeting?

Childress: Yes

Mendoza: Will you give me more than three minutes?

More

Can present at a study session.

Mendoza: It is a legal petition from the citizens so I hope you will take it seriously.

Francisco Maltos (Citizen): I want you to think about something. Global warming is for real. Suggest that the YRCAA discuss the benefits of inviting more people to participate, specifically the young people. They are the future and, unfortunately, they have to deal with global warming and climate change. If you set an example by being proactive by trying to engage and think about this issue.

October 12, 2017

Study Petition to Ban Spraying of Manure during Burn Bans

CARE and FOTC asked for the ban.

Director Hurley presents. April 20, 2013 the same petition was presented. This is the second submission. Process ceased after public meetings.

Hurley recommends rejection of petition. No evidence of change. Conflicts with RCW 90.64 and RCW 90.48. Laurie Crowe from SYCD says permit processes have emergency application

provisions. Cites the agricultural exemption. There is no evidence that spraying of manure during burn bans endangers public health. Such a rule would impact many farmers.

Adds a letter from Gary Cuillier. Finds no impediments to deny or initiate rule making. A discretionary legislative policy decision.

Jean Mendoza (Petitioner): Mr. Hurley spent a great deal of time investigating from the perspective of the dairy industry and no time on public health.

No one should be adding pollutants to the ambient air when it is unhealthy. Intentionally adding pollutants to the air when it is unhealthy is unwise.

Rebuttal of five recommendations.

- RCW 90.64 does not address air issues. DNMA is for water.
- Most dairies are not covered by NPDES permits and these only address water.
- Overtopping should only be an emergency situation. Don't see why this is a valid reason for not protecting public health.
- Local regulations cannot be less stringent than state. Reads ag exemption for YRCAA. Reads state exemption – more information “unless the practice has a substantial adverse effect on public health and safety.”
- It is incorrect to say that spraying does not impact public health.
- Section 2.03 A of the SIP – no false statements
- Research shows increased morbidity and mortality with increased pollution.
- There is no proof that farmers would substitute synthetic fertilizers for manures.
- Compares inconvenience to dairies to inconvenience when orchardist cannot burn trees at will.
- Director did not tell us how many lbs. of ammonia in fertilizers are applied and how many lbs. of manure are applied.
- Manures are aerosolized and this increases air pollution.

People of the LYV are more likely to be poor and people of color.

Most manure is spread in a 271 square mile area.

Know the impact of disease related to PM 2.5. Know the percentage of PM 2.5 in the LYV from ammonium nitrate.

Talks about reduced life expectancy and spread of infectious organisms when the air is stagnant.

No questions.

Devaney: This issue is appropriate for the public comment period.

Regular Meeting

Review of Administrative Code Part A, Public Comments

Director Hurley: Letter from Yakima Valley Dairy Federation – concerns with conduct of board meetings. Resolution 22.11.

During the May board meeting the board requested procedures for conduct of public comment period.

Page 5-10. Agenda posted on YRCAA . . . Requires the public to submit comments ahead of time for approval.

Public comment period on page 9-10. Must identify agenda item to be addressed. < three minutes per person.

Will introduce a change to the format for agendas.

Mayor Childress: I voted for it, but I don't like it. There needs to be a way for people from the street to address us. There needs to be civility and decorum. We need a way for people to come to the podium and say their piece.

Chairman Devaney: When there is back and forth, we are getting into an un-advertised discussion of policy.

Mr. Lover: I have always been in favor of public comment. Never too much, maybe too loud.

Devaney: You don't have to come to these meetings to interact with staff or board members.

Public Comments:

Jim Dyjak (Citizen): Comment section needs to be moved to the end of the meeting. It is hard to address items on the agenda until we have the opportunity to hear the presentations.

On the petition, if you go to the state website. There is a form that says, when you say no, you have to reply, say why and provide an alternate method.

None of the material Jean turns in to the agency is sent to the board. The dairy information is shared with the public and the board, but the board does not hear public health. Let's take a look at the documentation.

Devaney: We had issues with emails from the agency not being auto forwarded to our personal emails. At some point my workplace decided this was spam. Forwarded mails are flagged as spam by many systems. It was not intentionally not forwarded by staff.

Lover: There should have been a point of order called as soon as he started talking about the ED. Get in the habit of not allowing negative comments.

Childress: Also had trouble with emails. Has been rectified. You are correct. A lot of information did not reach us.

Larry Fendell (Citizen): Comment period should be moved to the end of the meeting. RE the petition, a burn ban is called because the air is unhealthy. If you ever drive by one of these fields at this time you know. This is in the dead of winter when artificial fertilizer is not spread. They spread manure because they need to get rid of the manure. There is a huge difference when they turn on the big guns in the evenings. There are 84,000 people in the LYV. People can't heat their homes during a burn ban. It seems idiotic that they can spray raw sewage during a burn ban.

Steve George (Dairy Federation); Re the petition:

- Discussion made it sound like the dairies are not regulated. Are the most regulated segment of ag in the state.
- We have the AQMP in place. All dairies are inspected by this agency.
- Nobody talks about the increase in population and the increase in vehicle traffic, the main contributor to pollution.
- There was a burn ban for 60 days last summer and that is during the growing season.
- Best practices are to spoon feed fertilizer to the plants a little at a time.
- "Dairy is second only to apple in Yakima County. Employee nearly 5,000 people. Over 90%, probably closer to 99% is of Hispanic origin. So, those people, I feel I represent, along with the 60 -70 farm owner families. Those people like their full time jobs, They like to buy their houses and their cars. The dairies are a huge employer of minorities and those guys like their jobs. We don't seem to see those health effects with the workers and their families that live on those farms."

I'd like to add to the public comment issue. Keith mentioned that the letter I wrote to the agency is in your file. I wrote that letter because I was tired of the type of conduct I was getting from other people who were making public comments.

I don't know where the comment came from that the dairy industry is running things, because I'm from the industry and I haven't talked to anyone.

Sandy Braden (Citizen): Doesn't claim to be a scientist. If your purpose as an agency is to guard the public health of this valley. When dairymen chose to spray manure into the air during a bad event, common sense says you are adding to the pollution.

November 9, 2017

Study Session re YRCAA Permit Program Revenue Analysis

No comments

December 14, 2017

No public comments

January 11, 2018

No video

February 8, 2018

No video

March 8, 2018

No public comments

April 12, 2018

Study Session re Legal Costs of Exposure for the AQMP for dairies

Director Hurley: December 9, 2011 the agency was sued by Citizens for Sustainable Development. Followed by \$120,000 settlement. Legal fees = \$60,000. Consequently developed Admin Code Part C.

Jan Whitefoot has sued the agency over public records access.

Started tracking PRR.

Annually 425 work hours fulfilling PRR. Dairy issues require more staff time and are more complex. Dairy centered PRRs are about 19%.

Two suits directly related to dairy PRRs. No estimate of future costs re PRR and lawsuits.

Legal costs are allocated under base operations, professional services.

PRR is spread over entire spectrum of YRCAA work.

Childress: What happened in 2011?

Violations of the Public Records act.

Could be a plethora of issues with the PRR. With the new law suit we are concerned with redactions.

Devaney: Understands that by collecting information YRCAA is a target for lawsuits against dairies.

Hurley: Some of the data in AQMP forms there is protected information. Have a duty to protect. On the flip side, there may have been a misunderstanding that anything they turn in was protected. The records open us up to legal liabilities.

Devaney recommends continuing the discussion at a later time. Provide guidelines that reduce emissions without collecting information that may contribute to litigation. Need to more fully explore their options.

Kay Funk: Are your records electronic.

Hurley: They are electronic. There are problems doing redactions electronically. There is some paper. Try to digitize where they can. YRCAA is a lean agency.

Devaney recommends that Hurley brings back more information.

General Meeting

No public comments

May 10, 2018

Study Session for Review of the 2018 Budget Summary and Proposed 2019 Budget

General Meeting

No public comments

June 14, 2018

Study Session to Review the 2019 Budget

General Meeting

Jean Mendoza (Citizen): YRCAA is responsible for implementing the federal CAA. Sent research regarding “manure irrigation”. A permit is required in Wisconsin. Sent the board related research. Looked only at bacterial infections. Three different bacteria – Salmonella, Campylobacteria and E-coli 0.157. Did find an increase in infections when manure is sprayed and spread.

How many people are allowed to get sick before we impose regulations on animal agriculture.

Summarized the research – zoonotic GI infections.

In Wisconsin manure spraying is prohibited within 500 feet of a home. Recommended that manure irrigation should not take place during inversions. Cites pages.

Devaney: Are the documents included in the Monthly Packet? Yes.

August 9, 2018

Study Session to Review the AQMP

Director Hurley: Presents an executive Memorandum. Vast majority of litigation risk relates to the documents collected. Impressive requirement to examine documents for PRRs. If they reduce the data in the collected documents reduces litigation risk.

Maintain the policy in current form.

Terminate in entirety.

Modify by reducing the

Terminate and publish as a resource guide.

Blend of strategies 3 & 4.

Anticipate a federal plan to estimate air emissions from animal ag that will require data collection, if animal emission factors are promulgated.

Devaney asks about conflict of interest.

Dr. Jones does not believe he has a conflict but steps out to avoid problems.

Hurley recommends rescinding the policy and making it a resource guide.

Calls Laurie Crowe from SYCD to add information.

Hurley: I don't know if she is a doctor or not. (In fact, Ms. Crowe does not even have a bachelor's degree).

Devaney: How would you use this document in the future?

Hurley: We would make it available on the website and to anyone who asks. We would continue to provide free consultation. A bookshelf reference.

Laurie Crowe: We (SYCD) gathers our own information gathered from other agencies. Each dairy has a nutrient management plan. Dairies are inspected by WSDA. There is a tool for

producers to evaluate their own properties. She is in the process of adding a web page on dairies. Partnering with YRCAA they could do a fantastic job.

Crowe: Dairy odor and dust has always been part of the nutrient management plans.

Anderson: Would you send out letters that say your web sites are linked. Could send letters to dairies.

Childress: Concerned about changing from a policy to guidelines. Takes the teeth out.

Hurley: Cannot enforce anyway.

Crowe: Most eastside producers are doing a really good job.

Childress: I've found that with any group you have bad apples.

Hurley: If we felt the need, we could always bring in WSDA.

Crowe: A lot of people do call them.

Devaney: How do we require other industries to pay a fee in anticipation of modeling?

Hurley: We don't require people to register for modeling. For ag do not have approved estimated emission factors. Nationwide do not. His opinion that the state will do this first.

Devaney suggests coming back during the regular board meeting.

Regular Meeting

Jean Mendoza (Citizen): More information regarding the dairy policy. Is part of a group looking at atmospheric deposition – wet and dry. The EPA does study atmospheric deposition of ammonia across the nation. There is a monitor in Twin Falls, Idaho. Similar to Yakima County. CDC says that anything > 25 ppm for eight hours is hazardous to human health. Left copies.

September 13, 2018

Study Session re Reducing Litigation Risks

Two proposed resolutions:

1. Simple Rescinding.
2. Maintain registration and publish AQMP as a resource guide.

For purposes of discussion. No action. Action in October.

Dr. Jones: Questions about distribution of BMPs. (Dr. Jones stepped out of this AQMP discussion in August)

Chair Devaney: Do we currently maintain lists of other sources?

Yes. What is different in this is when they pay a registration fee, they go through New Source Review.

Dr. Jones: If other clean air agencies wanted a dairy policy, they would have to get information from other agencies. Or gather the information themselves.

Childress: I assume the fee covers administration costs.

Hurley: \$124 per registration for a scaled down program – for two hours of work. For all sources it is \$423 normally.

Childress: Is there a problem with sharing information? Do you have interlocal agreements? Why do you need a PRR?

Hurley: No intergovernmental agreement with WSDA.

Dr. Jones: The registry would potentially be an inventory?

Hurley: Yes. It would be part of being a good air agency. Would provide a clearer description of the airshed.

Jones: How do CERCLA and EPCRA fit in?

Hurley: We want to be the best agency we can be. There is a recent court decision. CERCLA and EPCRA no longer required. But we owe it to the public to know what is happening in the airshed.

Decision in October.

General Meeting

Jean Mendoza (Citizen): Apology because she brought inaccurate information re Twin Falls. Math error.

Dept. of Ecology is readdressing standards for toxic air pollutants. Will attend meetings.

During unhealthy air days last month, dairies continued to spray manure into the air.

Devaney: Do we post the revision study to our website?

Hurley: Gives an overview. Will not be a complete rewrite. Dr. Tahat sits in on the meetings.

October 11, 2018

No public comments

Board votes to rescind the AQMP for dairies.

November 8, 2018

Study Session Review of Calendar 19 Fee Schedule

Regular Meeting

No public comments

January 10, 2019

No public comments

February 14, 2019

No public comments

March 14, 2019

Study Session to discuss public comments.

Director Hurley: Hx refresher. Took over as Director on February 17, 2017. Soon after the board approved changes to public comments.

Reviewed the community forum so items could be addressed that are not appropriate for the board.

Will make an addition to the policy today. Suggested addition. "The agenda is the business at hand." Comments by public commenters are to be directed to the board chair. Have heard from MRCS, Jim Dougherty - Recommend putting restriction on when public comments are allowed. Limit to matters on the agenda. Time limits are good.

Mayor Childress: I don't know that we should put on restrictions. If people read that we are having a meeting, come down and have an issue that they want to talk about, I don't think we should restrict it to agenda items only.

Dr. Jones: Items were being brought up that the agency had no control over. It got to be pretty frustrating for me personally listening to things we could not address.

Chair Devaney: We had issues brought up that tended to engage the board. We had unnotice debates.

Commissioner Childress: I've presided over hundreds of meetings. These are lay people. I know you can get off topic, but people really don't understand. I can go both ways. I think people have a right to express their concerns. Maybe they will say something, and we can give them help.

Chair Devaney: I have not refused to hear a public comment. I don't think anyone else has done so.

Director Hurley: Parliamentary Rules govern. If we are going to suspend rules it takes 2/3 to do that by a motion and vote. Options:

- Suspend the rule for a certain meeting.
- Rewrite the rule, doesn't have to be an agenda item.

Childress: The rule says any item relevant to the business of the board, not an item on the agenda.

Devaney: My view is that when people have detailed information on a specific issue the board may not be prepared.

Childress: We could give people more than three minutes if they ask to be put on the agenda. Items should be for discussion with not action – avoids need to notify the public.

Dr. Jones: I think you will put a lot of pressure on the chair. There were some aggressive comments. Pressure on the chair to calm the public. The chair has to be able to cut off comments if they get out of bounds and that will be difficult. Needs to be something the agency can actually do something about.

Childress: I don't know that we can decide this until we give people the chance to speak.

Dr. Jones: I want people to address something that the board or the agency can actually work on and that is not what we had in the past.

Devaney: They could relate to the Director's report and agency operations. As chair I would interpret it broadly. I would relate it to the agenda and board activities.

Agree on no change and discretion of the chair.

Regular Meeting

Last Monday was a deadline for selection of a representative from the Small Cities. No nominations. Will have to start the process all over again. Not sure if he has the authority to call a meeting of the City Selections meeting. (Norm Childress, former Mayor of Grandview and rep to the YRCAA board, was elected to the Yakima County Comm

Commissioner Childress: I have had two people from the small cities ask and it appeared that the message is not being passed along.

Hurley: Don't know if the process is convening the City Selection Committee or starting communication for the third time. Will target June. We have met our obligations as far as the CAA goes by starting the process.

Sandy Braden (Citizen): Placed on the agenda for “Other Business”

Jean Mendoza (Citizen): Am I allowed to talk about the study session? Knows that people have asked to have public comments at the end of the meeting. Previously was a member of the AG task force and disagreed with Director Hurley’s summary of the meeting. Asked to be put on the next agenda to make corrections at the next meeting. Was not placed on the agenda. Emailed each of the board members. Asked them to let her know if they received the emails and there were no replies.

At a previous board member Board Member asked if private citizens could represent small cities. That is encoded in code A. That is an option. Please let the public know.

It is frustrating when private citizens come here month after month and feel that they are being stonewalled. This is a reason for anger.

Received a letter from Kirk Ellis. Hurley is in communications with the EPA Office of External Civil Rights.

Usually get 2-3 exceedances per year. May be more this year. One in 20 year event.

Sandy Braden: Clarification of the type of burn permits and enforcement methods if an inspection officer determines that the permit is not the correct one. Initially talked to Director Hurley at a community forum. Relates a case. Appears that someone used an incorrect permit for land clearing and there were no consequences.

April 11, 2019

Sandy Braden (Citizen): Addressed the board last month re enforcement of burn permits. Discussed at last month’s community forum which she missed. Asks what happened.

Chairman Devaney: Contents of meeting will be available on the YRCAA website.

May 9, 2019

Study Session to Address on Proposed FY 2020 YRCAA Budget.

Regular Meeting

No quorum

Jean Mendoza (Citizen): Study Session, Composition of the Board, and Inform about an Ammonia Study. Is that alright?

Yes

There is a law that the majority of the board members need to represent the public. Since January there has been a 50/50 split. Two are elected officials. Two are from the regulated community.

Re SIP policy. Asks the agency to follow its own guidelines when reviewing regulations. Shares problems with YRCAA Regulation 1, in place since 2003.

FOTC completed an ammonia study between Sunnyside and Grandview. Results show that on average the samples were above the Minimum Risk Level (MRL) for chronic exposure.

Why has the YRCAA gone from 11 FTEs to 10 FTEs? Gone from 3 inspectors to 2 inspectors. If either of the inspectors takes vacation, that leaves only one inspector to do the work. The cost for salaries and benefits has gone down but the cost per FTE has gone up.

Would like to hear what the YRCAA is doing about SIP.

How are raises determined? Who evaluates whether people reach their job goals?

Director Hurley: State of the Air 2019. Yakima is the sixth most polluted city in the nation for fine particulate matter. Previously was sixteenth. YRCAA attributes this to wildfires.

WA Dept response to FOTC for requested review of YRCAA.

Small City rep. Receiving nominations and will move to balloting portion.

June 13, 2019

Mayor Jose Trevino from Granger joins the board.

Jean Mendoza (Citizen): Questions about pages 11 & 12. Numbers don't agree.

Director Hurley: Probably a data entry error.

Testimony on Budget.

Jean Mendoza (Citizen): Sent an email re the budget to the agency and board members with questions. Received no answers. It is difficult to comment on a budget with so many unanswered questions.

Director Hurley: We are not required by law to respond. I looked at the comments and considered them. There is no requirement to respond. I believe she addressed them to board members. We can respond if you direct me to.

August 8, 2019

Jay Hester (Sunnyside Port District) Speaks about relocation of Ostrom's Mushrooms to Sunnyside. Experience with permitting has been exceptional.

Executive Session re Potential Litigation

September 12, 2019

No public comments

October 10, 2019

No public comments

November 14, 2019

No public comments

January 9, 2020

Vicki Baker replaces Norm Childress as County Commissioner

Jean Mendoza (Citizen): Ask for report on update to SIP revisions. Also, requests a report on how the agency is addressing risks from the composting of dead animals in Yakima County.

SIP will be addressed in March.

Composting of animal carcasses? Article in the YHR. More the purview of the YHD and WSDA. YRCAA visited sites, identified no adverse impacts. Have not identified any odor complaints specifically related to the compost. No air testing.

February 13, 2020

I'm Sandy Braden, Friends of Toppenish Creek. I have a question to Director Hurley. It concerns an observation I made earlier today about, I'd say about 20 acres, maybe 25 acres off of Washington and 64th. Its due north of what is the Work Release buildings, what used to be the Ahtanum Correctional Complex, and then at a diagonal from this portion of land is a large mobile home park, and there's housing all around. It appears they have taken the orchard out on that chunk of land and there are currently some huge, what I would consider huge, house sized piles of orchard trees that look like they are getting to be prepared to burn, and I was looking at my information on burn permits and that sort of thing, and it appears that sort of thing is a land clearing permit, but with that kind of burning there are certain restrictions, and one of them is a population concern, and I was wondering what Mr. Hurley intends to do about this if in fact they burn in this area.

Chairman Devaney: I don't know if we have any particular details on a permit that may or may not have been requested yet, but that may be a follow up item for you after the meeting.

Sandy Braden: OK

Director Hurley: I can address this. First of all, let me correct her on an assumption that is wrong. It is not land clearing, so the restrictions for land clearing do not apply. Second of all, there were in the time I've been there, there have been two, possible three burns conducted there for the exact same reasons, specifically the southwest corner of 64th and West Washington, and then the southeast corner of the south side of Washington. They were approved correctly by the last director because it is not land clearing. It is inside the UGA, the urban growth area. OK? The urban growth area has by state law two types of burning that are prohibited. One is land clearing. The other is residential. That's why we only issue residential burn permits outside the UGA from March 16th to October 15th. So, that's one. Second, we do not have a complete permit. There's issues with the application that was given to us. Agricultural burning within a UGA is permissible. Our job is to identify the risk, mitigate it down to an acceptable level, which we have clearly done with three other burns in that same general area, and then to supervise and make sure that those conditions on the burn permit are followed. And in the previous burns in the exact same area, almost the exact same acreage, were followed. OK? So, I'm well aware of the chatter on the internet, of the citizens' group that lives in the house, of being rightfully so, concerned about smoke impacting that community. By the way, that community has expanded a little since the other burns, but its always been there. So, its not the only housing in that area, by the way. There's a distinct housing area, catty corner, right off of 72nd and West Washington, and I myself when the other two burns were conducted, was living in Valley Brook, which was at the end of 72nd and the t-bone of West Washington. So I'm very aware of it. We have a meeting . . . We will have a meeting with the orchard, the agricultural activity that wants to conduct the burning. I actually had a phone call with the individual yesterday. He's out of town. They're not looking to burn until May which makes it even better because one of the strategies is you must let stuff dry at least 30 days prior to burning it. He knows to let it dry 90 or 120 days. But then how they conduct the burn will also identify patrol measures and its not anything that's not been done before and if supervised correctly and conducted on a day when its conducive to the burn, there will be no impact to that neighborhood. So, we're aware of it, we're on top of it, we're gonna do our job, and I don't know what other questions I can answer.

Sandy Braden: What type of permit is going to be used, What type of burn have you identified . .

Director Hurley interrupts: It's an agricultural burn . .

Sandy Braden interrupts: An agricultural burn . .

Director Hurley interrupts: Not a land clearing burn.

Sandy Braden: So, you're saying that land is going to be re-planted with something?

Director Hurley: That is correct.

Sandy Braden: Okey dokey. Thank you very much.

Director Hurley: Just like the other two plots were re-planted.

Sandy Braden: Thank you.

(A verbatim transcription. J. Mendoza)

March 12, 2020

Study Session re SIP Need to update Regulation 1

Sandy Braden (Citizen): Watched a news report on KIMA news re Tree Tops Waste Water Pollution. Director Hurley stated the odor was a solid 2, but not enough to warrant any further investigation. What scientific method was used to establish this conclusion?

Mayor Trevino: Is there a process or method where a concerned citizen can ask the agency that question?

Director Hurley: There is no scientific method for determining odor. This state classifies this as a pollutant. Our field agents used a scale with a four point odor evaluation. Its not as simple as Ms. Braden led you to believe. We get this question all the time. It is not a scientific method, but it has been approved. We draw the line at 3, typically causes people to wretch. Tree Top is well aware. We are working with Tree Top. No action. As APOC I get to decide when to take action. Will take a significant financial investment to fix the problem and they know that. There is no certification for the odor evaluation. We do test inspectors sensitivity. Talks about coffee roasters in the Puget Sound Area.

Rules and Regulations with which the YRCAA does not comply.

RCW 70A.15.2000(6) Wherever a member of a board has a potential conflict of interest in an action before the board, the member shall declare to the board the nature of the potential conflict prior to participating in the action review. The board shall, if the potential conflict of interest, in the judgment of a majority of the board, may prevent the member from a fair and objective review of the case, remove the member from participation in the action.

WAC 173-400-260 Conflict of interest: All board members and officials acting or voting on decisions affecting air pollution sources, must comply with the Federal Clean Air Act, as it pertains to conflict of interest (Section 128).

Dr. Steven Jones has been appointed and reappointed to the YRCAA Board of Directors by the Yakima County Commissioners. Dr. Jones earns a significant amount of his income as a dairy nutritionist. Dr. Jones discusses and votes on issues related to the dairy industry.

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RCW 70A.15.1005 Declaration of public policies and purpose. Paragraph 6

It is the policy of the state that the costs of protecting the air resource and operating state and local air pollution control programs shall be shared as equitably as possible among all sources whose emissions cause air pollution.

The Yakima Regional Clean Air Agency does not regulate the dairy industry and does not impose fees on the dairy industry. Air and water pollution from LYV dairies is extensively documented.

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RCW 70A.15.2270 Annual fees from operating permit program source to cover cost of program.

- (1) The department and delegated local air authorities are authorized to determine, assess, and collect, and each permit program source shall pay, annual fees sufficient to cover the direct and indirect costs of implementing a state operating permit program approved by the United States environmental protection agency under the federal clean air act. . . .
- (2) The fee schedule developed by each permitting authority shall fully cover and not exceed both its permit administration costs and the permitting authority's share of statewide program development and oversight costs.

The Yakima Regional Clean Air Agency does not regulate the dairy industry and does not impose fees on the dairy industry.

RCW 70A.15.3060 State financial aid—Application for—Requirements.

- (1) Any authority may apply to the department for state financial aid. . . .

(2) Before any such application is approved and financial aid is given or approved by the department, the authority shall demonstrate to the satisfaction of the department that it is fulfilling the requirements of this chapter. If the department has not adopted ambient air quality standards and objectives as permitted by RCW 70A.15.3000, the authority shall demonstrate to the satisfaction of the department that it is acting in good faith and doing all that is possible and reasonable to control and prevent air pollution within its jurisdictional boundaries and to carry out the purposes of this chapter.

The YRCAA receives funding from the WA State Dept. of Ecology in spite of the fact that it does not regulate the dairy industry and imposes no fees on the dairy industry. The YRCAA shields the dairy industry from scrutiny and from regulation.

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WAC 173-400-100 Source classifications.

(1) Source classification list. In counties without a local air pollution control authority, or for sources under the jurisdiction of ecology, the owner or operator of each source within the following source categories must register the source with Ecology:

(j) Cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1st and October 1st, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season;

(l) Composting operations, including commercial, industrial and municipal, but exempting residential composting activities;

RCW 70A.15.3050 Emission control requirements.

(1) Every activated authority operating an air pollution control program shall have requirements for the control of emissions which are no less stringent than those adopted by the department of ecology for the geographic area in which such air pollution control program is located.

The YRCAA has no requirements for the control of emissions from dairies or from manure composting operations. Dairies are also cattle feedlots where vegetation forage growth is not sustained during the normal growing season.

There are over 500 acres of manure compost in Yakima County. Much of this composting is done on bare ground with no provisions for managing runoff and no air monitoring.

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RCW 70A.15.3150 Penalties.

(1) Any person who knowingly violates any of the provisions of this chapter or chapter 70A.25 RCW, RCW 70A.45.080, or any ordinance, resolution, or regulation in force pursuant thereto is guilty of a gross misdemeanor and upon conviction thereof shall be punished by a fine of not more than ten thousand dollars, or by imprisonment in the county jail for up to three hundred sixty-four days, or by both for each separate violation.

(2) Any person who negligently releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who at the time negligently places another person in imminent danger of death or substantial bodily harm is guilty of a gross misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for up to three hundred sixty-four days, or both.

(3) Any person who knowingly releases into the ambient air any substance listed by the department of ecology as a hazardous air pollutant, other than in compliance with the terms of an applicable permit or emission limit, and who knows at the time that he or she thereby places another person in imminent danger of death or substantial bodily harm, is guilty of a class C felony and shall, upon conviction, be punished by a fine of not less than fifty thousand dollars, or by imprisonment for not more than five years, or both.

(4) Any person who knowingly fails to disclose a potential conflict of interest under RCW 70A.15.2000 is guilty of a gross misdemeanor, and upon conviction thereof shall be punished by a fine of not more than five thousand dollars.

Yakima County dairies emit particulate matter, ammonia, hydrogen sulfide and volatile organic compounds into the ambient air in amounts that exceed regulatory thresholds. There is documentation that forced expiratory volume for asthmatic children in the LYV has decreased during periods with high ammonia levels. Citizens have complained to the YRCAA about difficulty breathing due to dairy emissions. Dairies in Yakima County do not have air permits.

As a member of the YRCAA Board of Directors, Dr. Steven Jones has voted on dairy related issues without disclosing a conflict of interest.

* * * * *

RCW 70A.15.4530 Odors or fugitive dust caused by agricultural activities consistent with good agricultural practices exempt from chapter.

(1) Odors or fugitive dust caused by agricultural activity consistent with good agricultural practices on agricultural land are exempt from the requirements of this chapter unless they have a substantial adverse effect on public health. In determining whether agricultural activity is consistent with good agricultural practices, the department of ecology or board of any authority shall consult with a recognized third-party expert in the activity prior to issuing any notice of violation.

(2) Any notice of violation issued under this chapter pertaining to odors or fugitive dust caused by agricultural activity shall include a detailed statement with evidence as to why the activity is inconsistent with good agricultural practices, or a detailed statement with evidence that the odors or fugitive dust have substantial adverse effect on public health.

(6) The exemption for fugitive dust provided in subsection (1) of this section does not apply to facilities subject to RCW 70A.15.2200 as specified in WAC 173-400-100 as of July 24, 2005, 70A.15.2210, or 70A.15.2260. The exemption for fugitive dust provided in subsection (1) of this section applies to cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1st and October 1st, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season; except that the cattle feedlots must comply with applicable requirements included in the approved state implementation plan for air quality as of July 23, 2017; and except if an area in which a cattle feedlot is located is at any time in the future designated nonattainment for a national ambient air quality standard for particulate matter, additional control measures may be required for cattle feedlots as part of a state implementation plan's control strategy for that area and as necessary to ensure the area returns to attainment.

There is no YRCAA policy that describes good agricultural practices in Yakima County. Consequently, dairies can confine as many animals as they wish in as small an area as they wish. Dairies can allow manure to accumulate in the pens for months upon months. Dairies can stockpile manure for years. Dairies can turn compost during windy days. Dairies can spray and spread manure during air inversions and burn bans. Dairies can generate fecal dust ad lib.

YRCAA has received complaints of health impacts due to dairy emissions and has not investigated according to their own protocols; has not measured emissions; and has not performed odor evaluations. YRCAA has not considered the research that relates air pollution to cardiovascular disease.

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YRCAA Regulation 1, 1.03 POLICY.

This section implements the Washington Clean Air Act (WCAA) by doing the following:

- A. PUBLIC POLICY. Securing and maintaining levels of air quality that will:
1. Protect human health and safety;
 2. Prevent injury to plant and animal life and property;
 3. Foster comfort and convenience;
 4. Promote economic and social development;
 5. Facilitate the enjoyment of natural attractions;
 6. Prevent or minimize the transfer of air pollution to other resources;
 7. Ensure equity and consistency with the Federal Clean Air Act (FCAA) and WCAA;
 8. Educate and inform the citizens of Yakima County on air quality matters;
 9. Maintain accurate and current policies, regulations, and rules;
 10. Perform administrative actions in a timely and effective manner; and
 11. Cooperate with the local governments, the Yakama Nation, organizations or citizens on air quality matters.

YRCAA states that they have no expertise in public health. YRCAA does not address human health and safety.

When the YRCAA conducted public hearings for the now rescinded *Air Quality Management Policy and Best Management Practices for Dairies*, the agency ignored the outpouring of complaints about dairy related odor in the LYV.

The YRCAA has refused to address climate change and the deposition of ammonia and other dairy emissions on neighboring properties.

The YRCAA has no policy, regulation, or rules for dairies in Yakima County. The YRCAA does not apply its policy for beef feedlots to dairies.

B. PROCEDURES AND STANDARDS. Controlling air pollution through procedures, standards, permits, and programs.

C. COMPLIANCE WITH ADOPTED STANDARDS. Ensuring compliance with all air quality rules and standards, permits and programs.

D. COOPERATION AND COORDINATION. Cooperating and coordinating with federal, state, county, local, and tribal governments; governmental agencies; organizations; businesses; and the public in all matters related to air pollution characterization, measurement and control.

E. STRATEGIC PLANNING. Developing strategies to avoid, reduce, or prevent air pollution through:

1. Innovative solutions;
2. Early planning; and
3. The integration of air pollution control in the work of other agencies and businesses.

F. GUIDELINES. Preparing guidelines which interpret, implement, and enforce these regulations.

G. BUSINESS ASSISTANCE POLICY. Providing reasonable business and technical assistance to the community.

H. STATE ENVIRONMENTAL POLICY ACT (SEPA). Fully complying with all the requirements of the SEPA and holding other agencies, businesses, and individuals accountable for decisions within the jurisdiction of the agency.

I. STATE IMPLEMENTATION PLAN (SIP). Fully complying with the SIP.

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YRCAA Regulation 1, 1.04 APPLICABILITY.

C. DUTIES OF THE AIR POLLUTION CONTROL OFFICER. The APCO is appointed by the board and serves as the Executive Director of the agency. The APCO observes and enforces state and federal laws, orders, ordinances, and regulations of the agency pertaining to the control and prevention of air pollution. The APCO shall implement Regulation 1 consistent with:

1. Applicable federal and state laws and regulations;
2. County and/or city municipal ordinances where they are at least as stringent as those of the agency; and
3. Policies and directives of the board unless specifically limited elsewhere in this regulation or by other laws or regulations.

YRCAA Regulation 1, 1.07 GENERAL PROVISIONS.

B. FALSE OR MISLEADING INFORMATION.

1. False Statements. No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70A.15 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.
2. Monitoring Devices. No person shall render inaccurate any monitoring device or method required under chapter 70A.15 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

Dr. Nicole Embertson gave false information to the YRCAA in her role as advisor during the development of the YRCAA Air Quality Management Policy and Best Management Practices for Dairies. The YRCAA Board of Directors took no action.

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YRCAA Regulation 1, 3.01 General Rules

E. OPERATION AND MAINTENANCE MANUAL OR PLAN.

1. Purpose. To define operation and maintenance standards for all process and control apparatus to prevent avoidable emissions.
2. Applicability. Any person or emission unit which is subject to these regulations.
3. Exemption. Process or control apparatus which is out of service.
4. Requirement. The owner or operator of an air pollution source shall:
 - a. Operate and maintain all process and control apparatus, which has the potential to allow emissions, according to the specifications and recommendations of the manufacturer;
 - b. Maintain this equipment in good repair and working condition;
 - c. Operate this equipment to minimize emissions; and
 - d. Keep a current copy of the manufacturer's manuals and specifications on the site or the nearest office and available for inspection by the APCO.

YRCAA Regulation 1, 3.02 STANDARDS FOR SOURCES OF HAZARDOUS AIR POLLUTANTS.

A. PURPOSE. To control and prevent emissions of hazardous air pollutants.

B. APPLICABILITY. Applies to the owners or operators of any stationary source subject to the requirements of 40 CFR Parts 61 and 63.

C. REFERENCES. 1. 40 CFR Parts 61 and 63 and Chapter 173-400 WAC as applicable.

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YRCAA Regulation 1, 3.08 SPECIFIC DUST CONTROLS.

B. DUST FROM CATTLE FEEDING OPERATIONS.

1. Purpose. To prevent and reduce fugitive dust emissions from cattle feeding operations.

2. Applicability. Applies to any owner or operator of a beef or dairy replacement cattle feeding operation:

3. Emergencies Sources are granted exemptions from subsection 3.08B during an emergency situation provided:

a. The owner or operator of the source contacts the agency before the end of the next business day after the start of the emergency; and

b. The source uses reasonable precautions as soon as feasible after the emergency is resolved.

c. An emergency situation exists when compliance with subsection 3.08B causes risk to human health or substantial crop damage or cattle losses.

4. Requirements.

a. Dust Control Plan Preparation. The following types of sources must prepare and submit an annual dust control plan to the agency no later than April 15th of each year.

1) Any source with an average of 1,000 or more cattle confined and fed during the months of April through October and; or

2) Any cattle feeding operation which receives a verified fugitive dust complaint.

b. Dust Control Plan Content. Dust control plans must include:

1) A map or drawing of the feedlot;

2) The operational capacity of the feedlot;

3) The maximum number of cattle which are confined;

4) The water available to the feedlot for dust control;

5) The site-specific features which could complicate or prevent implementation of BMPs;

6) Which BMPs will be used, and where they will be used;

7) The equipment and materials to be used to implement a BMPs;

8) An operational and maintenance plan and schedule to implement each BMPs; and

9) An operation and maintenance plan which also includes BMPs for;

a) Hay chopping,

b) Grain processing,

c) Feed mixing, and

d) Feed handling.

c. Plan Implementation.

- 1) The agency will approve or require modification of the plan within 30 days of receipt.
- 2) A feedlot operator must implement an approved dust control plan.
- 3) A feedlot operator may change practices from those in an approved dust control plan as long as the effectiveness of the plan is not reduced, and the operator notifies the agency of the change. Page 58 of 84 5. Additional Information. Additional information is available from the agency.
- 6. Fees. See current fee schedule.

YRCAA has policies for beef feedlots and heifer operations. Dairies with > 1,000 milk cows create greater air problems due to the size and metabolism of mature milk cows. The YRCAA has no policy for dairies and does not impose the regulations for feedlots on dairies. For example, there is no requirement to water dairy pens and corrals to minimize dust.

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ARTICLE 4 - PERMITS & REGISTRATION

4.01 REGISTRATION PROGRAM

A. PURPOSE. To develop and maintain a current and accurate record of air contaminant sources.

There is currently no record of Yakima County dairies, number of cows, or estimates of emissions from dairies.

B. APPLICABILITY. Applies to the owner or operator of each source within the categories listed in WAC 173-400-100.

C. RESPONSIBILITY. The owner or operator of the source is responsible to notify the agency of the existence of the source except when exempted in subsection 4.01D.

D. EXEMPTIONS. All exemptions are based on following:

- 1. Air Operating Permit Sources. Sources or emission units which are permitted according to section 4.02.
- 2. Gasoline Marketing Operations.
 - a. Any loading terminal or bulk plant dispensing < 360,000 gallons per year which started operation prior to August 31, 1991; or
 - c. Any gasoline dispensing facility with a total storage capacity of 10,000 gallons.

E. LIMITED EXEMPTIONS.

1. A grain warehouse or elevator emission source with an annual volume less than or equal to 10 million bushels is granted an exemption from registering, reporting, or paying a registration fee after:

- a. Filing registration according to subsection 4.01F1;

- b. Filing report according to subsection 4.01F2; and
 - c. Paying the registration fee according to subsection 4.01G.
2. The exemption remains until the source increases the licensed capacity.
 3. If the licensed capacity is increased to greater than 10 million bushels, the source must register, report, and pay the registration fee again prior to the start of the first harvest season after the date of change in the licensed capacity.
 4. The source is not exempted from the requirements of 4.01F5&6 and WAC 173-400-040 (2), (3), (4) and (5).

F. REGISTRATION AND REPORTING PROCEDURE.

1. Registration.

- a. Registrants shall use forms and directions supplied by the agency.
- b. Forms must be completed and returned within the time specified.
- c. Emission units within the facility must be listed separately unless they meet the following conditions:
 - 1) The agency determines that certain emission units may be combined into process streams for purposes of registration and reporting; or
 - 2) There are identical units of equipment or control facilities installed, altered, or operated in an identical manner on the same process; the number of the units may be reported.

2. Scope of registration and reporting requirements.

a. Administrative options. A source in a listed source category that is located in Yakima County will be addressed in one of several ways:

- 1) The source will be required to register and report once each year. The criteria for identifying these sources are listed in subsection (b) of this section.
- 2) The source will be required to register and report once every three years. The criteria for identifying these sources are listed in subsection (c) of this section.

b. Sources requiring annual registration and inspections. An owner or operator of a source in a listed source category that meets any of the following criteria shall register and report once each year:

- 1) The source emits one or more air pollutants at rates greater than the "emission threshold" rates defined in WAC 173-400-030;

WSU research on two LYV dairy barns confirms emissions of particulate matter and VOCs in amounts that exceed the emission threshold rates defined in WAC 173-400-030.

- 2) Annual registration and reporting is necessary to comply with federal reporting requirements or emission standards; or
- 3) Annual registration and reporting is required in a reasonably available control technology (RACT) determination for the source category; or
- 4) The APCO determines that the source poses a potential threat to human health and the environment.

The YRCAA APCO has stated that he lacks the expertise to determine human health effects from air pollution.

c. Sources requiring periodic registration and inspections. An owner or operator of a source in a listed source category that meets any of the following criteria shall register and report once every three years:

- 1) The source is subject to WAC 173-400-100, and emits air pollutants at rates less than the "emission threshold" rates defined in WAC 173-400- 030 and Table 4.01-1; or
- 2) A source that is subject to WAC 173-400-100, but not subject to new source review under WAC 173-400-110(5) must register with the YRCAA.

Table 4.01-1 Significant Pollutant Emission Levels

Pollutant	TPY
CO	100
NO _x	40
SO _x	40
PM	25
PM ₁₀	15
PM _{2.5}	10
VOC	40
Pb	0.6
Fluorides	3
Sulfuric Acid Mist (H ₂ SO ₄)	7
Hydrogen Sulfide (H ₂ S)	10
Total Reduced Sulfur (TRS) including H ₂ S	10
Reduced Sulfur Compounds including H ₂ S	10
Municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.	0.0000035
Municipal waste combustor metals measured as PM.	15
Municipal waste combustor acid gases measured as SO ₂ and HCl	40

According to WSU research on two LYV dairy barns a 5,000 head dairy is likely to emit 114 tons of ammonia per year, 2.25 tons of hydrogen sulfide per year, 17.45 tons of PM 10 per year, 7.25 tons of PM 2.5 per year, and 207.25 tons of VOCs per year. These rates exceed classification criteria under periodic review and inspection.

d. Registration Report Contents.

1) Detailed annual registration reports shall contain:

- a) Annual emissions inventory;
- b) Operation and maintenance plans;
- c) Plan showing the plant layout; and
- d) Changes in operations since the last detailed report.

2) Three-year registration reports shall also contain the annual emissions inventories.

3) The APCO will schedule the detailed annual and three-year report cycles. 3. Operational and Maintenance Plan. Owners or operators of registered air contaminant sources must develop and maintain an operation and maintenance plan for process and control apparatus. The plan must:

- a) Reflect good industrial practice;
- b) Include a record of performance and periodic inspections of process and control apparatus;
- c) Be reviewed and updated by the source owner or operator at least annually; and
- d) Be made available to the agency upon request.

4. Signature. The owner, operator, or a designated representative must sign the registration or reporting form(s) for each source. The owner, operator or designated representative of any source is responsible for the accuracy, completeness, and timely submittal of all information.

5. Closure Report. A closure report shall be filed with the agency within 90 days of a source permanently ceasing operations.

6. Change of Ownership. A new owner or operator shall report to the agency any change of ownership or operator within 30 days of said change.

G. FEES. All registrants must pay a fee in accordance with the current fee schedule.

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Public Hearing Transcript

YRCAA SIP REVISION

VIRTUAL PUBLIC HEARING ON AUGUST 3, 2021

TRANSCRIPT OF THE PUBLIC HEARING AND ORAL TESTIMONIES

Kimi: Margaret, you'll take care of the recording. Thank you. I'm Kimi Matsushima, the hearings officer for this hearing. This evening, we are conducting a hearing on the State Implementation Plan or SIP revision to include portions of the Yakima Regional Clean Air Agency, or YRCAA Regulation 1, into the state implementation plan. Let the record show that it's 6:28 PM on August 3rd, 2021, and this hearing is being held by Webinar. Public notices of this hearing were published in the Yakima Herald Republic on July 30th, 2021, distributed to 331 email subscribers on our Air Quality Rule and SIP updates distribution list, posted on the Department of Ecology and Yakima Regional Clean Air Agency websites, and forwarded to the Yakama nation and EPA.

Before we get into the formal testimony, just some instructions to keep in mind to please use the raise your hand function to indicate when you would like to testify. If you can't find the raise your hand button, please use the chat function to let Margaret know when you'd like to testify. If you're calling in, which a number of you are, to please use the *3 to indicate when you wish to testify. I will note that there are quite a few attendees here.

I'm not going to set a time limit on comments, but if you could please keep in mind to keep your comments concise and to summarize any lengthy statements, just so that we have enough time for everyone who would like to testify to submit their testimony. Margaret, if you could please handle the unmuting of the callers. I won't be able to call the names of the attendees since several of you are just recognized as a call-in user. Once you indicate that you'd like to testify, you will be un-muted so that you can begin testifying.

Please at this time be sure to state your name clearly for the record, as we will use the information you registered with for this webinar to let you know about the next steps and when the response to comments is available. Let's go ahead and see if we can start taking formal testimony.

[pause 00:03:00]

The formal hearing has started. If you'd like to submit your testimony now, please indicate by raising your hand. If you're on the phone, that is to press *3.

[pause 00:03:28]

Margaret: Okay, we have a couple people in line, Kimi. We have Mr. Effler. If you could state your name again prior to your testimony. You are unmuted.

Dean: This is Dean Effler, from Yakima County. I have four specific comments to make. I've written these so I won't ramble. It should probably not take more than three minutes. The first is I would like to ask the Department of Ecology to ask the legislature to revise the makeup of the voting membership of Yakima Regional Clean Air Agency. Such that more than 50% of the members would be community members without financial or family links to the industries that contribute to air pollution. The other 50% would be industry representatives and county commissioners.

Scientists who worked for Yakima Regional Clean Air should be attending the board meetings as informational sources only, but not as voting members. This allows the board to go beyond scientific reports, wood smoke, and wood stove to address air quality problems that affect citizens' health, wellbeing, and their ability to enjoy their private property. Right now, Yakima Regional Clean Air does not address the air quality conditions in all parts of the county. It ignores those conditions that are most unhealthy and contribute most to the dissatisfaction of private citizens.

As long as the industry dominates the Yakima Regional Clean Air Association Board, these complaints will continue to go unaddressed. At a minimum, there should be at least one community member on the board who's not working in the agricultural industry, or should not be a family member of someone who works in the agricultural industry. Ideally, the citizen member should be someone who lives in a rural neighborhood where most of the air quality complaints come from.

Two, Yakima Regional Clean Air Association needs to reconsider their stand to ignore citizen science that is done by individuals or community groups. **[inaudible 00:06:00]** Toppenish Creek did a valid preliminary study of ammonia levels at her residence near her CAFOs. This study, which included controls in the upper Yakima valley that is away from CAFOs, showed that the average ammonia levels over year to be 66 times higher in the lower valley than in the upper valley. Despite the fact that this information contributed to the understanding of the **YAWNS** study, it was ignored by Yakima Regional Clean Air. The EPA encourages citizen science, but Yakima Regional Clean Air apparently does not.

Three, Yakima Regional Clean Air needs to work with citizens groups to obtain money to measure air quality in residential areas near agricultural pollution sources, so that it can be known whether their neighbors are exposed to unhealthy air. As long as the board is dominated by industry, this will never happen.

Four, when citizens complain about air quality issues that affect their health, and it's happening right at the moment that they're making their complaint to Yakima Regional Clean Air, having an on-site visit with 48 hours is not adequate, which is their current policy. Their policy should be changed to have a response time within 12 to 24 hours for health complaints. That's what I have to say.

Margaret: Thank you for your testimony. I'm going to go ahead and mute you. You can indicate you're done by lowering your hand using *3 on your phone. Calling user number six, if you could state your name before your testimony. You are unmuted.

Jean: Good evening. Can you hear me?

Margaret: Yes, we can hear you.

Jean: Thank you. My name is Jean Mendoza, and I'm the executive director for the Friends of Toppenish Creek, a nonprofit group in the lower Yakima Valley. Thank you for taking my testimony. These are facts. Air quality in Yakima County is worsening. Concentrated animal feeding operations, mostly dairies, are significant contributors to Yakima County air pollution. The Yakima Regional Clean Air Agency does not regulate capitol dairies as required by Washington Air Laws. The Yakima

Regional Clean Air Agency ignores citizen complaints related to dairy CAFOs. For this reason, Friends of Toppenish Creek asks for some changes to the SIP.

Friends of Toppenish Creek believes that the Yakima Regional Clean Air Agency misinterprets RCW 78.15.4530, the exemption for older and fugitive dust. YRCAA claims that the agency cannot regulate odor and dust from agriculture in any manner whatsoever because of this law, and that is incorrect. Ecology does this all the time in other parts of the state. To rectify that misinterpretation, we asked for additional language in the SIP that requires YRCAA to spell out what are acceptable agricultural practices and what are not. We ask the SIP to require a health screening process to be used by inspectors when they respond to a dust or odor complaint.

YRCAA must decide whether it is an acceptable agricultural practice to number one, spray manure into the air during an inversion when the air is unhealthy. Number two, compose manure inside pens and corrals where the animals live. Three, compost hundreds of animal carcasses in one place at one time. Four, store lime uncovered in the open air. Five, stack and stockpile manure, untreated for years at a time. Six, turn compost during windy days. Seven, ignore nutrient management plans. We also suggest that the YRCAA staff should screen for health risks by asking citizens the following questions when the citizens complain about air pollution.

Number one, what symptoms are you experiencing? Headache, nausea, watery eyes, shortness of breath, chest pain, rash? Number two, do you have any chronic illnesses such as asthma, emphysema, heart disease, or an organ transplant? Number three, have you had to take medication because of the poor air quality? Nitroglycerin, inhalers, Tylenol, steroids? Number four, do you have the ability to measure your pulse oximetry or inhaled volume using an incentive spirometer? Are there changes from your baseline? Number five, are there small children in your home? Number six, do the children show symptoms of respiratory distress?

Going on now to another suggested revision to the SIP. We believe that there should be a statement in the SIP that the YRCAA shall enforce the laws as opposed to the current statement that YRCAA may enforce the laws. Specifically, we're talking about section 2.01 B and section 2.01 E. Friends of Toppenish Creek made this request in July 2020 during the first review of YRCAA Regulation 1. At that time the agency replied, quote, "Enforcement discretion is and should remain with a duly appointed APCO," end of quote. APCO stands for Air Pollution Control Officer.

The way this plays out in reality is that the decision whether to investigate a complaint lies entirely with one man. The current APCO has no training in the law, no training in science, no training in public health or in agriculture. The citizens go to court to complain about the lack of investigation. There is a legal defense embedded in the proposed SIP that says the YRCAA regulations allow the APCO to choose which air quality violations to address. This probably could not stand up in court, but citizens would have to struggle through years of litigation to prove our case. Why not do the right thing at the start and write a SIP that is not arbitrary and capricious.

Finally, we would like to see a change to Section 2.05, appeals, as written any appeals in Yakima county have to be taken to the Washington State Pollution Control Hearings Board. We ask to have that deleted and replaced with a process in which the YRCAA Board of Directors hears appeals of the YRCAA actions. This is

much more appropriate than forcing citizens to appeal to the PCHB in Tumwater over complaints that can easily be addressed at the local level, and should be addressed at the local level. How am I doing for time? Do I have time to explain, to give an example?

Kimi: Yes, you're fine Jean. Go ahead.

Jean: Okay, so here's an example of how this might play out. The Yakima Regional Clean Air Agency has a code called Administrative Code Part B, that instructs the staff on decision making when they respond to a citizen complaint about poor air quality. I sent you some slides ahead of time. If you would bring up the first slide. It shows four levels of response. They range from same day investigation level one, to no on-site investigation, level four. Can everybody read that okay? I bet people can't because there's people on the phone, and I apologize.

Anyway, for the people at Ecology can see this, and you're our target audience. If you would go on to the next slide. This is the decision tree that is used to decide how to respond to a complaint. You can see that the only time there should be a level four response is when there is no threat to the citizens' health, and there have been no previous complaints about the facility. In reality, the Clean Air staff frequently logs a level four response when citizens complain about odor and dust from dairies. What can we do when our legitimate concerns are dismissed so easily?

The APCO ridicules our protests, and it is hard to complain to the Board of Directors due to the complicated rules for public comments, and the board's policy of not responding to citizen comments. Under the current policy, the only option is for citizens to lodge a complaint with the Pollution Control Hearing Board. Nobody's going to go to the trouble of hiring an attorney and appealing to the PCHB over an issue like this.

We don't think the PCHB would even accept such an appeal, but the YRCAA Board of Directors has the power, and we believe the duty under RCW 78.15.2040 Section two, to quote, "Hold hearings relating to any aspect of or matter in the administration of this chapter," unquote. The Northwest Clean Air Agency has this as part of their SIP. They hold hearings locally instead of forcing people to go to the Pollution Control Hearing Board. This makes for better government and it keeps local issues at the local level where the people affected can participate. That's the sum of my testimony today and I thank you very much for listening. I look forward to hearing your response.

Margaret: Thank you, Jean. I'm going to go ahead and mute you. If you can lower your hand using *3 on your phone. Thank you. I am not seeing any additional hands raised. It does look like Mr. Ef- Oh. We have a new hand raised. Sandy, I'm going to go ahead and unmute you. If you could state your name prior to your testimony.

Sandy: Yes, I'm Sandy Braden, Friends of Toppenish Creek. I have basically two comments to make which address the efficiency of the current director of the Yakima Regional Clean Air Agency, Keith Hurley. I interfaced with him on two separate occasions on two matters that I will try to be as succinct about explaining to you. The first occurrence involved a monthly clean air meeting that I attended. There were several people in the audience who attended also and who wanted to speak, but

during this particular time frame, the rules had been changed, so you could not speak unless you had contacted the agency ahead of time and gotten on their agenda list.

There were a couple of us in the audience. We **[inaudible 00:19:12]**. There was one gentleman by the name of Don Lyon, who lived out in the Selah area. He was there to state a complaint about an incident that involved a burning of trees and tree limbs in his general area across the road from where he lived. He wished to comment because he was not happy with what happened and how his complaint was handled. He stated that he wanted to speak, and he did after Mr. DeVaney gave Mr. Lyon and myself permission to speak. Mr. Lyon stated that it took him four calls into the Clean Air Agency to have someone come out, the someone being Dustin Harrington, to come out to inspect what was going on. There was significant smoke to the point where he and Mr. Lyon and his wife were having difficulty with breathing. Mr. Harrington came out and went across the street and up the road slightly to the Lakey resident, Jody. Let's see here. Jody Lakey, I believe it was.

Jody and Rodney Lakey were the individuals who lived on live Wickstrom Lane Road who initiated the burning. They had cleared some trees off of one of their parcels, moved the pile of stuff that they were burning to another parcel closer to the road. The Wenas Road. There was enough of this burning material that it required a bulldozer to pile it up. There was a substantial pile of burning material, and this stuff was burning when Dustin Harrington showed up on the scene. Mr. Harrington talked with them apparently and asked to see their permit. They had a permit. So he did nothing about this condition. This excessive smoke.

The issue at hand is the fact that the type of permit that the Lakey family had was not the right permit. It was the kind of permit, and Mr. Harrington admitted this to Mr. Lyon because Mr. Lyon stopped him on the road and said, "Hey, what are you going to do about this? Do they have a permit or what?" And Mr. Harrington said, his words were, "Yes, they had a permit, but the permit was from a local hardware store." Okay. The only type of permit that our local hardware stores sell and still sell is a backyard burn residential type permit. It's not an **[inaudible 00:23:05]**-type permit that is required to burn the type of burning material that they were burning at the Lakey residence.

The bottom line is Mr. Harrington, the burn inspector, knew that the permit was the wrong kind of permit, but allowed the burning to continue, and there was no penalty lodged against the Lakeys for doing the burning that they were doing. And he, in fact, told the complaining person, Don Lyon that that was it. He was leaving. He had bigger fish to fry. Okay. That's one thing. When I questioned that, why wasn't there a closer monitoring of that type of burning, and the type of permit that was required? Why wasn't that being monitored closer? I did not get what I considered a reasonable answer.

I was told by Mr. Hurley at the meeting that it's up to the burn inspector's subjective judgment to decide whether there's a problem or not and whether the burn smoke issue coming off of any kind of a burning situation was bad enough to be penalized. Okay. Subjective is a pretty broad statement. Since, in fact, the burn inspector knew the permit was the wrong one in the first place, one would think that there would be some sort of penalty or something. Okay. That's number one. That happened in

2019, I think it was. In February of 2020, I attended another board meeting, Clean Air board meeting. I got up, and I asked another question concerning the burn permit.

I said, "I noticed in driving out on West Washington and the corner of West Washington and 64th Avenue, that there were several huge piles of orchards. The trees had been removed and were piled up in preparation for what appeared to be a burn, and that some of them had been burned. I asked at the board meeting – this was in a heavily populated residential area. I said, "How is it that these folks who own this land are being allowed to do that, to burn in that kind of situation?" I asked the board, and the board said to – Mr. DeVaney, the board chair – said to me, he did not have the answer to that. He was not familiar with the location of the parcels, and he did not know.

At that point in time, Keith Hurley volunteered and said, he could answer my question. [coughs] He proceeded to give me a rundown on the types of permits that would be needed and whatever, and that those had been-- He felt that those had been met. I asked him, "So you're saying then that those parcels where all these trees are stacked and being burned are ag type. This is ag land. This is zoned based as ag land." And he said, "Yes." And I said, "You're telling me then that, this land is going to be replanted with either more trees or crops of some sort?" He assured me that that was what was going to be done. The crops were going to be replanted on those parcels. We're talking about several different pieces of land there, right on the corner.

I had not checked to see how it was zoned. I accepted his answer as being the truth. In effect, in actuality, it wasn't the truth. I went to the Yakima Planning Department, and I contacted them, and I asked, "What is the zoning of these parcels?" I found to my surprise that three of them had been zoned for small convenience center usage, which according to the gal at the planning department, means a small business commercial type use. Obviously, there's no crop going to be planted on that land. It's not zoned for it.

The fourth piece of land there, a bigger chunk, was zoned for I believe it's called R1, which is suburban residential. As we speak, now, there's a construction company at that site busy laying the groundwork for residences. I called the construction company. I asked what's going on, and she said, "We're going to put some buildings here. We're building homes." I said, "Thank you very much." Bottom line is Mr. Hurley answered me quite firmly that this is what that property was going to be used for, and what it was zoned for, et cetera, blah, blah, blah. The zoning had changed in 2008. We're talking 2020.

He spoke as if he knew what he was talking about and he didn't know diddly squat. My concern is, why is that type of individual leading an organization that should be acutely aware of air quality in this valley, because we've got so much going on here that affects all of us negatively, not just in the lower valley, but some of us here in the upper valley too. Citizen complaints are not taken seriously at all. They don't. The Yakima Regional Clean Air Agency does not want to hear citizen complaints. If we pose a question, a complaint, et cetera, we're told that we have to talk to the boys at the state level, that they don't deal with it.

I'm saying what's wrong with the folks here in the county dealing with it? It says Yakima Clean Air Agency, it's Yakima County. It should be taking the lead on these complaints and listening and doing something about them. Thank you very much.

Margaret: Thank you, Sandy. I'm going to go ahead and mute you. Do we have any additional attendees who want to provide testimony? Yes. We have calling user three. I'm going to unmute you. If you could provide your name prior to your testimony.

Kenneth: Yes. I would like to give my testimony if I may.

Margaret: Yes, we can hear you.

Kenneth: My name is Kenneth Holsteins, and we live at 1190 Vance Road. We have lived here since 1955. I would like to talk to you folks about the many dusty fecal days of summer, that surrenders to the fecal liquid matter days of winter. With the winter comes the haul out of manure field animal pens that leave our county roads hard to navigate with track out from these vehicles that transport manure to fields within a five mile radius of the farms. That has fecal dust appearing on these gravel roads from their usage.

The winter months also produce huge amounts of ammonia that fills the air with choking aroma, totally eradicating any fresh, breathable oxygen nearby. Riverview Dairy, [inaudible 00:34:20] Dairy permitted at 1194 Vance Road mapped in Washington, puts a daily cloud of fecal dust into the air by dragging the corrals to redistribute defecation piles left by cows daily. The dust cloud goes high into the atmosphere, hundreds of feet, sometimes thousands where prevailing winds send this fecal clouds to neighbors adjacent to the dairy. This daily dusting causes breathing disorders and makes everything uncovered a nasty brown.

There are several households nearby with children who sometimes get on or off the school bus for Mabton in a fecal dust cloud. I have called Yakima Regional Clean Air Authority many times complaining, only to be told that because they are a dairy operation that nothing can be done. I do not agree with this determination, and I object to the status quo. We need monitoring, and not self-monitoring as is now the procedure. Elements such as ammonia, ammonia nitrate, ammonia sulfate, ammonia phosphate are all just some of the contaminants in this fecal dust that people are breathing and eating daily without masks.

I hope there can be some system put into place that we all can live by. However, as long as the Yakima Regional Clean Air Authority has a do nothing to grievances reported by citizens locally, I think many have and will continue to suffer and eventually many will pay with their health. The last thing I'd like to speak to you about is a thing that they have started here recently within the last 10 years or so. Dairy men have started this practice of putting lines from cold storage, controlled atmosphere rooms, into pens to help with the foot rot problems. While this practice helps the cattle's feet, this practice also lets blowing winds distribute it into the air and people's lives.

The bags that hold this line are not even removed, but are just shredded by machines hauling this material, and the paper bags with their plastic liners are left to

blow in the wind and wind up on roads and on adjacent properties, and it is totally disgusting. The purpose of Clean Air is to ensure a healthy citizenry and environment. By allowing this behavior as I have described to go on, part of our community is put at risk. We who live by this **[inaudible 00:38:01]** would like to have clean air to breathe like everybody else. I thank you so very much for hearing my testimony. Thank you.

Margaret: Thank you, Kenneth. I'm going to go ahead and mute you. If you want to go ahead and lower your hand using *3. Any additional testimony? Oh, Kenneth, looks like, do you have your hand raised again? I'm going to unmute you.

Kenneth: No, I inadvertently hit it twice, I guess.

Margaret: Okay. Just wanted to double check. I have your line muted, and any additional testimony? Yes. I see one. I'm going to go ahead and unmute your line. If you can state your name prior to your testimony.

Kathleen: My name is Kathleen Rogers, Grandview Washington.

Margaret: Go ahead, Kathleen.

Kathleen: Thank you. We moved here in 1981 in the lower valley in the Grandview area from Sunnyside. We had within a two-mile radius three small dairies ran by families, maybe two to 400 head of cows, to be milked and about half again replacements and baby cows. I'm reading this because this makes me very nervous and I just want to hit home. We are surrounded by a dairy that's probably one of the largest ones in the lower valley. It's called the **[inaudible 00:39:52]** Dairy. These dairymen moved up here around 1989. We moved in '81. They started moving in at '89. Now, this **[inaudible 00:40:04]** is probably the largest in the lower valley. No one will give you the numbers of the heads that they have. I'm guessing that well over thousands of milking cows, hundreds of replacement cows, hundreds of yearlings. Baby cows have been moved to Mabton in the hills of the Horse Heaven. This area is a little dust bowl. We sit in a little valley between two ranges of hills called The Rattlesnake and The Horse Heaven. This was a desert full of sandy, volcanic soil and riverbeds, sagelands, and Russian olives that we fed it by the Yakima River to grow life here.

In the beginning of my experiences with air quality, I turned to Helen **[inaudible 00:40:50]** who took me to my first YRCAA meeting, about 2005. We were experiencing horrible drifts of pen dirt from about a mile, half a mile away, from the **[inaudible 00:41:03]**, our neighbors. In fact, every home in the path of this offensive cloud was, and still is, impacted after all these years. YRCAA was not going to hear what I had to say. I was met with crossed arms, heads bowed down looking at the desk, red faces from board members and absolute resistance from the YRCAA staff.

They knew I had made calls to complain. They knew what we were experiencing. You see, I invited the YRCAA director, Gary Pruitt and Mark Edler out to our home to see the clouds. They came out about 6.30. I told them to wait, it was coming, and sure enough, it didn't fail. They immediately got up and reportedly drove over to the dairy office and told the dairy they were going to be fined for not controlling their pen dirt off the dairy proper. I invited several other board members and Selah city mayor,

John Gawlik, state representative Ruth Chandler. I have had KIMA news out here for issues dealing with the manure storage next to my neighbor, a private little family home.

We have been constantly bombarded with air issues out here. We wonder what it is that's in this air that we breathe on a daily, 24/7 basis. Manure particles, urine gases, mold from pen straw, composting manure with dead calves inside, **[inaudible 00:42:54]** pharmaceutical, all kinds of possibilities, but not one person says they can do anything about it. Not one. **[inaudible 00:43:04]** with me and they say, "Why don't you move?" Until we got interested in our air quality, the lower Yakima Valley was ignored. Anything south of the union gap was simply **[inaudible 00:43:23]**

The only interest, suddenly, was money made on phasing out old wood-burning stoves to save the country and the county from the woodstove smoke in the winter. That's when I started implementing our name, Lower Yakima Valley, and very loudly and firmly at the meetings. I asked any one of the gentleman on the board simply, statements such as, "Are you going to be home tonight to have a barbecue and have a beer outside with your loved ones?" I can't. I've asked if they'd like to raise their children here, unable to go outside after five o'clock to enjoy the cool air.

See, what happens is this: After the herds are milked and fed, their udders are empty of heavy milk. They are washed and cleaned, they are fed, and they are happy. Life is good. When the sun goes down, the heels get moving, kicking and frolicking around like little children. Suddenly our air is full of that horrible, dry gagging air, as mentioned before by Ken. We are never, ever approached by YRCAA when, or if, they come to check on a complaint. We never know if they just call the CAFO or if they actually come by. We were told often by Gary Pruitt, and now Keith Hurley, directors of YRCAA, that they don't have the funding to spend on one, vehicles; two, gasoline; three, employees' time; four, office time free to send out. Lots of excuses.

We asked for monitoring. The only ones were in the beginning in Yakima. Finally, we've got one down here in town at the Harrison Middle School. It was great to log in and see what was happening downtown **[inaudible 00:45:43]**, there, in town by the school **[inaudible 00:45:49]** but none of that tells what's happening out here or Outlook or in Mabton. Then suddenly, it's all unavailable to us, and it's to see what's happening. I don't even know how to find what that monitor that they have is reading. That information isn't easily gotten. I wasn't even using the information from that readout and the WSU ag weather net website that tells us the soil **[inaudible 00:46:22]**, the moisture content, et cetera. I tried my best to let everyone on YRCAA know I was serious. I am serious about what is happening out here.

Our wildfires lately are filling our air with very unhealthy particles. I cannot imagine what it must be filled with, with the CAFO dust that is ambient and fills whatever good air is left for us to breathe here. It has to be horrid. I've given up going to any YRCAA meetings. I figure one, often two, meetings a month for seven or so years is enough. My health was at risk for heart and nerves. I've suggested to dairies because I want to be their friend. I don't want to be their enemy, and I don't want them to move. I just want them to be good neighbors. I've suggested to them that they mist or water down these pens so that ambient air doesn't flow to all these neighbors to breathe.

Bottom line is, YRCAA, in my humble opinion, has done very little to help improve our air quality. They are being paid a huge amount of tax money, I understand \$1.5 million but they **[inaudible 00:47:56]** for what?

YRCAA tells me they can't help, and if they can't, then wouldn't it be their job, then, to help us find a way that can help us or do they just call us unhelpable and shut the door and ignore us? Also, I want to bring up, besides the CAFO dust, we have Ostrom mushroom and nutrient fertilizer plants that just came in, not one mile, as the crow flies, west of my home. One mile. Well, Ostrom uses chicken straw mix to grow their mushrooms and the fertilizer company mixes something. I have no idea what it is. It fills the air wafting here every time they mix it up.

I understand that YRCAA had nothing to do with okaying Ostrom because they do use chicken and straw and that becomes an ag business. I imagine it's the same with the fertilizer company, because it's an ag-related business. I'm sorry but people have been living out in the country, in the suburbs for a long time. These dairymen moved up here with lots of money from selling their dairy to California and so on and invested a lot of money to buy up land. We have land here that used to grow wonderful crops with all kinds of variety.

Now what you see is acres after acres of field corn, food for cows. They have hops, grapes, wonderful things, mist. Even those are diminishing with the use of our lands to grow crops for food for cows. Anyway, I've been expressing some opinions, and I've been doing it a long time. I've tried my best. I've listened to leaders that I thought were listening, and always felt like if I could talk to the dads, which we used to call them in the old days, everything would be listened to and fixed. This hasn't been fixed. It's been a heck of a long time. I'm tired of it. My heart is not really willing to go out and deal with this smoky air and the CAFO air. I shouldn't have to put my family in that jeopardy to even wear a mask to go outside on a regular night. I've taken video after video of the air quality that you can see in my light. I've taken pictures after pictures of the air quality when composting, it wafts over here to my property.

I'm just begging for somebody in your department to take this as serious as debt. This is very serious. I don't know what RCA is doing it. Maybe they can't do a damn thing, but someone's got to. It's got to stop. Someone's got to fix it and talk to these **[inaudible 00:51:14]** owners, become better neighbors, better stewards of our earth. Thank you.

Margaret: Thank you, Kathleen. I'm going to go ahead and mute your line.

Kimi: Thank you, Kathleen. I'm going to go ahead and do a quick time check here. It's about 7:20 PM. I just want to check in if there are any attendees who haven't had a chance to give their testimony yet, if he would like to. Oh, I'm sorry. I heard someone.

Margaret : No, I think you can keep going, Kimi.

Kimi: Okay. Sorry about that. If there's anyone who hasn't had a chance to give their testimony, if you would like to, go ahead and give your testimony now.

Margaret: I'm not seeing any new hands raised at this point. We do have a few other hands raised, Kimi.

Kimi: Okay. Yes. I'm seeing Kathleen. Your hand is still raised. If you've completed your testimony, if you could please hit *3 to lower your hand. I believe Call-in User 3, which is Kenneth. Your hand is still raised. If you could please lower your hand by pushing *3, if you've also completed your testimony. And Call-in User 5, I think is Dean. If you've also completed your testimony, if you could please press *3 to lower your hand. Thank you. I'm seeing Kenneth still has his hand raised, and Call-in User 6 still has their hand raised.

Margaret: Yes, Jean. Okay. Kenneth, I'm going to go ahead and unmute you.

Kenneth: Do you need me to hit *3?

Margaret: Yes. If you're done with your testimony, if you could indicate that using *3, that would be great. Thank you.

Kimi: Perfect.

Margaret: Then go ahead. Sorry, Kimi.

Kimi: Oh, no. Sorry. Jean, it looks like your hand is raised. Did you have anything you wanted to add to your testimony?

Jean: Yes. I'd like to make a quick additional point. There is clear evidence now that the air pollution in the lower Yakima Valley is impacting people's health as a result of COVID-19. There's research out of Harvard that shows a direct relationship between elevated levels of fine particulate matter and deaths from COVID-19. The lower Yakima Valley has worse air quality than the upper valley. The lower Yakima Valley has a death rate of 200 people per 100,000, while the upper Yakima valley has a death rate of 157 people per 100,000. My opinion is this strongly indicates that the higher pollution levels in the lower Yakima Valley are causing more people to die from COVID-19. Thank you.

Margaret: Thank you, Jean.

Kimi: Thank you, Jean. I'm not seeing any additional hands raised, but I'm just going to clarify for the record. Is there anyone else who wishes to provide testimony, or additional testimony at this time? Okay. I'm not hearing any-- or seeing any hands raised. I'm going to go ahead and move forward and move into the closing part of the webinar, and, Anya, if you could please advance the slide. Thank you, Anya. This is just to remind everyone at this point that you may still submit written comments to Ecology, and we will consider both the written and verbal testimony equally. The written comments are due by August 6th, 2021, and that mailed comments need to be received by close of business on August 10th, 2021.

For written comments, we can accept them online using an online comment form, if you would like. For those of us who can't see the screen, I'm going to read. There's a couple of links provided, but I'm going to read the links so that you can have them if you need them. For the English comment form, the link is going to be <https://aq.ecology.commentinput.com/?id=VgTMj> For the Spanish comment form, the

link is going to be

<https://aq.ecology.commentinput.com/comment/index?id=VgTMj&lang=SP>. That was long. You can also submit your comments by mail. To mail your comments, and you're going to send those to the Department of Ecology's air quality program. That's going to be attention to Anya Caudill PO box 47600, Olympia, Washington 98504-7600.

All testimony received at this hearing, along with all the written comments received by August 6th and mailed in before the close of business on August 10th will become part of the official hearing record. Ecology will send notice about the response to comments, publication, and submitted to EPA, to everyone who provided written comments or oral testimony regarding this SIP revision and other interested parties on the agency's mailing lists for this rule. Again, the response to the comments will contain the agency's response to questions and issues of concern that were submitted during the public comment period. If you would like to receive a copy, but you did not provide your contact information, you can contact Anya at anya.caudill@ecy.wa.gov, A-N-Y-A-C-A-U-D-I-L-L@ECY.WA.GOV Anya if you could move the slide forward. Perfect. We're going to go into the closing period. The next steps is for Ecology to review the comments and make a determination as to whether to proceed with the submittal of the SIP revision to EPA. Ecology director, Laura Watson, will consider the SIP revision, documentation, and staff recommendations and make a decision about revising the SIP and submitting it to EPA for review and approval.

The target date for briefing the director and submittal to the EPA is the middle of September. EPA will conduct their own public comment on their decision on whether or not to approve the YRCAA regulation one in full or in part, to be federally enforceable under the SIP. If we can be of further help to you or if you have any additional questions, or if you would like to receive updates, but are not signed up on the Air Quality Rule and SIP updates listserv, please contact Anya again at Anya.caudill@ecy.wa.gov, A-N-Y-A-C-A-U-D-I-L-L@ECY.WA.GOV.

Then, finally, on behalf of the Department of Ecology, thank you so much for joining us and for submitting all of your testimony. I appreciate all of your cooperation and courtesy and your presence here tonight. Please, at this time, let the record show that this hearing is adjourned at 7:30 PM on August 3rd, 2021.

[01:02:02] [END OF AUDIO]

Slides for Citizen Presentations – YRCAA SIP

Jean Mendoza

August 3, 2021

- Level 1 Attempt same day site inspection. Request backup if not available for same day response.
- Level 2 Attempt inspection within 48 hours. Request backup if not available for 48 hour response
- Level 3 Attempt site inspection within 7 days. Request backup if not available for 7 day response.
- Level 4 Site inspection not required. Correspond with the source to advise of the complaint, to inform of the applicable rules and to discuss the potential for enforcement action. A phone call or a fax may be helpful but, it should be followed up in writing.

GENERAL COMPLAINT RESPONSE FLOW CHART

