Rivera, Eva

From:	350 Yakima Climate Action <350yakimaclimateaction@gmail.com>
Sent:	Sunday, November 15, 2026 7:18 PM
To:	Preston, Bill; Martin, Trevor; Ask Planning
Cc:	Ray Paolella; Felipe Rodriguez-Flores; Bob Cox
Subject:	Additional Comments to Yakima Comprehensive Plan 2050 Update and State Environmental Policy Act (SEPA)
Attachments:	Additional SEPA Comments on Yakima Comp Plan 2025 Climate Resilience Subelement.pdf; Introduction to Biosystems Engineering, excerpt pages 328-329.pdf; Ecology, Yakama Nation, and EPA Concern that Yakima Valley Will Not Attain National Air Quality Standards .pdf; Health effects from diesel pollution.pdf; Reducing diesel emissions.pdf

Dear Mr. Preston, Mr. Martin, and the Planning Commission,

Attached is Yakima Climate Action's additional comment letter regarding the Yakima Comp Plan 2050 Climate Resilience Subelement.
Note, also attached are the four attachments to the letter, as follows:

1. *Introduction to Biosystems Engineering*, American Society of Agricultural and Biological Engineers and Virginia Tech Publishing
   (2020, excerpt pp. 328-329).
2. EPA, Yakama Nation, and Ecology Concerns Yakima Valley will Fail to Meet National Ambient Air Quality Standards for PM 2.5 (December 16, 2024).
3. Health Effects from Diesel Pollution (screenshot from Dept. of Ecology website)
4. Reducing Diesel Emissions (screenshot from Dept. of Ecology website)

Best regards,

350 YAKIMA CLIMATE ACTION
Coleen Anderson, President
Ray Paolella, Member

cc: Felipe Rodriguez Flores, Vice President
Bob Cox, Secretary

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350 Yakima Climate Action acknowledges we live and work on the ancestral lands of the fourteen Confederated Tribes and Bands of the Yakama Nation. The people of the Yakama Nation inhabited more than 12 million acres across Adams, Benton, Chelan, Douglas, Franklin, Grant, Kittitas, Klickitat, and Yakima Counties. We thank the caretakers of this land who have lived here and continue to live here since time immemorial.

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November 15, 2026

Bill Preston, SEPA Responsible Official
Trevor Martin, Planning Manager
City of Yakima
129 N. 2nd Street
Yakima, WA 98901

RE: Yakima Comprehensive Plan 2050 Update and State Environmental Policy Act (SEPA)

Dear Mr. Preston and Mr. Martin:

On behalf of 350 Yakima Climate Action, please accept these public comments on the SEPA Environmental Checklist and proposed SEPA DNS--these comments are submitted for inclusion in the record in addition to our November 13, 2026, comment letter with attachments.

State law requires the City to issue a SEPA Determination of Significance and prepare an Environmental Impact Statement before the City adopts the Comprehensive Plan 2050 Update. The proposed Comprehensive Plan Update will have probable significant, adverse environmental impacts by anticipating and allowing area-wide growth, development, and future projects in and around the East Yakima Overburdened Community. This East Yakima Community, together with the proposed Terrace Heights Annexation Area on the other side of the Yakima River, already has some of the highest PM 2.5 air pollution levels in Washington State.

On the west side of the Yakima River, proposed plans for future re-development on hundreds of acres of the Boise Cascade Mill and Old City Landfill sites include new retail space, commercial, light industrial, high density residential housing, and public venues with access provided by the proposed Yakima East-West Corridor roadway, including a freeway interchange on the site.[1] On the east side of the Yakima River, there is a pending annexation of 300 acres of land in Terrace Heights for economic development with higher density and mixed uses, including commercial and light industrial. According to Yakima's Planning Manager Trevor Martin, "building out the commercial portion of the annexation map could generate more than 2,000 jobs."[2] The anticipated East-West Highway Project would span the Yakima River and construct a new freeway interchange on Interstate-82, inducing growth on hundreds of acres on the east side.

The cumulative environmental impacts of expected large-scale, mixed-use development, as anticipated and allowed under the proposed Comprehensive Plan Amendments, together with induced growth from the planned freeway interchange, will result in significant increases in PM 2.5 air pollution that disproportionately affects the East Yakima Overburdened Community.

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[1] https://apps.ecology.wa.gov/cleanupsearch/site/12095
[2] https://www.yakimaherald.com/news/local/government/yakima-still-collecting-signatures-on-terrace-heights-annexation-petition/article_47922d47-5a15-436d-ae6e-93d31447ad77.html

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The combustion of fossil fuels from cars, trucks, buses, trolleys, railroad locomotives, construction equipment, and motor vehicles traveling on Interstate 82, the proposed East-West Highway, and newly constructed roads will increase air pollution, exposing people in East Yakima to high levels of diesel exhaust. According to the State Department of Ecology, diesel exhaust is the most harmful air pollutant in Washington. It contributes two-thirds of the total cancer risk from toxic air pollution. Diesel exhaust causes or contributes to asthma, bronchitis, heart and lung diseases, cancer, and premature death.[3]

Diesel exhaust contains fine particles, nitrogen oxides, and other pollutants. In warm weather, hot sunlight bakes nitrogen oxides together with other pollutants which forms harmful smog, also known as ground-level ozone. In cooler weather, ammonia (NH_3) emissions from nearby agricultural sources react with nitrogen oxides from motor vehicle emissions to form secondary PM 2.5 nitrate aerosols:

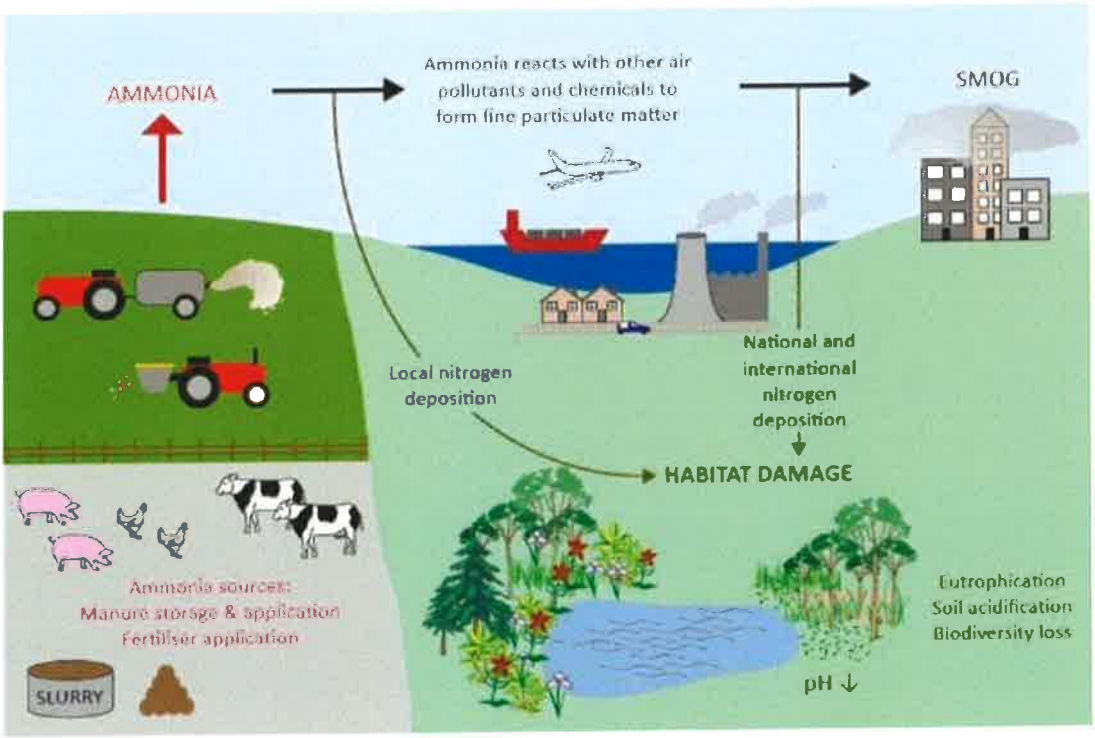


Figure 4.5.1: Environmental impacts of ammonia emissions.

Some emitted NH_3 is subsequently deposited on land and water downwind of facilities and can acidify soils and freshwater. The addition of available nitrogen (N) to low-nutrient ecosystems disturbs their balance and can alter the relative growth and abundance of plant species.[4]

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[3] https://ecology.wa.gov/air-climate/air-quality/vehicle-emissions/diesel-emissions; *Introduction to Biosystems Engineering*, American Society of Agricultural and Biological Engineers and Virginia Tech Publishing (2020, p. 329).

[4] Id. at p. 329.

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According to an Environmental Protection Agency (EPA) information sheet (December 2024):

> *Despite efforts to reduce wintertime fine particulate matter (PM2.5) concentrations in the Yakima Valley, the Washington State Department of Ecology, the Yakama Nation, and EPA Region 10 are concerned that the area will not attain the PM2.5 National Ambient Air Quality Standards (NAAQS) in coming years. The Yakima Valley is a community with environmental justice concerns; portions of the valley score at the 80th percentile or higher on EJ-Screen due to the high proportion of low income residents and people of color, including people of Native American and Hispanic descent.*[5]

Future developments, projects, and more dense land uses allowed by the Comprehensive Plan Update will significantly increase transportation sector emissions and will likely add enough PM 2.5 air pollution to push Yakima into Non-Attainment with the Clean Air Act National Ambient Air Quality Standards.

The Resiliency Subelement must have specific goals, policies, and programs to address natural hazards created or aggravated by climate change, including but not limited to, landslides, heat, flooding, drought, smoke, wildfire, and other effects of changes to temperature and precipitation patterns.

In South Sound Bird Alliance, et al. v. Thurston County, the Growth Management Hearings Board held that "[g]oals and policies may be aspirational, but the subelement as a whole should provide clear goals, policies, and implementing measures with action-forcing requirements and deadlines (programs, development regulations, and funding commitments) that implement the minimum requirements of the statute.[6] Consistent with that standard, the Board's ultimate summary conclusion for Thurston County's resiliency subelement as a whole was direct: the County's adoption of its climate resiliency element was "clearly erroneous and not in compliance with RCW 36.70A.070(9)(e)(i) because the policies are, for the most part, vague and aspirational without a clear path to implementation through development regulations and other programs."[7]

The City of Yakima needs to prepare a SEPA Environmental Impact Statement (EIS) before adopting the Comprehensive Plan 2050 Update. The City cannot rely on the 2017 Supplemental EIS for the 2026 Comprehensive Plan Update because new laws were enacted years after 2017 that made major changes to GMA Comprehensive Plan requirements, including but not limited to, the newly required climate resiliency subelement, increased land use densities and housing requirements, and multimodal levels of service for bicycle and pedestrian infrastructure.

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[5] Wallace, W. Initial Results from the Mobile Air Monitoring Laboratory Deployments in Yakima Valley. Yakima Valley Air Partnership Monthly Call, Olympia, WA, December 16, 2024. https://assessments.epa.gov/risk/document/&deid=363974

[6] Final Decision and Order in *South Sound Bird Alliance, et al. v. Thurston County*, Growth Management Hearings Board No. 26-2-0013c (August 17, 2026, at p. 27).

[7] Id. at 31.

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Thank you for your consideration,

/s/

Coleen Anderson, President
Raymond Paolella, Member
350 Yakima Climate Action

Attachments:

1. *Introduction to Biosystems Engineering*, American Society of Agricultural and Biological Engineers and Virginia Tech Publishing (2020, excerpt pp. 328-329).

2. EPA, Yakama Nation, and Ecology Concerns Yakima Valley will Fail to Meet National Ambient Air Quality Standards for PM 2.5 (December 16, 2024)

2. Health Effects from Diesel Pollution

3. Reducing Diesel Emissions

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4.5: Measurement of Gaseous Emissions from Animal Housing

Mélynda Hassouna

UMR Sol, Agro et hydrosystèmes et Spatialisation, INRAe, Agrocampus, France

Salvador Calvet

Institute of Animal Science and Technology, Universitat Politècnica de València, Valencia, Spain

Richard S. Gates

Agricultural & Biosystems Engineering, and Animal Sciences, Iowa State University, Ames, Iowa, USA

Enda Hayes

Air Quality Management Resource Centre, Department of Geography and Environmental Management, University of the West of England, Bristol, United Kingdom

Sabine Schrade

Ruminants Research Unit, Federal Department of Economic Affairs, Education and Research EAER, Agroscope, Ettenhausen, Switzerland

Key Terms		
Emission processes	Mass balance	Ammonia
Measurement techniques	Validation	Greenhouse gases
Sampling	Ventilation	

Variables

a = constant
A = cross-sectional area of the ventilation duct
c = CO_2 production
C_x = concentration of gas for position x
ER = emission rate
h = time at sampling
h_{min} = activity factor which relates to the time of day with minimum activity
m = animal mass
$m_{acid\ solution}$ = mass of the solution
$\dot{m}$ = mass flow rate
n = feed energy
s = mean airspeed
VR = ventilation rate
V_{sample} = volume of air

Introduction

Animal housing and manure storage facilities are two principal on-farm sources of gaseous emissions to the atmosphere. The

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most important pollutants emitted are ammonia (NH_3), methane (CH_4), and nitrous oxide (N_2O).

Ammonia (NH_3) is a colorless gas with a pungent smell that can have impacts on environmental and human health (Figure 4.5.1). Ammonia is emitted by many agricultural activities, including crop production as well as animal production. Ammonia plays a key role in the formation of secondary particulate matter (PM) by reacting with acidic species such as sulfur dioxide (SO_2) and nitrogen oxides (NO_x) to form fine aerosols, and is thus called a particulate precursor. The PM created by the reaction of NH_3 and acidic species in the atmosphere contributes to poor air quality including regional haze. These particles have an aerodynamic diameter of less than 2.5 microns and are generally referred to as "PM-fine." They are readily inhaled and populations exposed to PM-fine have greater respiratory and cardiovascular health risks such as asthma, bronchitis, cardiac arrythmia and arrest, and premature death. Some emitted NH_3 is subsequently deposited on land and water downwind of facilities, and can acidify soils and freshwater. The addition of available nitrogen (N) to low-nutrient ecosystems disturbs their balance and can alter the relative growth and abundance of plant species.

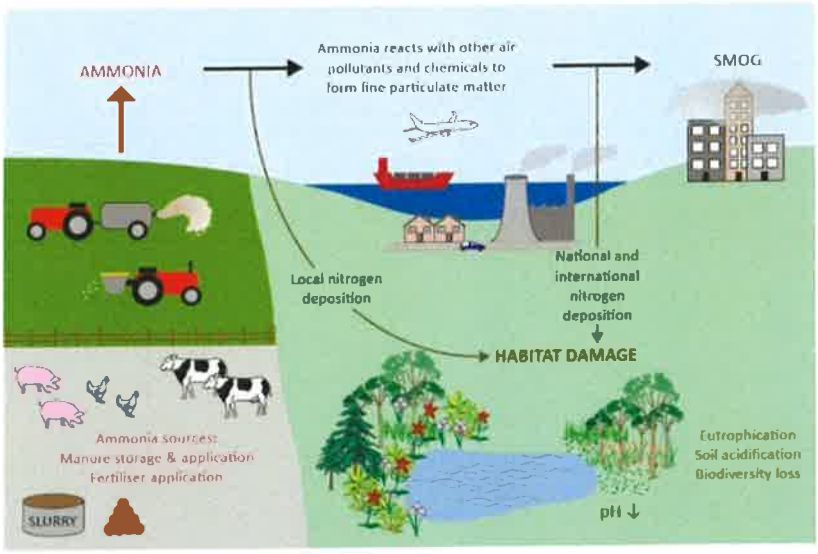


Figure 4.5.1: Environmental impacts of ammonia emissions.

Nitrous oxide and CH_4 are potent greenhouse gases (GHGs) which contribute to global warming. The global warming potential (GWP) is a factor specific to each GHG and allows comparisons of the relative global warming impacts between different GHGs. This factor indicates how much heat a given gas traps over a certain time horizon (usually 100 years), compared with an equal mass of carbon dioxide (CO_2). Nitrous oxide GWP for a 100-year time horizon is 265 with a lifetime in the atmosphere of 114 years. Methane GWP for a 100-year time horizon is 28 with a lifetime in the atmosphere of 12 years.

Nitrous oxide, also known as "laughing gas," is colorless and odorless, and contributes to the destruction of the atmospheric ozone layer. In agriculture, the main source of N_2O emissions is soil, from crop fertilizer use, soil cultivation, and spreading of urine and manure. Other sources include industrial processes, and natural processes involving soils and oceans.

Methane is a volatile organic compound, odorless and flammable. In agriculture, the main sources are enteric fermentation (fermentation that takes place in the digestive systems of animals) and the degradation of manure. Methane contributes to ozone formation in the lower atmosphere, and to ozone layer depletion in the upper atmosphere.

Researchers and engineers have developed different approaches to reliably measure and quantify emissions of NH_3, N_2O, and CH_4 from animal production facilities. The implementation of these methods helps to understand the production processes, to identify the influencing factors, and to develop mitigation techniques or practices. The specific characteristics of animal housing and the variability of the houses and animal production systems make the development and implementation of the different methods a real challenge.

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assessments.epa.gov/risk/document/&deid=363974

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Initial Results from the Mobile Air Monitoring Laboratory Deployments in Yakima Valley

On this page:

Overview

Presentation to the Yakima Valley Air Partnership Monthly Call Report on initial results from the Mobile Air Monitoring Lab deployments in Yakima Valley (1 hour) Ecology's Overburdened Communities Discussion (20 min) Discussion with Dept of Commerce (15 min) Reminder about next steps with Charter (5 min) Follow-up on PM2.5 Projects: updates from each Partner on next steps for their projects (20 min)

Impact/Purpose

Despite efforts to reduce wintertime fine particulate matter (PM2.5) concentrations in the Yakima Valley, the Washington State Department of Ecology, the Yakama Nation, and EPA Region 10 are concerned that the area will not attain the PM2.5 National Ambient Air Quality Standards (NAAQS) in coming years. The Yakima Valley is a community with environmental justice concerns; portions of the valley score at the 80th percentile or higher on EJ-Screen due to the high proportion of low income residents and people of color, including people of Native American and Hispanic descent. Because of the persistent and complex nature of wintertime air quality issues in many areas across Region 10, wintertime air quality is the Region 10 Air and Radiation Division's #1 science priority for 2022. Efforts to reduce wintertime PM2.5 concentrations in the Yakima Valley have not yielded expected results, which indicates that there are fundamental knowledge gaps for what is driving PM2.5 concentrations. We propose a joint field characterization and modeling study of PM2.5, its precursors, chemistry, and composition. This project will improve our understanding of the sources and chemistry of PM2.5 in the Yakima Valley and will assist the State, Yakama Nation, and EPA Region 10 with development of a control strategy and State/Tribal Implementation Plan, should the area become designated nonattainment with the NAAQS.

Citation

Wallace, W. Initial Results from the Mobile Air Monitoring Laboratory Deployments in Yakima Valley. Yakima Valley Air Partnership Monthly Call, Olympia, WA, December 16, 2024.

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Diesel emissions

Health effects from diesel pollution

Health effects from diesel pollution

We work to reduce diesel pollution. Diesel exhaust puts healthy people at risk for asthma and respiratory illnesses. For other people, it can make their existing heart and lung diseases worse. Diesel exhaust contains fine particles, nitrogen oxides, and other pollutants.

EPA classifies diesel exhaust as likely to cause cancer. In Washington, 70 percent of the cancer risk from pollutants in the air is from diesel exhaust.

I want to...

- Check current air quality conditions (map)
- Find out about reducing diesel emissions

Diesel pollution is harmful to your health

Diesel exhaust contains fine particles, nitrogen oxides, and other pollutants. In warm weather, hot sunlight bakes nitrogen oxides together with other pollutants which forms harmful smog. This is also known as ground-level ozone.

Ground-level ozone aggressively attacks lung tissue and damages people's health. You might think of it as sunburn on your lungs. Breathing ground-level ozone can lead to several types of health problems, such as:

- **Coughing, throat, and chest irritation:** High levels of ground-level ozone can irritate your respiratory system. Symptoms are mild and usually only last for a few hours after you've been exposed to it. However, ozone can continue to harm your lungs even after symptoms disappear.
- **Difficulty breathing and lung damage:** Because of ground-level ozone's effect on lung function, it can make deep breathing difficult, especially during exercise. Research has shown that exposure can also damage the lining of your lungs.
- **Worsening asthma symptoms:** If you suffer from asthma, being exposed to high levels of ground-level ozone can trigger asthma attacks.

[Screenshot taken 11-15-26 @ 3.19 PM]

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Vehicle emissions

- Diesel emissions
  - Health effects from diesel pollution
- Clean cars
- Electric school buses
- Investing in cleaner transportation
- Emission checks ended

Reducing diesel emissions

Diesel exhaust is the most harmful air pollutant in Washington. It contributes two-thirds of the total cancer risk from toxic air pollution. Diesel exhaust causes or contributes to asthma, heart and lung diseases, and cancer.

To reduce diesel emissions, we provide grant funding to help fleet managers replace old engines, install exhaust retrofit equipment, reduce idling, and use cleaner fuels.



Apply for a clean diesel grant



Get clean diesel emails



Get school district emails



Get VW settlement emails

Washington's largest sources of diesel exhaust

Nearly five million people live or work close to a highway or other major road where they are exposed to high levels of diesel exhaust.

Washington's largest sources of diesel exhaust are:

- Heavy duty trucks
- Ships
- Construction equipment
- Locomotives
- Farm equipment
- Buses

[Screenshot taken 11-15-26 @ 3.17 PM]

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