



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**Response to Comments  
Washington State Implementation Plan  
Revision**

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*Wallula Washington Second Ten-  
Year Maintenance Plan  
for Particulate Matter (PM<sub>10</sub>)*

October 2019

Publication 19-02-024

# Publication and Contact Information

This document is available on the Department of Ecology's website at:  
<https://fortress.wa.gov/ecy/publications/summarypages/1902033.html>

For more information contact:

Air Quality Program  
P.O. Box 47600  
Olympia, WA 98504-7600  
Phone: 360-407-6800

Washington State Department of Ecology – [www.ecology.wa.gov](http://www.ecology.wa.gov)

- Headquarters, Olympia 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Olympia 360-407-6300
- Central Regional Office, Union Gap 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6800 or email [ecyadacoordinator@ecy.wa.gov](mailto:ecyadacoordinator@ecy.wa.gov). People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

**Response to Comments**  
**Washington State Implementation Plan Revision**

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*Walla Walla, Washington Second Ten-  
Year Maintenance Plan for Particulate  
Matter (PM<sub>10</sub>)*

Air Quality Program

Washington State Department of Ecology

Olympia, Washington

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# Introduction

This document provides Ecology's response to public comments received on Ecology's [State Implementation Plan \(SIP\) Revision: Wallula, Washington, Second Ten-Year Maintenance Plan for Particulate Matter \(PM10\)](#)<sup>1</sup>(WMP). The purpose of a Response to Comments document is to:

- Collect public comment and Ecology's response to those comments into one document.
- Meet EPA's requirement to prepare a response to comments.
- Provide reasons to adopt the State Implementation Plan (SIP) revision.
- Describe differences between the proposed and the adopted SIP revision.

To read more about this SIP revision or other Ecology SIP revisions, go to:

<https://ecology.wa.gov/Regulations-Permits/Plans-policies/State-implementation-plans>

## Purpose of SIP revision

This plan demonstrates that the Wallula Maintenance Area (WMA) meets and will continue to maintain the 24-hour PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) through 2025. Ecology requests EPA's approval of this plan so it may be included in Washington's State Implementation Plan (SIP). This plan meets Part 175A federal Clean Air Act (CAA) requirements for a second 10-year maintenance plan.

## Summary of public involvement process

Ecology accepted comments from August 13, 2019 to September 29, 2019. We published notice of the public comment period and opportunity to request a hearing on Ecology's website. Appendix E of the Wallula Maintenance Plan (i.e., main document) includes copies of the public involvement process elements.

We received a request for a hearing as a comment. The public hearing was held on September 24, 2019 at McNary Wildlife Refuge, 64 Maple Street, Burbank, Washington. No one testified at the hearing. We received two comments by the September 29 deadline.

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<sup>1</sup> <<https://fortress.wa.gov/ecy/publications/SummaryPages/1902021.html>>

# Comment Index

Ecology received two written comments about this State Implementation Plan revision.

**Table 1: Written Comments Index**

<b>Affiliation</b>	<b>Commenter name</b>	<b>Topic of comment</b>	<b>Comment number</b>
<b>Individual</b>	Meg Duhr	Request a hearing	1-1-1
<b>Company</b>			
Simplot	Krista Kinsey	Feedlot Headcount	0-1-1
Simplot	Krista Kinsey	PM10 comparison from 2002 to 2014	0-1-2
Simplot	Krista Kinsey	Characterization of Feedlot Operations	0-1-3
Simplot	Krista Kinsey	Fugitive Dust Control Plan Inclusion	0-1-4
Simplot	Krista Kinsey	Woodstove Emissions	0-1-5
Simplot	Krista Kinsey	Feedlot PM10 Emission Factor	0-1-6
Simplot	Krista Kinsey	Thank you for opportunity to comment	0-1-7



# Written Comments and Responses

## 1-1. Meg Duhr

### Comment 1-1-1

I would like to request a public hearing. If the meeting is held on Sept. 24th at McNary NWR in Burbank, I would attend.

### Response to 1-1-1

Thank you. We received your request for a hearing. It was held at the McNary Federal Wildlife Refuge on September 24 at 6 pm.

## 0-1. Krista Kinsey

### Comment 0-1-1

Emission Inventories: Feedlot Headcount On page 3, section 1.4, the SIP states, "[t]here is a large beef cattle feedlot with a capacity of about 88,000 head (recent levels have been in the 42,000 head range) ... " Presumably, this statement is in reference to the Simplot Feeders cattle feedlot. The feedlot is limited to 80,000 head under Approval Order No. 18AQ-E018 dated March 5, 2018. Simplot requests the Department of Ecology (Ecology) ensure the 80,000 headcount parameter is used for emission inventory calculations related to feedlot capacity. Over the six years feedlot level has averaged 38,000 head; the reported headcount for emission registration purposes were 35,899 in 2014, 31,439 in 2016, and 42,379 in 2018. On page 24 in appendix A-2 of the SIP, Ecology has used an average daily head count of 56,635 for the 2014 emission inventory, however, Simplot reported average daily head count at 35,899 for 2014 in the annual registration. Simplot estimates the reduced head count parameter reduces the daily PM10 emission rate from 1,826 lb/day to 1,118 lb/day

### Response to 0-1-1

Thank you for your comment. Ecology agrees that the 88,000 value is a clerical error. We used Simplot's maximum permitted amount of 80,000 head in projection year estimates. Ecology agrees that 56,635 head for 2014 is an error, which affected base year emission estimates. We corrected the 2014 head count to 35,899 and all dependent calculations of base year emissions to 1,147 lb/day. We updated all affected tables, figures, and calculations with the corrected Simplot emissions.

### Comment 0-1-2

PM10 Emission Comparison from 2002 to 2014: On page 27, Table 8 of the SIP, Ecology acknowledges Simplot Feeders was counted as a small source in 2002 with PM10 emissions estimated at approximately 219 lb/day. Ecology also acknowledges an updated emission factor

was applied for feedlots as a change that had occurred between the 2002 and 2014 emission inventories (page 27, section 3.1.1 of the SIP). Ecology's updated beef feedlot emission factor was not finalized or required for use by Simplot Feeders until the 2016 Annual Emission Inventory, however, Ecology has retroactively applied that factor to the 2014 data. Technically, this wasn't a change that occurred in the 2002-2014 time-frame, however, Simplot assumes Ecology's intent for this approach was to ensure an "apples to apples" comparison for 2014 to future projections in 2020 and beyond.

Simplot requests this same approach be applied to the 2002 data as well, at least for informational purposes in the SIP. With Ecology's current comparison of emissions from 2002 to 2014 in the SIP, it inaccurately identifies a substantial emission increase for the feedlot, when in fact cattle headcount decreased during this time period. The 2002 headcount was 39,186, the 2014 headcount was 35,899. When Simplot estimates emissions for 2002, applying Ecology's updated beef feedlot emission factor to the 2002 data, the daily PM 10 emission estimate is approximately 1,500 lb/day. Using this "apples to apples" comparison for 2002 to 2014, these emission calculations demonstrate a decrease in emissions of approximately 400 lb/day rather than the 1,600 lb/day increase identified in Table 7 of the SIP. The values presented in this comment are summarized below for ease of comparison. If a comparison of emissions from 2002 to 2014 is presented in the SIP, it is critical to demonstrate that the emissions from the feedlot have not increased. Simplot does not believe the emission change from 2002 to 2014 is accurately portrayed in the SIP. Simplot was not contacted by Ecology for information on emission inventory development for the SIP but welcomes the opportunity to collaborate with Ecology to assure accurate parameters and methodologies are utilized to characterize the feedlot operation.

## **Response to 0-1-2**

Thank you for your comment. The updated emission factor that we applied to Simplot's 2014 emissions calculation (dust from hooves) is an attempt to represent emissions at the feedlot with our best available calculation methodology. It does not represent the 2014 emissions reported by Simplot for permit compliance purposes, which used the older emission factor for dust from hooves. This allows an "apples to apples" comparison for 2014 to future projections.

We did not apply the updated emission factor to the 2002 data because the 2005 SIP is final and we are not revising it. We included the 2002 emissions from the 2005 SIP in the 2015 SIP for comparison purposes only. It is true that if we used the same methodology for 2002 and 2014 emissions estimates, Simplot would show a reduction in emissions. However, we did not recalculate 2002 emissions for any source categories. The comparison tables are only meant to compare SIP values used and do not assume that we used a similar methodology to estimate emissions. This is the case for all source categories, not just Simplot emissions.

## **Comment 0-1-3**

General Comments Characterization of Feedlot Operations: The SIP states an increase in activity occurred at the feedlot between 2002 and 2014 (page 28, section 3.1.1) with the addition of new

equipment for corn and hay, however, the new hay equipment was installed in 2015 and the new corn equipment was installed in 2018. Simplot believes it is inaccurate to state an increase in activity occurred at the feedlot during this period due to the installation of the equipment. While there was a decrease in average headcount in the early 2000's at the facility, the headcount over the last several years has remained relatively constant and has not reached the same levels experienced in the late 1990s.

### **Response to O-1-3**

Thank you for your comment. The draft SIP text that discussed an increase in activity was an error due to the incorrect head count for 2014. We corrected this error and removed the language about an increase in activity.

### **Comment O-1-4**

Fugitive Dust Control Plan Inclusion: Simplot appreciates Ecology's consistency of including Fugitive Dust Control Plans in the SIP. Simplot supports Ecology's recommendation to include the updated Fugitive Dust Control Plan for the feedlot in the SIP.

### **Response to O-1-4**

Thank you for your comment. Ecology appreciates the effort Simplot made to update and improve their Fugitive Dust Control plan.

### **Comment O-1-5**

Woodstove Emissions: On page 34, section 3.2, Ecology states "woodstoves are used most heavily in the wintertime, they do not contribute to the pounds per season day totals. Therefore, Ecology did not include emission from woodstoves in either the inventory ... or projections. Ecology did not include residential wood combustion in the EI because it is only a small source on days with large PM10 concentration." However, Ecology also states in Section 3.1.3 on page 30 that "PM10 maximums occur in the winter and summer." While Ecology did not include woodsmoke in the previous maintenance plan, Simplot recommends Ecology reconsider inclusion of woodsmoke emissions to assure a complete data set for wintertime emissions. Simplot's experience in operating in other PM 1 O maintenance areas is that woodsmoke can have impacts to PM 10 emissions and programs to manage residential woodsmoke can have noticeable impacts for the community.

### **Response to O-1-5**

The exclusion of woodstoves from the emissions inventory is partly due to seasonality. However, the main reason that we excluded woodstoves is because they are not sources of coarse particulate matter. We monitor large PM10 concentrations when coarse mass (dust) is more than 90 percent of PM10, except for days when wildfire smoke is present. Therefore, we exclude sources of fine particulate (PM2.5) that do not emit coarse mass from the emissions inventory. We revised Section 3.2 to make this clearer.

## **Comment 0-1-6**

Beef Feedlot PM10 Emission Factor: Simplot has previously provided comment on Ecology's updated beef feedlot emission factor and requests that if Ecology determines a change in emission factor is necessary for a given source, particularly if that source is included in a SIP, that the emission factor updates are based on science and incorporates the knowledge and expertise from impacted stakeholders and industry professionals. A summary of Simplot's previous comments regarding the updated beef feedlot emission factor are provided below:

Comments were provided in January 2017<sup>1</sup>(footnote 1: Letter dated January 31, 2017 from Simplot to Mr. Brian Prisock, Washington Department of Ecology, 2016 Annual Emissions Inventory - Simplot Pasco Feedlot"), in response to Ecology's data request for the 2016 Annual Emission Inventory. In those comments, Simplot recommended Ecology engage with the Washington Cattle Feeders Association and individual feedlots to collaboratively develop science-based emission factors for the State of Washington rather than relying upon literature research and determining studies conducted in the Midwest can represent operations in Washington state. Simplot also indicated additional literature sources were available and it was unclear if those sources were evaluated by Ecology.

In July 2017<sup>2</sup> (footnote 2: Letter dated July 11, 2017 from Simplot to Ms. Brenda Smits and Ms. Joanna Ekrem, Washington Department of Ecology, "Air Quality Fee Rule, WAC 173-100 and 173-455") during Ecology's rule-making for registration fees, Simplot provided comment on the use of the emission factor, that Ecology conducted their review of data without adequate input from the industry or industry experts and recommended Ecology suspend use of the emission factor and initiate a collaborative effort with industry to identify appropriate updates, as necessary, to emission factors.

Ecology resumed the rulemaking process for registration fees and in August 2018<sup>3</sup> (footnote 3: Letter dated August 3, 2018 from Simplot to Mr. Jean-Paul Huys, Washington Department of Ecology, "Formal Comment on Rulemaking, Revising Chapters 173-455 and 173-400 WAC".) during the public comment period for those fees, both Simplot and the Washington Cattle Feeders Association recommended Ecology work with the Association and the feedlots on appropriate PM 10 emission factor development.

Ecology has presented various literature sources containing PM10 emission factors derived for feedlots (for pens and roads combined) - nearly an order of magnitude separates the range of emission factors identified. The updated emission factor Ecology requires for use at beef feedlots is 54.25 lb/1000 head-day<sup>4</sup> (footnote 4: Ecology allows for use of control efficiencies in combination with the emission factor. Simplot's operations allow for use of two of the three the controls resulting a 35% control efficiency for the feedlot.); prior to the 2016 annual emissions inventory Ecology used an emission factor of 5.27 lb/1000 head-day for beef feedlots.

Considering all of the comments Simplot and the Washington Cattle Feeders Association have provided regarding Ecology's updated beef feedlot emission factor, Simplot recommends Ecology pursue a similar approach put forth by Ecology with development of the "Fugitive Dust Control Plan and Best Management Practices for Cattle Feeding Operations" (Department of

Ecology, Publication 18-02-033, October 2018) and work with the Washington Cattle Feeders Association for identification of appropriate, science-based emission factors for beef feedlots in Washington state.

### **Response to O-1-6**

Thank you for your comment. Ecology continues to be open to engage with Simplot, other feedlots and the Cattlemen's Association to review the scientific literature and process we used to develop the emission factor. Ecology also stands ready to work with the Cattle Feeders to conduct a joint literature review research project to confirm the beef feedlot PM10 emission factor utilizing a scientific research protocol.

### **Comment O-1-7**

Thank you for the opportunity to provide comments and your consideration of our comments. If you have any questions, please feel free to contact me Krista.Kinsey@Simplot.com or 208- 780-7241. Regards, Krista Kinsey

### **Response to O-1-7**

Thank you for your comments.

# Differences between the Proposed and Adopted State Implementation Plan

There are some differences between the public review draft of the proposed SIP Revision dated July 2019 and the final SIP revision dated October 2019. Ecology made these changes to ensure clarity and consistency. These changes are:

- Added concurrence letter for 2017 wildfire demos
- Included Appendix E. Media, Public Comment Period Notices
- Corrected clerical errors and resultant values because of Simplot comments as described below

These modifications did not change our conclusions. The Wallula Maintenance Area Maintenance Demonstration shows the WMA will still be below the 24-hour PM10 standard.

## Simplot comments/clerical error

Simplot commented that there may be a clerical error in their Base Year 2014 headcount used for emission calculations. Ecology checked our records and found that we made a clerical error. The public comment draft used 56,635 head of cattle in the emission calculations. This value should have been 35,899 head, as reported in Simplot's annual 2014 emission inventory. This correction in baseline emissions for the WMA resulted in a number of changes throughout the document. We are including an additional section (Appendix A) that includes strikethrough notations throughout the document to show where, exactly, we made edits based on this comment.

A summary of corrections resulting from the Simplot comment are as follows:

- Corrected clerical error on page 3, section 1.4 from 88,000 head to 80,000 head. 80,000 head is the correct value from Simplot's Approval Order No. 18-AQ-E018, dated March 5, 2018. The correct value was used in projections, this was a clerical error in the text only.
- Corrected clerical error of incorrect headcount of 56,635 for calculating 2014 (SIP baseline) emissions; should have been 35,899 head, as reported in Simplot's annual 2014 registration. This correction in baseline emissions for the WMA resulted in a number of changes throughout the document.
- Section 3 changes, see Appendix A. Strikeout of changes made to the Wallula Maintenance Plan-select sections
  - Section 3.2, paragraph 2 was updated to match Tables 7/8.
  - Table 7 and 8
  - Figure 10 and Tables 14/15 values and percentages updated.
- Section 4-see strikeout section below for details.

- Changes in Section 4.1, Projected emissions to future concentrations shows attainment. The WMA continues to show attainment with the PM10 24 hour standard with projected design value concentrations below 150 µg/m<sup>3</sup>.
- There were also errors in Section 4 in tables 22 and 23, with and without background removed, now tables 21 and 22, respectively. In addition, the public comment version used projected values from the wrong year in tables 22 and 23 and the equations. See the strikeout version for Section 4 below.
- Appendix A2, Emission Inventory Documentation, was revised as follows.
  - Table 3-2: Reformatted and split this table for ADA compliance.
  - Table 3-3: New table created using results of split Table 3-2 for ADA compliance.
  - Table 4-5: Accept all changes in cells that are grey. Accept all formatting changes. “Reformatted for ADA compliance”
  - Table 5-1: Reformatted for ADA compliance
  - Table 5-6: Reformatted for ADA compliance
  - Tables 5-8a / Table 5-8b (same as Table 3-2 / Table 3-3)
  - Table 9-1 (same as 4-5)
  - Table 9-2 (same as 4-5)
  - Table 9-3 (same as 4-5)
  - Table 9-4 (same as 4-5).

After reevaluating our conclusion with the corrected values, we determined that the WMA remains well protected for the following reasons:

- The area control measures are still in place and/or enhanced (e.g., Simplot updated their dust control plan).
- The projected year inventories use the permitted value of 80,000 head. The maximum value reported in the last five years (2014-2018) is 53,302 (2018). This means the future year projection values are more conservative.
- The higher design value for 2014 of 112 µg/m<sup>3</sup> is based on a day (9/9/2012) with a monitored value affected by windblown dust.

Since the projected design value of 145 µg/m<sup>3</sup> is less than the NAAQS threshold (150 µg/m<sup>3</sup>), the WMA will continue to maintain the standard through the maintenance period (2025).

Ecology acknowledges that the projected Design Value is closer to the NAAQS threshold than shown in the public comment version. However, since the projected design value of 145 µg/m<sup>3</sup> is still less than the NAAQS threshold (150 µg/m<sup>3</sup>), the WMA will continue to maintain the standard through the maintenance period (2025). See Section 4.1 Projected emissions to future concentrations shows attainment, for more information.

For comparison, if we used the high-wind threshold of 18 mph, excluded all natural events, and used the actual maximum head of cattle reported at Simplot from 2014 to 2018 (53,302 head), the projected 2025 Design Value would be 82  $\mu\text{g}/\text{m}^3$ . Using these conservative estimates shows that the area would remain in compliance with PM NAAQS even on a worst-case day



## **Appendices**

[Appendix A. Strikeout of changes made to the Wallula Maintenance Plan - select sections](#)

[Appendix B. Strikeout of changes made to Appendix A.2, Emission Inventory Documentation](#)

[Appendix C. Copy of Simplot's Written Comments](#)