



NOTICE AND AGENDA OF THE YAKIMA REGIONAL CLEAN AIR AGENCY BOARD OF DIRECTORS' REGULAR MEETING

NOTICE

NOTICE is hereby given that the Yakima Regional Clean Air Agency will conduct an open meeting of the Board of Directors at 2 pm on Thursday, September 14, 2017 at the City Council Chambers, Yakima City Hall, located at 129 North 2nd Street, Yakima.

NO STUDY SESSION

AGENDA

REGULAR MEETING @ 2:00 p.m.

1. 2:00 P.M. Call to Order
2. Roll Call
3. Additions or Deletions to Agenda
4. Public Comments

Board Chair
Christa Owen
Board Chair
Board Chair

PUBLIC COMMENTS

This is a public meeting. If you wish to address the Board concerning any air quality matter, you may do so now. Please come forward to the podium and state your name for the record. To assist board members in hearing as many different viewpoints as possible in the limited time available, each person shall be limited to three minutes; unless further time is granted by the Board Chairman.

CONSENT AGENDA

5. Consider approving the Consent Agenda Items for action 5.1 and 5.2. The Board may approve the Consent Agenda by single motion in whole or in part, with or without further discussion.

- 5.1 By consent, approve August 10, 2017 Board Meeting Summary; and
- 5.2 By consent, accept and file YRCAA August 2017 Monthly Activity Report.

Action Requested: Approve Consent Agenda Items 5.1 and 5.2.

REGULAR AGENDA

6. Receive YRCAA Director's Report.
Action Requested: Accept and file Director's Report

Keith Hurley



ACTION ITEMS

7. Accept Fiscal Reports. *Keith Hurley*
- Approve Fiscal Vouchers and Payroll Authorization Transfers;
 - BVA(s) – FYI;
 - Supplemental Income Status Report for CY 2017
- Action Requested:** Approve Fiscal Vouchers, Payroll Authorization Transfers, Accept and File Fiscal Reports.

OTHER BUSINESS

8. Other Business and Adjournment *Board Chair*

The next Board of Directors Meeting is scheduled for Thursday, October 12, 2017 in the City Council Chambers, Yakima City Hall, located at 129 North 2nd Street, Yakima.



Summary of the Governing Board of Directors Meeting

Location, Date and Time:

Yakima City Hall Council Chambers,

August 10, 2017

Time: 1:00 p.m.

Jon DeVaney, Board Chair, called the Study Session to order at 1:00 p.m.

Study Session:

- Conflicts and Ethics
 - o Jim Doherty, MRSC Legal Consultant presentation
 - o Q&A during and after presentation
 - o Handout and powerpoint slides provided
 - o Adjourned at 1:48 p.m. Regular meeting to reconvene at 2:00 pm.

1. Jon DeVaney, Board Chair, called the Meeting to order at 2:00 p.m.

2. Christa Owen, Clerk of the Board conducted roll call. There was a quorum

BOARD MEMBERS:	Present	STAFF:	Present
Jon DeVaney, Representative-At-Large	x	Keith Hurley, Executive Director	x
Norm Childress, Small Cities Representative	x	Christa Owen, Fiscal Manager/ Clerk of the Board	x
Steven Jones, Ph.D., County Representative	x	Mary Wurtz, Records Administrator/Clerk of the Board	x
Bill Lover, Largest City Representative			
Ron Anderson, Yakima County Commissioner	x		
LEGAL COUNSEL: Gary Cuillier, Board Counsel	x		
MEDIA: YPAC	x		

3. Additions and Deletions to Agenda:

Chairman DeVaney noted an error under the Consent Agenda; it should say 5.1 through 5.3 instead of 5.1 through 5.2.

4. **Public Comment Period**

Jean Mendoza – She asked the board if they remembered receiving a statement she had given them in March regarding the Ag Task Force meeting summary that Director Hurley provided. She disagreed on several points, and she wants them to hear her take on it. She stated she would resend it and requests a response.

Kathleen Rogers – Came to this meeting because she wanted to hear Mr. Doherty speak. Also, she has been recording videos of the air quality in the Sunnyside and Grandview areas in July; she will send us a copy.

5. **Consent Agenda**

- Includes three (3) items, June, 2017 Board Summary and June and July Monthly Activities Reports.

Motion to approve consent Agenda in its entirety made by Mayor Norm Childress and seconded by Commissioner Ron Anderson. Motion passed.

Regular Agenda:

6. **Director's Report**

- **State Budget Update** – Gov. Inslee signed the 2-yr operating budget on June 30. State still does not have a Capital Budget, of which WSCO funds are from. We will continue to pre-qualify low-income applicants and fill our waiting list until a Capital Budget is passed and Woodstove Change Out funds are awarded
- **Public Records Act (PRA) Changes** — On 5/16/17 the Governor signed ESHB 1594 and EHB 1595, which implemented changes to the PRA and records retention laws regarding electronic records, effective 7/23/17.
- **Compliance and Engineering**--Director Hurley presented air quality data and graphs. He noted that since the smoke started 8/1, next month's graphs will look different.
- **Public Education & Outreach**— We completed 3 woodstove change-outs for low income households in June. For biennium grant cycle 2015-2017, we received a total of \$368,100 in funding for the Residential Wood Smoke Reduction Grant, which was used to destroy approximately 128 older uncertified solid fuel burning devices. Commissioner Ron Anderson inquired how much we should get for the next biennium, and Director Hurley responded that there is no set amount, and explained the factors that are used.
- **New Employees**— Director Hurley welcomed the two new employees, Mary Wurtz and Jodell Gonzalez, to the agency.

Action Items:

7. **Fiscal Report:**

- Payroll for June was \$51,130.84 and July was \$57,879.68;
- A/P for June was \$27,916.82 and July was \$15,985.81;
- Out of A/P, Wood Stove Change-Out for June was \$17,900.00 and for July was

- \$4620.00; Enterprise for June was \$375.17 and for July was \$178.76; and
- Motion to approve fiscal reports made by Commissioner Anderson, seconded by Steve Jones. Motion passed.

8. Dismiss Uncollectible Debts:

- Approve Resolution No. 2017-10
- Three uncollectable debts;
- There was discussion regarding whether this affects revenue recorded, and about one of the items being refused by Evergreen; and
- Motion to approve made by Commissioner Anderson, and seconded by Mayor Norm Childress. Motion granted.

9. Adopt Revised Administrative Code Part A

- Approve Resolution No. 2017-11 with proposed revisions;
- Director Hurley explained the proposed changes, with some questions from the board regarding deletions to the agenda. Attorney Gary Cuillier answered questions; and
- Motion to approve made by Mayor Childress and seconded by Commissioner Anderson. Motion passed.

10. Other Business and Adjournment

Motion to adjourn by Mayor Childress, seconded by Commissioner Anderson.

Jon DeVaney, Board Chair

Christa Owen, Clerk of the Board

Audio CD of this meeting is available at the YRCAA.
Meeting Summary submitted to Board for approval.

Date of Release: September 7, 2017
Date of Consideration: September 14, 2017
To: Board of Directors
From: Office of the Executive Director
Subject: Monthly Activity Report

Activity	FY17	Jul17	Aug17	Sept17	FY17 thru Aug	FY18 thru Aug
Minor Source Inspections	140	9	8	0	34	17
Complaints Received	222	12	18	0	29	30
NOVs Issued	96	2	1	0	6	3
AODs Issued	16	1	2	0	0	3
Warning Notices Issued	16	1	2	0	0	3
NOPs Issued	54	3	1	0	7	4
SEPA Reviews	181	14	26	0	43	40
AOP Applications Received	1	0	0	0	0	0
AOPs Issued or Renewed	4	0	0	0	2	0
Deviations/Upsets Reported	11	1	1	0	2	2
AOP Inspections	5	1	0	0	1	1
Public Workshops	0	0	0	0	0	0
Media Events	0	0	0	0	0	0
Media Contacts	10	1	6	0	2	7
Education Outreach Events	5	3	0	0	1	3
Sources Registered	364	0	0	0	6	0
NSR Applications Received	22	0	6	0	2	6
NSR Approvals Issued-Temporary	0	0	0	0	0	0
NSR Approvals Issued-Permanent	23	2	4	0	3	6
NODRs Received	200	26	19	0	25	45
Agricultural Burn Permits Issued	182	2	3	0	3	5
Conditional Use Permits Issued	4	0	0	0	0	0
Residential Burn Permits Issued	1162	40	12	0	162	52
Burn Ban Days	63	0	15	0	0	15
Public Records Requests Fulfilled	47	2	1	0	12	3

Acronyms:

AOP - Air Operating Permit; **NODR** - Notification of Demolition and Renovation; **NOP** - Notice of Penalty; **NOV** - Notice of Violation; **NSR** - New Source Review; **SEPA** - State Environmental Policy Act

Executive Memorandum

Date of Release: September 7, 2017
Date of Consideration: September 14, 2017
To: The YRCAA Board of Directors
From: Office of the Executive Director
Subject: Director's Report

Keith M. Hurley

1. Jolly Mountain & Norse Peak Fires

Both fires continue to burn as of the date of this report. Smoke from these fires and many more around the state continue to contribute to the ongoing poor air quality within the Yakima Valley. This summer wild fires have resulted in approximately 11 exceedances of the PM_{2.5} standard and 2 exceedances of the PM₁₀ standard for Yakima County.

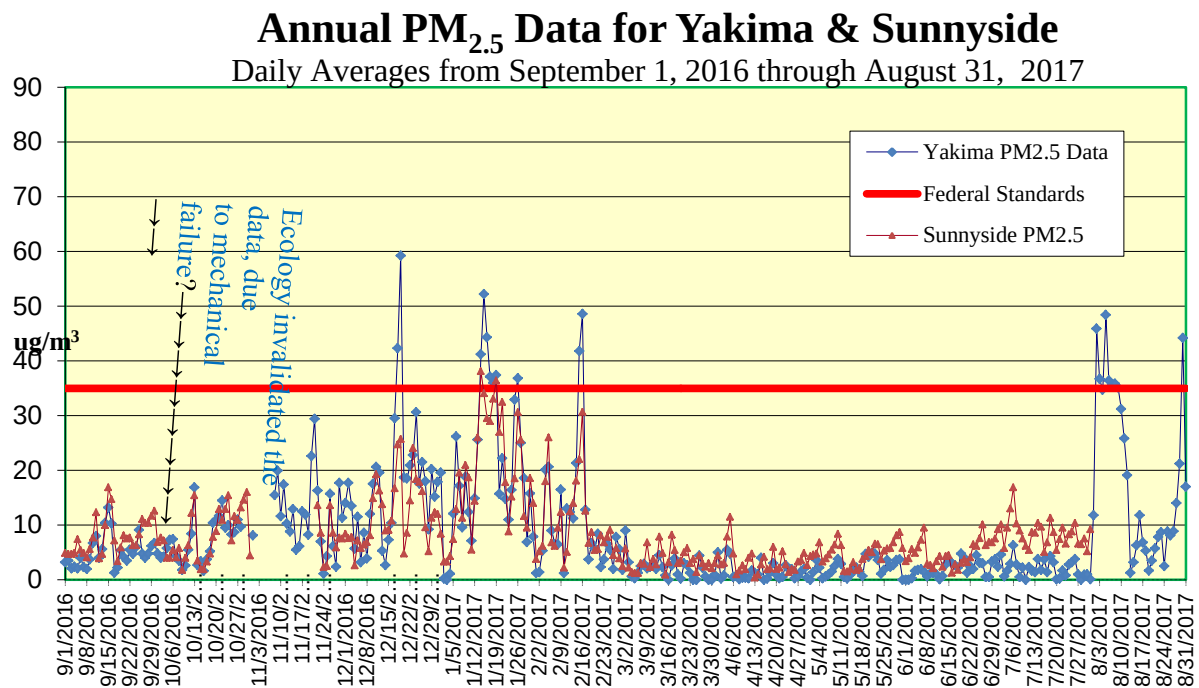
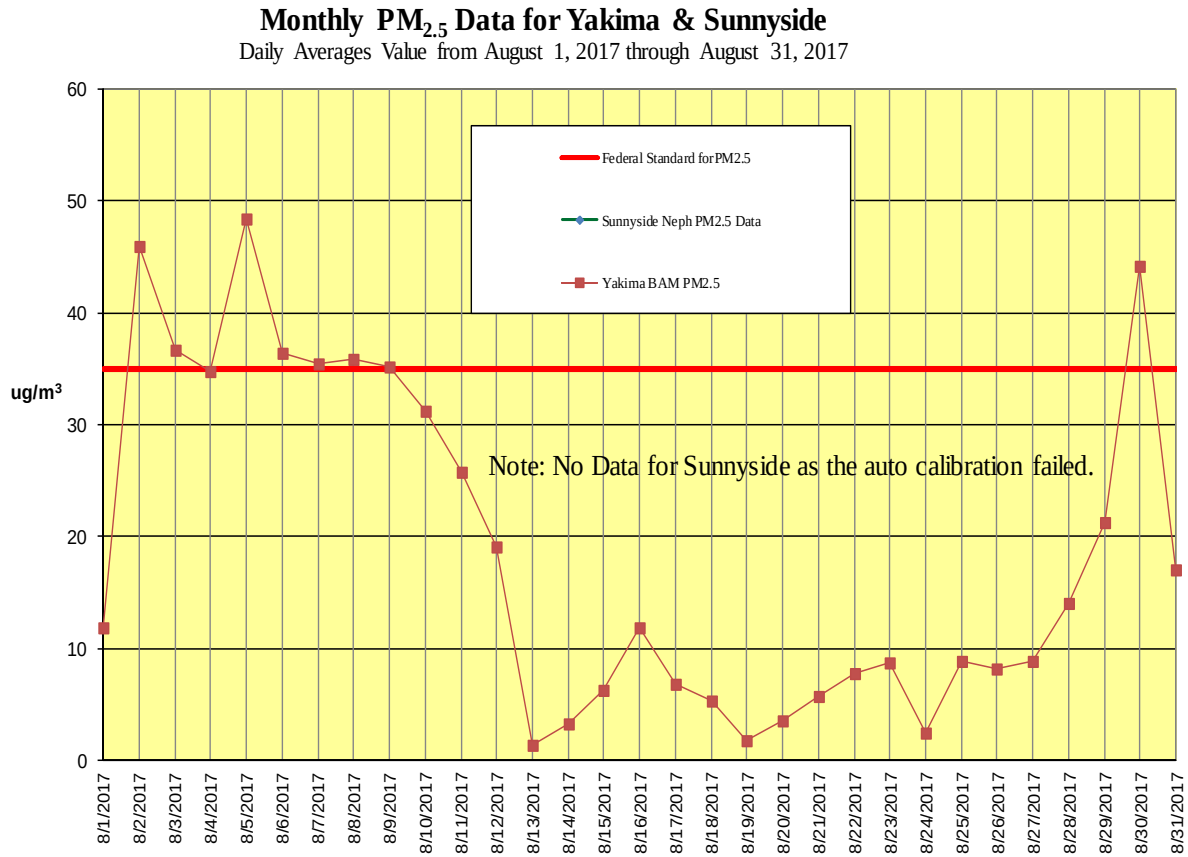
2. Ecology's 2017 1st Quarter Air Monitoring Data Quality Assessment Report (Attached)

3. Compliance & Engineering

The following table itemizes, by type, the complaints received and the number of NOV's issued for the month of August, 2017:

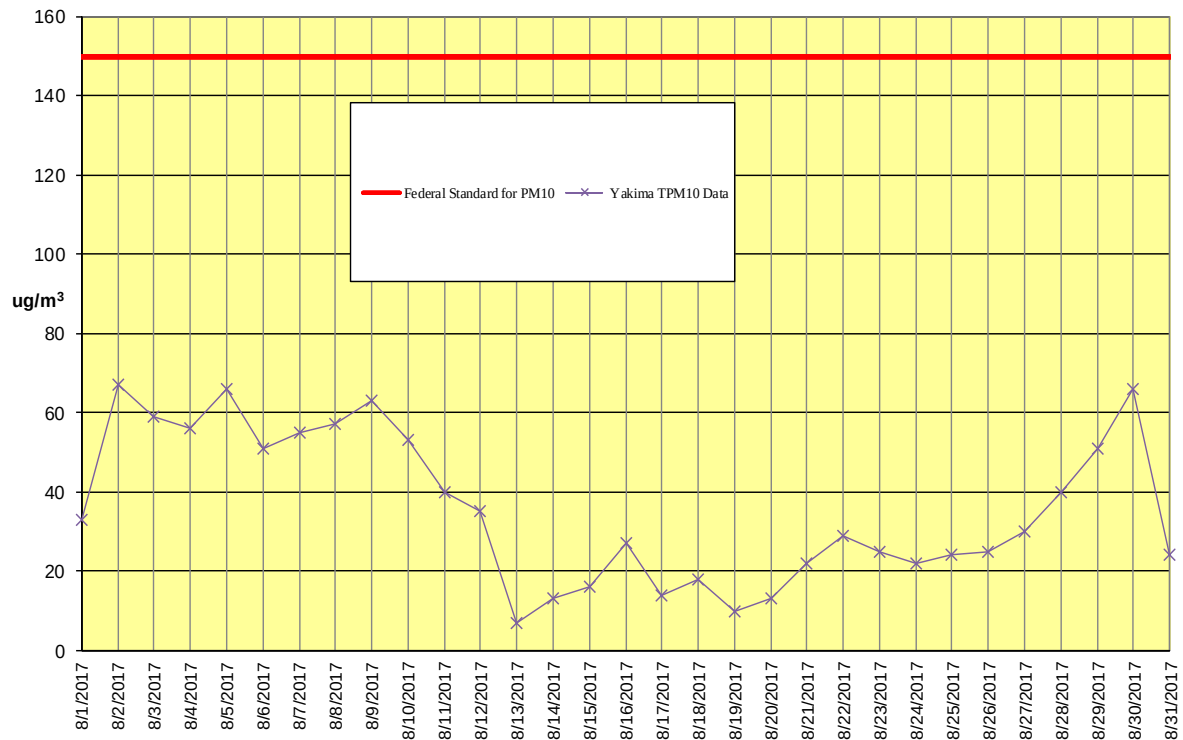
<u>Type of Complaint</u>	<u># of Complaints</u>	<u># of NOV's</u>	<u># of AOD's</u>
Residential Burning	7	1	2
Agricultural Burning	0	0	0
Other Burning	0	0	0
Fugitive Dust	7	0	0
Agricultural Dust	3	0	0
Agricultural Odor	1	0	0
Surface Coating	0	0	0
Odor	0	0	0
Asbestos	0	0	0
Others	0	0	0
<u>TOTALS</u>	<u>18</u>	<u>1</u>	<u>2</u>

Air Monitoring Data:



Monthly PM₁₀ Data for Yakima

Daily Averages from August 1, 2017 through August 31, 2017



4. Public Education & Outreach

The agency continues to place low-income families on the woodstove change out waiting list. Currently there are 18 families on the change out list and an additional 25 families on the rebate list, for a total of 43 potential change outs. The change out program will proceed once a Capital Budget is passed and change out funds are allocated.



DEPARTMENT OF
ECOLOGY
State of Washington

Air Monitoring Data Quality Assessment Report 1st Quarter 2017

August 2017

Air Monitoring Data Quality Assessment Report 1st Quarter 2017

*by
Anna Ya-Chun Tai*

Air Quality Program
Washington Department of Ecology
Olympia, Washington

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Acronyms and Abbreviations

AQP	Air Quality Program
AQS	Air Quality System
CO	carbon monoxide
CV	Coefficient of Variation
DQI	Data Quality Indicator
DQO	Data Quality Objective
EPA	United States Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
MQO	Measurement Quality Objective
NAAQS	National Ambient Air Quality Standards
NCore	National Core Monitoring Network
NIST	National Institute of Standards and Technology
NO	nitric oxide
NO ₂	nitrogen dioxide
PE	Performance Evaluation
PQAO	Primary Quality Assurance Organization
PM ₁₀	particulate matter with diameter less than 10 microns
PM _{10-2.5}	particulate matter with diameter between 10 and 2.5 microns
PM _{2.5}	particulate matter with diameter less than 2.5 microns
ppb	parts per billion
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
SASS	Speciation Air Sampling System
SO ₂	sulfur dioxide
WAQA	Washington Air Quality Advisory

1. Introduction

The Washington State Ambient Air Monitoring Network (Washington Network) is designed to collect vital air quality information for use by federal, state, and local air agencies as well as tribes, the research community, and the public. These entities use the data collected within the Washington Network to make decisions that will have public health, economic, and political impacts. Air monitoring data are never error free and always contain some level of uncertainty. Therefore, it is critical that ambient air monitoring data collected within the Washington Network are of known, acceptable, and comparable quality. A firm understanding of the amount of inherent error associated with air monitoring data helps reduce the likelihood of decision errors by data users.

In order to provide decision makers with data of known and acceptable quality, the Washington State Department of Ecology (Ecology) implements a quality system that governs the Washington Network ambient air monitoring activities. This quality system, and Ecology's role as the Primary Quality Assurance Organization (PQAO) for the Washington Network, is described in Ecology's Quality Assurance Plan (QAP). Ecology's goal as the PQAO is to implement practices, such as consistency across measurement methods, which will help to reduce the amount of uncertainty associated with data collection. EPA's Quality Assurance Handbook, Volume II, provides principles that help PQAO's achieve this goal:

- Operation by a common team of field operators according to a common set of procedures.
- Use of common standard operating procedures.
- Common calibration facilities.
- Oversight by a common quality assurance organization.
- Support by a common management, laboratory, or headquarters.

The quality assurance regulations set forth in 40 CFR Part 58 Appendix A have been developed to ensure that monitoring programs are planned such that decision makers understand the data quality requirements in order to determine compliance with the National Ambient Air Quality Standards (NAAQS). Washington Network operations are carried out in accordance with these regulations for its Federal Reference Method (FRM) and Federal Equivalent Method (FEM), NAAQS-compliance monitoring. In addition, Ecology has a goal to implement guidance, whenever practical, from the United States Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards for these and other monitoring efforts within the Washington Network.

The Air Monitoring Data Quality Assessment Report for the 1st Quarter 2017 describes the quality of the data collected from January 1 through March 31, 2017.

2. Data Quality

To provide decision makers with data of acceptable quality, EPA implemented the Data Quality Objective (DQO) process and established acceptance criteria for precision and bias. DQOs are a set of performance measures used in data collection that specifies the level of uncertainty (error) that the decision maker is willing to accept in the data. By knowing how much uncertainty is in the data, especially data collected at locations that are at risk of being declared “nonattainment” or are already in nonattainment, decision makers are provided additional confidence to make informed policy decisions regarding the protection of public health and the environment. DQOs are assessed using data quality indicators (DQIs), which are the quantitative statistics and the qualitative descriptors used to interpret the degree of acceptability or utility of data to the user. The DQIs are used to establish the Measurement Quality Objectives (MQOs). Data quality is assessed quarterly using the EPA’s AMP256 QA Data Quality Indicator Report, downloaded from EPA’s Air Quality System (AQS).

MQOs are based on confidence intervals. A confidence interval is a measurement of how accurate the measurement is. There is a difference between the biases being 5 percent $\pm$ 10 percent as compared to the bias being 5 percent $\pm$ 1 percent. Close attention to these intervals can be helpful in preventing data loss and providing decision makers greater confidence in the data and their decisions.

The assessment is divided into four categories: **Automated Data**, **Manual Data**, **Meteorological Data**, and **Washington Air Quality Advisory (WAQA) Data**, and subdivided into monitoring methods specifying allowable uncertainty levels required to meet the DQOs.

Automated, manual, and meteorological data are collected using EPA-tested and approved instruments that directly support rulemaking, enforcement, regulatory, or policy decisions. The data also support research projects of significant national interest requiring the most formal DQOs, including detailed and rigorous quality control (QC) and quality assurance (QA) for legal and scientific defensibility. Most instruments used in the collection of automated and manual data are listed as FEM or FRM.

Data used for the National Air Monitoring Strategy require, at a minimum, routine QC and QA checks as required in the CFR. Results from these checks are entered into the EPA AQS database and aggregated on quarterly, annual, and three-year intervals to assess precision and bias on a state and national level.

WAQA and Air Quality Index (AQI) data are collected with a mix of non-FRM/FEM instruments to report air quality to the public in near-real-time. However, one should use non-FRM/FEM data with caution when making decisions as there can be a greater degree of error inherent in the data.

2.1. Automated Data

Data collected by instruments that continuously measure the ambient air are referred to as Automated Data. Automated instruments are designed to measure specific pollutants, including ozone (O₃), carbon monoxide (CO), nitric oxide (NO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and fine and coarse particulate matter (PM_{2.5} and PM₁₀, respectively). Instrument calibrations are checked on a routine basis and the results are used to determine the quality of the data.

Data Quality Indicators for Gaseous Pollutants

- One-Point QC Precision Estimate for Gaseous Pollutants (CV%)

On a routine basis, QC checks are performed on the station analyzer to determine the calibration drift of the instrument. The analyzer is challenged with gases traceable to National Institute of Standards and Technology (NIST) standards and the difference between the two is recorded by a data acquisition system and submitted to AQS.

To determine the measure of mutual agreement among the QC checks, the coefficient of variation CV% (precision estimate) is calculated every quarter as described in the Monitoring Rule to assess the precision of the instrument. Slight variations in the precision are acceptable provided the data is not biased too high or low. Large variations in precision are unacceptable and must be corrected.

- Bias Estimate (Bias)

The bias estimate is the systematic difference (or noticeable jump) of the expected concentrations and the measured concentrations over time, in percentage. As described in the Monitoring Rule, bias estimates are calculated to determine if there is a systematic or persistent distortion of the data, which causes error in one direction. A positive (+) bias indicates that the instrument is measuring above the actual (true) value. A negative (-) bias indicates that the instrument is measuring below the actual value. A “±” symbol represents the instrument “straddles the line” and is neither biased positive nor negative.

A continued bias in an instrument close to either side of “true value” is acceptable. However, a continued bias approaching the limits on the MQOs should be corrected before variations in the precision result in the instrument failing to meet the MQOs.

The one-point QC checks are submitted to AQS and aggregated by quarter, annual, and three-year periods to determine if the DQOs are being met on a national level.

- Completeness (% Valid Data)

Completeness is a term used to describe, in percentage, the actual amount of data (averaged in hours) collected compared to what was expected. The percentage of valid data is a critical measure of representativeness of the data obtained from a monitoring instrument in the calendar quarter or year to determine if the DQOs were met. Loss of data occurs on occasion and may be

a result of a calibration error, malfunction, power loss, telemetry communications, or operator error. The AQP data completeness goal is that at least 80 percent of the expected data be collected each calendar quarter.

- Annual Performance Evaluations

Performance evaluations are independent evaluations of the monitoring site operations conducted by AQP QA personnel. Site evaluations are performed at all automated, manual, and meteorological monitoring sites and concerns noted. The primary purpose of the evaluation is to provide an independent check to determine if the checks made by QA personnel agree with previous QC checks made at the site by automated or manual checks. A large difference between the two may indicate an instrument or systematic problem.

2.1.1. Ozone (O₃)

The MQO for the measurement of ozone is the precision estimate (CV%) and bias be within ± 7 percent.

Table 1. DQI Results for Ozone Analyzers in Percentage				
Location	AQS Number	CV%	Bias	% Valid Data
Anacortes	530570011	*	*	*
Cheeka Peak	530090013	0.85	- 1.32	77 [†]
Cheney	530630001	*	*	*
Custer	530730005	*	*	*
Enumclaw	530330023	*	*	*
Greenbluff	530630046	*	*	*
Issaquah	530330010	*	*	*
Kennewick, S. Clodfelter	530050003	*	*	*
Mt. Rainier, JVC	530530012	0.58	- 0.61	90
North Bend	530330017	*	*	*
Seattle, Beacon Hill (BH)	530330080	0.63	± 0.52	97
Vancouver	530110011	*	*	*
Yelm	530670005	*	*	*
* Seasonal monitor (May–September).				
† Analyzer lost communication.				

Annual Performance Evaluations for Ozone

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference is compared between the actual ozone concentrations (generated by the QA personnel equipment) against the station analyzer response. Two independent assessments are performed each year and the observations at each test level are averaged by year.

The analyzers are challenged with independent gas concentrations (Levels 2–6) to best reflect ambient concentrations observed at the monitoring site. The MQO for audit results is that the difference be within ± 7 percent for Levels 3–6 and within ± 1.5 ppb or ± 15 percent for Levels 1–2.

Table 2. Performance Evaluation Results for Ozone Analyzers in Percent Difference from Assessment Concentration						
Location	Level 1 4–6 ppb	Level 2 6–20 ppb	Level 3 20–40 ppb	Level 4 40–70 ppb	Level 5 70–90 ppb	Level 6 90–120 ppb
Anacortes	*	*	*	*	*	*
Cheeka Peak	*	*	*	*	*	*
Cheney	*	*	*	*	*	*
Custer	*	*	*	*	*	*
Enumclaw	*	*	*	*	*	*
Greenbluff	*	*	*	*	*	*
Issaquah	*	*	*	*	*	*
Kennewick, S. Clodfelter	*	*	*	*	*	*
Mt. Rainier, JVC	*	*	*	*	*	*
North Bend	*	*	*	*	*	*
Seattle, BH	*	*	*	*	*	*
Vancouver	*	*	*	*	*	*
Yelm	*	*	*	*	*	*
* No evaluation performed during this quarter.						

2.1.2. Carbon monoxide (CO)

The MQO for the measurement of CO at the NCore (NC) sites is that the relative precision (CV%) and bias be within ± 15 percent. For instruments measuring CO for NAAQS attainment (Seattle, 10th & Weller), the relative precision (CV%) and bias must be within ± 10 percent. The table below represents the average precision and bias of the CO instruments in the Washington Network.

Table 3. DQI Results for CO Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Cheeka Peak (NC)	530090013	6.74	± 6.77	70*
Seattle, BH (NC)	530330080	3.51	- 3.79	95
Seattle, 10th & Weller (near-road)	530330030	3.97	± 3.39	92
* QC check failures and ran out of calibration gas. The analyzer has been recalibrated.				

Annual Performance Evaluations for CO

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference is compared between the actual CO concentrations (generated by the QA personnel equipment) against the station analyzer response.

The NCore and near-road instruments are challenged with independent gas concentrations (Levels 1–5) to best reflect ambient concentrations observed at the monitoring sites. The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 3–8 and within ± 30 ppb or ± 15 percent for Levels 1–2.

Table 4. Performance Evaluation Results for CO Analyzers in Percentage

Location	Level 1 20–59 ppb	Level 2 60–199 ppb	Level 3 200–899 ppb	Level 4 900–2999 ppb	Level 5 3000– 7999 ppb	Level 6 8000– 15999 ppb	Level 7 16000– 30999 ppb	Level 8 31000– 39999 ppb
Cheeka Peak (NC)	*	*	*	*	*	*	*	*
Seattle, BH (NC)	*	*	*	*	*	*	*	*
Seattle, 10th & Weller	*	*	*	*	*	*	*	*
* No evaluation performed during this quarter.								

2.1.3. Sulfur dioxide (SO₂)

The MQO for the measurement of SO₂ is the relative precision (CV%) and bias be within ± 10 percent.

Table 5. DQI Results for SO₂ Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Anacortes	530570011	5.21	± 4.28	93
Cheeka Peak	530090013	4.74	± 3.89	32*
Ferndale, Kickerville	530730013	4.66	± 4.04	88
Ferndale, Mountain View Rd	530730017	1.72	2.65	96
Malaga	530070012	2.28	- 6.70	96
Seattle, BH	530330080	4.52	- 3.64	35†

* QC check failures and ran out of calibration gas. The analyzer has been recalibrated.
† Analyzer malfunction. The analyzer was sent back to the manufacturer for repairs and reinstalled on 3/30/17.

Annual Performance Evaluations for SO₂

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference is compared between the actual SO₂ concentrations (generated by the QA personnel equipment) against the station analyzer response.

The analyzers are challenged with independent gas concentrations (Levels 1–6) to best reflect ambient concentrations observed at the monitoring site. The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 4–6, within ± 15 for Level 3, and within ± 1.5 ppb or ± 15 percent for Levels 1–2.

Table 6. Performance Evaluation Results for SO₂ Analyzers in Percentage

Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb
Anacortes	4.00	*	- 5.33	*	- 4.40	*
Cheeka Peak	†	†	†	†	†	†
Ferndale, Kickerville	*	*	*	4.44	2.22	6.41
Ferndale, Mountain View Rd	*	*	*	- 5.00	- 2.66	- 1.07
Malaga	*	*	*	- 2.67	- 2.80	- 0.40
Seattle, BH	- 3.85	*	- 7.89	*	- 7.54	*

* No evaluation performed at this level.
† No evaluation performed during this quarter.

2.1.4. Nitrogen dioxide (NO₂)

The MQO for the measurement of NO₂ is the relative precision (CV%) and bias be within ± 15 percent.

Table 7. DQI Results for NO₂ Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Seattle, 10th & Weller	530330030	0.61	6.57	94
Seattle, BH	530330080	4.27	± 3.80	93
Tacoma, S 36th St.	530530024	7.29	- 7.56	82

Annual Performance Evaluations for NO₂

An evaluation involves an independent assessment by AQP QA personnel who use independent equipment to challenge the station analyzer with gas concentrations at levels that best reflect ambient concentrations observed at the monitoring site. The difference is compared between the actual NO₂ concentrations (generated by the QA personnel equipment) against the station analyzer response.

The analyzers are challenged with independent gas concentrations (Levels 1–6) to best reflect ambient concentrations observed at the monitoring site. The MQO for performance evaluation results is that the difference be within ± 15 percent for Levels 3–7 and within ± 1.5 ppb or 15 percent for Levels 1–2.

Table 8. Performance Evaluation Results for NO₂ Analyzers in Percentage

Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb	Level 7 100–299.9 ppb
Seattle, 10th & Weller, near-road	†	†	†	†	†	†	†
Seattle, BH	*	*	*	- 9.29	- 12.00	- 9.78	*
Tacoma, S 36th St.	†	†	†	†	†	†	†
* No evaluation performed at this level. † No evaluation performed during this quarter.							

2.1.5. Nitric oxide (NO)

The MQO for the measurement of NO is the relative precision (CV%) and bias be within ± 15 percent.

Table 9. DQI Results for NO Analyzers in Percentage				
Location	AQS Number	CV%	Bias	% Valid Data
Cheeka Peak (NC)	530090013	3.81	- 4.28	89
Seattle, BH (NC)	530330080	6.05	± 4.67	95

Annual Performance Evaluations for NO

The MQO for performance evaluation results is that the difference be within ± 10 percent for Levels 6–7, within ± 15 percent for Levels 3–5, and ± 1.5 ppb or ± 15 percent for Levels 1–2.

Table 10. Performance Evaluation Results for NO Analyzers in Percentage							
Location	Level 1 0.3–2.9 ppb	Level 2 3–4.9 ppb	Level 3 5–7.9 ppb	Level 4 8–19.9 ppb	Level 5 20–49.9 ppb	Level 6 50–99.9 ppb	Level 7 100–300 ppb
Cheeka Peak	†	†	†	†	†	†	†
Seattle, BH	*	*	- 5.0	*	- 3.78	*	- 1.10
* No evaluation performed at this level.							
† No evaluation performed during this quarter.							

Data Quality Indicators for Particulate Pollutants

- One-Point QC Precision Estimate for Particulate Pollutants (Average % D)

Every 30 days, a one-point flow rate verification (QC check) is performed on particulate instruments by measuring the actual and indicated flow of the instrument. The actual instrument flow is measured by the station operator using NIST-traceable standards. The difference between the actual flow and the indicated instrument flow is calculated and recorded by the station operator and submitted to the AQS.

- One-Point Flow Rate Bias Estimate (Bias)

The bias estimate is the systematic difference of the expected flows and the measured flows over time, in percentage. As described in the Monitoring Rule, bias estimates are calculated to determine if there is a systematic or persistent distortion of the data, which causes error in one direction.

Instrument flow rates can fluctuate over time. Therefore, a one-point flow rate verification (QC check) on the instrument is required every 30 days. The objective of the QC check is to measure the true flow rate of the instrument, using NIST traceable standards, while recording the indicated flow rate of the instrument. A positive (+) bias indicates that the instrument flow rates are operating above the actual (true) value while a negative (-) bias indicates that the instruments flow rate is below the actual value. A “±” symbol indicates that the instrument “straddles the line” and is neither positively nor negatively biased. The checks are aggregated by quarter, annual, and 3-year periods.

- Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, QA personnel on a semi-annual basis perform an independent flow rate audit. The objective of the auditor is to measure the actual flow rate of the instrument using an independent, NIST-traceable standard, while recording the indicated flow rate of the instrument. The deviation between the two flows is calculated, recorded, and submitted to AQS.

2.1.6. Fine particulate matter (PM_{2.5} FEM - Continuous)

The MQO for the measurement of PM_{2.5} using an FEM instrument is that bias and precision (Average % D) be within ± 4 percent. Audit results (Audit % D) must be within ± 4 percent and the Design Flow must be within ± 5 percent.

Table 11. DQI Results for Continuous FEM PM_{2.5} Monitors in Percentage

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Anacortes (BAM 1020)	530570011	0.81	± 1.42	1.20	99
Bellingham (1405F TEOM)	530730015	0.06	± 3.03	- 2.60	75 [†]
Bremerton (8500 TEOM)	530350007	0.77	± 1.68	- 0.66	95
Darrington (8500 TEOM)	530610020	- 0.78	± 3.11	*	98
Ellensburg (BAM 1020)	530370002	- 0.78	± 2.87	0.00	93
Kent (8500 TEOM)	530332004	- 0.72	± 1.29	- 2.60	98
Lynnwood (8500 TEOM)	530610005	- 1.38	- 1.89	- 1.64	99
Marysville (8500 TEOM)	530611007	0.59	± 1.74	0.00	48 [‡]
Marysville (collocated) (8500 TEOM)	530611007	- 0.27	± 0.53	- 0.99	94
Omak (BAM 1020)	530470013	- 0.40	± 0.98	*	46 ^{‡§}
Seattle, 10th & Weller near-road (8500 TEOM)	530330030	0.75	± 1.70	0.33	99
Seattle, BH (NC) (8500 TEOM)	530330080	- 1.56	- 3.40	0.33	99
Seattle, Duwamish (8500 TEOM)	530330057	- 1.22	- 1.78	- 1.96	99
Spokane, Augusta (BAM 1020)	530630021	0.20	± 0.61	*	100

Table 11. DQI Results for Continuous FEM PM_{2.5} Monitors in Percentage

Tacoma, South 36th St. (BAM 1020)	530530024	1.22	3.02	0.60	94
Tacoma, South L St. (8500 TEOM)	530530029	0.34	± 0.83	- 0.66	99
Toppenish (BAM 1020)	530770015	- 1.18	- 1.18	*	97
Vancouver 84th Ave. (BAM 1020)	530110024	- 1.38	- 2.51	2.45	100
Wenatchee, 5th St. (BAM 1020)	530070011	- 0.19	± 1.58	0.60	97
Yakima S. 4th Ave. (BAM 1020)	530770009	- 0.19	± 1.59	- 2.91	100

* No evaluation performed during this quarter.

† Instrument malfunction. The instrument has been recalibrated.

‡ QC check failures. The instrument has been recalibrated.

§ Quality control not performed within EPA 30 day requirement.

2.1.7. Particulate matter (PM₁₀ FEM - Continuous)

The MQO for the measurement of PM₁₀ using an FEM instrument is that total bias be within ± 10 percent; precision (Average % D) and performance evaluation results (Audit % D) be within ± 4 percent.

Table 12. DQI Results for Continuous FEM PM₁₀ Monitors in Percentage

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Colville, E. 1st St.	530650005	- 2.65	- 3.70	*	100
Kennewick	530050002	- 1.03	± 2.59	*	100
Spokane, Augusta	530630021	0.12	± 0.92	*	100
Yakima S. 4th Ave.	530770009	1.14	± 3.45	- 1.00	100

* No evaluation performed during this quarter.

2.2. Manual Data

Manual data refers to filter-based monitoring methods, which require an operator to physically install, and retrieve sample filters. Particulate matter is collected on a sample filter over a 24-hour period. After sampling has been completed, sample filters are collected by the operator and sent to the Manchester laboratory for gravimetric analysis. Depending on the method used at the monitoring site, the instrument is designed to selectively collect particulate matter at a specific flow rate on scheduled days.

- One-Point QC Precision Estimate for Particulate Pollutants (Average % D)

Monthly QC checks are performed on the instrument by monitoring personnel. The difference between the actual flow and the indicated instrument flow is calculated, recorded, and submitted into the AQS.

- One-Point Flow Rate Bias Estimate (Bias)

Manual data monitoring methods require accurate flow rate measurements in order to accurately determine pollutant concentrations. Particulate matter concentrations are calculated by the mass of the sample on a filter divided by the volume of air. The volume of air is calculated by the flow rate of the instrument over the elapsed sampling time. Instruments are calibrated to operate at a designed flow rate. Differences in flow rates affect actual concentrations. Figure 1 illustrates how a four percent difference in flow rate impacts the actual concentration of a PM_{2.5} sample.

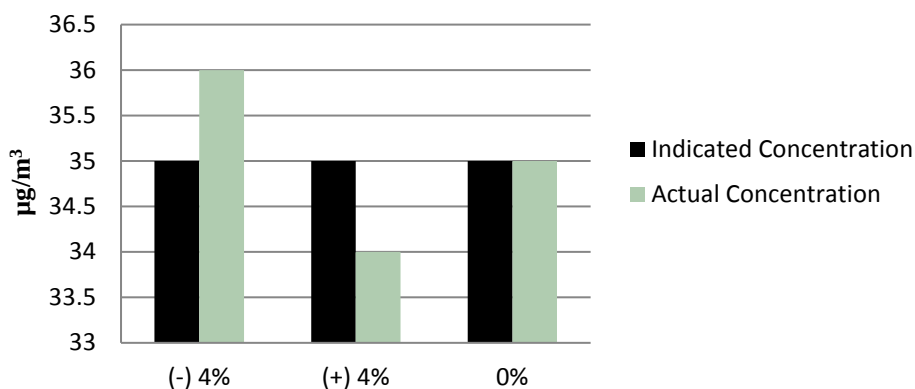


Figure 1. Graph illustrating how flows impact actual concentrations

Instrument flow rates can fluctuate over time. Therefore, a one-point flow rate verification (QC check) on the instrument is required every 30 days. The objective of the check is to measure the true flow rate of the instrument using NIST-traceable standards while recording the indicated flow rate of the instrument. The difference between the two is calculated in percentage to determine how “true” the indicated flow is. A positive (+) bias indicates that the instrument flow rate over time is operating above the actual (true) value. A negative (-) bias represents the instrument's flow rate is below the actual value. A “±” symbol represents the instrument “straddles the line” and is neither positively nor negatively biased.

- Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, QA personnel on a semi-annual basis perform an independent flow rate check. The objective of the auditor is to measure the actual flow rate of the instrument using independent NIST traceable standards while recording the indicated flow rate of the instrument. The deviation between the two flows is then calculated and submitted to the AQS.

2.2.1. Fine particulate matter (PM_{2.5} FRM - Daily)

The MQO for the measurement of PM_{2.5} using FRM method sampling is that total bias be within ± 10 percent; precision (Average % D) and performance evaluation results (Audit % D) be within ± 4 percent.

Table 13. DQI Results for FRM PM _{2.5} Samplers in Percentage					
Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Seattle, BH	530330080	- 0.71	± 2.20	- 2.29	97
Tacoma, South L St.	530530029	- 0.52	- 1.17	- 0.12	96
Tacoma, South L St. (collocated)	530530029	- 0.62	- 1.37	- 0.54	100
Yakima S. 4th Ave.	530770009	- 0.82	± 2.07	- 0.42	97

Precision Estimate for Manual and Continuous Collocated Samples (PM_{2.5})

Precision for manual and automated particulate method sampling is estimated using collocated sampling. Unlike the gaseous criteria, pollutants where one can use a standard of a known concentration to estimate instrument precision, duplicate measurements are made on-site for comparison. The precision (CV %) should be within ± 10 percent for the FRM and TEOM. Note that the relatively low ambient PM_{2.5} concentrations and the limited number of collected samples (every 12 days) at Tacoma South L St. may yield high imprecision that can be challenging to meet the recommended acceptance range.

Table 14. Precision Estimates for Collocated Samplers in Percentage			
Location	EPA Method-Parameter	AQS Number	CV%
Marysville	181-FEM TEOM 8500 PM _{2.5}	530611007	8.87
Tacoma, South L St.	145-FRM PM _{2.5}	530530029	12.03

2.2.2. PM_{2.5} Chemical Speciation Network

The Chemical Speciation Network (CSN) is a national network of sites used to determine, over a period of several years, trends in concentration levels of selected ions, metals, carbon species, and organic compounds in PM_{2.5}. Flow checks are performed by station operators every 30 days and submitted to a national repository contracted by OAQPS.

In addition to monthly QC checks, QA personnel on a semi-annual basis perform an independent flow rate audit. The primary objective of the audit is to measure the true flow rate of the instrument using independent, NIST-traceable, standards while recording the indicated flow rate of the instrument. The deviation between the two flows is calculated. The MQO for the CSN is that the results be within ± 10 percent. Note that the Beacon Hill station is equipped with a Super SASS sampler that has two extra flow channels.

Table 15. Audit Results for Speciation Samplers in Percentage

Location	AQS Number	SASS CH 1 Audit % D	SASS CH 2 Audit % D	SASS CH 3 Audit % D	SASS CH 4 Audit % D	URG Audit % D
Seattle 10th & Weller	530330030	*	*			*
Seattle, BH	530330080	- 3.79	- 3.18	- 3.87	- 3.87	5.32
Tacoma, South L St.	530530029	- 1.85	- 2.20			- 1.17
Yakima S. 4th Ave.	530770009	- 3.23	- 1.18			- 1.44
* No evaluation performed during this quarter.						

2.3. Meteorological Data

To ensure data of sufficient quality for modeling applications and permitting use, EPA guidelines for continuous monitoring for Prevention of Significant Deterioration (PSD) are followed for wind speed (WS), wind direction (WD), ambient temperature, ambient pressure (PA) and relative humidity (RH).

Table 16. Data Capture for Meteorological Parameters

Location	AQS Number	WS	WD	AT	PA	RH
Cheeka Peak	530090013	94	94	98	98	98
Colville, E 1st St.	530650005	45*	45*	100	---	---
Enumclaw	530330023	99	99	100	---	---
Ferndale, Mtn. View Rd.	530730017	99	99	99		
Kennewick	530050002	100	100	100	---	---
Malaga	530070012	100	100	100		
North Bend	530330017	100	100	100	---	---
Omak	530470013	94	94	94	---	---

Table 16. Data Capture for Meteorological Parameters

Seattle, 10th & Weller	530330030	100	100	98	---	---
Seattle, BH	530330080	100	100	100	100	100
Spokane, Augusta	530630021	99	99	100	---	---
Tacoma, 36th St.	530530024	100	100	100	---	---
Tacoma, Tower Dr.	530531016	100	100	100	---	---
Toppenish	530770015	100	100	100	---	---
Vancouver, Blairmont	530110011	100	100	100	---	---
Wenatchee	530070011	100	100	100	---	---
White Swan	530770016	99	99	99	---	---
* Anemometer malfunctions. Anemometer repaired in March 2017.						

2.4. Washington Air Quality Advisory Data

2.4.1. Light scattering of fine particulates (nephelometer)

The AQP uses a large network of instruments to report PM_{2.5} air pollution information to the public in near real-time via its WAQA that can be found on its public website. The majority of these instruments (nephelometers) measure light scattering of particulates, not PM_{2.5} directly. Ecology and its partners follow EPA guidance to use nephelometers to report “FRM-like” PM_{2.5} data. Because nephelometers are not an FRM or FEM, PM_{2.5} data collected using nephelometers cannot be used for NAAQS compliance determinations. The data are displayed in near real-time on Ecology and EPA websites for public information.

Table 17. Completeness Results for Nephelometers

Location	AQS Number	% Valid Data
Aberdeen	530272002	100
Bellevue, Bellevue Way	530330037	100
Bellevue, 12th St.	530330031	100
Cheeka Peak	530090013	98
Chehalis	530410004	100
Chelan	530070007	100
Clarkston	530030004	98
Colville, E 1st St.	530650005	100
Dayton	530130002	100
Ellensburg	530370002	100
Kennewick	530050002	100
Lacey	530670013	100
LaCrosse	530750005	100

Table 17. Completeness Results for Nephelometers

Leavenworth	530070010	75*
Longview	530150015	100
Mesa	530210002	79*
Moses Lake	530251002	100
Mount Vernon	530570015	67*
Neah Bay	530090015	99
North Bend	530330017	100
Port Angeles	530090017	100
Pt. Townsend	530310003	100
Pullman	530750003	98
Puyallup, 128th Ave.	530531018	100
Ritzville	530010003	100
Rosalia	530750006	100
Seattle, South Park	530331011	81
Shelton	530450007	100
Spokane, Monroe	530630047	100
Sunnyside	530770005	100
Tacoma, Alexander Ave.	530530031	100
Taholah	530270011	89
Twisp	530470009	100
Walla Walla	530710005	84
Wellpinit	530650002	96
White Swan	530770016	99
Winthrop	530470010	66†
Yacolt	530110022	96

* QC check failures. The nephelometer has been recalibrated.

† Nephelometer malfunction. Nephelometer was replaced on 2/14/17.

Note: No QA evaluations are performed on nephelometers.
The quality of the data is not assessed.



Executive Memorandum

Date of Release: September 7, 2017
Date of Consideration: September 14, 2017
To: YRCAA Board of Directors
From: Office of the Director
Subject: Fiscal Program Report

Keith M. Hurley

Issue: Consider Fiscal Reports, forms, and vouchers.

Recommendation(s): Accept and approve by minute action August 2017 AP Fiscal Vouchers (\$24,196.11), and the August Payroll Authorization (\$59,592.11). Out of A/P, \$0.00 was for Wood Stove Change-out Expenses, and \$741.23 was for Enterprise expenses.

Discussion: August Accounts Payable and Payroll Authorizations are enclosed for your approval. BVA and Supplemental Income are included as informational items.

Encl (5)



August 8, 2017

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Charter Communications	33180	4201	\$ 699.95	8/9/2017
Coleman Oil Company	33181	3201	\$ 98.48	8/9/2017
Crystal Springs	33182	3101	\$ 12.90	8/9/2017
Five K Technologies	33183	3502	\$ 25.00	8/9/2017
Invisible Ink	33184	4101	\$ 100.00	8/9/2017
Leaf	33185	4501	\$ 186.07	8/9/2017
Splash Express	33186	4801	\$ 20.30	8/9/2017
Verizon Wireless	33187	4201	\$ 329.04	8/9/2017
YRCAA	33188	4901	\$ 242.33	8/9/2017
Yakima County Printing Department**	33189	3101	\$ 414.84	8/9/2017
Yakima County Sheriff's Department	33190	4101	\$ 55.00	8/9/2017
Yakima Herald Republic	33191	4101	\$ 506.45	8/9/2017

Total:

\$ 2,690.36

***Reimbursement from Grant**

****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 2,690.36**

Christa Owen 8/9/2017
Christa Owen, Alternate Auditing Officer

9/14/2017 Keith M. Hurley 8/9/2017
Jon DeVaney, Board Chairman Keith M. Hurley, Auditing Officer



August 23, 2017

Fund 614-614 YRCAA

Fund 614-141 Enterprise

<u>Name</u>	<u>Warrant/MICR #</u>	<u>GL #</u>	<u>Amount</u>	<u>Date</u>
Abadan Reprographics	33192	4801	\$ 2.77	8/24/2017
BIAS Software	33193	3502	\$ 3,083.68	8/24/2017
Bradley A. Mellotte	33194	4501	\$ 3,638.29	8/24/2017
Enduris of Washington	33195	4601	\$ 12,505.00	8/24/2017
KeyBank**	33196	Various	\$ 1,389.96	8/24/2017
Nth Degree Environmental Engineering	33197	4101	\$ 750.00	8/24/2017
Ron's Office Equipment	33198	3101	\$ 91.80	8/24/2017
Yakima County Sheriff's Department	33199	4101	\$ 44.25	8/24/2017

Total:

\$ 21,505.75

***Reimbursement from Grant**

****NOC/Enterprise**

This is to certify that the invoices and warrants above for the Yakima Regional Clean Air Agency have been examined, audited and approved by the Alternate Auditing Officer for payment.

Total Amount: **\$ 21,505.75**

Christa Owen 8/24/2017
Christa Owen, Alternate Auditing Officer

9/14/2017 Keith M. Hurley 8/24/2017
Jon DeVaney, Board Chairman Keith M. Hurley, Auditing Officer

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER

Direct Deposit Payroll & Payroll Taxes

Date: 8/30/2017

District: Yakima Regional Clean Air Agency

Contact Person: Christa Owen

Address: 329 North First Street, Yakima, WA 98901

Telephone No. **834-2050 ext 104** Telefax No. **834-2060**

Authorization is given for the Yakima County Treasurer to electronically transfer the amounts listed below:

Name of Bank: Key Bank of Washington

ABA Routing Number: XXXXXXXXXX

Bank Account Number: XXXXXXXXXX

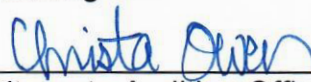
Payroll Date: September 1, 2017

Transfer Amount(s): \$ 59,592.11

Total Amount of Electronic Transfer: \$ 59,592.11

Authorizing Signatures (No facsimile signatures accepted.):

 Chairman Board of Directors
Auditing Officer

 Date August 30, 2017
Alternate Auditing Officer

Note: The Yakima County Treasurer's Office must receive the completed authorization by 12:00 noon, two (2) business days prior to payroll date. An original must be provided to the County Treasurer's Office if a telefax is sent. *Do not consider a telefax delivered until you have verified with the Treasurer's Office that it has been received.*

Contact Persons at County Treasurer's Office: **Cindy**

Telephone Number: 509-574-2780
(01-2008)

Telefax Number: 509-574-2801

YAKIMA REGIONAL CLEAN AIR AGENCY
SUPPLEMENTAL INCOME STATUS for 2017 on August 31, 2017
CY 2017 \$.40 PER CAPITA (Rounded Amounts)

City/Town	Past Due	Assessment Amount	Total Amt Due	Date Received	Amount Received	Balance Due	Responses
Grandview	\$ -	\$ 4,480	\$ 4,480	1/27/2017	\$ 4,480	\$ -	Pd in full
Granger	\$ 350	\$ 1,456	\$ 1,806	1/31/2017; 2/22/2017; 4/14/2017; 7/14/2017	\$ 1,442	\$ 364	Pd 3/4
Harrah	\$ -	\$ 260	\$ 260	1/27/2017	\$ 260	\$ -	Pd in full
Mabton	\$ -	\$ 924	\$ 924	1/19/2017	\$ 924	\$ -	Pd in full
Moxee	\$ -	\$ 1,524	\$ 1,524	1/19/2017	\$ 1,524	\$ -	Pd in full
Naches	\$ -	\$ 332	\$ 332	1/12/2017	\$ 332	\$ -	Pd in full
Selah	\$ -	\$ 2,998	\$ 2,998	1/12/2017	\$ 2,998	\$ -	Pd in full
Sunnyside	\$ -	\$ 6,512	\$ 6,512	1/25/2017; 4/7/2017; 7/14/2017	\$ 4,884	\$ 1,628	Pd 3/4
Tieton	\$ -	\$ 502	\$ 502	1/27/2017	\$ 502	\$ -	Pd in full
Toppenish	\$ -	\$ 3,586	\$ 3,586	1/26/2017	\$ 3,586	\$ -	Pd in full
Union Gap	\$ -	\$ 2,460	\$ 2,460	1/26/2017	\$ 2,460	\$ -	Pd in full
Wapato	\$ -	\$ 2,016	\$ 2,016	1/26/2017	\$ 2,016	\$ -	Pd in full
City of Yakima	\$ -	\$ 37,288	\$ 37,288	1/19/2017; 4/17/2017; 8/1/2017	\$ 27,966	\$ 9,322	Pd 3/4
Zillah	\$ -	\$ 1,256	\$ 1,256	1/24/2017	\$ 1,256	\$ -	Pd in full
Yakima Co.	\$ -	\$ 34,394	\$ 34,394	1/1/2017; 4/1/2017; 7/1/2017	\$ 25,796	\$ 8,599	Pd 3/4
Totals:	\$ 350	\$ 99,988	\$ 100,338		\$ 80,425	\$ 19,913	

FY 2018 Monthly BVA

August 2017 Report Date: September 14, 2017		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
REVENUE					
REVENUE 614 YRCAA Base Operations					
Stationary Source Permit Fees					
614-32190001	Minor Sources	\$ 161,700	\$ -	\$ -	0.0%
614-32190008	Synthetic Minor Sources	\$ 21,280	\$ -	\$ -	0.0%
614-32190006	Complex Sources	\$ 19,554	\$ -	\$ -	0.0%
614-32290001	Title V Sources	\$ 122,845	\$ 101,625	\$ 101,625	82.7%
614-32190002	New Source Review	\$ 31,500	\$ 3,722	\$ 11,169	35.5%
Subtotal, Stationary Source Permit Fees		\$ 356,879	\$ 105,347	\$ 112,794	31.6%
Burn Permit Fees					
614-32290005	Residential Burn Permits	\$ 63,120	\$ 624	\$ 2,544	4.0%
614-32290007	Agricultural Burn Permits	\$ 28,000	\$ 105	\$ 1,760	6.3%
614-32290011	Conditional Use Burn Permits	\$ 2,000	\$ -	\$ -	0.0%
Subtotal, Burn Permit Fees		\$ 93,120	\$ 729	\$ 4,304	4.6%
Compliance Fees					
614-32190005	Asbestos Removal Fees	\$ 32,200	\$ 2,753	\$ 5,689	17.7%
614-32190009	Construction Dust Control Fees	\$ 8,365	\$ 482	\$ 1,274	15.2%
Subtotal, Compliance Fees		\$ 40,565	\$ 3,235	\$ 6,963	17.2%
Subtotal, All Permit Fee Revenue		\$ 490,564	\$ 109,311	\$ 124,061	25.3%
Base Grants					
614-33366001	EPA, Core Grant	\$ 97,172	\$ -	\$ 30,520	31.4%
614-33403101	DOE, Core Grant	\$ 77,283	\$ -	\$ 20,688	26.8%
Subtotal, Base Grants		\$ 174,455	\$ -	\$ 51,208	29.4%
Fines & Penalties					
614-35990001	Civil Penalty	\$ 2,500	\$ 522	\$ 2,384	
614-35990001	Other Fines	\$ -	\$ -	\$ -	
Subtotal, Fines & Penalties		\$ 2,500	\$ 522	\$ 2,384	
Supplemental Income					
614-33831001	Supplemental Income	\$ 100,360	\$ 9,322	\$ 16,293	16.2%
Subtotal, Supplemental Income		\$ 100,360	\$ 9,322	\$ 16,293	16.2%
Other Income					
614-36111001	Interest	\$ 2,024	\$ 382	\$ 753	37.2%
614-36990014	Miscellaneous Income	\$ 150	\$ 81	\$ 133	88.6%
Subtotal, Other Income		\$ 2,174	\$ 464	\$ 886	40.8%
Total YRCAA Base Operations Revenue		\$ 770,053	\$ 119,619	\$ 194,831	25.3%
REVENUE 614 YRCAA Grant Operations					
614-33403105	Wood Stove Ed	\$ 5,331	\$ 5,331	\$ 5,331	100.0%
614-33403108	PM 2.5	\$ 21,050	\$ -	\$ 5,263	25.0%
614-33403107	Woodstove Change-out	\$ 132,000	\$ 15,641	\$ 42,164	31.9%
Total YRCAA Grant Operations Revenue		\$ 158,381	\$ 20,972	\$ 52,757	33.3%
REVENUE Enterprise Operations					
614-34317001	VE Certification Fees	\$ 79,800	\$ 2,425	\$ 3,450	4.3%
614-34317002	Other Enterprise Revenue	\$ 415	\$ -	\$ -	0.0%
Subtotal, Enterprise Revenue		\$ 80,215	\$ 2,425	\$ 3,450	4.3%
Total Base, Grant and Enterprise Revenue		\$ 1,008,649	\$ 143,016	\$ 251,038	24.9%

FY 2018 Monthly BVA

August 2017				
Report Date: September 14, 2017	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget

EXPENSES**EXPENSES 614 YRCAA Base Operations****Salaries**

614-1001	Salaries	\$ 495,855	\$ 41,634	\$ 82,865	16.7%
614-2002	Benefits	\$ 179,781	\$ 14,628	\$ 29,115	16.2%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Salaries</i>		<i>\$ 675,636</i>	<i>\$ 56,262</i>	<i>\$ 111,980</i>	<i>16.6%</i>

Supplies

614-3101	Office Supplies	\$ 7,180	\$ 993	\$ 1,011	14.1%
614-3101	Safety Equipment	\$ -	\$ -	\$ -	#DIV/0!
614-3201	Vehicles, Gas	\$ 2,780	\$ 98	\$ 260	9.4%
614-3501	Small Tools/Equipment	\$ 300	\$ -	\$ -	0.0%
614-3502	Computer Network	\$ 8,900	\$ 3,284	\$ 3,435	38.6%
<i>Subtotal, Supplies</i>		<i>\$ 19,160</i>	<i>\$ 4,375</i>	<i>\$ 4,707</i>	<i>24.6%</i>

Services

614-4101	Professional Services	\$ 20,365	\$ 1,456	\$ 2,458	12.1%
614-4101	Laboratory Analyses	\$ 200	\$ -	\$ -	0.0%
614-4125	Treasurer, Yakima County	\$ 1,375	\$ 44	\$ 88	6.4%
614-4201	Communications, Phones/Internet	\$ 13,152	\$ 1,029	\$ 2,058	15.6%
614-4202	Postage	\$ 3,690	\$ -	\$ -	0.0%
614-4301	Travel & Transportation	\$ 2,950	\$ -	\$ -	0.0%
614-4401	Public Education	\$ 4,000	\$ -	\$ 2	0.1%
614-4401	Publications, Legal Notices	\$ 1,000	\$ -	\$ 711	71.1%
614-4501	Rents & Leases, Equipment	\$ 3,260	\$ 186	\$ 372	11.4%
614-4501	Rents & Leases, Space	\$ 43,659	\$ 3,638	\$ 7,277	16.7%
614-4601	Insurance	\$ 12,662	\$ 12,505	\$ 12,505	98.8%
614-4801	Maintenance, Motor Vehicles	\$ 2,450	\$ 20	\$ 64	2.6%
614-4801	Maintenance, Equipment	\$ 2,065	\$ 3	\$ 34	1.6%
614-4801	Maintenance, Computers	\$ 265	\$ -	\$ -	0.0%
614-4801	Maintenance, Building	\$ 875	\$ -	\$ 150	17.1%
614-4901	Memberships	\$ 540	\$ -	\$ -	0.0%
614-4901	Training	\$ 2,900	\$ -	\$ -	0.0%
614-4901	Service Chgs & Interest	\$ 4,600	\$ 242	\$ 685	14.9%
614-4901	Miscellaneous Services	\$ 7,205	\$ -	\$ -	0.0%
614-4901	DOE Oversight Fees	\$ 4,787	\$ -	\$ -	0.0%
<i>Subtotal, Services</i>		<i>\$ 132,000</i>	<i>\$ 19,123</i>	<i>\$ 26,403</i>	<i>20.0%</i>

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$ 6,500	\$ -	\$ -	
<i>Total YRCAA Base Operations Expenses</i>		<i>\$ 833,296</i>	<i>\$ 79,760</i>	<i>\$ 143,090</i>	<i>17.2%</i>

EXPENSES 614 YRCAA Grant Operations**614-33403105 Wood Stove Ed****Salaries**

614-1001	Salaries	\$ 3,956	\$ -	\$ 208	
614-2002	Benefits	\$ 1,462	\$ -	\$ 73	
614-1003	Overtime	\$ -	\$ -	\$ -	
<i>Subtotal, Salaries</i>		<i>\$ 5,418</i>	<i>\$ -</i>	<i>\$ 281</i>	

Supplies

614-3101	Office Supplies	\$ -	\$ -	\$ -	
<i>Subtotal, Supplies</i>		<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	

FY 2018 Monthly BVA

August 2017 Report Date: September 14, 2017		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Services					
614-4139	Professional Services	\$ -	\$ -	\$ -	
614-4202	Postage	\$ -	\$ -	\$ -	
<i>Subtotal, Services</i>		\$ -	\$ -	\$ -	
<i>Subtotal, Woodstove Grant Expenses</i>		\$ 5,418	\$ -	\$ 281	
614-33403108 PM2.5					
Salaries					
614-1001	Salaries	\$ 15,367	\$ 1,190	\$ 2,282	14.9%
614-2002	Benefits	\$ 5,683	\$ -	\$ 384	6.8%
614-1003	Overtime	\$ -	\$ -	\$ -	
<i>Subtotal, Salaries</i>		\$ 21,050	\$ 1,608	\$ 3,084	14.7%
Supplies					
614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Supplies</i>		\$ -	\$ -	\$ -	#DIV/0!
Services					
614-4101	Professional Services	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Services</i>		\$ -	\$ -	\$ -	#DIV/0!
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, PM 2.5 Grant Expenses</i>		\$ 21,050	\$ 1,608	\$ 3,084	14.7%
614-33403107 Woodstove Change-out					
Salaries					
614-1001	Salaries	\$ 12,715	\$ -	\$ -	0.0%
614-2002	Benefits	\$ 5,555	\$ -	\$ -	0.0%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Salaries</i>		\$ 18,270	\$ -	\$ -	0.0%
Supplies					
614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Supplies</i>		\$ -	\$ -	\$ -	#DIV/0!
Services					
614-4101	Professional Services	\$ 120,400	\$ -	\$ 4,620	3.8%
<i>Subtotal, Services</i>		\$ 120,400	\$ -	\$ 4,620	3.8%
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Woodstove Change-out Grant Expenses</i>		\$ 138,670	\$ -	\$ 4,620	3.3%
<i>Total, Grant Operations Expenses</i>		\$ 165,138	\$ 1,608	\$ 7,985	4.8%
EXPENSES 141 Enterprise Operations					
Salaries					
141-1001	Salaries	\$ 12,776	\$ 1,275	\$ 1,574	12.3%
141-2002	Benefits	\$ 4,722	\$ -	\$ 105	2.2%
141-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Salaries</i>		\$ 17,498	\$ 1,723	\$ 2,126	12.2%

FY 2018 Monthly BVA

August 2017 Report Date: September 14, 2017		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Supplies					
141-3101	Office Supplies	\$ 400	\$ 430	\$ 430	107.6%
141-3201	Vehicles, Gas	\$ 1,700	\$ 61	\$ 61	3.6%
141-3501	Small Tools/Equipment	\$ 200	\$ -	\$ -	0.0%
<i>Subtotal, Supplies</i>		\$ 2,300	\$ 491	\$ 491	21.3%
Services					
141-4101	Professional Services	\$ -	\$ -	\$ -	#DIV/0!
141-4202	Postage	\$ -	\$ -	\$ -	#DIV/0!
141-4301	Travel & Transportation	\$ 6,550	\$ 250	\$ 429	6.6%
141-4501	Rents & Leases, Space	\$ 4,100	\$ -	\$ -	0.0%
141-4801	Maintenance, Motor Vehicles	\$ 200	\$ -	\$ -	0.0%
141-4801	Maintenance, Equipment	\$ 500	\$ -	\$ -	0.0%
141-4901	Miscellaneous Services	\$ -	\$ -	\$ -	#DIV/0!
<i>Subtotal, Services</i>		\$ 11,350	\$ 250	\$ 429	3.8%
Capital Out-Lay & Fixed Assets					
141-4500	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
<i>Total Enterprise Operations Expenses</i>		\$ 31,148	\$ 2,464	\$ 3,046	9.8%
Summary of Revenue vs Expenses:					
<i>Prior-Year Carry Over Funds</i>		\$ 125,000	\$ -	\$ 125,000	
<i>Total Revenue, Base, Grants & Enterprise</i>		\$ 1,133,649	\$ 143,016	\$ 376,038	33.2%
<i>Total Expenses, Base, Grants & Enterprise</i>		\$ 1,029,582	\$ 83,832	\$ 154,121	15.0%
<i>Fund Balance</i>		\$ 104,067	\$ 59,184	\$ 221,917	
<i>Operating Reserves</i>		\$ (20,933)			
<i>Estimated Available Fund Balance</i>		\$ 125,000			